Project to Collect Medical Near-miss/ Adverse Event Information

2008 Annual Report

August 25, 2009

Japan Council for Quality Health Care

Division of Adverse Event Prevention

Table of Contents

Foreword

Japan Council for Quality Health Care
President Tetsuo Ihara

Having taken over presidency from Eitaka Tsuboi in April 2009, I am determined to further foster the project of Japan Council for Quality Health Care (JCQHC) the former president had developed. I would appreciate your understanding of and cooperation in the JCQHC's project.

In Japan, what is expected of health care has become more advanced and diversified with changes in disease structure and advancement of medical technologies. Public interest in and demand for health care has been increasing in recent years due to the changing social structure. In this context, quality assurance for the health care system is emphasized, rather than increasing relavant resources, making it an important task to provide accurate health care information to the public as well as to promote and ensure provision of quality health care. The JCQHC should therefore play quite an important role in improving the quality of health care in Japan.

In response to rising awareness of and expectations for promotion of medical safety and medical adverse event prevention to ensure quality health care, the JCQHC has been actively engaged in its project activities.

The JCQHC's recent development includes a new no-fault compensation system for obstetric accidents launched in January 2009 and a project to collect and analyze near-miss incidents occurring at pharmacies launched in 2008. For the latter project registration of participating pharmacies started on April 1, 2009. The JCQHC has thus been carrying out new projects to promote medical safety.

The JCQHC Division of Adverse Event Prevention has been undertaking the Project to Collect Medical Near-Miss/Adverse Event Information to prevent medical adverse events and to promote medical safety since 2004. The JCQHC has been publishing collected medical near-miss/adverse event information and the analyses of data in the form of periodic reports, annual reports and monthly fax newsletters for medical professionals, administrative organizations and the general public. The JCQHC would like to thank all cooperating medical institutions and relevant parties for reporting near-miss incidents and adverse events for the project. Proper reporting of near-miss incidents and adverse events is encouraged as always.

The 2008 annual report was prepared based on past reports. The annual report includes near-miss incidents and adverse events reported in the past year, analyses of individual themes, medical adverse event information to be shared, and a summary of workshops and materials used therein that will be useful for medical safety promotion. The JCQHC hopes the annual report will be beneficial to healthcare providers and help the general public understand our current efforts to promote medical safety in Japan. As with the 2005, 2006 and 2007 annual reports, the 2008 annual report will be translated into English and posted on JCQHC's website for wider audiences. The JCQHC has received numerous responses including inquiries about and publicity concerning a number of medical adverse events and their details appearing in past reports, which indicates elevated social awareness of the

promotion of medical safety and the prevention of medial adverse events. Your suggestions for JCQHC's activities to enhance the content of future reports will be greatly appreciated.

JCQHC is determined to maintain public confidence in healthcare services and improve the quality of medical treatment and its safety through various projects, including the evaluation of medical services provided at hospitals. JCQHC appreciates your understanding and cooperation.

Issuing the 2008 Annual Report

Japan Council for Quality Health Care

Director Kikuo Nomoto

The Division of Adverse Event Prevention started the Project to Collect Medical Near-Miss/Adverse Event Information in October 2004 to prevent occurrence and recurrence of near-miss incidents and adverse events. The objective of collecting and analyzing medical near-miss/adverse event information is to create a safety-oriented culture in the rapidly advancing medical community. It is important to collect a wide range of relevant information and use it to promote medical safety. In terms of creating a safety-oriented culture, it is not necessarily correct to view an increase in the number of reports on near-miss incidents and adverse events as an actual increase in near-miss incidents and adverse events, or to think that there is a decline in safety at medical institutions. The Japan Council for Quality Health Care (JCQHC) has received positive responses to the project, including an opinion that participation in the project indicates proactive efforts to promote medical safety. The Division of Adverse Event Prevention has been handling received information with utmost care to create an environment for easy reporting of near-miss incidents and adverse events by medical institutions, as reports from participating institutions are the basis of this project. The JCQHC deeply appreciates the cooperation of the medical institutions that have been reporting near-miss incidents and adverse events and participating in the on-site visits. Participating institutions are encouraged to report near-miss incidents and adverse events in accordance with the project outline in order to provide readers of the annual report with appropriate information on near-miss incidents and adverse events occurring in Japan.

The 2008 annual report created by compiling already published reports in the previous year The current report basically consists of the contents of previous reports and includes tabulation based on previously published reporting dates. However, the tabulation of medical adverse events according to the date on which an event occurred or the occurrence of an event was reported and additional data concerning voluntarily participating medical institutions that voluntarily participate in the project is also included. Summary of on-site visits, which have been conducted as part of "Collection of Follow-Up Information of Medical Adverse Events," is also included with more information compared with the past annual reports. The 2008 annual report also includes the analysis of seven individual themes, medical adverse event information to be shared, medical safety information, and summary of workshops. The JCQHC hopes that managers, people in charge of medical safety or safe use of drugs and medical devices and other healthcare providers at medical institutions will share the information provided in the annual report for promotion of medical safety at individual hospitals.

Division of Adverse Event Prevention is currently preparing for a system overhaul for the collection of medical near-miss/adverse event information and posting of information on JCQHC's website in order to improve the system for analysis and provision of collected information. The system will be available in January 2010. The overhaul will focus on the following three points:

(1) Collection of more medical safety information

Comprehensive Evaluation Panel is currently considering inclusion of expert opinions on medical safety information to further enhance its usefulness.

(2) Improvement of website contents

The website of the Project to Collect Medical Near-Miss/Adverse Event Information was renewed in June 2009. Now the information posted on the website is more organized so that users can obtain information they need more easily. More sophisticated systems are under development to give users the

ability to search and browse reported cases and to display the exact contents of past periodic and annual reports that users wish to browse. The new system will be available in January 2010.

(3) Improvement of report contents

JCQHC will increase its efforts to enhance the content of project reports for prevention of medical adverse events and promotion of medical safety in Japan. Your understanding and cooperation is appreciated.

Project to Collect Medical Near-Miss/Adverse Event Information

Shin Ushiro
Chief of Division of Adverse Event Prevention
Japan Council for Quality Health Care

The Japan Council for Quality Health Care (JCQHC) has been conducting various activities, such as the Project to Collect Medical Near-Miss/Adverse Event Information (the Project) and the evaluation of medical services provided at hospitals, in order to maintain public confidence in healthcare services and improve the quality of the services. In response to rising awareness and expectations of the general public as well as medical institutions concerning promotion of medical safety and medical adverse event prevention, JCQHC has been actively engaged in the said activities. Medical safety is one of the major medical issues to be addressed internationally, and its promotion is a world trend.

Ministry of Health, Labour and Welfare (MHLW) issued an ordinance in September 2004 to require advanced treatment facilities, such as university hospitals and National Hospital Organization medical centers, to report medical adverse events on a mandatory. As a neutral third-party organization, JCQHC became a MHLW-recognized organization to analyze medical adverse event data in accordance with the MHLW announcement issued on October 1, 2004 and has been undertaking the Project since. Collection and analysis of medical near-miss information was originally started as one of the MHLW projects in 2001 and taken over by JCQHC in 2004.

The objective of the Project is to collect, analyze, and provide medical adverse event information reported by medical institutions subject to reporting requirement to widely share useful information for development of medical safety measures with medical institutions in general and to provide information to the general public in order to further promote medical safety measures. Therefore, medical institutions reporting medical adverse event information will not be held accountable or punished for occurrence of events. JCQHC has been working to establish an environment conducive to medical adverse event reporting and believes such efforts are important for creation of a safety-oriented culture.

As of September 30, 2009, about 7,000 medical adverse events and more than 1,000,000 medical near-miss cases have been reported by the participating medical institutions. Number of medical adverse events reported to JCQHC has been increasing every year, suggesting that reporting has taken root among the participating medical institutions. JCQHC has been making effective use of collected information in preparation of periodic and annual reports and medical safety information. The 4th annual report, the 18th periodic report and the 37th medical safety information have been published so far and used by medical institutions as beneficial information for further promotion of medical safety in daily clinical practice.

In annual reports, analysis of medical adverse events and near-miss cases reported in one year are summarized. The Project activities are outlined in Chater 1. Key statistics of data reported by the participating medical institutions are included in Chater 2 as current reporting status. In Chapter 3, reported cases are individually analyzed by Expert Analysis Groups according to predetermined themes. A list of medical adverse event information published in the year and similar cases reported after the publication are presented in Chater 4. Chater 5 includes information about medical institutions participating in the Project to Collect, Analyze, and Provide Medical Adverse Event Information as the results of basic information research conducted by JCQHC.

All annual reports so far published were translated into English. This is the fourth annual report. The purpose of publishing English version of annual reports is to let other countries know about JCQHC's activitis and how medical adverse event information is collected and analysed in Japan as well as to enhance information exchanges with countries where similar activities are undertaken. All annual reports and their English translation, periodic reports and medical safety information published by JCQHC are available on its website (http://www.med-safe.jp/index.html) for browsing.

JCQHC will increase its efforts to enhance the content of project reports and effectively provide information for the prevention of medical adverse events and the promotion of medical safety. Your understanding and cooperation is appreciated.

December 2009

I Outline of Project to Collect Medical Near-Miss/Adverse Event Information

1 Background of Medical Near-Miss/Adverse Event Information Collection

Background of Near-Miss Information Collection

The Ministry of Health, Labour and Welfare (MHLW) started "Network for Medical Safety Measures (Project to Collect Medical Near-Miss Information)" in October 2001 to analyze collected near-miss information and provide medical safety information and proposed preventive measures to parties concerned. In the initial project scheme, Organization for Pharmaceutical Safety and Research [OPSR; present Pharmaceuticals and Medical Devices Agency (PMDA)] collected medical near-miss information from participating medical institutions and reported to the MHLW of which study group was responsible for data tabulation and analysis. Medical near-miss information was collected in 10 reports in the previous scheme, and the MHLW published tabulated data to provide information to parties concerned based on the collected near-miss information (Note 1).

JCQHC took over Project to Collect Medical Near-Miss Information from Organization for Pharmaceutical Safety and Research [OPSR; present Pharmaceuticals and Medical Devices Agency (PMDA)] in 2004 and has conducted the 11th and subsequent reports since. Tabulated data and analyses are posted on JCQHC website (Note 2).

Background on the Collecting of Medical Adverse Event Information

A Report on the "Comprehensive Promotion Measures for Medical Treatment Safety" (Note 3) was compiled and published in April 2002 by the Investigation Committee for Medical Treatment Safety Measures, a body established by the Ministry of Health, Labour and Welfare. Commenting on the governmental network service for medical treatment safety (a project to collect medical near-miss information) which began in October 2001, the report stated, "In analyzing such cases, there is a need to study the building of a system to collect even more accurate analytical and study results, as well as the results of analyzing and studying the improvement measures, from an even greater number of institutions." The report also touched on medical adverse event cases and, while introducing opinions that called for utilizing the collecting and analysis of such case examples and establishing a system for enforcing surveys and reports, it pointed out the need to conduct further studies that include legal issues associated with the reporting of medical malpractice.

The MHLW subsequently issued a ministerial ordinance to partially revise the enforcement regulations for Health Service Law (Note 4) on September 21, 2004 to require advanced treatment facilities to report medical adverse events. The JCQHC was registered at the MHLW on October 1, 2004 and became a Minister's recognized organization to analyze medical adverse event data in accordance with the said ordinance.

(Note 1) See "Medical Safety Measures" on the MHLW website (http://www.mhlw.go.jp/topics/bukyoku/isei/i-anzen/index.html).
(Note 2) See "Project to Collect Medical Near-Miss/Adverse Event Information" website on the JCQHC website (http://www.med-safe.jp/).
(Note 3) Issues such as "safety measures at medical institutions," "Improvement of Safety for Drugs and Medical Devices" "education and training to enhance medical safety," and "establishing an environment to promote medical safety" were included in the proposals for "Comprehensive Measures to Promote Medical Safety." See "Reports" in "Medical Safety Measures" page on the MHLW website (http://www.mhlw.go.jp/topics/bukyoku/isei/i-anzen/houkoku/index.html).
(Note 4) MHLW Ordinance No. 133

Background of JCQHC Project

The Center for Medical Adverse Event Prevention (currently the Division of Adverse Event Prevention)(Note 1) was established within the JCQHC on July 1, 2004, and the statutory collection of near-miss/adverse event information started on October 7, 2004. The Department comprehensively analyzes medical near-miss/adverse event information and, based on the policies of Management Committee(Note 2) of the Center, prepares reports through summaries of Comprehensive Evaluation Panel(Note 3) composed of specialists. The JCQHC has been providing reports prepared by the Center for Medical Adverse Event Prevention to participating medical institutions, relevant organizations, and administrative organizations as well as posting them on its website(Note 4) for public review.

(Note 1) Center for Medical Adverse Event Prevention was renamed the Department of Medical Adverse Event Prevention on April 1, 2008 due to the organizational reform.
(Note 2) Consisting of experts in general medicine or medical safety measures and general advisors, Management Committee develops operational policies of Center for Medical Adverse Event Prevention and evaluates its activities.
(Note 3) Consisting of experts from each field, Comprehensive Evaluation Panel reviews and evaluates reports comprehensively as well as provides technological advice for analytical methods.
(Note 4) See "Project to Collect Medical Near-Miss/Adverse Event Information" website on the JCQHC website (http://www.med-safe.jp/).

2 Outline of Project to Collect Medical Near-Miss/Adverse Event Information and Organizational Structure

The project consists of Project to Collect, Analyze, and Provide Medical Adverse Event Information and Project to Collect, Analyze, and Provide Medical Near-Miss Information. The outline of each project is described below.

[1] Outline of Project to Collect, Analyze, and Provide Medical Adverse Event Information

(1) Objective

To collect, analyze, and provide medical adverse event information reported by medical institutions subject to reporting requirement, and for registered medical institutions to widely share information useful to develop medical safety measures with medical institutions in general and to provide information to the general public in order to further promote medical safety measures.

(2) Collection of medical adverse event information

1. Medical institutions

Information is collected at the following medical institutions subject to reporting requirement, as well as registered medical institutions.

i) Medical institutions subject to reporting requirement(Note 1)

A. National Centers and National Sanatoriums for Hansen's disease

B. Hospitals run by the National Hospital Organization

C. Hospitals affiliated with universities governed by the School Education Law (not including their branch hospitals)

D. Advanced treatment hospital

ii) Voluntarily participating medical institutions

Medical institutions other than those subject to reporting requirement may participate in the project by providing their organizational information required by the JCQHC to register.

(Note 1) The MHLW issued a ministerial ordinance to partially revise the enforcement regulations for Health Service Law (MHLW Ordinance No. 133, 2004) on September 21, 2004 to require National Centers, National Sanatoriums for Hansen's disease, hospitals run by National Hospital Organization, hospitals affiliated with universities (not including their branch hospitals) governed by the School Education Law No. 26, 1947 (not including their branch hospitals), and advanced treatment facilities to report medical adverse events.

2. Medical adverse event information to be reported

The following medical adverse event information is subject to reporting.

A. Apparent error in treatment or management that resulted in patient's death or mental or physical disability or required unexpected treatment, treatment to an unexpected extent, or other medical procedure

B. Unapparent error in treatment or management that resulted in patient's death or mental or physical disability or required unexpected treatment, treatment to an unexpected extent, or other medical procedure (including events possibly associated with treatment or management provided; limited to unexpected events)

C. Other than those described in A and B, information conducive to prevention of medical adverse events and their recurrence at medical institutions

3. Reporting method and due date

Medical adverse events should be reported on the exclusive reporting web page via Internet (SSL communication). As a general rule, a medical adverse event must be reported within 2 weeks of occurrence or within 2 weeks after identifying the occurrence.

4. Report form

Code choice reporting and descriptive reporting are available. In code choice reporting, applicable codes are checked or selected from pull-down lists. In descriptive reporting, descriptions are provided in relevant fields.

In this report, an answer with no chosen code is referred as "no choice" and a field with no description entry as "no description."

(3) Analysis and publication of medical adverse event information

1. Tabulation

Performed by the JCQHC Division of Adverse Event Prevention

2. Publication of tabulation/analysis

Information is also made available to other parties concerned and the general public on this annual report and the Japan Council for Quality Health Care website (Note 1).

(Note 1) See "Project to Collect Medical Near-Miss/Adverse Event Information" website on the JCQHC website (http://www.med-safe.jp/).

(4) Education and training in the collection of information on medical adverse events

In 2008, workshops were held four times to help registered medical institutions understand the Project to Collect, Analyze, and Provide Medical Adverse Event Information and its reporting system and inspire their commitment to the Project.

"The Fifth Workshop on Analysis and Reporting of Medical Adverse Event Information" was held to help registered medical institutions understand the current medical adverse event information reporting system and become familiar with a useful technique called root cause analysis (RCA) for analyzing causes and underlying factors of medical adverse events through exercise. "Workshop on Use and Analysis of Medical Adverse Event Information" was also held, offering clinical practice simulation exercises.

Also, classroom lectures were given in "Workshop on Japanese and Overseas Medical Safety Measures" for a large number of attendees from medical institutions.

1. Outline of Workshop on Use and Analysis of Medical Adverse Event Information

(1) Outline of the workshop

i) Date: Sunday, February 3, 2008

ii) Attendees

A. Two to three attendees of various professions from each medical institution
Heads of the medical safety management divisions or those with an equivalent position

B. Personnel responsible for medical safety management at registered medical institutions

iii) Details

A. Lectures: About Project to Collect Medical Near-Miss/Adverse Event Information
Significance of clinical practice process chart in medical adverse event analysis

Exercise: Analysis and review of background factors and causes of medical adverse event examples by comparing them with clinical practice at participants' institutions

(2) Attendance

Number of attendees: 46 (16 medical institutions)

(3) Details

2. Outline of Workshop on Use and Analysis of Medical Adverse Event Information

(1) Outline of the workshop

i) Date: Sunday, July 6, 2008

ii) Participants

Two to three attendees of various professions from each medical institution

A. Heads of the medical safety management divisions at registered medical institutions or those with an equivalent position

B. Personnel responsible for medical safety management at registered medical institutions

iii) Details

A. Lectures: About Project to Collect Medical Near-Miss/Adverse Event Information
Significance of clinical practice process chart in medical adverse event analysis

Exercise: Analysis and review of background factors and causes of medical adverse event examples by comparing them with clinical practice at participants' institutions

(2) Attendance

Number of attendees: 46 (16 medical institutions)

3. Outline of the Fifth Workshop on Analysis and Reporting of Medical Adverse Event Information

(1) Outline of the workshop

i) Date: Friday and Saturday, September 19 and 20, 2008

ii) Participants

A. Heads of the medical safety management divisions at registered medical institutions

B. Medical safety managers or those with an equivalent position at registered medical institutions

iii) Details

A. Lecture: About Project to Collect Medical Near-Miss/Adverse Event Information
Medical adverse event analysis technique (RCA)

B. Exercise: Actual use of RCA

(2) Attendance

Number of attendees: 56

(3) Details

Exercise materials will be included in a future report.

4. Outline of Workshop on Japanese and Overseas Medical Safety Measures

(1) Outline of the workshop

i) Date: Thursday, October 16, 2008

ii) Participants

A. Heads of medical safety management divisions or medical safety managers at registered medical institutions participating in Project to Collect, Analyze and Provide Medical Adverse Event Information or Project to Collect, Analyze and Provide Medical Near-Miss Information

iii) Details

Lectures: About Project to Collect Medical Near-Miss/Adverse Event Information
Regulatory efforts to ensure medical safety
Overseas medical safety measures

(2) Attendance

Number of attendees: 70 (55 medical institutions)

[2] Outline of Project to Collect, Analyze, and Provide Medical Near-Miss Information

(1) Objective

To collect, analyze, and provide medical near-miss information reported by registered medical institutions to widely share information useful to develop medical safety measures with medical institutions in general and to provide information to the general public in order to further promote medical safety measures

(2) Collection of medical near-miss information

1. Medical institutions

Information is collected at registered medical institutions.

2. Medical near-miss information to be reported

i) Medical near-miss information subject to reporting

A. Potentially erroneous medical procedures identified before actually performed for patients

B. Erroneous medical procedures performed but did not affect patients' conditions

C. Erroneous medical procedures performed, and patients required minor procedure/treatment as the result

ii) Medical institutions where "general coded information" and/or "descriptive information" are collected

Medical near-miss information consists of "general coded information" and "descriptive information" that are collected separately at different medical institutions. The difference in the nature of information and medical institutions where such information is collected is described below.

A. General coded information
Information on any and all medical near-miss incidents (e.g. situation and details) occurred during a given collection period will be collected in the form of code table-based report
General coded information will be collected only at designated medical institutions(Note 1).

B. Descriptive information
Regarding near-miss incidents of which information should be provided to others in general in light of promoting medical safety measures, causes and proposed corrective measures will be reported in the form of a "descriptive information" report.
"Descriptive information" described in a) and b) below will be collected from all registered medical institutions.

(Note 1) Designated medical institutions are medical institutions participating in Project to Collect Medical Near-Miss Information and agreed to cooperate to provide "general coded information." As of Wednesday, December 31, 2008, 236 institutions have been designated by avoiding biases in institution size and location.

a) Medical near-miss cases covered by themes specified for individual collection periods(Note 1) (Fig. I-3-1)

b) Medical near-miss cases to be collected regularly regardless of periodic themes described in a)

- Cases in which patients would have died or had serious conditions if actions in question had been done or occurrence of events in question had been unnoticed
- Cases involving names or dosage forms of newly introduced drugs; cases involving drugs, medical devices/equipment such as errors in medical device operation(Note 2)
- Other cases that persons responsible for safety management at medical institutions examined thoroughly and determined that reporting of such cases would be conducive to improvement of medical safety

Fig. I-3-1 Themes for Descriptive Information Specified for Individual Collection Periods

Collection period	Month of occurrence	Theme
27th	2008 January to March	○ Cases of accidents occurred during rehabilitation training ○ Cases involving contraindicated medications (incompatibilities, contraindicated combinations, contraindications based on the disease, allergies) ○ Cases involving blood transfusion ○ Cases involving retained foreign objects during surgery
28th	April to June	○ Cases of accidents occurring during rehabilitation training ○ Cases involving contraindicated medications(incompatibilities, contraindicated combinations, contraindications based on the disease, allergies) ○ Cases involving blood transfusion ○ Cases involving retained foreign objects during surgery
29th	July to September	○ Cases involving contraindicated medications (incompatibilities, contraindicated combinations, contraindications based on the disease, allergies) ○ Cases involving blood transfusion ○ Cases involving patient room facilities such as beds ○ Cases involving patient misidentification or wrong-site surgeries/procedures
30th	October to December	○ Cases involving patient room facilities such as beds ○ Cases involving patient misidentification or wrong-site surgeries/procedures ○ Cases involving cautery knives ○ Cases involving chemotherapy drugs

3. Reporting method

(1) Web reporting and (2) reporting in a designated format (CSV format) are available. The reporting method will be selected by individual registered medical institutions at the time of registration.

4. Report form

Code choice reporting and descriptive reporting are available. In code choice reporting, applicable codes are checked or selected from pull-down lists. In descriptive reporting, descriptions are provided in relevant fields.

(Note 1) Certain themes are specified for medical near-miss cases to be collected in individual collection period in order to analyze medical adverse events covered by specific themes.
(Note 2) Information such as drug (product) names and units is also collected in events associated with drugs, medical devices or other items.

(3) Analysis and provision of medical near-miss information

1. Tabulation

Performed by the JCQHC Division of Adverse Event Prevention

2. Publication of tabulation/analysis

Information is also made available to other parties concerned and the general public on this annual report and the Japan Council for Quality Health Care website(Note 1).

(Note 1) See "Project to Collect Medical Near-Miss/Adverse Event Information" on the JCQHC website (http://www.med-safe.jp/)

[3] Organizational Structure for Project to Collect Medical Near-Miss/Adverse Event Information

The following committees and divisions have been established in Center for Medical Adverse Event Prevention to maintain neutrality and fairness of a third-party organization to collect medical adverse event information and to promote smooth organizational operation.

(1) Management Committee meeting

Consisting of 19 experts in general medicine or medical safety measures and general advisors (as of December 31, 2008), Management Committee develops operational policies of Division of Adverse Prevension and evaluates its activities. Management Committee is established as a subcommittee specified in the JCQHC act of endowment.

(2) Expert Division

A. Comprehensive Evaluation Panel meeting

Consisting of 16 experts from various fields (as of December 31, 2008), Comprehensive Evaluation Panel reviews and evaluates reports (proposals) prepared by "Expert Analysis Groups" described below as well as provides technological advice for analytical methods.

B. Expert Analysis Groups

Consisting of medical experts involved in medical safety and safety management experts, Expert Analysis Groups review and analyze reported cases, develop corrective measures, and prepare reports (proposals) as well as medical safety information (proposal). Expert Analysis Groups also collect necessary information for analysis and development of corrective measures and conduct on-site visit. Currently about 20 members are participating in the activities of Expert Analysis Groups.

(3) Division of Adverse Event Prevention

Division of Adverse Event Prevention is in charge of Project to Collect Medical Near-Miss/Adverse Event Information.

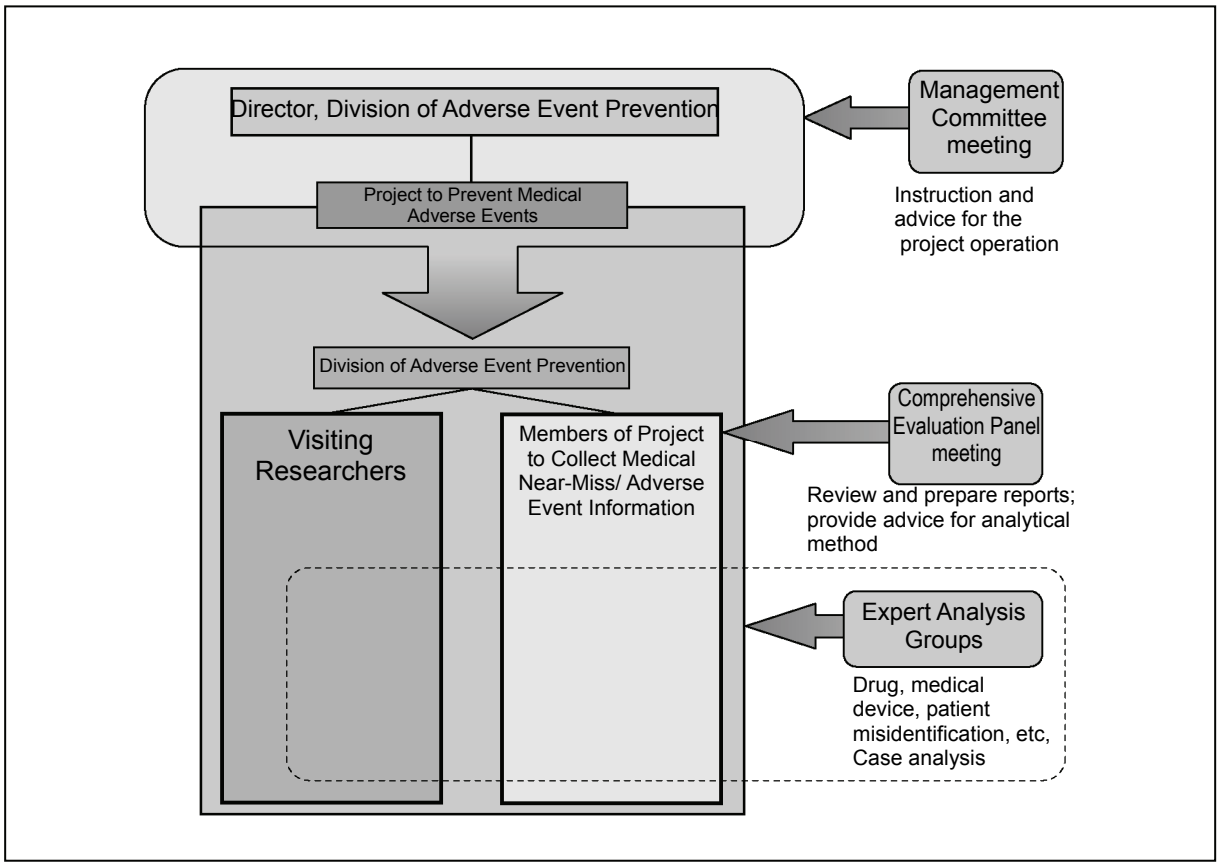
Consisting of staff with medical qualifications and visiting researchers, Division of Adverse Event Prevention receives medical near-miss/adverse event reports and other useful information for medical safety as well as prepares and publishes project reports. The Department also visits medical institutions with members of Expert Analysis Groups to collect further information as necessary.

[4] Organization for Data Analysis and Information Provision

Initial reports are processed by staff, visiting researchers, and members of Expert Analysis Groups bound by the confidentiality clause of Division of Adverse Event Prevention. Information contained in initial reports is anonymized by Department staff before being processed for analysis.

Expert Analysis Groups collect follow-up information, review published studies, and monitor activities of medical institutions making advanced efforts to prevent medical adverse events as necessary. Expert Analysis Groups prepare reports (proposals) and medical safety information (proposal) containing results of comprehensive analysis of obtained information and submit them to Comprehensive Evaluation Panel. Comprehensive Evaluation Panel reviews submitted reports (proposals) from an expert point of view, prepares final reports, and publishes them as JCQHC reports and medical safety information.

Fig. I-3-2



II Current Reporting Status

1 Report on Collection, Analysis, and Provision of Medical Adverse Event Information

This annual report contains three types of tabulated information.

A. Details of Reports Made by Medical Institutions Subject to Reporting Requirement (by Month of Report)

   Same tabulation as that published quarterly

B. Details of Reports from Medical Institutions Subject to Reporting Requirement (by Month of Occurrence)

C. Details of Reports from registered Medical Institutions (by Month of Report)

   Tabulation of information provided by all medical institutions participated in the project (medical institutions subject to reporting requirement and voluntarily participating medical institutions)

[1] Registered medical institutions

Medical adverse event information is provided by medical institutions subject to reporting requirement and voluntarily participating medical institutions whose participations are voluntary.

(1) Number of Medical Institutions Subject to Reporting Requirement and Voluntarily participating medical institutions

The number of medical institutions participating in Project to Collect, Analyze, and Provide Medical Adverse Event Information as of December 31, 2008 is shown below.

Fig. II-1-1 Number of Medical Institutions Subject to Reporting Requirement and voluntarily participating medical institutions

Mother body		Medical institutions subject to reporting requirement(Note 1)	Voluntarily participating medical institutions(Note2)
Government	National University Corporation	46	1
	National Hospital Organization	145	0
	Ministry of Health, Labour and Welfare (National Centers)	8	0
	Ministry of Health, Labour and Welfare (Sanatoriums for Hansen's Disease)	13	0
	Japan Labour Health and Welfare Organization	0	2
Municipality	Prefecture	1	8
	City/village	0	28
	Japan Association of Municipal and Prefectural Colleges and Universities	9	1
	Local independent administrative institutions	1	0
Mother body of public medical institution other than municipality	Japan Red Cross	0	50
	Saiseikai Imperial Gift Foundation	0	5
	National Welfare Federation of Agricultural Cooperatives	0	7
	National Health Insurance Association Federation	0	1
	All Japan Federation of Social Insurance Associations	0	36
	Employees' Pension Welfare Corporation	0	1
	Mutual Aid Associations and their associations	0	6
Corporation	School juridical organization	49	11
	Healthcare corporation	0	89
	Charitable organization	0	15
	Company	0	7
	Other corporation	0	5
Individual practitioner		0	10
Total		272	283

(Note 1) Details of medical institutions subject to reporting requirement (272 institutions) are as follows:
A. National Centers and Sanatoriums for Hansen's Disease 21 institutions
B. National Hospital Organization 145 institutions
C. University hospitals governed by the School Education Act (not including branch hospitals) 104 institutions
D. Advanced treatment hospitals (including those categorized as A, B or C above)
(Note 2) Voluntarily participating medical institutions are those participating in the project other than medical institutions subject to reporting requirement.

(2) Changes in number of registration of voluntarily participating medical institutions

Changes in the number of voluntarily participating medical institutions between January 1 and December 31, 2008 are shown below.

Fig. II-1-2 Number of Registrations of voluntarily participating medical institutions

	2008											
	January	February	March	April	May	June	July	August	September	October	November	December
Number of registered medical institutions	1	1	2	1	1	1	6	1	0	4	1	0
Number of rejected registrations	19	0	1	0	0	0	0	0	0	0	1	0
Accumulated total	267	268	269	270	271	272	278	279	279	283	283	283

[2] Number of reports

(1) Number of monthly reports

The number of monthly reports made by medical institutions subject to reporting requirement and voluntarily participating medical institutions between January 1 and December 31, 2008 is shown below.

Fig. II-1-3 Number of Monthly Reports Made by Medical Institutions Subject to Reporting Requirement and voluntarily participating medical institutions

	2008												Total
	January	February	March	April	May	June	July	August	September	October	November	December	
Number of reports made by medical institutions subject to reporting requirement	82	97	107	90	156	127	132	102	142	166	108	131	1,440
Number of reports made by voluntarily participating medical institutions	18	7	4	10	7	10	9	13	8	11	14	12	123
Number of medical institutions subject to reporting requirement	273	273	273	273	273	273	273	273	273	273	273	272	−
Number of voluntarily participating medical institutions	267	268	269	270	271	272	278	279	279	283	283	283	−

(2) Medical adverse event reporting status

A. Reporting status of medical institutions subject to reporting requirement

Among medical institutions subject to reporting requirement as of December 31, 2008, the number of reporting medical institutions subject to reporting requirement and the number of reports made between January 1 and December 31, 2008 are shown in Fig. II-1-4, those by bed size category in Fig. II-1-5, and those by region in Fig. II-1-6. The tabulated number of reports made by medical institutions during the same period is shown Fig. II-1-7. Since there have been several changes in medical institutions sinceafter the start of the project including newly qualified reporting requirement or abolishment of medical institutions, medical institutions subject to reporting requirement have inconsistent numbers with other figures. As of December 31, 2009, the number of medical institutions subject to reporting is 272, and the total number of beds at those institutions is 144,158.

Fig. II-1-4 Number of Reporting Medical Institutions Subject to Reporting Requirement and Reports Made by Mother Body

Mother body		Number of medical institutions (as of December 31, 2008)	January to December, 2008		December 2004 to December 2008	
			Number of reporting medical institutions	Number of reports	Number of reporting medical institutions (Note)	Number of reports (Note)
Government	National University Corporation	46	40	237	46	1,156
	National Hospital Organization	145	112	728	139	2,152
	National Centers	8	7	76	8	262
	Sanatoriums for Hansen's Disease	13	8	17	9	59
Municipality	Prefecture	11	9	46	10	142
	City/village					
	Japan Association of Municipal and Prefectural Colleges and Universities					
	Local independent administrative institutions					
Corporation (Re-posted)	School juridical organization	49	28	336	36	1,553
	Advanced treatment hospital	82	73	637	82	2,835
Total		272	204	1,440	248	5,324

(Note) For October 2004 to December 2008, number of medical institutions subject to reporting requirement that had reported medical adverse events and number of reports made by those institutions as of December 31, 2008 are shown.

Fig. II-1-5 Number of Reporting Medical Institutions Subject to Reporting Requirement and Reports Made by Bed Size

Bedsize category	Number of medical institutions	Number of reporting medical institutions	Number of reports
		January to December, 2008	January to December, 2008
0 - 19 beds	0	0	0
20 - 49 beds	13	3	7
50 - 99 beds	6	1	1
100 - 149 beds	4	2	2
150 - 199 beds	9	5	20
200 - 249 beds	13	10	41
250 - 299 beds	16	12	48
300 - 349 beds	25	17	105
350 - 399 beds	17	14	89
400 - 449 beds	26	23	149
450 - 499 beds	13	8	45
500 - 549 beds	14	11	67
550 - 599 beds	11	8	77
600 - 649 beds	26	20	135
650 - 699 beds	9	8	76
700 - 749 beds	12	10	56
750 - 799 beds	2	1	1
800 - 849 beds	12	10	67
850 - 899 beds	5	4	38
900 - 999 beds	9	9	39
1000 beds or more	30	28	377
Total	272	204	1,440

Fig. II-1-6 Number of Reporting Medical Institutions Subject to Reporting Requirement and Number of Reports by Region

Region	Number of medical institutions	Number of reporting medical institutions	Number of reports
		January to December, 2008	January to December, 2008
Hokkaido	11	8	66
Tohoku	24	17	93
Kanto/Koshinetsu	83	62	497
Tokai/Hokuriku	37	31	256
Kinki	35	27	167
Chugoku/Shikoku	36	26	178
Kyushu/Okinawa	46	33	183
Total	272	204	1,440

Fig. II-1-7 Number of Medical Institutions Subject to Reporting Requirement by Number of Reports

Number of reports	Number of reporting medical institutions
	January to December, 2008
0	69
1	29
2	29
3	23
4	17
5	22
6	13
7	18
8	8
9	5
10	4
11−20	25
21−30	5
31−40	2
41−50	0
51−100	3
101−150	0
151−200	0
200 or above	0
Total	272

B. Reporting status of voluntarily participating medical institutions

The number of voluntarily participating medical institutions as of December 31, 2008 and reports made by those institutions between January 1 and December 31, 2008 are shown in Fig. II-1-8.

Fig. II-1-8 Number of Reporting Voluntarily Participating Medical Institutions and Number of Reports

Mother body	Number of institutions (as of December 31, 2008)	Number of reporting medical institutions	Number of reports
		January to December, 2008	January to December, 2008
Government	3	1	1
Municipality	37	9	33
Public medical institution	106	15	26
Corporation	127	25	63
Individual practitioner	10	0	0
Total	283	50	123

[3] Details of Reports Made by Medical Institutions Subject to Reporting Requirement (by Month of Report)

The quarterly tabulation of reports made by medical institutions subject to reporting requirement between January 31 and December 31, 2008 is shown below.

Fig. II-1-9 Month of occurrence

Year of occurrence	Month of occurrence	Number of event
2007	November and before	94
	December	67
2008	January	109
	February	106
	March	93
	April	121
	May	123
	June	109
	July	133
	August	97
	September	148
	October	124
	November	77
	December	39
Total	**Total**	1,440

Fig. II-1-10 Day of Occurrence and Weekday/Holiday Category

Day of occurrence	Weekday					Holiday					Aggregate total
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
Mon.	39	63	54	42	198	6	2	3	7	18	216
Tue.	47	54	56	66	223	2	4	0	3	9	232
Wed.	40	77	61	88	266	3	0	0	0	3	269
Thu.	51	69	61	56	237	2	1	0	0	3	240
Fri.	47	47	65	62	221	0	1	1	1	3	224
Sat.	3	9	4	5	21	17	16	42	40	115	136
Sun.	0	0	0	0	0	29	30	29	35	123	123
Total	227	319	301	319	1,166	59	54	75	86	274	1,440

Fig. II-1-11 Time of occurrence

Time of occurrence	Number of event				
	January to March	April to June	July to September	October to December	Total
0:00 – before 2:00	12	22	22	25	81
2:00 – before 4:00	6	12	15	11	44
4:00 – before 6:00	10	9	19	20	58
6:00 – before 8:00	23	17	30	28	98
8:00 – before 10:00	32	41	28	29	130
10:00 – before 12:00	42	58	48	60	208
12:00 – before 14:00	29	36	40	38	143
14:00 – before 16:00	42	61	59	62	224
16:00 – before 18:00	25	32	44	36	137
18:00 – before 20:00	17	30	17	28	92
20:00 – before 22:00	22	18	20	26	86
22:00 – before 24:00	11	26	21	18	76
Time unknown	15	11	13	24	63
Total	286	373	376	405	1,440

Fig. II-1-12 Patient age

Number of patients	Patient age	Number of event					Inpatient				
		January to March	April to June	July to September	October to December	Aggregate total	January to March	April to June	July to September	October to December	Aggregate total
1 patient	0 to 9	14	20	15	21	70	14	19	14	17	64
	10s	9	10	7	8	34	7	9	7	7	30
	20s	9	8	9	14	40	8	7	9	14	38
	30s	7	25	22	32	86	5	21	21	29	76
	40s	26	29	31	26	112	22	26	30	23	101
	50s	33	45	42	50	170	32	43	39	42	156
	60s	55	65	55	67	242	51	59	48	63	221
	70s	74	85	120	100	379	73	82	118	97	370
	80s	41	64	59	70	234	39	59	57	64	219
	90 or above	15	16	14	13	58	15	16	13	13	57
	Total	283	367	374	401	1,425	266	341	356	369	1,332
2 or more (Note)	Total	3	6	2	4	15	3	4	1	1	9
Aggregate total		286	373	376	405	1,440	269	345	357	370	1,341

(Note) Category "2 or more" was added for the check box of "Number of patients" since July 2006.

Fig. II-1-13 Sex of Patients

Number of patients	Sex	Number of event				
		January to March	April to June	July to September	October to December	Total
1 patient	Male	136	188	176	202	702
	Female	147	179	198	199	723
	Total	283	367	374	401	1,425
2 or more	Total	3	6	2	4	15
Aggregate total		286	373	376	405	1,440

Fig. II-1-14 Inpatient/Outpatient Status and Duration of Hospital Stay

Inpatient/outpatient status		Number of event				
		January to March	April to June	July to September	October to December	Total
Inpatient	Duration: 0 to 31 days	170	262	213	234	879
	Duration: 32 days or longer	99	83	144	136	462
	Total	269	345	357	370	1,341
Outpatient	Initial visit	2	6	3	0	11
	Follow-up visit	15	22	16	35	88
	Total	17	28	19	35	99
Aggregate total		286	373	376	405	1,440

Fig. II-1-15 Person who identified event

Person who identified event	Number of event				
	January to March	April to June	July to September	October to December	Total
Medical staff	248	310	320	345	1,223
Patient himself/herself	8	14	16	14	52
Patient's family/caregiver	7	17	5	11	40
Other patient	9	9	16	17	51
Others	14	23	19	18	74
Total	286	373	376	405	1,440

Fig. II-1-16 Job Title of Person Involved

Job title of person involved (Note)	Number of event				
	January to March	April to June	July to September	October to December	Total
Doctor	185	264	220	214	883
Dentist	9	4	7	17	37
Nurse	192	227	274	289	982
Assistant nurse	12	4	9	7	32
Pharmacist	2	3	4	3	12
Clinical engineer	0	4	1	5	10
Midwife	3	2	2	1	8
Nursing assistant	1	0	3	5	9
Radiological technologist	1	5	4	5	15
Clinical technologist	0	4	4	1	9
Physical therapist (PT)	4	5	0	3	12
Occupational therapist (OT)	1	2	1	0	4
Medical technologist	0	0	0	0	0
Dental hygienist	0	0	0	0	0
Others	13	19	11	17	60
Total	423	543	540	567	2,073

(Note) Person involved is a person determined by the medical institution to have been involved in the event occurred; more than 1 person may have been involved.

Fig. II-1-17 Years of Experience of Person Involved by Job Title (Doctor, Dentist, Nurse, Pharmacist)

Years of experience × Job title of person involved(Note)	Doctor					Dentist				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
0 years	5	5	9	10	29	0	0	1	0	1
1 years	3	1	6	4	14	1	1	1	2	5
2 years	7	9	12	14	42	0	0	0	0	0
3 years	15	13	10	12	50	0	0	0	1	1
4 years	8	13	4	11	36	0	1	0	1	2
5 years	9	19	15	9	52	1	0	1	3	5
6 years	4	14	13	10	41	0	0	0	1	1
7 years	7	11	14	9	41	0	0	0	2	2
8 years	16	17	12	8	53	1	0	1	0	2
9 years	11	10	9	8	38	1	0	0	0	1
10 years	6	16	4	8	34	2	0	1	1	4
11 to 20 years	69	97	80	78	324	1	2	2	2	7
21 to 30 years	23	30	27	28	108	1	0	0	2	3
30 years or longer	2	9	5	5	21	1	0	0	2	3
Total	185	264	220	214	883	9	4	7	17	37

(Note) Person involved is a person determined by the medical institution to have been involved in the event occurred; more than 1 person may have been involved.

Nurse					Pharmacist				
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
18	23	17	23	81	0	0	0	0	0
15	21	33	32	101	1	0	0	2	3
16	16	30	28	90	0	0	0	0	0
5	17	24	20	66	0	1	0	0	1
7	13	18	21	59	0	0	0	0	0
8	11	9	11	39	0	0	0	0	0
11	20	14	8	53	0	0	1	0	1
5	11	10	9	35	0	0	0	0	0
4	7	5	11	27	0	0	0	0	0
4	7	8	7	26	0	0	0	0	0
6	5	8	13	32	0	0	0	0	0
51	40	48	43	182	1	1	3	0	5
34	28	40	48	150	0	1	0	1	2
8	8	10	15	41	0	0	0	0	0
192	227	274	289	982	2	3	4	3	12

Fig. II-1-18 Number of Years Person Involved (Doctor, Dentist, Nurse, Pharmacist) Has Been Working at Current Department

Number of years at current department × Job title of person involved(Note)	Doctor					Dentist				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
0 years	50	50	50	48	198	0	1	1	1	3
1 years	29	37	38	32	136	1	1	1	1	4
2 years	18	24	29	13	84	0	0	0	0	0
3 years	17	19	13	12	61	0	0	0	2	2
4 years	9	14	9	15	47	0	0	0	1	1
5 years	6	18	21	12	57	1	0	1	3	5
6 years	6	15	7	13	41	0	0	1	1	2
7 years	8	10	11	8	37	1	0	0	2	3
8 years	8	11	5	10	34	2	0	1	1	4
9 years	8	4	5	3	20	2	0	0	0	2
10 years	6	6	0	11	23	1	0	1	0	2
11 to 20 years	16	49	27	29	121	0	2	1	1	4
21 to 30 years	4	6	5	7	22	0	0	0	3	3
30 years or longer	0	1	0	1	2	1	0	0	1	2
Total	185	264	220	214	883	9	4	7	17	37

(Note) Person involved is a person determined by the medical institution to have been involved in the event occurred; more than 1 person may have been involved.

Nurse					Pharmacist				
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
57	52	64	83	256	2	0	0	1	3
37	50	72	62	221	0	1	0	2	3
41	33	51	51	176	0	1	0	0	1
15	20	36	35	106	0	0	0	0	0
14	15	25	21	75	0	0	1	0	1
9	12	11	17	49	0	0	0	0	0
6	19	6	6	37	0	0	1	0	1
2	8	6	7	23	0	0	0	0	0
5	3	0	3	11	0	0	0	0	0
0	2	0	0	2	0	0	0	0	0
2	2	0	0	4	0	0	0	0	0
4	8	3	3	18	0	0	2	0	2
0	2	0	1	3	0	1	0	0	1
0	1	0	0	1	0	0	0	0	0
192	227	274	289	982	2	3	4	3	12

Fig. II-1-19 Working Hours (in week previous to event) (Note 1) of Person Involved (Doctors) (Note 2)

Working hours	January to March	April to June	July to September	October to December	January to December
<0 to 8 hours	0	0	0	0	0
<8 to 16 hours	3	0	0	1	4
<16 to 24 hours	2	0	0	1	3
<24 to 32 hours	3	1	2	1	7
<32 to 40 hours	7	45	3	13	68
<40 to 48 hours	50	59	54	49	212
<48 to 56 hours	18	18	25	27	88
<56 to 64 hours	10	27	24	12	73
<64 to 72 hours	16	27	24	10	77
<72 to 80 hours	5	3	1	2	11
<80 to 88 hours	8	7	7	13	35
<88 to 96 hours	4	4	6	4	18
96 hours or more	6	5	6	0	17
Unknown	53	68	68	81	270
Total	185	264	220	214	883
Average working hours (not including “unknown”)	53.3	51.8	55.9	51.7	53.1

(Note 1) Working hours may also include hours worked outside the hospital.

(Note 2) The person involved is a person determined by the medical institution to have been involved in the occurring event, including part-time employees. Multiple persons may have been involved and reported accordingly.

Fig. II-1-20 Working Hours (in week previous to event) (Note 1) of Person Involved (Nurses) (Note2)

Working hours	January to March	April to June	July to September	October to December	January to December
<0 to 8 hours	0	1	0	1	2
<8 to 16 hours	0	0	3	4	7
<16 to 24 hours	6	2	5	7	20
<24 to 32 hours	13	17	14	19	63
<32 to 40 hours	63	83	45	67	258
<40 to 48 hours	86	80	138	124	428
<48 to 56 hours	7	17	19	26	69
<56 to 64 hours	1	2	5	0	8
<64 to 72 hours	0	0	0	0	0
<72 to 80 hours	0	0	0	0	0
<80 to 88 hours	0	0	0	0	0
<88 to 96 hours	0	0	0	0	0
96 hours or more	0	0	0	1	1
Unknown	16	25	45	40	126
Total	192	227	274	289	982
Average working hours (not including “unknown”)	36.2	37.4	38.3	37.2	37.3

(Note 1) Working hours may also include hours worked outside the hospital.

(Note 2) The person involved is a person determined by the medical institution to have been involved in the occurring event, including part-time employees. Multiple persons may have been involved and reported accordingly.

Fig. II-1-21 Number of Night Shifts (in week previous to event) of Person Involved (Doctors)

Working hours	January to March	April to June	July to September	October to December	January to December
0 times	83	94	89	70	336
1 times	49	77	60	67	253
2 times	20	16	22	12	70
3 times	5	3	5	3	16
4 times	2	2	0	1	5
5 times	0	1	0	1	2
6 times	0	0	0	0	0
7 times	0	0	0	0	0
Unknown	26	71	44	60	201
Total	185	264	220	214	883
Average number of night shifts (not including unknown)	0.70	0.68	0.68	0.71	0.69

Fig. II-1-22 Number of Night Shifts (in week previous to event) of Person Involved (Nurses)

Working hours	January to March	April to June	July to September	October to December	January to December
0 times	23	35	28	45	131
1 times	69	48	72	95	284
2 times	70	66	119	103	358
3 times	17	26	22	16	81
4 times	1	2	8	1	12
5 times	0	1	0	1	2
6 times	0	0	0	0	0
7 times	0	0	1	0	1
Unknown	12	49	24	28	113
Total	192	227	274	289	982
Average number of night shifts (not including unknown)	1.46	1.52	1.66	1.37	1.51

Fig. II-1-23 Summary of event

Summary of event	January to March		April to June		July to September		October to December		Total	
	Number of event	%	Number of event	%	Number of event	%	Number of event	%	Number of event	%
Ordering	0	0.0	2	0.5	4	1.1	6	1.5	12	0.8
Drug	23	8.0	16	4.3	16	4.3	18	4.4	73	5.1
Blood transfusion	0	0.0	2	0.5	0	0.0	4	1.0	6	0.4
Treatment/procedure	77	26.9	109	29.2	83	22.1	91	22.5	360	25.0
Medical equipment, etc.	33	11.5	39	10.5	30	8.0	38	9.4	140	9.7
Medical device	11	3.8	12	3.2	13	3.5	11	2.7	47	3.3
Drainage tube or other tube	22	7.7	26	7.0	17	4.5	27	6.7	92	6.4
Dental equipment	0	0.0	1	0.3	0	0.0	0	0.0	1	0.1
Examination	7	2.4	30	8.0	21	5.6	15	3.7	73	5.1
Nursing care	112	39.2	118	31.6	173	46.0	181	44.7	584	40.6
Others	34	11.9	57	15.3	49	13.0	52	12.8	192	13.3
Total	286	100.0	373	100.0	376	100.0	405	100.0	1,440	100.0

Fig. II-1-24 Potential of Residual Disability

Potential of residual disability(Note 1)	January to March		April to June		July to September		October to December		Total	
	Number of event	%	Number of event	%	Number of event	%	Number of event	%	Number of event	%
Death	25	8.7	31	8.3	23	6.1	36	8.9	115	8.0
High	31	10.8	42	11.3	40	10.6	31	7.7	144	10.0
Low	92	32.2	105	28.2	118	31.4	127	31.4	442	30.7
None	88	30.8	99	26.5	120	31.9	131	32.3	438	30.4
No disability	41	14.3	72	19.3	53	14.1	66	16.3	232	16.1
Unknown(Note 2)	9	3.1	24	6.4	22	5.9	14	3.5	69	4.8
Total	286	100.0	373	100.0	376	100.0	405	100.0	1,440	100.0

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

Fig. II-1-25 Intensity of Treatment (Note)

Intensity of treatment	January to March		April to June		July to September		October to December		Total	
	Number of event	%	Number of event	%	Number of event	%	Number of event	%	Number of event	%
Intensive treatment(Note)	128	44.8	174	46.6	179	47.6	161	39.8	642	44.6
Minor treatment	130	45.5	142	38.1	169	44.9	204	50.4	645	44.8
No treatment	28	9.8	57	15.3	28	7.4	40	9.9	153	10.6
Total	286	100.0	373	100.0	376	100.0	405	100.0	1,440	100.0

(Note) See Reference 1 of HPB Notification No. 0921001 (as of September 21, 2004).

Fig. II-1-26 Place of Occurrence

Place of Occurrence	January to March		April to June		July to September		October to December		Total	
	Number of event	%	Number of event	%	Number of event	%	Number of event	%	Number of event	%
Outpatient examination room	7	2.4	8	2.1	5	1.3	7	1.7	27	1.9
Outpatient treatment room	1	0.4	9	2.4	3	0.8	8	2.0	21	1.5
Outpatient lobby	1	0.4	1	0.3	2	0.5	2	0.5	6	0.4
Emergency room	0	0.0	0	0.0	1	0.3	2	0.5	3	0.2
Emergency center	2	0.7	10	2.7	0	0.0	2	0.5	14	1.0
Patient room	150	52.4	160	42.9	175	46.5	194	47.9	679	47.2
Ward treatment room	10	3.5	2	0.5	3	0.8	6	1.5	21	1.5
Operation room	23	8.0	51	13.7	50	13.3	40	9.9	164	11.4
ICU	3	1.0	15	4.0	7	1.9	8	2.0	33	2.3
CCU	0	0.0	2	0.5	0	0.0	2	0.5	4	0.3
NICU	3	1.0	2	0.5	1	0.3	0	0.0	6	0.4
Examination room	4	1.4	4	1.1	3	0.8	3	0.7	14	1.0
Catheterization laboratory	6	2.1	23	6.2	15	4.0	10	2.5	54	3.8
Radiotherapy room	3	1.0	2	0.5	1	0.3	4	1.0	10	0.7
Radiography room	5	1.7	9	2.4	13	3.5	6	1.5	33	2.3
Radioactive scanning room	0	0.0	1	0.3	0	0.0	1	0.2	2	0.1
Dialysis room	2	0.7	2	0.5	0	0.0	2	0.5	6	0.4
Delivery room	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rehabilitation room	2	0.7	3	0.8	1	0.3	2	0.5	8	0.6
Restroom	7	2.4	6	1.6	15	4.0	17	4.2	45	3.1
Hallway	7	2.4	11	2.9	16	4.3	18	4.4	52	3.6
Bathroom	7	2.4	6	1.6	7	1.9	17	4.2	37	2.6
Stairway	0	0.0	0	0.0	1	0.3	0	0.0	1	0.1
Unknown	3	1.0	8	2.1	6	1.6	4	1.0	21	1.5
Others	40	14.0	38	10.2	51	13.6	50	12.3	179	12.4
Total	286	100.0	373	100.0	376	100.0	405	100.0	1,440	100.0

Fig. II-1-27 Clinical Department

Clinical Department(Note)	January to March		April to June		July to September		October to December		Total	
	Number of event	%	Number of event	%	Number of event	%	Number of event	%	Number of event	%
Internal medicine	35	10.3	30	6.8	42	8.9	41	8.1	148	8.4
Anesthesiology	4	1.2	9	2.1	11	2.3	16	3.1	40	2.3
Cardiovascular medicine	19	5.6	43	9.8	29	6.1	32	6.3	123	7.0
Neurology	7	2.1	8	1.8	6	1.3	17	3.3	38	2.2
Respiratory tract medicine	23	6.8	16	3.7	30	6.3	35	6.9	104	5.9
Gastrointestinal medicine	22	6.5	19	4.3	33	7.0	29	5.7	103	5.9
Hematology	8	2.4	7	1.6	6	1.3	7	1.4	28	1.6
Circulatory surgery	1	0.3	12	2.7	4	0.8	8	1.6	25	1.4
Allergy	2	0.6	1	0.2	0	0.0	0	0.0	3	0.2
Rheumatism	0	0.0	7	1.6	3	0.6	3	0.6	13	0.7
Pediatrics	20	5.9	22	5.0	24	5.1	26	5.1	92	5.2
General surgery	31	9.1	24	5.5	28	5.9	36	7.1	119	6.8
Orthopedics	32	9.4	33	7.5	64	13.5	64	12.6	193	11.0
Plastic surgery	0	0.0	4	0.9	3	0.6	4	0.8	11	0.6
Cosmetic surgery	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Neurosurgery	14	4.1	17	3.9	21	4.4	23	4.5	75	4.3
Respiratory surgery	4	1.2	6	1.4	10	2.1	9	1.8	29	1.6
Cardiovascular surgery	8	2.4	18	4.1	14	3.0	15	2.9	55	3.1
Pediatric surgery	1	0.3	1	0.2	4	0.8	3	0.6	9	0.5
Pain clinic	0	0.0	0	0.0	1	0.2	1	0.2	2	0.1
Dermatology	3	0.9	2	0.5	4	0.8	6	1.2	15	0.9
Urology	4	1.2	14	3.2	14	3.0	10	2.0	42	2.4
Venereology	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Proctology	1	0.3	0	0.0	0	0.0	0	0.0	1	0.1
Gynecology/Obstetrics	6	1.8	9	2.1	5	1.1	5	1.0	25	1.4
Obstetrics	3	0.9	2	0.5	2	0.4	2	0.4	9	0.5
Gynecology	4	1.2	6	1.4	9	1.9	8	1.6	27	1.5
Ophthalmology	5	1.5	11	2.5	10	2.1	5	1.0	31	1.8
Otolaryngology	9	2.6	13	3.0	9	1.9	11	2.2	42	2.4
Psychosomatic medicine	0	0.0	0	0.0	1	0.2	0	0.0	1	0.1
Psychiatry	22	6.5	16	3.7	20	4.2	26	5.1	84	4.8
Rehabilitation	5	1.5	2	0.5	5	1.1	0	0.0	12	0.7
Radiology	3	0.9	10	2.3	7	1.5	9	1.8	29	1.6
Dentistry	2	0.6	1	0.2	1	0.2	4	0.8	8	0.5
Orthodontics	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pediatric dentistry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Dental/oral surgery	6	1.8	6	1.4	5	1.1	5	1.0	22	1.3
Unknown	0	0.0	0	0.0	0	0.0	1	0.2	1	0.1
Others	36	10.6	69	15.8	48	10.1	48	9.4	201	11.4
Total	340	100.0	438	100.0	473	100.0	509	100.0	1,760	100.0

(Note) "Clinical department" may be more than one.

Fig. II-1-28 Cause of Event

Cause of Event (Note)	January to March		April to June		July to September		October to December		Total	
	Number of event	%	Number of event	%	Number of event	%	Number of event	%	Number of event	%
Neglect to check	92	17.7	93	14.1	84	11.9	108	13.8	377	14.2
Neglect to observe	70	13.5	73	11.1	100	14.2	99	12.7	342	12.8
Misjudgment	62	11.9	86	13.1	89	12.6	104	13.3	341	12.8
Lack of knowledge	28	5.4	25	3.8	39	5.5	41	5.3	133	5.0
Deficiency of technique/skill	21	4.0	23	3.5	40	5.7	52	6.7	136	5.1
Delayed reporting	4	0.8	7	1.1	5	0.7	11	1.4	27	1.0
Under unusual physical condition	14	2.7	21	3.2	12	1.7	32	4.1	79	3.0
Under unusual psychological condition	5	1.0	6	0.9	10	1.4	6	0.8	27	1.0
System failure	13	2.5	22	3.3	19	2.7	16	2.0	70	2.6
Inadequate coordination	17	3.3	42	6.4	40	5.7	42	5.4	141	5.3
Inadequate documentation	2	0.4	4	0.6	8	1.1	4	0.5	18	0.7
Similarity in patient's appearance or name	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Busy working condition	14	2.7	13	2.0	16	2.3	15	1.9	58	2.2
Problem in environment	16	3.1	24	3.6	30	4.2	33	4.2	103	3.9
Problem in the drug	4	0.8	3	0.5	6	0.9	8	1.0	21	0.8
Problem in medical device	10	1.9	10	1.5	14	2.0	13	1.7	47	1.8
Problem in other items	5	1.0	4	0.6	9	1.3	9	1.2	27	1.0
Problem in facility	10	1.9	7	1.1	13	1.8	11	1.4	41	1.5
Problem in education/training	16	3.1	48	7.3	28	4.0	31	4.0	123	4.6
Lack of explanation	20	3.9	42	6.4	36	5.1	38	4.9	136	5.1
Others	96	18.5	105	16.0	108	15.3	108	13.8	417	15.7
Total	519	100.0	658	100.0	706	100.0	781	100.0	2,664	100.0

(Note) "Cause of event" may have been more than one.

Fig. II-1-29 Cases encouraged to be reported

Cases encouraged to be reported	January to March		April to June		July to September		October to December		Total	
	Number of event	%	Number of event	%	Number of event	%	Number of event	%	Number of event	%
Accident due to use of contaminated drug/material/ biologic product	1	0.3	0	0.0	1	0.3	2	0.5	4	0.3
Death or disability due to nosocomial infection	0	0.0	1	0.3	0	0.0	0	0.0	1	0.1
Suicide or suicide attempt during hospitalization	12	4.2	4	1.1	7	1.9	12	3.0	35	2.4
Escape of inpatient	0	0.0	2	0.5	3	0.8	0	0.0	5	0.3
Burn during hospitalization	5	1.7	2	0.5	2	0.5	6	1.5	15	1.0
Electric shock during hospitalization	0	0.0	1	0.3	0	0.0	0	0.0	1	0.1
Death or disability of patient due to facility fire	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Handing over of infant to wrong parent	3	1.0	1	0.3	0	0.0	1	0.2	5	0.3
No applicable option	265	92.7	362	97.1	363	96.5	384	94.8	1,374	95.4
Total	286	100.0	373	100.0	376	100.0	405	100.0	1,440	100.0

Fig. II-1-30 Establishment of accident investigation board

Establishment of accident investigation board(Note 1)	January to March		April to June		July to September		October to December		Total	
	Number of event	%	Number of event	%	Number of event	%	Number of event	%	Number of event	%
Existing internal investigation board	48	15.8	52	13.3	47	11.6	46	11.0	193	12.7
Existing external investigation board	0	0.0	8	2.0	5	1.2	1	0.2	14	0.9
Internal investigation board to be established	1	0.3	3	0.8	1	0.2	1	0.2	6	0.4
External investigation board to be established	0	0.0	2	0.5	3	0.7	0	0.0	5	0.3
Existing medical safety committee is in charge of investigation	209	69.0	273	69.6	262	64.9	280	67.0	1,024	67.5
Currently under consideration and undecided	2	0.7	8	2.0	11	2.7	7	1.7	28	1.8
Others	40	13.2	42	10.7	70	17.3	75	17.9	227	15.0
No choice(Note 2)	3	1.0	4	1.0	5	1.2	8	1.9	20	1.3
Total	303	100.0	392	100.0	404	100.0	418	100.0	1,517	100.0

(Note 1) Multiple choices acceptable
(Note 2) "No choice" means none of the checkboxes for "establishment of accident investigation board" was selected.

Fig. II-1-31 Summary of Event and Potential of Residual Disability

Summary of Event × Potential of Residual Disability(Note 1)	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Ordering	0	0	0	0	0	0	0	0	1	1	0	0	1	2	3
Drug	0	0	2	0	2	3	0	1	1	5	4	5	4	8	21
Blood transfusion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treatment/procedure	6	9	7	11	33	9	15	13	12	49	21	31	32	22	106
Medical equipment, etc.	0	2	1	2	5	4	2	4	1	11	8	11	8	8	35
Medical device	0	2	0	0	2	2	1	1	1	5	1	1	3	2	7
Drainage tube or other tube	0	0	1	2	3	2	1	3	0	6	7	10	5	6	28
Dental equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Examination	1	3	3	3	10	1	5	2	2	10	1	5	5	2	13
Nursing care	8	5	5	6	24	9	13	14	10	46	49	45	57	71	222
Others	10	12	5	14	41	5	7	6	4	22	9	8	11	14	42
Total	25	31	23	36	115	31	42	40	31	144	92	105	118	127	442

(Note 1) "Potential of residual disability" does not necessarily have a causal relationship with occurrence of medical adverse event or presence or absence of after-the-fact negligence.

(Note 2) "Unknown" includes cases in which the outcome of a patient was not confirmed by the due date (within 2 weeks) and cases subject to reporting requirement that did not have any impact on patients.

None					No disability					Unknown (Note 2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
0	1	1	3	5	0	1	2	0	3	0	0	0	0	0	12
11	5	3	7	26	5	4	6	2	17	0	2	0	0	2	73
0	2	0	3	5	0	0	0	1	1	0	0	0	0	0	6
30	28	24	22	104	8	18	4	22	52	3	8	3	2	16	360
8	12	7	14	41	11	11	7	9	38	2	1	3	4	10	140
1	5	4	4	14	5	3	3	2	13	2	0	2	2	6	47
7	7	3	10	27	6	8	4	7	25	0	0	1	2	3	92
0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1	7	6	4	18	3	10	3	3	19	0	0	2	1	3	73
32	36	62	68	198	10	14	23	22	69	4	5	12	4	25	584
6	8	17	10	41	4	14	8	7	33	0	8	2	3	13	192
88	99	120	131	438	41	72	53	66	232	9	24	22	14	69	1,440

Fig. II-1-32 Summary of Event and Intensity of Treatment

Summary of Event × Intensity of treatment	Intensive treatment					Minor treatment					No treatment					Aggregate total
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
Ordering	0	0	1	4	5	0	2	1	0	3	0	0	2	2	4	12
Drug	7	5	6	5	23	13	4	5	11	33	3	7	5	2	17	73
Blood transfusion	0	1	0	2	3	0	0	0	1	1	0	1	0	1	2	6
Treatment/procedure	45	62	60	52	219	25	35	20	34	114	7	12	3	5	27	360
Medical equipment, etc.	16	24	15	19	74	12	11	13	18	54	5	4	2	1	12	140
Medical device	6	7	7	5	25	1	3	5	6	15	4	2	1	0	7	47
Drainage tube or other tube	10	17	8	14	49	11	8	8	12	39	1	1	1	1	4	92
Dental equipment	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Examination	4	12	17	6	39	1	8	2	5	16	2	10	2	4	18	73
Nursing care	39	40	62	52	193	68	67	102	116	353	5	11	9	13	38	584
Others	17	30	18	21	86	11	15	26	19	71	6	12	5	12	35	192
Total	128	174	179	161	642	130	142	169	204	645	28	57	28	40	153	1,440

Fig. II-1-33 Potential of Residual Disability and Intensity of Treatment

Potential of Residual Disability(Note 1) × Intensity of Treatment	Intensive treatment					Minor treatment					No treatment					Aggregate total
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
Death	17	25	17	29	88	2	1	3	0	6	6	5	3	7	21	115
High	30	33	34	22	119	1	6	4	9	20	0	3	2	0	5	144
Low	39	59	63	41	202	48	41	50	78	217	5	5	5	8	23	442
None	32	30	41	38	141	50	59	77	84	270	6	10	2	9	27	438
No disability	5	13	9	21	48	26	30	30	29	115	10	29	14	16	69	232
Unknown (Note 2)	5	14	15	10	44	3	5	5	4	17	1	5	2	0	8	69
Total	128	174	179	161	642	130	142	169	204	645	28	57	28	40	153	1,440

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.

(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

Fig. II-1-34 Situation and Potential of Residual Disability

Situation × Potential of residual disability[Note 1]	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Related to drug															
Drug preparation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other drug preparations	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Subcutaneous/intramuscular injection	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Intravenous injection	0	0	1	0	1	2	0	1	1	4	0	1	3	1	5
Arterial injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peripheral intravenous drop	0	0	0	0	0	0	1	0	0	1	0	1	1	1	3
Central venous injection	0	0	1	0	1	0	0	0	0	0	0	0	0	2	2
Oral administration	0	1	0	0	1	0	0	0	0	0	1	3	0	1	5
Nose drop/eye drop/ear drop	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Other drug prescription/administration	0	0	0	0	0	1	0	0	0	1	1	0	1	0	2
Oral drug dispensing/management	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Injection dispensing/management	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dispensing/management, others	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Related to blood transfusion															
Pre-transfusion testing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Blood transfusion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Blood transfusion, others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Related to treatment/procedure															
Craniotomy	0	0	0	0	0	1	1	0	1	3	0	1	1	0	2
Thoracotomy	0	1	0	0	1	0	0	0	3	3	0	1	1	2	4
Cardiotomy	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0
Laparotomy	0	0	0	2	2	1	1	0	0	2	1	1	5	2	9
Extremities	0	0	0	0	0	0	1	0	0	1	1	1	0	2	4
Endoscopic surgery	0	0	0	1	1	0	0	2	0	2	2	5	4	0	11
Other surgery	1	0	1	1	3	0	2	1	1	4	1	5	2	0	8
Preparation for surgery	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
Preoperative procedure	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Postoperative procedure	0	0	1	0	1	1	0	1	0	2	0	1	0	1	2
Surgery, others	1	2	0	3	6	0	2	0	1	3	3	3	1	4	11
General anesthesia (inhalation anesthesia and intravenous anesthesia)	1	0	0	0	1	0	0	0	2	2	0	0	0	0	0
Local anesthesia	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Inhalation anesthesia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intravenous anesthesia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vertebral/epidural anesthesia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Anesthesia, others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Caesarean section	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Delivery and artificial abortion, others	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
Blood purification (including hemodialysis)	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
IVR (ex. angiocatheter)	0	3	2	0	5	2	3	2	0	7	2	5	0	2	9
Radiotherapy	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Rehabilitation	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3
Invasive dental treatment	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Endoscopic treatment	0	0	0	0	0	0	0	0	1	1	3	1	1	0	5
Treatment, others	0	0	1	1	2	0	0	2	2	4	0	1	5	0	6
Central venous line	0	0	0	0	0	0	0	0	0	0	0	0	4	2	6

None					No disability					Unknown (Note 2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
															80
1	0	0	3	4	0	0	0	0	0	0	1	0	0	1	5
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2	2	0	1	5	1	0	0	0	1	0	0	0	0	0	7
1	0	0	2	3	2	0	2	0	4	0	0	0	0	0	17
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	3	1	1	6	1	0	1	0	2	0	0	0	0	0	12
0	0	0	1	1	0	1	0	0	1	0	0	0	0	0	5
3	0	1	0	4	1	1	2	1	5	0	0	0	0	0	15
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	6
1	0	0	2	3	0	1	0	0	1	0	1	0	0	1	5
1	0	0	0	1	0	0	2	1	3	0	0	0	0	0	4
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
															6
0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
0	2	0	2	4	0	0	0	0	0	0	0	0	0	0	4
0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
															353
1	1	0	1	3	0	1	0	0	1	2	1	0	0	3	12
1	1	1	0	3	0	0	0	1	1	0	0	0	0	0	12
0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	4
1	1	2	2	6	0	1	2	1	4	0	0	0	0	0	23
1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	7
0	0	1	0	1	0	2	0	2	4	0	0	0	0	0	19
4	1	5	2	12	0	0	3	1	4	1	2	1	1	5	36
0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	4
2	0	1	0	3	0	1	0	0	1	0	0	0	0	0	6
0	0	0	1	1	0	2	0	2	4	0	0	0	0	0	10
0	4	2	1	7	0	3	0	2	5	0	1	0	0	1	33
0	0	1	1	2	0	0	0	0	0	0	1	0	0	1	6
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
2	1	0	1	4	0	2	0	1	3	0	0	0	0	0	8
1	4	2	2	9	0	0	0	3	3	0	0	0	0	0	33
1	1	0	0	2	0	0	0	0	0	0	0	0	1	1	5
2	1	0	0	3	1	0	0	0	1	0	0	0	0	0	7
0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
2	0	3	2	7	1	0	0	0	1	0	0	1	0	1	15
1	4	0	2	7	2	1	0	2	5	0	1	0	1	2	26
6	5	2	1	14	3	3	1	1	8	0	2	0	0	2	30

Situation × Potential of residual disability[Note 1]	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Peripheral venous line	0	0	0	0	0	0	0	1	0	1	1	1	0	0	2
Catheter for blood purification	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1
Feeding tube (NG, ED)	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Urethral catheter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drainage procedure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wound care	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Tube placement, others	0	1	0	0	1	2	0	0	0	2	0	1	1	1	3
Tracheal intubation	0	0	1	1	2	1	1	0	0	2	0	0	0	0	0
Tracheotomy	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0
Cardiac compression	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oxygen therapy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emergency procedure, others	0	0	0	0	0	1	1	1	0	3	0	1	3	0	4
Use/management of medical device															
Ventilator	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0
Oxygen therapy equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oxygenator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Defibrillator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pace maker	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infusion/transfusion pump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Blood purification device	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ECG, blood pressure monitor	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
Pulse oxymeter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Use/management of medical device, others	0	0	0	0	0	0	0	0	2	2	2	1	4	4	11
Use/management of other dental devices and materials	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Related to use/management of drainage tube or other tube															
Central venous line	0	0	0	0	0	1	0	0	0	1	1	3	0	2	6
Peripheral venous line	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3
Tracheal tube	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
Tracheal cannula	0	0	1	0	1	0	0	2	0	2	0	2	0	0	2
Feeding tube (NG, ED)	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1
Urethral catheter	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Chest drainage tube	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Abdominal drainage tube	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ventricular/cisternal drainage tube	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subcutaneous continuous suction drainage tube	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Epidural catheter	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Catheter/line for blood purification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Use/management of drainage tube or other tube, others	0	0	0	2	2	1	0	1	0	2	6	1	0	3	10
Related to examination															
Blood drawing	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3
Sample collection, other	0	2	0	0	2	0	0	0	0	0	2	0	1	0	3
Other physiological tests	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0
General imaging	0	0	0	1	1	0	0	0	0	0	0	1	0	0	1
MRI	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0
Angiocatheter-aided imaging	0	1	1	1	3	0	1	1	1	3	0	4	0	0	4
Lower gastrointestinal imaging	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Imaging, others	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0

None					No disability					Unknown (Note 2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
1	0	0	1	2	0	0	0	0	0	0	1	0	0	1	6
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1	0	1	0	2	1	0	0	0	1	0	0	0	0	0	3
1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1	0	2	0	3	0	2	0	0	2	0	1	0	0	1	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	9
															53
0	2	0	1	3	2	2	0	2	6	1	0	0	1	2	13
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
0	0	0	0	0	1	0	1	0	2	0	0	1	0	1	3
0	1	0	0	1	0	0	0	2	2	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	4	3	8	3	1	2	0	6	0	1	1	1	3	30
0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
															91
0	1	0	3	4	0	2	1	3	6	0	0	0	0	0	17
0	0	0	3	3	0	1	0	0	1	0	0	0	0	0	7
0	1	2	1	4	1	1	0	1	3	0	0	0	0	0	10
1	0	0	1	2	0	1	0	0	1	1	0	0	1	2	10
3	2	0	0	5	1	0	0	1	2	0	0	0	1	1	10
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	4
1	0	0	1	2	0	1	0	0	1	0	0	0	0	0	3
0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
0	1	0	1	2	0	0	1	0	1	0	0	0	0	0	3
1	2	0	1	4	2	1	0	1	4	0	0	1	0	1	23
															72
0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	7
1	0	0	1	2	0	3	0	0	3	0	0	0	0	0	10
0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3
0	0	0	0	0	0	1	0	1	2	0	0	1	0	1	5
0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	4
1	3	2	0	6	0	0	0	0	0	0	0	0	0	0	16
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	1	3	5	0	1	1	0	2	0	0	0	0	0	10

Situation × Potential of residual disability[Note 1]	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Upper gastrointestinal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lower gastrointestinal	0	0	0	0	0	0	1	0	0	1	1	1	2	0	4
Bronchoscopy	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0
Endoscopic examination, others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pathological examination	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Examination, others	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
Related to nursing care															
Endotracheal/oral suctioning	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Changing position	0	0	0	0	0	1	0	0	0	1	2	1	2	1	6
Bed bath	0	0	0	0	0	0	0	0	0	0	2	1	0	1	4
Help with changing clothes	0	0	0	0	0	0	0	0	0	0	0	1	2	1	4
Help with eating	0	0	1	2	3	1	0	2	1	4	1	0	0	1	2
Help with bathing	0	0	1	1	2	0	0	0	0	0	0	1	0	2	3
Help with elimination	1	0	0	0	1	1	2	0	0	3	2	3	6	6	17
Help with moving	0	0	0	0	0	0	0	0	1	1	4	6	0	1	11
Transportation	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3
Tending patient's belongings	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Meal serving	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Patient observation	2	2	0	1	5	0	0	1	0	1	2	3	2	2	9
Nursing care, others	1	1	2	2	6	1	3	3	3	10	6	6	4	12	28
Oral intake	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1
Other feeding or nutrition support	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
While taking a walk	0	0	1	0	1	0	0	0	0	0	2	0	1	0	3
While moving from one place to another	1	0	1	0	2	2	4	3	3	12	12	10	24	22	68
While going out/sleeping out	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2
While eating	1	0	0	1	2	1	0	0	1	2	0	0	0	1	1
While bathing	1	0	0	1	2	1	0	1	0	2	0	0	1	1	2
While excreting	0	0	0	0	0	0	0	2	0	2	1	5	4	6	16
While sleeping	1	5	0	1	7	0	2	0	0	2	2	2	3	4	11
Recuperation, others	2	2	0	1	5	3	3	2	0	8	13	4	6	13	36
Others	7	5	4	7	23	2	5	4	4	15	5	2	5	10	22
No choice[Note 3]	3	1	1	3	8	1	0	1	1	3	2	2	10	2	16
Total	25	31	23	36	115	31	42	40	31	144	92	105	118	127	442

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.

(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

(Note 3) "No choice" means no "situation" or "potential of residual disability" was selected.

None					No disability					Unknown (Note 2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	2
0	0	0	0	0	0	1	1	0	2	0	0	1	0	1	8
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
															609
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	0	3	4	9	0	0	1	0	1	0	1	1	1	3	20
1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	6
0	0	1	1	2	0	1	0	0	1	0	0	0	0	0	7
1	1	1	0	3	0	0	0	0	0	0	0	1	0	1	13
0	0	3	3	6	1	0	0	1	2	0	0	0	0	0	13
1	4	8	4	17	1	0	2	1	4	0	0	0	0	0	42
3	1	5	3	12	1	0	1	1	3	0	0	1	0	1	28
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
0	1	1	0	2	0	0	0	1	1	0	0	0	0	0	4
0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
5	0	3	1	9	0	2	3	1	6	0	0	1	0	1	31
4	5	7	9	25	1	1	1	3	6	1	3	2	1	7	82
1	1	0	2	4	0	0	1	0	1	0	1	0	0	1	8
1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	4
0	2	1	1	4	0	0	1	0	1	0	0	0	0	0	9
7	9	13	13	42	1	1	9	6	17	0	1	2	0	3	144
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	6
0	1	0	3	4	0	0	0	1	1	0	1	0	0	1	12
3	4	2	3	12	2	1	2	1	6	0	0	1	2	3	39
3	3	2	7	15	1	1	0	2	4	2	0	1	0	3	42
1	3	8	14	26	2	5	4	1	12	0	0	3	1	4	91
2	6	16	3	27	3	9	3	5	20	0	3	1	0	4	111
2	4	7	8	21	1	2	3	8	14	1	1	0	1	3	65
88	99	120	131	438	41	72	53	66	232	9	24	22	14	69	1,440

Fig. II-1-35 Details of Event and Potential of Residual Disability

Details of Event × Potential of Residual Disability(Note 1)	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Related to drug															
Dose error	0	0	1	0	1	0	0	0	0	0	2	1	0	0	3
Overdose	0	0	0	0	0	1	0	0	0	1	0	1	1	2	4
Dosing speed too fast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Patient misidentification	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Drug mix-up	0	0	1	0	1	1	0	0	0	1	0	1	1	1	3
Wrong dosing method	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Drug prescription/administration, others	0	1	0	0	1	0	1	1	1	3	1	3	1	3	8
Dispensing error (wrong dose/number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dispensing/drug management, others	0	0	0	0	0	1	0	0	0	1	0	0	2	0	2
Drug/blood product management, others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Related to blood transfusion															
Cross-match error	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Error in documentation/recording of results	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfusion testing, others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Irradiation of blood products, blood transfusion, others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Related to treatment/procedure															
Patient misidentification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wrong site treatment/procedure	0	0	0	0	0	0	0	1	0	1	1	1	2	2	6
Wrong examination/treatment/ procedure, others	0	0	0	0	0	0	1	0	0	1	2	1	3	0	6
Wrong method (technique)	0	0	0	2	2	0	0	2	0	2	1	4	6	3	14
Neglected/forgotten (treatment/procedure)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Unnecessary treatment/procedure	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1
Wrong patient position	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wrong examination/treatment, others	0	0	1	1	2	0	1	0	3	4	1	1	1	1	4
Aspiration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retained foreign object	0	0	0	0	0	0	0	0	0	0	2	3	4	3	12
Treatment/procedure, others	4	9	6	8	27	9	11	8	8	36	12	19	15	10	56
Use/management of medical device															
Assembly	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forgot to set up/turn on power	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
Malfunction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lack of knowledge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forgot to set alarm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Range of alarm setup	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Neglect in inspection/management before or during device operation	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1
Error in sterilization/cleaning technique	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Breakage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Use/management of medical equipment (device), others	0	1	0	0	1	1	1	0	1	3	1	1	4	2	8

None					No disability					Unknown (Note 2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
															80
0	1	0	1	2	0	1	0	0	1	0	0	0	0	0	7
3	0	1	3	7	0	0	0	0	0	0	0	0	0	0	12
0	0	0	0	0	1	0	0	1	2	0	0	0	0	0	2
1	1	0	0	2	2	1	1	0	4	0	0	0	0	0	7
1	2	0	0	3	1	0	2	0	3	0	0	0	0	0	11
1	0	1	0	2	0	0	0	1	1	0	0	0	0	0	4
3	2	1	4	10	1	1	2	0	4	0	1	0	0	1	27
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	2	3	0	1	2	0	3	0	1	0	0	1	10
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
															6
0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	2
0	2	0	1	3	0	0	0	0	0	0	0	0	0	0	3
															353
0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
1	1	1	0	3	0	0	2	0	2	3	1	1	1	6	18
0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	9
6	3	5	1	15	1	3	0	2	6	0	2	0	1	3	42
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	3	1	2	10	2	2	2	2	8	0	1	0	0	1	31
21	20	16	15	72	6	17	2	12	37	0	5	1	1	7	235
															53
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	1	1	1	0	1	0	2	3
0	1	0	0	1	0	0	0	1	1	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	2	4	1	0	0	1	2	0	0	0	1	1	9
0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
0	0	1	1	2	0	1	0	0	1	0	0	0	1	1	4
0	1	3	1	5	5	2	3	3	13	0	0	1	0	1	31

Details of Event × Potential of Residual Disability (Note 1)	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Related to use/management of drainage tube or other tube															
Infusion leakage	0	0	0	0	0	0	0	0	0	0	2	2	1	1	6
Self-removal	0	0	0	2	2	0	0	0	0	0	0	2	0	1	3
Spontaneous dislodgment	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Disconnection	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Blockage	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
Breakage/severance	0	0	0	0	0	0	0	0	0	0	1	0	1	2	4
Wrong connection	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Air bubble in tube	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Use/management of drainage tube or other tube, others	0	0	1	0	1	3	0	2	0	5	3	6	1	3	13
Related to examination															
Patient misidentification (examination)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wrong examination/evaluation technique	0	0	0	0	0	0	1	0	0	1	1	0	1	1	3
Error in sample collection	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Sample misidentification (examination)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Lost sample	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample contamination	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Management of analytical device/ equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preparation of examination device/ equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Result reporting	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Examination, others	1	3	2	2	8	1	5	2	3	11	2	6	1	1	10
Related to nursing care															
Fall	1	1	2	0	4	5	10	6	4	25	29	26	39	45	139
Fall from bed	1	2	0	1	4	0	1	1	1	3	1	3	6	2	12
Collision	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Restraint	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Severe decubitus (involving muscle layer, Stage III/IV)	0	0	0	0	0	1	0	1	0	2	0	1	0	0	1
Aspiration (nursing care)	2	0	1	2	5	3	0	4	2	9	0	1	0	1	2
Accidental ingestion (nursing care)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nursing care/recuperation, others	4	6	2	7	19	2	3	4	2	11	18	11	11	19	59
Transportation, others	1	2	0	0	3	0	0	0	0	0	2	3	0	2	7
Going out/staying out without notice	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Self medication, others	1	0	1	0	2	0	0	0	0	0	0	2	0	2	4
Meal/nutrition, others	0	0	0	0	0	0	0	0	0	0	1	0	0	2	3
Others	7	5	4	7	23	2	5	4	4	15	5	2	5	10	22
No choice (Note 3)	3	1	1	3	8	1	0	1	1	3	2	2	10	2	16
Total	25	31	23	36	115	31	42	40	31	144	92	105	118	127	442

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.

(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

(Note 3) "No choice" means no "details of event" was selected.

None					No disability					Unknown (Note 2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
															91
1	0	0	3	4	0	0	0	0	0	0	0	0	0	0	10
0	2	1	2	5	0	1	1	0	2	0	0	0	0	0	12
0	0	0	2	2	1	1	0	2	4	1	0	0	1	2	9
1	1	0	0	2	0	0	1	1	2	0	0	0	0	0	5
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1	1	0	2	4	1	3	0	3	7	0	0	0	0	0	15
0	0	0	1	1	0	1	0	0	1	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	3	1	1	8	3	2	1	1	7	0	0	1	1	2	36
															72
0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	3
0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	5
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	4	5	3	14	1	7	1	2	11	0	0	2	1	3	57
															609
14	20	29	38	101	7	3	12	8	30	1	2	7	3	13	312
2	4	7	10	23	0	3	1	1	5	2	1	1	0	4	51
0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	7
0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	2
3	0	1	0	4	0	0	0	0	0	0	0	0	1	1	8
2	1	0	0	3	0	0	1	0	1	0	0	1	0	1	21
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	7	16	14	46	2	5	10	9	26	0	3	2	1	6	167
0	1	2	1	4	0	1	0	0	1	0	0	1	0	1	16
1	0	0	0	1	1	0	0	1	2	0	0	0	0	0	3
0	1	0	0	1	0	1	1	0	2	0	1	0	0	1	10
2	1	0	3	6	1	1	0	0	2	0	0	1	0	1	12
2	6	16	3	27	3	9	3	5	20	0	3	1	0	4	111
2	4	7	8	21	1	2	3	8	14	1	1	0	1	3	65
88	99	120	131	438	41	72	53	66	232	9	24	22	14	69	1,440

Fig. II-1-36 Place of Occurrence and Potential of Residual Disability

Place of Occurrence × Potential of Residual Disability(Note 1)	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Outpatient examination room	0	0	0	1	1	0	1	2	0	3	0	3	0	1	4
Outpatient treatment room	0	0	1	1	2	0	0	0	1	1	1	2	1	2	6
Outpatient lobby	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
Emergency room	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
Emergency center	0	0	0	0	0	1	1	0	0	2	0	2	0	1	3
Patient room	14	15	8	14	51	18	16	20	12	66	48	47	56	62	213
Ward treatment room	0	1	0	1	2	0	0	0	0	0	4	0	1	3	8
Operation room	2	2	1	3	8	3	4	5	8	20	7	14	20	14	55
ICU	1	3	2	1	7	0	1	1	0	2	0	2	1	0	3
CCU	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
NICU	0	1	0	0	1	0	1	0	0	1	1	0	1	0	2
Examination room	0	0	0	0	0	1	0	0	0	1	1	0	0	1	2
Catheterization laboratory	0	2	4	0	6	1	4	2	2	9	3	10	4	3	20
Radiotherapy room	0	0	0	1	1	0	1	0	1	2	2	1	0	2	5
Radiography room	0	0	1	0	1	1	2	2	2	7	1	1	3	0	5
Radioactive scanning room	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Dialysis room	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
Delivery room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rehabilitation room	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
Restroom	0	0	0	1	1	1	0	0	1	2	3	2	4	7	16
Hallway	0	0	0	0	0	0	2	1	2	5	4	4	5	6	19
Bathroom	1	1	1	5	8	1	0	1	0	2	1	3	2	3	9
Stairway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	1	0	0	1	0	2	0	0	2	2	2	3	1	8
Others	7	3	5	8	23	4	7	5	2	18	14	10	15	17	56
Total	25	31	23	36	115	31	42	40	31	144	92	105	118	127	442

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

None					No disability					Unknown (Note 2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
4	0	2	2	8	3	2	0	3	8	0	2	1	0	3	27
0	1	0	0	1	0	6	1	3	10	0	0	0	1	1	21
0	1	0	1	2	0	0	0	0	0	1	0	0	0	1	6
0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
0	2	0	1	3	1	5	0	0	6	0	0	0	0	0	14
45	45	51	66	207	20	29	27	35	111	5	8	13	5	31	679
4	0	2	1	7	2	1	0	1	4	0	0	0	0	0	21
8	11	17	12	48	1	13	6	3	23	2	7	1	0	10	164
2	5	1	3	11	0	4	1	2	7	0	0	1	2	3	33
0	0	0	0	0	0	1	0	1	2	0	1	0	0	1	4
1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	6
1	3	1	1	6	1	0	0	1	2	0	1	2	0	3	14
2	7	4	1	14	0	0	1	4	5	0	0	0	0	0	54
1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	10
2	3	4	2	11	1	3	2	1	7	0	0	1	1	2	33
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
2	0	0	0	2	0	0	0	2	2	0	0	0	0	0	6
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	1	3	1	1	1	0	3	0	0	0	0	0	8
1	4	7	6	18	2	0	4	2	8	0	0	0	0	0	45
1	3	7	8	19	2	1	3	1	7	0	1	0	1	2	52
2	1	3	7	13	2	0	0	2	4	0	1	0	0	1	37
0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
1	1	2	2	6	0	0	1	1	2	0	2	0	0	2	21
10	11	17	16	54	4	6	6	4	20	1	1	3	3	8	179
88	99	120	131	438	41	72	53	66	232	9	24	22	14	69	1,440

Fig. II-1-37 Place of Occurrence and Inpatient/Outpatient Status

Place of Occurrence × Inpatient/Outpatient Status	Inpatient					Outpatient					Aggregate total
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
Outpatient examination room	1	1	1	0	3	6	7	4	7	24	27
Outpatient treatment room	0	3	1	2	6	1	6	2	6	15	21
Outpatient lobby	0	1	0	0	1	1	0	2	2	5	6
Emergency room	0	0	0	0	0	0	0	1	2	3	3
Emergency center	2	10	0	2	14	0	0	0	0	0	14
Patient room	150	160	175	194	679	0	0	0	0	0	679
Ward treatment room	10	2	3	6	21	0	0	0	0	0	21
Operation room	22	51	49	39	161	1	0	1	1	3	164
ICU	3	15	7	8	33	0	0	0	0	0	33
CCU	0	2	0	2	4	0	0	0	0	0	4
NICU	3	2	1	0	6	0	0	0	0	0	6
Examination room	4	1	2	2	9	0	3	1	1	5	14
Catheterization laboratory	6	22	15	10	53	0	1	0	0	1	54
Radiotherapy room	1	2	1	3	7	2	0	0	1	3	10
Radiography room	3	5	11	1	20	2	4	2	5	13	33
Radioactive scanning room	0	0	0	1	1	0	1	0	0	1	2
Dialysis room	2	2	0	1	5	0	0	0	1	1	6
Delivery room	0	0	0	0	0	0	0	0	0	0	0
Rehabilitation room	1	3	0	1	5	1	0	1	1	3	8
Restroom	7	6	15	17	45	0	0	0	0	0	45
Hallway	7	10	16	16	49	0	1	0	2	3	52
Bathroom	7	6	7	17	37	0	0	0	0	0	37
Stairway	0	0	1	0	1	0	0	0	0	0	1
Unknown	3	8	6	4	21	0	0	0	0	0	21
Others	37	33	46	44	160	3	5	5	6	19	179
Total	269	345	357	370	1,341	17	28	19	35	99	1,440

Fig. II-1-38 Clinical Department and Summary of Event

Clinical Department(Note) × Summary of Event	Ordering					Drug					Blood transfusion					Treatment/procedure					Medical equipment, etc.				
																					Medical device				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Internal medicine	0	1	0	0	1	6	1	2	4	13	0	0	0	0	0	10	6	3	7	26	1	1	2	2	6
Anesthesiology	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	3	4	7	9	23	0	0	0	1	1
Cardiovascular medicine	0	0	0	1	1	1	2	1	3	7	0	0	0	0	0	4	17	11	10	42	0	2	1	0	3
Neurology	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	3	0	1	4	1	0	0	1	2
Respiratory tract medicine	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	4	2	3	1	10	0	0	0	1	1
Gastrointestinal medicine	0	0	0	0	0	2	0	2	0	4	0	0	0	0	0	11	6	7	10	34	0	1	0	2	3
Hematology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	3	9	0	0	0	0	0
Circulatory surgery	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	7	2	4	13	1	1	0	0	2
Allergy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rheumatism	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0
Pediatrics	0	0	0	2	2	4	1	0	2	7	0	0	0	1	1	5	5	0	2	12	0	3	1	0	4
General surgery	0	0	0	1	1	2	2	0	1	5	0	0	0	0	0	8	6	10	8	32	1	2	0	0	3
Orthopedics	0	0	0	1	1	2	0	2	1	5	0	0	0	0	0	6	6	5	8	25	0	0	2	2	4
Plastic surgery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	4	0	0	0	0	0
Cosmetic surgery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Neurosurgery	0	0	0	0	0	1	1	1	1	4	0	0	0	0	0	6	8	7	6	27	2	0	2	1	5
Respiratory surgery	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	1	5	5	13	0	0	1	0	1
Cardiovascular surgery	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	6	5	9	8	28	0	0	1	1	2
Pediatric surgery	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Pain clinic	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
Dermatology	0	0	0	0	0	0	0	1	1	2	0	0	0	1	1	0	1	1	1	3	0	0	0	1	1
Urology	0	0	0	0	0	1	0	1	0	2	0	0	0	1	1	2	8	6	3	19	0	0	0	0	0
Venereology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proctology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gynecology/Obstetrics	0	0	1	0	1	1	0	1	0	2	0	0	0	0	0	3	5	2	4	14	0	0	0	1	1
Obstetrics	0	0	0	0	0	1	1	1	1	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
Gynecology	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	2	1	3	4	10	0	1	1	0	2
Ophthalmology	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	2	4	7	2	15	0	0	0	1	1
Otolaryngology	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	6	6	5	19	1	0	0	0	1
Psychosomatic medicine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Psychiatry	0	0	0	0	0	1	0	0	3	4	0	0	0	0	0	2	0	2	1	5	0	0	1	0	1
Rehabilitation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	3	0	0	0	0	0
Radiology	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	3	2	3	10	0	0	0	0	0
Dentistry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4	6	0	0	0	0	0
Orthodontics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pediatric dentistry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dental/oral surgery	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	4	2	3	12	1	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	1	1	1	3	2	5	0	3	10	0	2	0	1	3	5	14	5	7	31	3	1	2	1	7
Total	0	2	4	6	12	26	17	17	25	85	0	2	0	4	6	94	128	111	121	454	11	12	14	15	52

(Note) Clinical department may be more than one.

Medical equipment, etc.										Examination					Nursing care					Others					Aggregate total
Drainage tube or other tube					Dental equipment																				
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
1	1	1	1	4	0	0	0	0	0	1	6	5	2	14	14	12	24	17	67	2	2	5	8	17	148
0	1	1	2	4	0	0	0	0	0	0	0	0	2	2	0	1	0	0	1	0	3	2	2	7	40
1	1	1	3	6	0	0	0	0	0	2	8	4	1	15	11	11	8	10	40	0	2	3	4	9	123
2	0	0	5	7	0	0	0	0	0	0	0	0	0	0	4	4	5	7	20	0	0	1	2	3	38
1	1	2	0	4	0	0	0	0	0	1	2	0	1	4	15	8	19	25	67	2	2	6	6	16	104
1	0	2	0	3	0	0	0	0	0	1	4	5	3	13	6	6	13	11	36	1	2	4	3	10	103
0	0	0	1	1	0	0	0	0	0	1	2	0	0	3	4	3	3	3	13	0	0	2	0	2	28
0	0	1	0	1	0	0	0	0	0	0	0	0	2	2	0	2	1	1	4	0	2	0	0	2	25
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	3
0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	2	2	5	0	4	1	0	5	13
3	0	1	3	7	0	0	0	0	0	0	0	2	0	2	5	7	17	14	43	3	6	3	2	14	92
6	4	2	6	18	0	0	0	0	0	0	1	2	1	4	9	5	11	12	37	5	4	3	7	19	119
0	0	2	0	2	0	0	0	0	0	0	0	1	1	2	19	23	48	41	131	5	4	4	10	23	193
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	0	1	1	1	3	11
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	3	6	0	0	0	0	0	1	0	1	0	2	2	5	9	12	28	1	2	0	0	3	75
2	2	0	1	5	0	0	0	0	0	0	2	0	1	3	0	1	4	1	6	0	0	0	0	0	29
0	5	0	1	6	0	0	0	0	0	0	0	0	0	0	2	4	3	2	11	0	3	1	3	7	55
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	6	0	0	0	1	1	9
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	1	2	2	5	15
1	1	1	1	4	0	0	0	0	0	0	0	0	1	1	0	4	4	4	12	0	1	2	0	3	42
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	2	0	0	4	25
0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	1	0	1	0	2	9
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	3	6	1	3	1	1	6	27
0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	4	0	2	8	0	3	1	0	4	31
0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	4	5	1	2	12	1	1	2	3	7	42
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	12	8	17	51	5	4	9	5	23	84
0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3	2	2	0	7	0	0	1	0	1	12
0	0	0	1	1	0	0	0	0	0	0	4	3	2	9	1	0	1	2	4	0	3	1	0	4	29
0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	8
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2	1	0	2	1	4	22
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
3	7	4	4	18	0	1	0	0	1	2	7	3	2	14	15	20	26	21	82	6	11	7	8	32	201
24	28	21	32	105	0	1	0	0	1	10	37	28	22	97	136	145	213	215	709	39	66	65	69	239	1,760

Fig. II-1-39 Clinical Department and Potential of residual disability

Clinical Department(Note 1) × Potential of Residual Disability(Note 2)	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Internal medicine	0	3	2	7	12	3	1	3	2	9	12	8	16	14	50
Anesthesiology	1	0	0	4	5	1	1	4	4	10	0	3	4	4	11
Cardiovascular medicine	2	5	2	4	13	3	5	6	3	17	7	13	9	8	37
Neurology	0	0	0	0	0	1	2	0	0	3	2	3	3	9	17
Respiratory tract medicine	2	1	2	4	9	2	1	3	2	8	12	6	10	14	42
Gastrointestinal medicine	0	2	0	3	5	2	3	2	4	11	12	8	12	7	39
Hematology	2	1	0	1	4	4	0	0	1	5	0	1	4	2	7
Circulatory surgery	0	1	0	1	2	0	1	1	2	4	0	1	2	2	5
Allergy	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
Rheumatism	0	2	0	1	3	0	1	0	0	1	0	2	1	1	4
Pediatrics	1	5	1	1	8	5	4	4	2	15	5	6	9	5	25
General surgery	1	3	3	5	12	2	1	3	3	9	9	6	10	15	40
Orthopedics	1	1	0	4	6	4	7	8	3	22	16	14	26	27	83
Plastic surgery	0	0	0	0	0	0	0	1	0	1	0	1	0	3	4
Cosmetic surgery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Neurosurgery	2	0	1	1	4	4	6	2	3	15	1	7	9	10	27
Respiratory surgery	0	1	1	0	2	1	1	1	2	5	0	0	1	3	4
Cardiovascular surgery	1	1	0	4	6	3	1	2	3	9	1	5	6	0	12
Pediatric surgery	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1
Pain clinic	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
Dermatology	0	0	1	0	1	0	0	1	3	4	2	1	1	1	5
Urology	1	2	0	3	6	1	2	3	2	8	1	8	6	0	15
Venereology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proctology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gynecology/Obstetrics	1	1	1	0	3	0	1	0	0	1	0	1	2	1	4
Obstetrics	1	0	1	0	2	1	0	1	0	2	1	0	0	1	2
Gynecology	0	0	0	0	0	0	1	1	0	2	1	3	3	5	12
Ophthalmology	0	0	0	0	0	0	0	1	2	3	3	1	4	0	8
Otolaryngology	3	3	2	1	9	0	0	3	1	4	3	4	2	3	12
Psychosomatic medicine	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Psychiatry	2	3	1	3	9	1	1	3	1	6	8	3	5	11	27
Rehabilitation	0	0	0	0	0	0	1	2	0	3	3	1	2	0	6
Radiology	0	1	2	1	4	0	2	0	2	4	2	2	1	1	6
Dentistry	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
Orthodontics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pediatric dentistry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dental/oral surgery	0	0	1	2	3	0	1	1	0	2	2	3	1	2	8
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	7	3	4	4	18	2	8	8	1	19	10	14	5	10	39
Total	28	39	25	54	146	41	52	64	47	204	115	125	156	162	558

(Note 1) Clinical department may be more than one.
(Note 2) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 3) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

None					No disability					Unknown (Note 3)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
15	11	14	10	50	5	5	4	6	20	0	2	3	2	7	148
0	0	3	3	6	1	3	0	1	5	1	2	0	0	3	40
3	13	9	10	35	4	4	2	7	17	0	3	1	0	4	123
2	3	3	5	13	2	0	0	3	5	0	0	0	0	0	38
5	6	11	11	33	1	1	2	4	8	1	1	2	0	4	104
7	2	11	8	28	1	3	4	5	13	0	1	4	2	7	103
2	2	1	3	8	0	2	1	0	3	0	1	0	0	1	28
0	5	1	2	8	0	4	0	1	5	1	0	0	0	1	25
0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
0	0	1	1	2	0	1	1	0	2	0	1	0	0	1	13
6	3	8	15	32	3	3	2	3	11	0	1	0	0	1	92
11	10	6	9	36	8	3	4	2	17	0	1	2	2	5	119
9	10	23	18	60	2	1	6	8	17	0	0	1	4	5	193
0	2	1	1	4	0	1	1	0	2	0	0	0	0	0	11
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2	5	4	12	4	1	2	4	11	2	1	2	1	6	75
2	2	5	2	11	1	2	1	1	5	0	0	1	1	2	29
3	4	4	6	17	0	5	1	2	8	0	2	1	0	3	55
0	0	1	3	4	0	1	2	0	3	0	0	0	0	0	9
0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
1	0	1	1	3	0	0	0	0	0	0	1	0	1	2	15
1	2	3	4	10	0	0	2	1	3	0	0	0	0	0	42
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3	4	0	2	9	2	2	2	1	7	0	0	0	1	1	25
0	1	0	1	2	0	1	0	0	1	0	0	0	0	0	9
3	1	3	1	8	0	0	2	2	4	0	1	0	0	1	27
1	3	4	3	11	1	3	0	0	4	0	4	1	0	5	31
3	2	1	2	8	0	2	0	4	6	0	2	1	0	3	42
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3	5	5	6	19	5	4	4	3	16	3	0	2	2	7	84
2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	12
1	4	2	4	11	0	1	0	1	2	0	0	2	0	2	29
1	1	0	0	2	1	0	1	1	3	0	0	0	0	0	8
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	1	2	0	5	1	1	0	0	2	1	0	0	1	2	22
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
9	17	17	16	59	5	21	9	15	50	3	6	5	2	16	201
97	116	145	152	510	47	76	55	75	253	12	30	28	19	89	1,760

Fig. II-1-40 Clinical Department and Intensity of Treatment

Clinical Department(Note) × Intensity of Treatment	Intensive treatment					Minor treatment					No treatment					Aggregate total
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
Internal medicine	13	11	15	15	54	18	12	22	22	74	4	7	5	4	20	148
Anesthesiology	4	6	9	11	30	0	1	2	5	8	0	2	0	0	2	40
Cardiovascular medicine	8	22	15	14	59	9	18	11	15	53	2	3	3	3	11	123
Neurology	3	5	1	8	17	4	3	5	7	19	0	0	0	2	2	38
Respiratory tract medicine	9	9	15	9	42	14	5	14	24	57	0	2	1	2	5	104
Gastrointestinal medicine	12	10	18	16	56	9	7	12	11	39	1	2	3	2	8	103
Hematology	7	2	4	4	17	1	4	1	3	9	0	1	1	0	2	28
Circulatory surgery	1	5	3	3	12	0	4	1	5	10	0	3	0	0	3	25
Allergy	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
Rheumatism	0	6	0	1	7	0	0	3	2	5	0	1	0	0	1	13
Pediatrics	9	9	6	7	31	10	7	17	13	47	1	6	1	6	14	92
General surgery	11	14	14	20	59	18	7	13	13	51	2	3	1	3	9	119
Orthopedics	17	18	34	28	97	14	14	29	34	91	1	1	1	2	5	193
Plastic surgery	0	1	2	2	5	0	2	1	2	5	0	1	0	0	1	11
Cosmetic surgery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Neurosurgery	8	9	14	12	43	3	7	7	10	27	3	1	0	1	5	75
Respiratory surgery	2	5	5	6	18	2	1	5	3	11	0	0	0	0	0	29
Cardiovascular surgery	6	9	8	10	33	1	5	5	4	15	1	4	1	1	7	55
Pediatric surgery	0	0	1	0	1	1	0	2	2	5	0	1	1	1	3	9
Pain clinic	0	0	0	1	1	0	0	0	0	0	0	0	1	0	1	2
Dermatology	2	1	1	4	8	1	1	2	2	6	0	0	1	0	1	15
Urology	1	10	12	5	28	2	3	2	4	11	1	1	0	1	3	42
Venereology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proctology	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Gynecology/Obstetrics	2	3	0	3	8	2	6	3	2	13	2	0	2	0	4	25
Obstetrics	2	0	1	0	3	1	1	0	1	3	0	1	1	1	3	9
Gynecology	4	4	6	1	15	0	2	1	7	10	0	0	2	0	2	27
Ophthalmology	2	3	3	3	11	3	6	6	2	17	0	2	1	0	3	31
Otolaryngology	7	8	7	2	24	1	4	1	6	12	1	1	1	3	6	42
Psychosomatic medicine	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Psychiatry	7	7	7	9	30	12	8	12	11	43	3	1	1	6	11	84
Rehabilitation	1	2	4	0	7	4	0	1	0	5	0	0	0	0	0	12
Radiology	0	4	7	3	14	1	4	0	5	10	2	2	0	1	5	29
Dentistry	0	0	0	0	0	2	0	1	4	7	0	1	0	0	1	8
Orthodontics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pediatric dentistry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dental/oral surgery	3	2	4	2	11	2	3	1	3	9	1	1	0	0	2	22
Unknown	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Others	14	25	22	18	79	16	27	22	25	90	6	17	4	5	32	201
Total	155	210	239	217	821	154	163	202	248	767	31	65	32	44	172	1,760

(Note) "Clinical department" may be more than one.

Fig. II-1-41 Cause of Event and Summary of Event

Cause of Event (Note) × Summary of Event	Ordering					Drug					Blood transfusion					Treatment/procedure					Medical equipment, etc.				
																					Medical device				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Neglect to check	0	2	3	6	11	19	13	14	12	58	0	2	0	3	5	25	35	27	23	110	7	5	6	5	23
Neglect to observe	0	0	0	0	0	4	1	2	1	8	0	0	0	1	1	10	16	15	11	52	2	0	2	1	5
Misjudgment	0	1	1	2	4	5	0	6	4	15	0	1	0	1	2	10	23	19	19	71	5	1	1	2	9
Lack of knowledge	0	2	2	5	9	8	3	7	4	22	0	0	0	2	2	3	6	6	5	20	2	2	4	4	12
Deficiency of technique/skill	0	0	0	0	0	1	0	1	1	3	0	0	0	0	0	6	9	19	20	54	0	0	2	3	5
Delayed reporting	0	0	0	1	1	0	1	0	0	1	0	0	0	0	0	0	2	0	2	4	0	0	1	0	1
Under unusual physical condition	0	0	0	0	0	2	1	1	4	8	0	1	0	0	1	4	7	5	3	19	1	0	0	0	1
Under unusual psychological condition	0	0	0	1	1	0	1	2	1	4	0	0	0	0	0	2	1	2	0	5	0	0	1	0	1
System failure	0	0	1	2	3	4	2	5	2	13	0	0	0	1	1	4	8	4	6	22	1	2	1	0	4
Inadequate coordination	0	0	1	2	3	3	3	5	4	15	0	0	0	1	1	5	9	6	12	32	0	3	0	0	3
Inadequate documentation	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	1	1	2	1	5	0	1	0	0	1
Similarity in patient's appearance or name	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Busy working condition	0	0	1	0	1	4	5	2	1	12	0	0	0	1	1	2	2	6	2	12	1	0	1	1	3
Problem in environment	0	0	0	0	0	1	1	1	1	4	0	0	0	0	0	2	3	1	1	7	1	2	2	0	5
Problem in the drug	0	0	0	0	0	3	3	1	4	11	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
Problem in medical device	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2	4	5	4	15	3	2	6	7	18
Problem in other items	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	1	1	1	4	0	0	0	0	0
Problem in facility	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	1	2	0	4	0	1	0	0	1
Problem in education/training	0	0	1	3	4	3	2	3	3	11	0	0	0	1	1	3	12	5	1	21	1	3	3	1	8
Lack of explanation	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	8	1	2	11	0	0	1	0	1
Others	0	0	0	0	0	2	1	0	2	5	0	0	0	0	0	35	37	29	40	141	2	4	2	0	8
Total	0	5	10	22	37	62	39	52	47	200	0	4	0	11	15	116	185	155	154	610	26	26	33	24	109

(Note) "Cause of event" may be more than one.

Medical equipment, etc.										Examination					Nursing care					Others					Aggregate total
Drainage tube or other tube					Dental equipment																				
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
13	10	4	7	34	0	0	0	0	0	3	6	6	5	20	20	12	15	36	83	5	8	9	11	33	377
2	7	6	7	22	0	0	0	0	0	0	2	1	0	3	45	37	60	62	204	7	10	14	16	47	342
8	7	6	10	31	0	0	0	0	0	0	3	3	3	9	31	44	41	54	170	3	6	12	9	30	341
5	5	0	0	10	0	0	0	0	0	0	0	1	0	1	8	5	16	15	44	2	2	3	6	13	133
2	1	2	7	12	0	0	0	0	0	0	3	2	1	6	11	8	13	14	46	1	2	1	6	10	136
0	0	1	0	1	0	0	0	0	0	0	1	0	1	2	2	2	3	6	13	2	1	0	1	4	27
0	2	2	1	5	0	0	0	0	0	0	2	0	2	4	5	5	1	18	29	2	3	3	4	12	79
0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	3	2	1	1	7	0	1	4	2	7	27
3	0	0	0	3	0	1	0	0	1	1	3	1	3	8	0	3	5	0	8	0	3	2	2	7	70
1	7	0	1	9	0	0	0	0	0	0	2	2	3	7	7	13	21	15	56	1	5	5	4	15	141
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	2	1	5	0	1	1	0	2	18
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	2	3	0	0	0	0	0	0	1	2	0	3	6	3	4	6	19	1	1	0	2	4	58
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	11	12	19	23	65	1	6	7	7	21	103
1	0	0	0	1	0	0	0	0	0	0	0	3	0	3	0	0	2	3	5	0	0	0	0	0	21
3	0	1	1	5	0	1	0	0	1	1	1	0	0	2	0	0	0	0	0	0	1	2	1	4	47
2	0	1	1	4	0	0	0	0	0	0	0	0	0	0	1	1	5	3	10	0	2	2	4	8	27
0	0	0	0	0	0	0	0	0	0	0	1	1	2	4	6	2	6	5	19	2	2	4	4	12	41
1	8	1	2	12	0	1	0	0	1	0	3	0	1	4	6	16	11	13	46	2	3	4	6	15	123
0	4	0	2	6	0	0	0	0	0	0	3	1	1	5	17	19	29	26	91	3	7	4	6	20	136
3	2	6	4	15	0	0	0	0	0	5	9	9	3	26	31	26	49	44	150	18	26	13	15	72	417
44	55	30	46	175	0	3	0	0	3	10	40	33	26	109	211	211	303	345	1,070	50	90	90	106	336	2,664

Fig. II-1-42 Place of Occurrence and Summary of Event

Place of Occurrence × Summary of Event	Ordering					Drug					Blood transfusion					Treatment/procedure					Medical equipment, etc.				
																					Medical device				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Outpatient examination room	0	0	0	0	0	4	2	0	0	6	0	0	0	0	0	1	4	2	4	11	0	0	0	0	0
Outpatient treatment room	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	3	1	5	9	0	0	0	0	0
Outpatient lobby	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0
Emergency room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0
Emergency center	0	1	0	0	1	0	1	0	1	2	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2
Patient room	0	1	1	1	3	17	5	8	11	41	0	1	0	4	5	21	26	12	21	80	4	4	6	3	17
Ward treatment room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	1	4	12	1	0	0	0	1
Operation room	0	0	1	1	2	1	1	1	1	4	0	0	0	0	0	19	34	39	27	119	2	2	6	6	16
ICU	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	2	7	2	2	13	0	2	1	1	4
CCU	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0
NICU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	1	0	0	1
Examination room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	6	0	0	0	0	0
Catheterization laboratory	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	4	15	8	9	36	1	0	0	0	1
Radiotherapy room	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3	2	0	3	8	0	0	0	0	0
Radiography room	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	2	2	4	0	8	1	0	0	0	1
Radioactive scanning room	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dialysis room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	2	5	0	0	0	0	0
Delivery room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rehabilitation room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0
Restroom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
Hallway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
Bathroom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stairway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
Others	0	0	2	4	6	1	3	2	2	8	0	1	0	0	1	12	4	10	11	37	1	2	0	1	4
Total	0	2	4	6	12	23	16	16	18	73	0	2	0	4	6	77	109	83	91	360	11	12	13	11	47

Medical equipment, etc.										Examination					Nursing care					Others					Aggregate total
Drainage tube or other tube					Dental equipment																				
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
0	1	1	2	4	0	0	0	0	0	1	0	0	1	2	0	0	0	0	0	1	1	2	0	4	27
1	0	0	0	1	0	0	0	0	0	0	1	1	2	4	0	3	0	0	3	0	1	0	1	2	21
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4	0	0	0	0	0	6
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
0	3	0	1	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	2	0	0	3	14
15	16	12	14	57	0	0	0	0	0	1	6	1	1	9	73	75	116	119	383	19	26	19	20	84	679
1	0	0	1	2	0	0	0	0	0	0	0	0	1	1	2	0	1	0	3	1	0	1	0	2	21
0	2	0	3	5	0	1	0	0	1	0	2	0	0	2	0	1	0	0	1	1	8	3	2	14	164
1	3	1	4	9	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	1	0	1	2	33
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	6
0	0	0	0	0	0	0	0	0	0	2	1	1	3	7	0	0	0	0	0	0	1	0	0	1	14
1	1	0	0	2	0	0	0	0	0	0	5	6	1	12	0	0	0	0	0	0	1	0	0	1	54
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	10
1	0	0	0	1	0	0	0	0	0	1	6	5	3	15	0	0	1	1	2	0	1	2	1	4	33
0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	2	3	8
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5	5	13	13	36	1	1	2	3	7	45
0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	6	7	12	14	39	1	3	3	4	11	52
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4	6	13	29	1	2	1	4	8	37
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	4	5	1	13	0	2	1	3	6	21
0	0	2	1	3	0	0	0	0	0	2	6	6	3	17	16	17	14	18	65	8	5	15	10	38	179
22	26	17	27	92	0	1	0	0	1	7	30	21	15	73	112	118	173	181	584	34	57	49	52	192	1,440

Fig. II-1-43 Establishment of Accident Investigation Board and Summary of Event

Establishment of Accident Investigation Board(Note 1) × Summary of Event	Ordering					Drug					Blood transfusion					Treatment/procedure					Medical equipment, etc.				
																					Medical device				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Existing internal investigation board	0	0	1	1	2	8	2	4	3	17	0	0	0	1	1	15	24	13	16	68	2	3	2	5	12
Existing external investigation board	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	1	8	0	0	0	0	0
Internal investigation board to be established	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1
External investigation board to be established	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
Existing medical safety committee is in charge of investigation	0	2	2	5	9	17	11	10	14	52	0	2	0	3	5	55	72	51	54	232	8	9	10	6	33
Currently under consideration and undecided	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	6	1	10	0	0	0	0	0
Others	0	0	1	0	1	0	1	2	2	5	0	0	0	0	0	10	11	17	22	60	1	1	1	1	4
No choice(Note 2)	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	4	6	12	25	16	18	19	78	0	2	0	4	6	80	115	91	94	380	11	13	13	13	50

(Note 1) Multiple choices acceptable
(Note 2) "No choice" means none of the checkboxes for "establishment of accident investigation board" was checked.

Fig. II-1-44 Establishment of Accident Investigation Board and Potential of Residual Disability

Establishment of Accident Investigation Board(Note 1) × Potential of Residual Disability(Note 2)	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Existing internal investigation board	2	10	4	8	24	4	6	10	7	27	14	21	12	12	59
Existing external investigation board	0	4	0	0	4	0	2	4	1	7	0	1	1	0	2
Internal investigation board to be established	0	1	1	0	2	0	0	0	0	0	1	1	0	1	3
External investigation board to be established	0	1	1	0	2	0	0	2	0	2	0	0	0	0	0
Existing medical safety committee is in charge of investigation	20	20	16	22	78	24	29	29	23	105	67	71	97	100	335
Currently under consideration and undecided	1	1	1	1	4	1	2	1	0	4	0	1	2	1	4
Others	6	3	6	6	21	3	6	1	2	12	11	10	13	18	52
No choice	0	0	1	0	1	1	0	0	0	1	1	3	0	1	5
Total	29	40	30	37	136	33	45	47	33	158	94	108	125	133	460

(Note 1) Multiple choices acceptable
(Note 2) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 3) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

Medical equipment, etc.										Examination					Nursing care					Others					Aggregate total
Drainage tube or other tube					Dental equipment																				
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
8	2	3	2	15	0	0	0	0	0	0	4	0	5	9	13	6	15	8	42	2	11	9	5	27	193
0	0	1	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	14
0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	1	1	0	2	6
0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	5
14	23	12	23	72	0	1	0	0	1	5	22	19	10	56	83	91	131	132	437	27	40	27	33	127	1,024
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	5	5	13	1	2	0	1	4	28
1	0	2	1	4	0	0	0	0	0	2	1	4	2	9	19	21	28	34	102	7	7	15	13	42	227
0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	3	2	3	7	15	0	0	1	0	1	20
23	26	18	27	94	0	1	0	0	1	7	31	23	17	78	120	122	183	186	611	37	64	54	52	207	1,517

None					No disability					Unknown (Note 3)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
21	6	16	9	52	6	5	4	8	23	1	4	1	2	8	193
0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	14
0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6
0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5
63	81	70	95	309	30	55	35	33	153	5	17	15	7	44	1,024
0	0	3	4	7	0	2	2	0	4	0	2	2	1	5	28
10	13	34	23	80	8	8	10	21	47	2	2	6	5	15	227
0	0	1	2	3	0	1	3	5	9	1	0	0	0	1	20
94	100	124	133	451	44	72	54	67	237	9	27	24	15	75	1,517

[4] Details of Reports from Medical Institutions Subject to Reporting Requirement (by Month of Occurrence)

The quarterly tabulation of reports on medical adverse events **occurred in 2008** made by medical institutions subject to reporting requirement between January 1 2008 and June 30 2009 is shown **by month of occurrence below**.

Fig. II-1-45 Month of occurrence

Month of occurrence		Number
2008	January	115
	February	109
	March	96
	April	127
	May	130
	June	121
	July	152
	August	120
	September	175
	October	157
	November	117
	December	113
Total		1,532

Fig. II-1-46 Day of Occurrence and Weekday/Holiday Category

Day of occurrence	Weekday				Holiday				Aggregate total
	January to March	April to June	July to September	October to December	January to March	April to June	July to September	October to December	
Mon.	48	53	60	48	2	3	3	6	223
Tue.	55	52	76	52	2	4	1	6	248
Wed.	49	72	76	82	3	0	0	2	284
Thu.	51	70	66	63	3	0	0	0	253
Fri.	50	56	78	54	1	1	1	1	242
Sat.	8	5	8	7	15	27	47	33	150
Sun.	0	0	0	0	33	35	31	33	132
Total	261	308	364	306	59	70	83	81	1,532

Fig. II-1-47 Time of occurrence

Time of occurrence	Number				
	January to March	April to June	July to September	October to December	Aggregate total
0:00 – before 2:00	15	24	22	22	83
2:00 – before 4:00	10	11	17	12	50
4:00 – before 6:00	12	9	23	21	65
6:00 – before 8:00	21	20	29	31	101
8:00 – before 10:00	31	30	34	31	126
10:00 – before 12:00	47	58	68	51	224
12:00 – before 14:00	23	50	40	36	149
14:00 – before 16:00	54	64	65	50	233
16:00 – before 18:00	29	35	47	49	160
18:00 – before 20:00	28	22	28	26	104
20:00 – before 22:00	23	17	32	20	92
22:00 – before 24:00	13	25	24	17	79
Time unknown	14	13	18	21	66
Total	320	378	447	387	1,532

Fig. II-1-48 Patient age

Number of patients	Patient age	Number					Inpatient				
		January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
1 patient	0 to 9	16	21	23	20	80	14	20	23	17	74
	10s	9	10	11	9	39	8	9	9	9	35
	20s	8	12	13	13	46	6	11	13	13	43
	30s	11	25	24	28	88	10	22	22	25	79
	40s	27	27	34	32	120	23	27	32	29	111
	50s	38	43	54	42	177	37	40	47	39	163
	60s	63	69	61	68	261	59	57	56	66	238
	70s	76	95	127	101	399	71	91	123	98	383
	80s	52	58	77	63	250	48	55	73	60	236
	90 or above	16	15	18	9	58	16	15	17	8	56
	Total	316	375	442	385	1518	292	347	415	364	1418
2 or more (Note)	Total	4	3	5	2	14	4	2	3	0	9
Aggregate total		320	378	447	387	1,532	296	349	418	364	1,427

(Note) Category "2 or more" was added for the check box of "Number of patients" since July 2006.

Fig. II-1-49 Sex of Patients

Number of patients	Sex	Number				
		January to March	April to June	July to September	October to December	Total
1 patient	Male	156	183	215	196	750
	Female	160	192	227	189	768
	Total	316	375	442	385	1518
2 or more	Total	4	3	5	2	14
Aggregate total		320	378	447	387	1,532

Fig. II-1-50 Inpatient/Outpatient Status and Duration of Hospital Stay

Inpatient/outpatient status		Number				
		January to March	April to June	July to September	October to December	Total
Inpatient	Duration: 0 to 31 days	199	241	269	240	949
	Duration: 32 days or longer	97	108	149	124	478
	Total	296	349	418	364	1427
Outpatient	Initial visit	4	4	0	1	9
	Follow-up visit	20	25	29	22	96
	Total	24	29	29	23	105
Aggregate total		320	378	447	387	1,532

Fig. II-1-51 Person who identified event

Person who identified event	Number				
	January to March	April to June	July to September	October to December	Total
Medical staff	279	321	385	323	1,308
Patient himself/herself	11	13	17	17	58
Patient's family/caregiver	12	11	7	11	41
Other patient	7	11	19	20	57
Others	11	22	19	16	68
Total	320	378	447	387	1,532

Fig. II-1-52 Job Title of Person Involved

Job title of person involved (Note)	Number				
	January to March	April to June	July to September	October to December	Total
Doctor	211	298	227	203	939
Dentist	7	6	15	5	33
Nurse	220	231	314	269	1,034
Assistant nurse	10	6	8	10	34
Pharmacist	5	1	5	5	16
Clinical engineer	2	1	6	2	11
Midwife	2	2	2	1	7
Nursing assistant	1	3	5	2	11
Radiological technologist	2	1	4	7	14
Clinical technologist	2	2	5	3	12
Physical therapist (PT)	5	2	2	4	13
Occupational therapist (OT)	3	1	0	0	4
Medical technologist	0	0	0	0	0
Dental hygienist	0	0	0	0	0
Others	7	19	15	17	58
Total	477	573	608	528	2,186

(Note) Person involved is a person determined by the medical institution to have been involved in the event occurred; more than 1 person may have been involved.

Fig. II-1-53 Years of Experience of Person Involved by Job Title (Doctor, Dentist, Nurse, Pharmacist)

Years of experience × Job title of person involved(Note)	Doctor					Dentist				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
0 years	5	6	9	9	29	0	1	0	0	1
1 years	1	2	6	5	14	2	0	2	0	4
2 years	11	10	17	10	48	0	0	0	0	0
3 years	14	15	11	15	55	0	0	1	0	1
4 years	11	12	9	10	42	0	0	1	0	1
5 years	13	18	15	6	52	0	1	2	1	4
6 years	10	14	11	11	46	0	0	1	0	1
7 years	9	14	11	7	41	0	0	1	0	1
8 years	11	24	13	10	58	0	1	0	0	1
9 years	7	14	7	7	35	0	0	0	0	0
10 years	15	15	7	7	44	1	0	1	1	3
11 to 20 years	77	107	84	73	341	3	2	3	2	10
21 to 30 years	24	36	25	27	112	1	1	1	1	4
30 years or longer	3	11	2	6	22	0	0	2	0	2
Total	211	298	227	203	939	7	6	15	5	33

(Note) Person involved is a person determined by the medical institution to have been involved in the event occurred; more than 1 person may have been involved.

Nurse					Pharmacist				
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
27	13	24	25	89	0	0	0	1	1
20	21	41	20	102	0	0	2	0	2
14	23	32	30	99	0	0	0	0	0
9	21	25	20	75	1	0	0	1	2
9	15	28	14	66	0	0	0	0	0
12	12	13	10	47	0	0	0	0	0
16	12	12	10	50	0	0	1	0	1
6	10	8	12	36	0	0	0	1	1
3	8	7	9	27	0	0	0	0	0
4	8	6	6	24	0	0	0	0	0
6	7	10	12	35	0	0	0	0	0
57	40	45	45	187	1	1	1	1	4
28	29	52	40	149	3	0	1	1	5
9	12	11	16	48	0	0	0	0	0
220	231	314	269	1,034	5	1	5	5	16

Fig. II-1-54 Number of Years Person Involved (Doctor, Dentist, Nurse, Pharmacist) Has Been Working at Current Department

Number of years at current department × Job title of person involved(Note)	Doctor					Dentist				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
0 years	50	66	49	43	208	1	1	1	0	3
1 years	25	41	38	31	135	1	0	1	0	2
2 years	26	30	19	16	91	0	0	0	1	1
3 years	16	18	16	14	64	0	0	2	0	2
4 years	11	17	9	15	52	0	0	1	1	2
5 years	13	22	16	8	59	0	1	2	2	5
6 years	10	17	14	9	50	0	1	1	0	2
7 years	6	13	10	8	37	1	0	1	0	2
8 years	5	9	12	10	36	0	1	0	1	2
9 years	8	7	4	3	22	0	0	0	0	0
10 years	9	8	3	6	26	1	0	1	0	2
11 to 20 years	27	39	30	31	127	3	1	2	0	6
21 to 30 years	5	9	7	8	29	0	1	2	0	3
30 years or longer	0	2	0	1	3	0	0	1	0	1
Total	211	298	227	203	939	7	6	15	5	33

(Note) Person involved is a person determined by the medical institution to have been involved in the event occurred; more than 1 person may have been involved.

Nurse					Pharmacist				
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
58	48	79	89	274	0	0	1	1	2
45	56	75	49	225	1	0	2	1	4
38	48	51	50	187	1	0	0	2	3
19	28	41	30	118	1	0	0	0	1
18	13	34	19	84	0	0	1	0	1
12	12	13	10	47	0	0	0	0	0
12	8	6	8	34	1	0	1	0	2
3	11	7	5	26	0	0	0	0	0
5	2	2	2	11	0	0	0	0	0
1	1	0	0	2	0	0	0	0	0
1	0	0	0	1	0	0	0	0	0
6	3	6	6	21	0	1	0	1	2
2	0	0	1	3	1	0	0	0	1
0	1	0	0	1	0	0	0	0	0
220	231	314	269	1,034	5	1	5	5	16

Fig. II-1-55 Working Hours (in week previous to event) (Note 1) of Person Involved (Doctors) (Note 2)

Working hours	January to March	April to June	July to September	October to December	January to December
<0 to 8 hours	0	0	0	0	0
<8 to 16 hours	3	0	0	2	5
<16 to 24 hours	2	0	0	1	3
<24 to 32 hours	3	3	1	0	7
<32 to 40 hours	21	30	25	27	103
<40 to 48 hours	57	75	49	35	216
<48 to 56 hours	16	32	18	18	84
<56 to 64 hours	19	32	19	12	82
<64 to 72 hours	26	25	24	16	91
<72 to 80 hours	3	5	3	1	12
<80 to 88 hours	7	8	6	12	33
<88 to 96 hours	4	6	4	5	19
96 hours or more	4	5	4	4	17
Unknown	46	77	74	70	267
Total	211	298	227	203	939
Average working hours (not including “unknown”)	51.41	52.46	52.79	53.61	52.50

(Note1) Working hours may also include hours worked outside the hospital.

(Note2) The person involved is a person determined by the medical institution to have been involved in the occurring event, including part-time employees. Multiple persons may have been involved and reported accordingly.

Fig. II-1-56 Working Hours (in week previous to event) (Note 1) of Person Involved (Nurses) (Note 2)

Working hours	January to March	April to June	July to September	October to December	January to December
<0 to 8 hours	0	1	1	0	2
<8 to 16 hours	0	0	5	3	8
<16 to 24 hours	6	4	4	6	20
<24 to 32 hours	18	14	21	17	70
<32 to 40 hours	72	50	67	66	255
<40 to 48 hours	89	98	149	123	459
<48 to 56 hours	13	17	26	15	71
<56 to 64 hours	2	5	1	0	8
<64 to 72 hours	0	0	0	0	0
<72 to 80 hours	0	0	0	0	0
<80 to 88 hours	0	0	0	0	0
<88 to 96 hours	0	0	0	0	0
96 hours or more	0	0	1	0	1
Unknown	20	42	39	39	140
Total	220	231	314	269	1,034
Average working hours (not including “unknown”)	36.72	37.98	37.89	36.89	37.39

(Note1) Working hours may also include hours worked outside the hospital.

(Note2) The person involved is a person determined by the medical institution to have been involved in the occurring event, including part-time employees. Multiple persons may have been involved and reported accordingly.

Fig. II-1-57 Number of Night Shifts (in week previous to event) of Person Involved (Doctors)

Number of night shifts	January to March	April to June	July to September	October to December	January to December
0 times	83	136	71	60	350
1 times	67	77	71	48	263
2 times	22	19	17	14	72
3 times	5	5	4	3	17
4 times	1	2	0	2	5
5 times	1	0	0	1	2
6 times	0	0	0	0	0
7 times	0	0	0	0	0
Unknown	32	59	64	75	230
Total	211	298	227	203	939
Average number of night shifts (not including unknown)	0.75	0.58	0.72	0.77	0.69

Fig. II-1-58 Number of Night Shifts (in week previous to event) of Person Involved (Nurses)

Number of night shifts	January to March	April to June	July to September	October to December	January to December
0 times	30	30	43	46	149
1 times	67	58	87	81	293
2 times	73	91	132	95	391
3 times	22	26	18	13	79
4 times	1	5	5	4	15
5 times	1	0	0	1	2
6 times	0	0	0	2	2
7 times	0	1	0	0	1
Unknown	26	20	29	27	102
Total	220	231	314	269	1,034
Average number of night shifts (not including unknown)	1.49	1.64	1.49	1.42	1.50

Fig. II-1-59 Summary of event

Summary of event	January to March		April to June		July to September		October to December		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Ordering	0	0.0	5	1.3	6	1.3	5	1.3	16	1.0
Drug	17	5.3	19	5.0	24	5.4	21	5.4	81	5.3
Blood transfusion	0	0.0	4	1.1	3	0.7	0	0.0	7	0.5
Treatment/procedure	100	31.3	98	25.9	100	22.4	96	24.8	394	25.7
Medical equipment, etc.	41	12.8	43	11.4	25	5.6	40	10.3	149	9.7
Medical device	19	5.9	12	3.2	9	2.0	14	3.6	54	3.5
Drainage tube or other tube	22	6.9	31	8.2	16	3.6	25	6.5	94	6.1
Dental equipment	0	0.0	0	0.0	0	0.0	1	0.3	1	0.1
Examination	10	3.1	26	6.9	24	5.4	21	5.4	81	5.3
Nursing care	113	35.3	131	34.7	207	46.3	161	41.6	612	39.9
Others	39	12.2	52	13.8	58	13.0	43	11.1	192	12.5
Total	320	100.0	378	100.0	447	100.0	387	100.0	1,532	100.0

Fig. II-1-60 Potential of Residual Disability

Potential of residual disability(Note 1)	January to March		April to June		July to September		October to December		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Death	34	10.6	30	7.9	28	6.3	27	7.0	119	7.8
High	31	9.7	55	14.6	37	8.3	33	8.5	156	10.2
Low	99	30.9	107	28.3	144	32.2	124	32.0	474	30.9
None	84	26.3	107	28.3	146	32.7	117	30.2	454	29.6
No disability	55	17.2	59	15.6	72	16.1	74	19.1	260	17.0
Unknown (Note 2)	17	5.3	20	5.3	20	4.5	12	3.1	69	4.5
Total	320	100.0	378	100.0	447	100.0	387	100.0	1,532	100.0

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

Fig. II-1-61 Intensity of treatment

Intensity of treatment	January to March		April to June		July to September		October to December		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Intensive treatment(Note)	157	49.1	184	48.7	200	44.7	158	40.8	699	45.6
Minor treatment	130	40.6	154	40.7	195	43.6	176	45.5	655	42.8
No treatment	33	10.3	40	10.6	52	11.6	53	13.7	178	11.6
Total	320	100.0	378	100.0	447	100.0	387	100.0	1,532	100.0

(Note) See Reference 1 of HPB Notification No. 0921001 (as of September 21, 2004).

Fig. II-1-62 Place of Occurrence

Place of Occurrence	January to March		April to June		July to September		October to December		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Outpatient examination room	7	2.2	8	2.1	6	1.3	7	1.8	28	1.8
Outpatient treatment room	4	1.3	9	2.4	3	0.7	4	1.0	20	1.3
Outpatient lobby	3	0.9	1	0.3	1	0.2	1	0.3	6	0.4
Emergency room	0	0.0	2	0.5	1	0.2	3	0.8	6	0.4
Emergency center	6	1.9	7	1.9	1	0.2	0	0.0	14	0.9
Patient room	158	49.4	155	41.0	205	45.9	190	49.1	708	46.2
Ward treatment room	8	2.5	3	0.8	6	1.3	5	1.3	22	1.4
Operation room	42	13.1	47	12.4	46	10.3	51	13.2	186	12.1
ICU	5	1.6	12	3.2	6	1.3	10	2.6	33	2.2
CCU	1	0.3	2	0.5	2	0.4	3	0.8	8	0.5
NICU	1	0.3	2	0.5	1	0.2	3	0.8	7	0.5
Examination room	2	0.6	3	0.8	8	1.8	8	2.1	21	1.4
Catheterization laboratory	12	3.8	19	5.0	14	3.1	11	2.8	56	3.7
Radiotherapy room	2	0.6	3	0.8	2	0.4	2	0.5	9	0.6
Radiography room	4	1.3	11	2.9	12	2.7	7	1.8	34	2.2
Radioactive scanning room	0	0.0	0	0.0	0	0.0	1	0.3	1	0.1
Dialysis room	1	0.3	2	0.5	3	0.7	1	0.3	7	0.5
Delivery room	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rehabilitation room	4	1.3	1	0.3	2	0.4	1	0.3	8	0.5
Restroom	5	1.6	9	2.4	23	5.1	15	3.9	52	3.4
Hallway	6	1.9	12	3.2	26	5.8	9	2.3	53	3.5
Bathroom	9	2.8	5	1.3	13	2.9	12	3.1	39	2.5
Stairway	0	0.0	0	0.0	1	0.2	0	0.0	1	0.1
Unknown	2	0.6	7	1.9	6	1.3	3	0.8	18	1.2
Others	38	11.9	58	15.3	59	13.2	40	10.3	195	12.7
Total	320	100.0	378	100.0	447	100.0	387	100.0	1,532	100.0

Fig. II-1-63 Clinical Department

Clinical Department (Note)	January to March		April to June		July to September		October to December		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Internal medicine	32	8.4	33	7.0	46	8.4	29	6.3	140	7.5
Anesthesiology	7	1.8	11	2.3	11	2.0	9	1.9	38	2.0
Cardiovascular medicine	24	6.3	46	9.8	36	6.6	34	7.4	140	7.5
Neurology	9	2.4	7	1.5	10	1.8	12	2.6	38	2.0
Respiratory tract medicine	25	6.6	16	3.4	40	7.3	29	6.3	110	5.9
Gastrointestinal medicine	24	6.3	22	4.7	41	7.5	24	5.2	111	6.0
Hematology	9	2.4	5	1.1	6	1.1	5	1.1	25	1.3
Circulatory surgery	3	0.8	12	2.6	6	1.1	7	1.5	28	1.5
Allergy	3	0.8	0	0.0	0	0.0	0	0.0	3	0.2
Rheumatism	2	0.5	6	1.3	2	0.4	2	0.4	12	0.6
Pediatrics	19	5.0	27	5.7	31	5.6	26	5.6	103	5.5
General surgery	37	9.7	29	6.2	32	5.8	27	5.8	125	6.7
Orthopedics	26	6.8	60	12.8	66	12.0	63	13.6	215	11.6
Plastic surgery	3	0.8	2	0.4	6	1.1	3	0.6	14	0.8
Cosmetic surgery	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Neurosurgery	14	3.7	17	3.6	26	4.7	26	5.6	83	4.5
Respiratory surgery	8	2.1	5	1.1	10	1.8	10	2.2	33	1.8
Cardiovascular surgery	11	2.9	19	4.0	17	3.1	14	3.0	61	3.3
Pediatric surgery	2	0.5	0	0.0	3	0.5	5	1.1	10	0.5
Pain clinic	0	0.0	0	0.0	2	0.4	0	0.0	2	0.1
Dermatology	1	0.3	7	1.5	5	0.9	4	0.9	17	0.9
Urology	7	1.8	19	4.0	14	2.6	4	0.9	44	2.4
Venereology	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Proctology	1	0.3	0	0.0	0	0.0	0	0.0	1	0.1
Gynecology/Obstetrics	5	1.3	9	1.9	7	1.3	10	2.2	31	1.7
Obstetrics	3	0.8	3	0.6	2	0.4	2	0.4	10	0.5
Gynecology	4	1.1	5	1.1	11	2.0	7	1.5	27	1.5
Ophthalmology	5	1.3	11	2.3	7	1.3	9	1.9	32	1.7
Otolaryngology	13	3.4	12	2.6	10	1.8	11	2.4	46	2.5
Psychosomatic medicine	0	0.0	1	0.2	0	0.0	0	0.0	1	0.1
Psychiatry	16	4.2	21	4.5	24	4.4	27	5.8	88	4.7
Rehabilitation	2	0.5	3	0.6	3	0.5	1	0.2	9	0.5
Radiology	5	1.3	6	1.3	11	2.0	10	2.2	32	1.7
Dentistry	3	0.8	0	0.0	5	0.9	0	0.0	8	0.4
Orthodontics	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pediatric dentistry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Dental/oral surgery	9	2.4	5	1.1	3	0.5	4	0.9	21	1.1
Unknown	0	0.0	0	0.0	0	0.0	1	0.2	1	0.1
Others	48	12.6	51	10.9	56	10.2	47	10.2	202	10.9
Total	380	100.0	470	100.0	549	100.0	462	100.0	1,861	100.0

(Note) "Clinical department" may be more than one.

Fig. II-1-64 Cause of Event

Cause of Event (Note)	January to March		April to June		July to September		October to December		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Neglect to check	96	16.2	101	14.5	118	14.0	109	15.5	424	15.0
Neglect to observe	74	12.5	93	13.3	115	13.7	99	14.0	381	13.4
Misjudgment	76	12.9	82	11.7	116	13.8	90	12.8	364	12.8
Lack of knowledge	34	5.8	35	5.0	43	5.1	33	4.7	145	5.1
Deficiency of technique/skill	20	3.4	33	4.7	46	5.5	44	6.2	143	5.0
Delayed reporting	4	0.7	7	1.0	10	1.2	6	0.9	27	1.0
Under unusual physical condition	15	2.5	19	2.7	19	2.3	27	3.8	80	2.8
Under unusual psychological condition	5	0.8	9	1.3	8	1.0	8	1.1	30	1.1
System failure	12	2.0	28	4.0	20	2.4	9	1.3	69	2.4
Inadequate coordination	32	5.4	44	6.3	44	5.2	33	4.7	153	5.4
Inadequate documentation	3	0.5	4	0.6	6	0.7	5	0.7	18	0.6
Similarity in patient's appearance or name	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Busy working condition	15	2.5	10	1.4	20	2.4	16	2.3	61	2.2
Problem in environment	19	3.2	26	3.7	29	3.5	29	4.1	103	3.6
Problem in the drug	3	0.5	3	0.4	8	1.0	7	1.0	21	0.7
Problem in medical device	10	1.7	6	0.9	11	1.3	12	1.7	39	1.4
Problem in other items	5	0.8	8	1.1	11	1.3	7	1.0	31	1.1
Problem in facility	11	1.9	13	1.9	11	1.3	12	1.7	47	1.7
Problem in education/training	28	4.7	34	4.9	37	4.4	21	3.0	120	4.2
Lack of explanation	31	5.2	32	4.6	53	6.3	39	5.5	155	5.5
Others	98	16.6	111	15.9	115	13.7	99	14.0	423	14.9
Total	591	100.0	698	100.0	840	100.0	705	100.0	2,834	100.0

(Note) "Cause of event" may be more than one.

Fig. II-1-65 Cases Encouraged to be Reported

Cases encouraged to be reported	January to March		April to June		July to September		October to December		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Accident due to use of contaminated drug/material/biologic product	1	0.3	0	0.0	2	0.4	2	0.5	5	0.3
Death or disability due to nosocomial infection	0	0.0	1	0.3	0	0.0	0	0.0	1	0.1
Suicide or suicide attempt during hospitalization	8	2.5	7	1.9	10	2.2	9	2.3	34	2.2
Escape of inpatient	0	0.0	0	0.0	3	0.7	1	0.3	4	0.3
Burn during hospitalization	4	1.3	3	0.8	2	0.4	5	1.3	14	0.9
Electric shock during hospitalization	0	0.0	1	0.3	0	0.0	0	0.0	1	0.1
Death or disability of patient due to facility fire	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Handing over of infant to wrong parent	1	0.3	1	0.3	3	0.7	0	0.0	5	0.3
No applicable option	306	95.6	365	96.6	427	95.5	370	95.6	1,468	95.8
Total	320	100.0	378	100.0	447	100.0	387	100.0	1,532	100.0

Fig. II-1-66 Establishment of accident investigation board

Establishment of accident investigation board(Note 1)	January to March		April to June		July to September		October to December		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Existing internal investigation board	67	19.5	55	13.9	59	12.5	39	9.8	220	13.7
Existing external investigation board	6	1.7	4	1.0	2	0.4	3	0.8	15	0.9
Internal investigation board to be established	2	0.6	4	1.0	0	0.0	0	0.0	6	0.4
External investigation board to be established	1	0.3	2	0.5	3	0.6	0	0.0	6	0.4
Existing medical safety committee is in charge of investigation	215	62.7	272	68.9	312	66.1	283	70.8	1082	67.2
Currently under consideration and undecided	4	1.2	4	1.0	11	2.3	8	2.0	27	1.7
Others	43	12.5	50	12.7	77	16.3	61	15.3	231	14.3
No choice(Note 2)	5	1.5	4	1.0	8	1.7	6	1.5	23	1.4
Total	343	100.0	395	100.0	472	100.0	400	100.0	1,610	100.0

(Note 1) Multiple choices acceptable
(Note 2) "No choice" means none of the checkboxes for "establishment of accident investigation board" was selected.

Fig. II-1-67 Summary of Event and Potential of Residual Disability

Summary of Event × Potential of Residual Disability(Note 1)	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Ordering	0	0	0	0	0	0	1	0	0	1	0	0	3	1	4
Drug	0	1	2	0	3	1	0	2	0	3	4	7	4	7	22
Blood transfusion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treatment/procedure	11	10	9	5	35	13	19	11	13	56	25	28	37	33	123
Medical equipment, etc.	2	1	0	2	5	5	3	2	2	12	8	14	8	6	36
Medical device	2	0	0	0	2	2	1	1	1	5	2	3	2	1	8
Drainage tube or other tube	0	1	0	2	3	3	2	1	1	7	6	11	6	5	28
Dental equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Examination	2	0	4	2	8	1	4	3	1	9	3	4	7	3	17
Nursing care	9	5	7	8	29	5	20	14	11	50	51	45	70	65	231
Others	10	13	6	10	39	6	8	5	6	25	8	9	15	9	41
Total	34	30	28	27	119	31	55	37	33	156	99	107	144	124	474

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

None					No disability					Unknown (Note 2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
0	2	2	3	7	0	2	1	1	4	0	0	0	0	0	16
4	5	8	8	25	7	5	7	6	25	1	1	1	0	3	81
0	3	2	0	5	0	1	0	0	1	0	0	1	0	1	7
32	27	25	19	103	14	9	15	25	63	5	5	3	1	14	394
9	15	6	13	43	14	10	7	14	45	3	0	2	3	8	149
4	4	3	4	15	6	4	2	6	18	3	0	1	2	6	54
5	11	3	8	27	8	6	5	8	27	0	0	1	1	2	94
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
1	9	4	8	22	2	8	5	6	21	1	1	1	1	4	81
32	37	82	57	208	10	17	24	17	68	6	7	10	3	26	612
6	9	17	9	41	8	7	13	5	33	1	6	2	4	13	192
84	107	146	117	454	55	59	72	74	260	17	20	20	12	69	1,532

Fig. II-1-68 Summary of Event and Intensity of treatment

Summary of Event × Intensity of treatment	Intensive treatment					Minor treatment					No treatment					Aggregate total
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
Ordering	0	1	2	3	6	0	3	1	1	5	0	1	3	1	5	16
Drug	6	7	8	2	23	7	6	10	9	32	4	6	6	10	26	81
Blood transfusion	0	2	1	0	3	0	0	1	0	1	0	2	1	0	3	7
Treatment/procedure	64	61	68	58	251	31	26	25	30	112	5	11	7	8	31	394
Medical equipment, etc.	22	22	12	16	72	12	20	8	22	62	7	1	5	2	15	149
Medical device	11	4	5	5	25	3	7	1	7	18	5	1	3	2	11	54
Drainage tube or other tube	11	18	7	11	47	9	13	7	14	43	2	0	2	0	4	94
Dental equipment	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Examination	6	16	15	10	47	1	7	3	5	16	3	3	6	6	18	81
Nursing care	41	46	76	52	215	65	80	119	95	359	7	5	12	14	38	612
Others	18	29	18	17	82	14	12	28	14	68	7	11	12	12	42	192
Total	157	184	200	158	699	130	154	195	176	655	33	40	52	53	178	1,532

Fig. II-1-69 Potential of Residual Disability and Intensity of Treatment

Summary of Event (Note1) × Intensity of treatment	Intensive treatment					Minor treatment					No treatment					Aggregate total
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
Death	27	24	22	20	93	1	2	0	0	3	6	4	6	7	23	119
High	27	47	29	26	129	3	6	7	7	23	1	2	1	0	4	156
Low	46	54	80	48	228	48	48	56	69	221	5	5	8	7	25	474
None	37	36	41	36	150	44	63	96	70	273	3	8	9	11	31	454
No disability	9	12	16	21	58	30	29	32	26	117	16	18	24	27	85	260
Unknown (Note 2)	11	11	12	7	41	4	6	4	4	18	2	3	4	1	10	69
Total	157	184	200	158	699	130	154	195	176	655	33	40	52	53	178	1,532

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

Fig. II-1-70 Situation and Potential of Residual Disability

Situation × Potential of residual disability(Note1)	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Related to drug															
Drug preparation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other drug preparations	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Subcutaneous/intramuscular injection	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Intravenous injection	0	1	0	0	1	0	0	2	0	2	0	2	2	1	5
Arterial injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peripheral intravenous drop	0	0	0	0	0	0	1	0	0	1	0	2	2	2	6
Central venous injection	0	0	1	0	1	0	0	0	0	0	0	0	1	1	2
Oral administration	0	1	1	0	2	0	0	0	0	0	1	2	1	0	4
Nose drop/eye drop/ear drop	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Other drug prescription/administration	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2
Oral drug dispensing/management	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Injection dispensing/management	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dispensing/management, others	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Related to blood transfusion															
Pre-transfusion testing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Blood transfusion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Blood transfusion, others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Related to treatment/procedure															
Craniotomy	0	0	0	1	1	2	0	0	2	4	0	1	1	1	3
Thoracotomy	1	0	0	0	1	0	0	1	2	3	2	1	1	1	5
Cardiotomy	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0
Laparotomy	0	0	0	1	1	2	0	0	1	3	1	0	5	3	9
Extremities	0	0	0	0	0	0	3	0	2	5	0	2	0	1	3
Endoscopic surgery	0	0	0	2	2	0	1	0	1	2	5	2	2	1	10
Other surgery	1	0	1	1	3	0	2	1	1	4	1	4	0	1	6
Preparation for surgery	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Preoperative procedure	0	0	0	0	0	0	0	0	0	0	1	0	0	2	3
Postoperative procedure	0	0	1	0	1	0	1	0	0	1	0	1	1	1	3
Surgery, others	2	1	1	1	5	0	3	0	3	6	4	2	4	2	12
General anesthesia (inhalation anesthesia and intravenous anesthesia)	1	0	0	0	1	0	1	0	1	2	0	0	0	0	0
Local anesthesia	1	0	0	0	1	0	0	0	0	0	0	0	1	1	2
Inhalation anesthesia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intravenous anesthesia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vertebral/epidural anesthesia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Anesthesia, others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Caesarean section	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
Delivery and artificial abortion, others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Blood purification (including hemodialysis)	0	0	0	0	0	0	1	0	0	1	0	1	1	0	2
IVR (ex. angiocatheter)	1	2	2	0	5	3	3	0	0	6	2	5	2	3	12
Radiotherapy	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2
Rehabilitation	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Invasive dental treatment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Endoscopic treatment	0	0	0	0	0	0	0	1	0	1	3	0	1	0	4
Treatment, others	0	0	2	0	2	1	0	3	0	4	0	5	4	2	11
Central venous line	0	0	0	0	0	0	0	0	1	1	0	0	4	2	6

None					No disability					Unknown (Note2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
															92
1	0	1	2	4	0	0	0	1	1	0	1	0	0	1	6
0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	4
0	0	1	1	2	2	0	3	0	5	0	0	0	0	0	15
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	3	2	3	9	1	1	1	0	3	0	0	1	1	2	21
0	0	1	2	3	1	0	0	0	1	0	0	0	0	0	7
1	0	2	1	4	1	1	1	2	5	0	0	1	0	1	16
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
0	2	0	0	2	1	1	0	0	2	0	0	0	0	0	7
0	0	2	1	3	0	1	0	1	2	1	0	0	0	1	7
0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	3
															7
0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	4
0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	2
															385
1	1	0	2	4	1	0	1	1	3	1	1	0	0	2	17
1	0	1	1	3	0	0	0	2	2	0	0	0	0	0	14
1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	5
1	3	2	2	8	2	0	1	1	4	1	0	0	0	1	26
3	0	1	1	5	0	0	0	0	0	0	0	0	0	0	13
1	0	1	0	2	0	2	1	1	4	0	0	0	0	0	20
2	3	4	2	11	0	0	3	1	4	2	2	0	0	4	32
0	1	0	0	1	1	1	0	0	2	0	0	0	0	0	4
1	1	0	0	2	0	1	0	1	2	0	0	0	0	0	7
0	1	0	0	1	2	0	0	2	4	0	0	0	0	0	10
2	2	1	1	6	0	2	1	4	7	1	0	0	0	1	37
0	0	2	1	3	0	0	0	0	0	0	1	0	0	1	7
1	0	0	0	1	0	0	0	1	1	0	0	0	0	0	5
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	2
1	1	1	0	3	0	1	1	0	2	0	0	0	0	0	8
2	2	3	4	11	0	0	0	4	4	0	0	0	0	0	38
0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	5
3	0	0	1	4	1	0	0	0	1	0	0	0	0	0	7
0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
1	0	4	1	6	1	0	0	0	1	0	0	1	0	1	13
1	3	2	1	7	1	0	1	3	5	0	0	0	1	1	30
6	2	1	0	9	4	1	2	0	7	0	2	0	0	2	25

Situation × Potential of residual disability[Note 1]	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Peripheral venous line	0	0	0	0	0	0	0	1	0	1	1	1	0	0	2
Catheter for blood purification	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1
Feeding tube (NG, ED)	0	0	0	0	0	0	0	0	0	0	1	0	0	2	3
Urethral catheter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drainage procedure	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
Wound care	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
Tube placement, others	0	1	2	0	3	1	0	0	1	2	1	0	3	0	4
Tracheal intubation	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0
Tracheotomy	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0
Cardiac compression	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oxygen therapy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emergency procedure, others	0	0	0	1	1	1	2	0	0	3	0	0	3	1	4
Use/management of medical device															
Ventilator	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
Oxygen therapy equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oxygenator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Defibrillator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pace maker	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infusion/transfusion pump	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
Blood purification device	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ECG, blood pressure monitor	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0
Pulse oxymeter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Use/management of medical device, others	0	0	0	0	0	0	0	0	2	2	2	3	3	3	11
Use/management of other dental devices and materials	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Related to use/management of drainage tube or other tube															
Central venous line	0	0	0	0	0	0	0	0	0	0	1	3	1	1	6
Peripheral venous line	0	0	0	0	0	0	0	0	0	0	0	2	1	1	4
Tracheal tube	0	0	0	0	0	1	0	0	1	2	0	1	0	1	2
Tracheal cannula	0	1	0	0	1	0	0	2	0	2	1	1	0	0	2
Feeding tube (NG, ED)	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1
Urethral catheter	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Chest drainage tube	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Abdominal drainage tube	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ventricular/cisternal drainage tube	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subcutaneous continuous suction drainage tube	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Epidural catheter	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
Catheter/line for blood purification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Use/management of drainage tube or other tube, others	0	0	0	2	2	1	1	0	0	2	3	1	0	3	7
Related to examination															
Blood drawing	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3
Sample collection, others	2	0	0	1	3	0	0	0	0	0	1	1	0	0	2
Other physiological tests	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
General imaging	0	0	1	0	1	0	0	0	0	0	0	1	0	1	2
MRI	0	0	0	0	0	1	0	0	1	2	0	0	0	1	1
Angiocatheter-aided imaging	0	1	1	1	3	1	1	1	0	3	0	4	0	1	5
Lower gastrointestinal imaging	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Imaging, others	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1

None					No disability					Unknown (Note2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
1	1	0	0	2	0	0	0	1	1	0	1	0	0	1	7
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
0	1	1	0	2	1	0	0	0	1	0	0	0	0	0	3
1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	4
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2	0	1	0	3	0	2	1	1	4	0	0	0	0	0	16
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	10
															56
1	1	0	1	3	3	1	0	2	6	1	0	0	1	2	12
0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
0	0	0	0	0	1	0	1	0	2	0	0	1	0	1	4
1	0	0	0	1	0	0	1	1	2	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	3	3	2	9	2	2	1	2	7	1	0	0	1	2	31
0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
															92
0	1	0	3	4	1	1	2	1	5	0	0	0	0	0	15
0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	8
0	2	2	0	4	2	1	0	2	5	0	0	0	0	0	13
1	0	0	2	3	0	1	0	0	1	1	0	0	1	2	11
3	2	0	1	6	0	0	1	0	1	0	0	0	0	0	9
0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	3
0	0	0	0	0	2	0	1	0	3	0	0	0	0	0	4
1	0	0	1	2	1	0	0	0	1	0	0	0	0	0	3
0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
0	1	0	1	2	0	1	0	0	1	0	0	0	0	0	3
1	1	1	0	3	2	1	0	2	5	0	0	1	0	1	20
															86
0	2	0	1	3	1	2	0	0	3	0	0	0	0	0	9
0	0	2	0	2	0	2	0	1	3	0	0	0	0	0	10
0	0	0	1	1	1	0	0	1	2	0	0	0	0	0	5
0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	5
0	0	0	0	0	0	2	0	1	3	0	0	0	0	0	6
0	4	0	0	4	0	0	0	1	1	0	0	0	0	0	16
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2	0	2	5	0	0	1	0	1	0	1	0	0	1	10

Situation × Potential of residual disability(Note 1)	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Upper gastrointestinal	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Lower gastrointestinal	0	0	0	0	0	0	0	0	0	0	2	0	3	1	6
Bronchoscopy	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
Endoscopic examination, others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pathological examination	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Examination, others	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
Related to nursing care															
Endotracheal/oral suctioning	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Changing position	0	0	0	0	0	0	0	0	0	0	3	0	3	0	6
Bed bath	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3
Help with changing clothes	0	0	0	0	0	0	0	0	0	0	1	2	1	0	4
Help with eating	0	0	1	3	4	0	1	2	1	4	1	0	0	1	2
Help with bathing	0	0	2	0	2	0	0	0	0	0	1	0	1	2	4
Help with elimination	1	0	0	1	2	1	2	0	0	3	2	4	7	4	17
Help with moving	0	0	0	0	0	0	0	0	1	1	5	4	2	0	11
Transportation	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Tending patient's belongings	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Meal serving	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Patient observation	2	2	1	0	5	0	0	3	0	3	1	3	2	5	11
Nursing care, others	2	1	1	2	6	1	5	2	3	11	6	5	8	9	28
Oral intake	0	0	0	0	0	0	0	1	1	2	0	1	0	0	1
Other feeding or nutrition support	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
While taking a walk	0	0	1	0	1	0	0	0	0	0	1	1	0	0	2
While moving from one place to another	1	1	0	0	2	2	6	3	2	13	12	13	25	20	70
While going out/sleeping out	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
While eating	0	0	1	1	2	0	0	1	1	2	0	0	0	1	1
While bathing	1	1	0	0	2	1	1	0	0	2	0	0	1	2	3
While excreting	0	0	0	0	0	0	0	2	0	2	5	1	7	7	20
While sleeping	3	3	0	1	7	0	1	0	0	1	2	5	1	3	11
Recuperation, others	3	1	3	1	8	2	5	1	1	9	12	4	12	9	37
Others	**7**	**6**	**3**	**5**	**21**	**4**	**6**	**3**	**3**	**16**	**3**	**4**	**8**	**9**	**24**
No choice(Note 3)	**3**	**1**	**1**	**2**	**7**	**0**	**2**	**2**	**0**	**4**	**2**	**4**	**10**	**2**	**18**
Total	**34**	**30**	**28**	**27**	**119**	**31**	**55**	**37**	**33**	**156**	**99**	**107**	**144**	**124**	**474**

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.

(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

(Note 3) "No choice" means no "situation" or "potential of residual disability" was selected.

None					No disability					Unknown (Note2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	4
0	0	0	0	0	0	1	1	0	2	0	0	1	0	1	9
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	2
0	0	0	2	2	0	1	0	2	3	0	0	0	0	0	7
															628
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	0	5	2	9	0	1	0	0	1	1	0	1	1	3	19
1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	5
0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	6
0	0	2	0	2	0	0	0	0	0	0	1	0	0	1	13
0	0	5	1	6	1	0	1	0	2	0	0	0	0	0	14
1	6	7	3	17	0	1	1	1	3	0	0	0	0	0	42
3	1	5	5	14	1	1	1	0	3	0	1	0	0	1	30
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
0	0	1	0	1	0	0	0	2	2	0	0	0	0	0	4
0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
5	0	3	1	9	1	2	1	1	5	0	0	1	0	1	34
5	4	9	7	25	1	2	1	5	9	2	2	3	1	8	87
1	1	1	1	4	0	1	1	0	2	1	0	0	0	1	10
1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	3
1	1	1	1	4	0	0	1	0	1	0	0	0	0	0	8
6	9	18	12	45	0	3	8	5	16	0	2	1	0	3	149
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	6
0	1	1	2	4	0	0	0	1	1	0	1	0	0	1	13
4	3	3	3	13	1	0	2	2	5	0	0	1	2	3	43
2	3	2	8	15	2	0	2	0	4	2	0	1	0	3	41
0	4	14	8	26	2	6	2	0	10	0	2	2	0	4	94
4	**9**	**14**	**5**	**32**	**5**	**5**	**11**	**1**	**22**	**0**	**2**	**1**	**1**	**4**	**119**
1	**4**	**7**	**9**	**21**	**0**	**3**	**7**	**5**	**15**	**1**	**0**	**1**	**0**	**2**	**67**
84	**107**	**146**	**117**	**454**	**55**	**59**	**72**	**74**	**260**	**17**	**20**	**20**	**12**	**69**	**1,532**

Fig. II-1-71 Details of Event and Potential of Residual Disability

Details of Event × Potential of Residual Disability(Note1)	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Related to drug															
Dose error	0	0	1	0	1	0	0	0	0	0	2	0	0	0	2
Overdose	0	0	0	0	0	0	0	0	0	0	0	1	2	2	5
Dosing speed too fast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Patient misidentification	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Drug mix-up	0	1	0	0	1	1	0	0	0	1	0	1	1	1	3
Wrong dosing method	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Drug prescription/administration, others	0	1	1	0	2	0	1	2	0	3	1	5	0	3	9
Dispensing error (wrong dose/number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dispensing/drug management, others	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3
Drug/blood product management, others	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Related to blood transfusion															
Cross-match error	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Error in documentation/recording of results	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfusion testing, others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Irradiation of blood products, blood transfusion, others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Related to treatment/procedure															
Patient misidentification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wrong site treatment/procedure	0	0	0	0	0	0	1	0	0	1	2	1	1	1	5
Wrong examination/treatment/ procedure, others	0	0	0	0	0	1	0	0	0	1	2	1	2	0	5
Wrong method (technique)	0	1	0	1	2	0	0	2	2	4	2	3	4	5	14
Neglected/forgotten (treatment/procedure)	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Unnecessary treatment/procedure	0	0	0	0	0	1	0	0	0	1	0	0	0	1	1
Wrong patient position	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wrong examination/treatment, others	0	0	1	1	2	1	1	2	0	4	1	1	1	0	3
Aspiration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retained foreign object	0	0	0	0	0	0	0	0	1	1	3	3	3	3	12
Treatment/procedure, others	8	8	8	5	29	8	16	5	13	42	14	17	24	17	72
Use/management of medical device															
Assembly	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forgot to set up/turn on power	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Malfunction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lack of knowledge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forgot to set alarm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Range of alarm setup	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Neglect in inspection/management before or during device operation	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1
Error in sterilization/cleaning technique	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Breakage	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Use/management of medical equipment (device), others	1	0	0	0	1	2	1	0	1	4	1	3	2	1	7

None					No disability					Unknown (Note 2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
															92
0	1	1	1	3	0	0	0	0	0	0	0	0	0	0	6
1	1	2	4	8	0	1	0	0	1	0	0	0	0	0	14
0	0	0	0	0	1	0	2	0	3	0	0	0	0	0	3
0	1	0	1	2	2	0	1	0	3	0	0	0	0	0	6
1	2	0	1	4	1	0	2	0	3	0	0	0	0	0	12
0	0	1	0	1	0	0	0	1	1	0	0	0	0	0	3
2	2	3	3	10	2	3	1	2	8	0	1	1	1	3	35
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	2	0	2	0	1	1	1	3	1	0	0	0	1	9
0	0	0	0	0	0	0	1	1	2	0	0	1	0	1	4
															7
0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	3
0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	3
															385
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2	1	0	0	3	0	0	2	0	2	2	2	0	0	4	15
0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	8
5	5	3	2	15	2	2	1	1	6	1	2	0	1	4	45
0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	3
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	1	0	0	1	2	3	0	0	0	0	0	13
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	3	3	0	10	5	0	2	1	8	0	1	0	0	1	32
21	13	20	18	72	9	9	6	20	44	2	2	1	1	6	265
															56
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1	1	2	0	0	0	2	3
1	0	0	0	1	0	0	1	1	2	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
2	1	0	2	5	1	0	0	2	3	0	0	0	1	1	11
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
0	1	0	1	2	0	1	0	0	1	0	0	0	1	1	5
0	2	3	0	5	5	2	4	2	13	0	0	1	0	1	31

Details of Event × Potential of Residual Disability[Note 1]	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Related to use/management of drainage tube or other tube															
Infusion leakage	0	0	0	0	0	0	0	0	0	0	0	3	1	1	5
Self-removal	0	0	0	2	2	0	0	0	0	0	0	2	0	1	3
Spontaneous dislodgment	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Disconnection	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Blockage	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
Breakage/severance	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3
Wrong connection	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Air bubble in tube	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Use/management of drainage tube or other tube, others	0	1	0	0	1	2	2	0	1	5	4	5	2	2	13
Related to examination															
Patient misidentification (examination)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wrong examination/evaluation technique	0	0	0	0	0	1	0	0	0	1	0	0	1	2	3
Error in sample collection	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Sample misidentification (examination)	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Lost sample	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample contamination	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Management of analytical device/ equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preparation of examination device/ equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Result reporting	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Examination, others	2	1	3	2	8	2	3	3	1	9	3	5	4	5	17
Related to nursing care															
Fall	2	1	3	1	7	5	14	4	4	27	28	28	46	41	143
Fall from bed	2	1	0	1	4	0	1	2	0	3	1	4	5	3	13
Collision	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Restraint	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Severe decubitus (involving muscle layer, Stage III/IV)	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1
Aspiration (nursing care)	1	0	2	2	5	1	2	4	3	10	0	1	0	1	2
Accidental ingestion (nursing care)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nursing care/recuperation, others	7	5	5	4	21	1	4	5	3	13	20	10	18	14	62
Transportation, others	1	2	0	0	3	0	0	0	0	0	2	2	1	1	6
Going out/staying out without notice	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Self medication, others	0	1	0	0	1	0	0	0	0	0	1	1	1	1	4
Meal/nutrition, others	0	0	0	1	1	0	0	0	0	0	1	0	1	1	3
Others	**7**	**6**	**3**	**5**	**21**	**4**	**6**	**3**	**3**	**16**	**3**	**4**	**8**	**9**	**24**
No choice[Note 3]	**3**	**1**	**1**	**2**	**7**	**0**	**2**	**2**	**0**	**4**	**2**	**4**	**10**	**2**	**18**
Total	**34**	**30**	**28**	**27**	**119**	**31**	**55**	**37**	**33**	**156**	**99**	**107**	**144**	**124**	**474**

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.

(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

(Note 3) "No choice" means no "details of event" was selected.

None					No disability					Unknown (Note 2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
															92
1	3	0	0	4	0	0	0	0	0	0	0	0	0	0	9
0	3	1	2	6	1	1	0	0	2	0	0	0	0	0	13
0	0	1	1	2	1	1	0	4	6	1	0	0	1	2	11
1	1	0	0	2	0	0	1	1	2	0	0	0	0	0	5
0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
1	1	0	2	4	1	3	1	2	7	0	0	0	0	0	14
0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	2	1	2	8	4	0	2	1	7	0	0	1	0	1	35
															86
0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2
0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	5
0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	4
0	8	1	6	15	1	8	2	6	17	0	0	2	1	3	69
															628
15	19	43	29	106	5	8	10	6	29	2	4	5	2	13	325
2	4	9	9	24	1	1	2	0	4	3	0	1	0	4	52
0	0	3	3	6	0	0	0	0	0	0	0	0	0	0	8
0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	2
3	0	1	0	4	0	0	0	0	0	0	0	1	1	2	8
1	1	0	0	2	0	1	0	0	1	0	1	0	0	1	21
0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
8	8	20	10	46	3	5	9	9	26	1	2	2	1	6	174
0	1	2	1	4	0	0	0	0	0	0	0	1	0	1	14
1	0	0	0	1	1	0	0	1	2	0	0	0	0	0	3
0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	8
2	0	1	2	5	1	1	0	0	2	0	1	0	0	1	12
4	**9**	**14**	**5**	**32**	**5**	**5**	**11**	**1**	**22**	**0**	**2**	**1**	**1**	**4**	**119**
1	**4**	**7**	**9**	**21**	**0**	**3**	**7**	**5**	**15**	**1**	**0**	**1**	**0**	**2**	**67**
84	**107**	**146**	**117**	**454**	**55**	**59**	**72**	**74**	**260**	**17**	**20**	**20**	**12**	**69**	**1,532**

Fig. II-1-72 Place of Occurrence and Potential of Residual Disability

Place of Occurrence × Potential of Residual Disability(Note 1)	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Outpatient examination room	1	0	0	0	1	1	1	1	0	3	1	1	1	0	3
Outpatient treatment room	0	1	1	0	2	0	0	1	0	1	1	4	1	2	8
Outpatient lobby	0	0	0	0	0	1	0	0	0	1	0	1	0	1	2
Emergency room	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4
Emergency center	0	0	0	0	0	2	1	0	0	3	0	3	0	0	3
Patient room	19	10	10	12	51	13	20	20	17	70	51	51	63	66	231
Ward treatment room	0	1	1	0	2	0	0	0	0	0	3	0	1	3	7
Operation room	4	2	0	3	9	6	7	2	12	27	10	12	19	13	54
ICU	2	3	2	1	8	0	1	1	0	2	0	1	1	2	4
CCU	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
NICU	1	0	0	0	1	0	1	0	1	2	0	0	1	0	1
Examination room	0	0	0	0	0	0	0	0	0	0	0	0	4	3	7
Catheterization laboratory	1	2	4	1	8	3	3	2	0	8	6	7	5	3	21
Radiotherapy room	0	1	0	0	1	0	1	1	0	2	2	1	0	2	5
Radiography room	0	0	1	0	1	1	2	3	1	7	0	2	3	2	7
Radioactive scanning room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dialysis room	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2
Delivery room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rehabilitation room	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Restroom	0	0	1	1	2	1	1	1	1	4	3	2	8	5	18
Hallway	0	0	0	0	0	0	3	1	1	5	3	3	8	4	18
Bathroom	2	1	2	3	8	1	1	0	0	2	2	1	3	5	11
Stairway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	1	0	0	1	0	2	0	0	2	1	3	2	0	6
Others	4	7	6	6	23	2	11	4	0	17	16	13	20	10	59
Total	34	30	28	27	119	31	55	37	33	156	99	107	144	124	474

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.

(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

None					No disability					Unknown (Note 2)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
3	3	1	3	10	1	1	3	4	9	0	2	0	0	2	28
0	1	0	0	1	3	3	0	2	8	0	0	0	0	0	20
1	0	1	0	2	0	0	0	0	0	1	0	0	0	1	6
0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	6
1	1	1	0	3	3	2	0	0	5	0	0	0	0	0	14
42	44	64	58	208	24	21	38	30	113	9	9	10	7	35	708
3	1	3	2	9	2	1	1	0	4	0	0	0	0	0	22
11	15	17	14	57	8	7	7	9	31	3	4	1	0	8	186
2	3	0	4	9	1	4	1	2	8	0	0	1	1	2	33
0	0	1	0	1	1	1	0	2	4	0	1	0	0	1	8
0	1	0	1	2	0	0	0	1	1	0	0	0	0	0	7
1	2	1	1	5	1	0	1	4	6	0	1	2	0	3	21
2	6	2	2	12	0	1	1	5	7	0	0	0	0	0	56
0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	9
2	2	3	2	9	1	5	1	1	8	0	0	1	1	2	34
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
1	0	0	0	1	0	0	2	1	3	0	0	0	0	0	7
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	1	1	4	2	1	0	0	3	0	0	0	0	0	8
0	5	10	6	21	1	1	3	2	7	0	0	0	0	0	52
2	3	12	3	20	1	2	4	1	8	0	1	1	0	2	53
2	1	7	3	13	2	0	1	1	4	0	1	0	0	1	39
0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
0	1	3	2	6	0	0	1	1	2	1	0	0	0	1	18
9	18	17	14	58	4	9	8	8	29	3	0	4	2	9	195
84	107	146	117	454	55	59	72	74	260	17	20	20	12	69	1,532

Fig. II-1-73 Place of Occurrence and Inpatient/Outpatient Status

Place of Occurrence × Inpatient/Outpatient Status	Inpatient					Outpatient					Aggregate total
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
Outpatient examination room	0	1	0	2	3	7	7	6	5	25	28
Outpatient treatment room	1	4	1	1	7	3	5	2	3	13	20
Outpatient lobby	1	0	0	0	1	2	1	1	1	5	6
Emergency room	0	0	0	1	1	0	2	1	2	5	6
Emergency center	6	6	1	0	13	0	1	0	0	1	14
Patient room	158	155	205	190	708	0	0	0	0	0	708
Ward treatment room	8	3	6	5	22	0	0	0	0	0	22
Operation room	39	47	45	51	182	3	0	1	0	4	186
ICU	5	12	6	10	33	0	0	0	0	0	33
CCU	1	2	2	3	8	0	0	0	0	0	8
NICU	1	2	1	3	7	0	0	0	0	0	7
Examination room	2	0	6	6	14	0	3	2	2	7	21
Catheterization laboratory	11	19	14	11	55	1	0	0	0	1	56
Radiotherapy room	1	3	2	1	7	1	0	0	1	2	9
Radiography room	3	8	8	3	22	1	3	4	4	12	34
Radioactive scanning room	0	0	0	1	1	0	0	0	0	0	1
Dialysis room	1	2	2	1	6	0	0	1	0	1	7
Delivery room	0	0	0	0	0	0	0	0	0	0	0
Rehabilitation room	3	0	1	1	5	1	1	1	0	3	8
Restroom	5	9	23	15	52	0	0	0	0	0	52
Hallway	6	12	25	8	51	0	0	1	1	2	53
Bathroom	9	5	13	12	39	0	0	0	0	0	39
Stairway	0	0	1	0	1	0	0	0	0	0	1
Unknown	2	7	6	3	18	0	0	0	0	0	18
Others	33	52	50	36	171	5	6	9	4	24	195
Total	296	349	418	364	1,427	24	29	29	23	105	1,532

Fig. II-1-74 Clinical Department and Summary of Event

Clinical Department(Note) × Summary of Event	Ordering					Drug					Blood transfusion					Treatment/procedure					Medical equipment, etc.				
																					Medical device				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Internal medicine	0	1	0	1	2	3	3	3	2	11	0	0	0	0	0	7	6	7	1	21	2	1	1	2	6
Anesthesiology	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	5	6	6	4	21	0	0	0	1	1
Cardiovascular medicine	0	1	0	1	2	0	1	2	4	7	0	0	0	0	0	8	17	15	13	53	1	2	0	1	4
Neurology	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	2	1	0	1	4	1	0	0	1	2
Respiratory tract medicine	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	5	2	2	1	10	1	0	1	1	3
Gastrointestinal medicine	0	0	0	0	0	1	1	2	0	4	0	0	0	0	0	13	4	12	7	36	1	0	1	1	3
Hematology	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3	1	1	2	7	0	0	0	0	0
Circulatory surgery	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	5	2	4	13	1	1	0	1	3
Allergy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rheumatism	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0
Pediatrics	0	0	2	1	3	3	1	5	0	9	0	0	1	0	1	3	4	2	3	12	1	3	0	0	4
General surgery	0	0	1	0	1	2	2	0	3	7	0	0	0	0	0	10	9	7	7	33	3	0	0	0	3
Orthopedics	0	0	0	2	2	1	2	1	1	5	0	0	0	0	0	8	11	7	7	33	0	2	1	1	4
Plastic surgery	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	1	3	1	7	0	0	0	0	0
Cosmetic surgery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Neurosurgery	0	0	0	0	0	0	2	0	1	3	0	0	0	0	0	9	5	8	11	33	1	1	1	1	4
Respiratory surgery	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	4	3	4	4	15	0	0	1	0	1
Cardiovascular surgery	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	4	10	11	6	31	1	0	1	1	3
Pediatric surgery	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	1	2	0	0	0	0	0
Pain clinic	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Dermatology	0	0	0	0	0	0	0	3	1	4	0	1	0	0	1	0	2	1	0	3	0	0	0	1	1
Urology	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	6	8	6	1	21	0	0	0	0	0
Venereology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proctology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gynecology/Obstetrics	0	1	0	0	1	0	0	2	0	2	0	0	0	0	0	3	5	2	6	16	0	0	0	1	1
Obstetrics	0	0	0	0	0	1	2	0	1	4	0	0	0	0	0	1	1	0	1	3	0	0	0	0	0
Gynecology	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	2	1	5	2	10	0	1	0	0	1
Ophthalmology	0	1	0	0	1	0	0	1	1	2	0	0	0	0	0	3	6	3	3	15	0	0	0	2	2
Otolaryngology	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	5	5	6	6	22	1	0	0	1	2
Psychosomatic medicine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Psychiatry	0	0	0	0	0	0	0	1	4	5	0	0	0	0	0	2	0	2	1	5	0	1	0	0	1
Rehabilitation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0
Radiology	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	2	2	5	3	12	0	0	0	1	1
Dentistry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	0	6	0	0	0	0	0
Orthodontics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pediatric dentistry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dental/oral surgery	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	6	2	2	3	13	1	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	1	1	1	3	5	4	2	2	13	0	2	2	0	4	7	4	5	8	24	4	1	2	1	8
Total	0	5	6	7	18	19	21	29	25	94	0	4	3	0	7	125	123	132	107	487	19	13	9	18	59

(Note) "Clinical department" may be more than one.

Medical equipment, etc.										Examination					Nursing care					Others					Aggregate total
Drainage tube or other tube					Dental equipment																				
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
1	2	0	3	6	0	0	0	0	0	4	5	3	1	13	12	12	27	15	66	3	3	5	4	15	140
0	2	1	2	5	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	1	3	1	1	6	38
1	1	3	2	7	0	0	0	0	0	2	10	1	3	16	11	11	13	5	40	1	3	2	5	11	140
1	1	1	3	6	0	0	0	0	0	0	0	0	0	0	5	4	6	6	21	0	0	3	0	3	38
1	1	1	0	3	0	0	0	1	1	0	2	1	0	3	16	7	28	22	73	1	4	6	4	15	110
0	0	2	0	2	0	0	0	0	0	3	5	5	2	15	4	9	15	11	39	2	3	4	3	12	111
0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	5	1	4	2	12	0	1	1	0	2	25
0	1	0	0	1	0	0	0	0	0	0	0	1	1	2	0	3	1	0	4	0	2	1	1	4	28
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	5	1	3	0	0	4	12
2	1	2	4	9	0	0	0	0	0	0	0	2	1	3	5	13	14	15	47	5	5	3	2	15	103
5	7	2	5	19	0	0	0	0	0	0	1	2	1	4	10	7	12	10	39	7	3	8	1	19	125
0	0	2	0	2	0	0	0	0	0	0	0	1	1	2	13	39	47	44	143	4	6	7	7	24	215
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3	0	1	1	0	2	14
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2	1	2	6	0	0	0	1	1	0	1	1	1	3	3	4	15	7	29	0	2	0	2	4	83
3	1	0	0	4	0	0	0	0	0	1	1	0	2	4	0	0	5	2	7	0	0	0	1	1	33
1	4	0	1	6	0	0	0	0	0	0	0	0	1	1	4	2	3	3	12	0	3	2	2	7	61
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	2	2	5	0	0	1	0	1	10
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	3	0	3	1	1	5	17
0	3	1	0	4	0	0	0	0	0	0	0	0	1	1	1	5	6	1	13	0	1	1	1	3	44
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
1	0	1	0	2	0	0	0	0	0	0	0	1	1	2	0	1	0	1	2	1	2	1	1	5	31
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	2	10
0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	1	2	2	5	2	2	1	2	7	27
0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	3	2	1	8	0	1	1	0	2	32
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	5	5	2	1	13	1	1	1	3	6	46
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	10	13	11	17	51	4	7	10	4	25	88
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	1	1	5	0	0	1	0	1	9
0	0	0	0	0	0	0	0	0	0	1	2	4	3	10	0	1	1	2	4	2	1	0	0	3	32
0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	8
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2	0	2	0	0	2	21
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
4	8	2	5	19	0	0	0	0	0	2	3	5	4	14	18	19	29	21	87	8	9	8	5	30	202
23	37	19	29	108	0	0	0	2	2	15	31	32	27	105	132	165	248	197	742	47	71	71	50	239	1,861

Fig. II-1-75 Clinical Department and Potential of Residual Disability

Clinical Department(Note 1) × Potential of Residual Disability(Note 2)	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Internal medicine	2	3	2	4	11	3	0	3	1	7	9	15	17	7	48
Anesthesiology	1	1	1	1	4	2	3	1	3	9	1	2	6	1	10
Cardiovascular medicine	4	2	3	4	13	1	11	3	0	15	9	13	14	8	44
Neurology	0	0	0	0	0	2	1	0	0	3	4	3	5	7	19
Respiratory tract medicine	3	0	3	3	9	1	2	1	2	6	14	4	15	13	46
Gastrointestinal medicine	2	0	2	2	6	2	4	4	4	14	13	7	12	11	43
Hematology	4	0	1	0	5	3	0	0	1	4	0	2	3	2	7
Circulatory surgery	0	1	0	1	2	1	1	2	0	4	0	2	3	0	5
Allergy	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
Rheumatism	0	2	0	0	2	0	1	0	0	1	0	2	1	1	4
Pediatrics	3	4	1	0	8	4	5	3	3	15	4	8	7	7	26
General surgery	1	6	2	3	12	2	3	3	1	9	12	4	14	11	41
Orthopedics	1	1	2	6	10	3	14	6	4	27	9	28	22	27	86
Plastic surgery	0	0	0	0	0	0	0	1	1	2	1	0	2	1	4
Cosmetic surgery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Neurosurgery	0	0	1	2	3	4	5	3	4	16	3	5	11	9	28
Respiratory surgery	1	0	2	1	4	2	1	0	4	7	1	0	2	3	6
Cardiovascular surgery	1	4	2	0	7	0	3	1	2	6	2	4	7	3	16
Pediatric surgery	0	0	0	0	0	1	0	0	1	2	0	0	0	1	1
Pain clinic	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Dermatology	0	0	1	0	1	0	1	2	1	4	0	2	0	2	4
Urology	2	2	1	0	5	1	4	1	1	7	4	6	5	1	16
Venereology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proctology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gynecology/Obstetrics	0	0	0	0	0	0	1	0	1	2	0	2	1	3	6
Obstetrics	1	1	0	0	2	1	0	1	0	2	1	0	0	2	3
Gynecology	0	0	0	0	0	1	0	1	1	3	0	2	4	4	10
Ophthalmology	0	0	0	0	0	1	1	0	1	3	2	2	3	2	9
Otolaryngology	3	2	3	1	9	0	2	0	1	3	3	4	4	4	15
Psychosomatic medicine	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Psychiatry	3	4	1	3	11	1	3	4	0	8	6	4	7	10	27
Rehabilitation	0	0	0	0	0	0	1	1	0	2	1	1	2	0	4
Radiology	0	1	3	2	6	0	2	2	1	5	3	0	2	3	8
Dentistry	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
Orthodontics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pediatric dentistry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dental/oral surgery	1	2	0	0	3	1	0	1	1	3	2	1	2	1	6
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	7	4	3	3	17	4	7	7	2	20	13	10	10	13	46
Total	40	40	34	36	150	41	76	52	41	210	119	134	184	157	594

(Note 1) "Clinical department" may be more than one.

(Note 2) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.

(Note 3) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

None					No disability					Unknown (Note 3)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
13	12	14	10	49	3	3	7	5	18	2	0	3	2	7	140
1	1	3	2	7	2	2	0	2	6	0	2	0	0	2	38
5	12	12	9	38	5	5	3	12	25	0	3	1	1	5	140
2	3	4	4	13	1	0	1	1	3	0	0	0	0	0	38
5	7	14	9	35	1	1	6	2	10	1	2	1	0	4	110
4	6	11	4	25	2	5	7	1	15	1	0	5	2	8	111
2	1	2	2	7	0	2	0	0	2	0	0	0	0	0	25
1	4	0	4	9	0	4	1	2	7	1	0	0	0	1	28
0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3
0	1	0	1	2	1	0	0	0	1	1	0	1	0	2	12
4	5	17	11	37	4	4	2	5	15	0	1	1	0	2	103
12	12	7	6	37	9	3	4	5	21	1	1	2	1	5	125
11	14	27	16	68	2	3	8	6	19	0	0	1	4	5	215
1	2	2	1	6	0	0	1	0	1	1	0	0	0	1	14
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	4	4	5	16	3	0	5	5	13	1	3	2	1	7	83
2	2	4	2	10	2	2	1	0	5	0	0	1	0	1	33
4	5	5	6	20	2	3	2	3	10	2	0	0	0	2	61
0	0	2	2	4	0	0	1	1	2	1	0	0	0	1	10
0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
1	3	1	0	5	0	0	0	1	1	0	1	1	0	2	17
0	4	5	1	10	0	3	2	1	6	0	0	0	0	0	44
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2	4	2	2	10	3	2	4	3	12	0	0	0	1	1	31
0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	10
2	2	2	2	8	1	0	4	0	5	0	1	0	0	1	27
1	4	4	5	14	1	0	0	1	2	0	4	0	0	4	32
5	2	1	1	9	1	1	1	4	7	1	1	1	0	3	46
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1	5	5	8	19	2	4	5	5	16	3	1	2	1	7	88
1	0	0	1	2	0	1	0	0	1	0	0	0	0	0	9
1	2	3	3	9	1	0	0	1	2	0	1	1	0	2	32
2	0	0	0	2	1	0	2	0	3	0	0	0	0	0	8
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	2	0	0	4	2	0	0	2	4	1	0	0	0	1	21
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
9	12	21	13	55	10	14	11	14	49	5	4	4	2	15	202
98	132	173	131	534	60	63	79	82	284	22	25	27	15	89	1,861

Fig. II-1-76 Clinical Department and Intensity of Treatment

Clinical Department × Intensity of Treatment	Intensive treatment					Minor treatment					No treatment					Aggregate total
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
Internal medicine	14	13	12	10	49	15	14	28	14	71	3	6	6	5	20	140
Anesthesiology	5	7	9	6	27	2	2	2	2	8	0	2	0	1	3	38
Cardiovascular medicine	10	28	17	14	69	11	14	16	11	52	3	4	3	9	19	140
Neurology	6	2	5	5	18	3	5	5	5	18	0	0	0	2	2	38
Respiratory tract medicine	10	11	14	10	45	14	3	26	17	60	1	2	0	2	5	110
Gastrointestinal medicine	18	8	24	15	65	5	13	12	8	38	1	1	5	1	8	111
Hematology	7	1	4	3	15	2	4	1	2	9	0	0	1	0	1	25
Circulatory surgery	2	7	2	4	15	1	3	3	1	8	0	2	1	2	5	28
Allergy	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
Rheumatism	1	4	2	0	7	0	2	0	2	4	1	0	0	0	1	12
Pediatrics	9	9	10	4	32	9	12	13	20	54	1	6	8	2	17	103
General surgery	15	16	17	11	59	21	9	13	11	54	1	4	2	5	12	125
Orthopedics	17	28	38	31	114	9	31	27	28	95	0	1	1	4	6	215
Plastic surgery	3	0	3	1	7	0	2	3	2	7	0	0	0	0	0	14
Cosmetic surgery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Neurosurgery	9	9	16	15	49	5	7	9	10	31	0	1	1	1	3	83
Respiratory surgery	6	3	6	8	23	2	2	4	2	10	0	0	0	0	0	33
Cardiovascular surgery	6	12	9	7	34	2	4	6	5	17	3	3	2	2	10	61
Pediatric surgery	1	0	0	2	3	1	0	3	1	5	0	0	0	2	2	10
Pain clinic	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	2
Dermatology	1	4	2	1	8	0	3	2	2	7	0	0	1	1	2	17
Urology	3	14	8	2	27	2	4	4	1	11	2	1	2	1	6	44
Venereology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proctology	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Gynecology/Obstetrics	1	2	2	5	10	2	6	2	3	13	2	1	3	2	8	31
Obstetrics	2	1	0	1	4	1	1	0	1	3	0	1	2	0	3	10
Gynecology	3	3	6	2	14	0	2	3	5	10	1	0	2	0	3	27
Ophthalmology	2	2	3	4	11	3	7	4	4	18	0	2	0	1	3	32
Otolaryngology	9	8	5	2	24	3	2	2	8	15	1	2	3	1	7	46
Psychosomatic medicine	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Psychiatry	6	10	9	6	31	8	10	12	13	43	2	1	3	8	14	88
Rehabilitation	1	2	3	0	6	1	1	0	1	3	0	0	0	0	0	9
Radiology	1	4	9	4	18	2	2	1	4	9	2	0	1	2	5	32
Dentistry	0	0	0	0	0	2	0	5	0	7	1	0	0	0	1	8
Orthodontics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pediatric dentistry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dental/oral surgery	6	2	2	2	12	2	2	1	1	6	1	1	0	1	3	21
Unknown	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Others	18	23	21	21	83	19	21	26	20	86	11	7	9	6	33	202
Total	192	234	259	196	881	151	188	233	205	777	37	48	57	61	203	1,861

Fig. II-1-77 Cause of Event and Summary of Event

Cause of Event (Note) × Summary of Event	Ordering					Drug					Blood transfusion					Treatment/ procedure				Medical equipment, etc.					
																				Medical device					
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Neglect to check	0	5	5	5	15	14	17	17	15	63	0	4	1	0	5	35	29	32	28	124	11	4	5	8	28
Neglect to observe	0	0	0	0	0	2	3	2	2	9	0	0	1	0	1	17	14	18	17	66	3	1	1	2	7
Misjudgment	0	1	1	2	4	3	1	8	3	15	0	2	0	0	2	22	18	24	17	81	4	2	1	2	9
Lack of knowledge	0	4	3	2	9	7	8	6	2	23	0	1	1	0	2	7	3	7	7	24	3	4	2	3	12
Deficiency of technique/skill	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	6	13	19	18	56	0	2	1	2	5
Delayed reporting	0	0	0	1	1	0	1	0	1	2	0	0	0	0	0	1	0	2	0	3	0	0	1	0	1
Under unusual physical condition	0	0	0	1	1	1	1	2	3	7	0	1	0	0	1	5	7	3	4	19	1	0	0	0	1
Under unusual psychological condition	0	0	0	1	1	0	2	1	2	5	0	0	0	0	0	2	2	1	1	6	0	0	1	0	1
System failure	0	1	1	2	4	2	6	4	0	12	0	0	2	0	2	5	8	3	5	21	2	2	1	0	5
Inadequate coordination	0	2	0	1	3	2	7	1	5	15	0	1	0	0	1	9	9	12	6	36	3	0	0	1	4
Inadequate documentation	0	0	0	0	0	0	2	0	2	4	0	0	0	0	0	1	0	2	1	4	1	0	0	0	1
Similarity in patient's appearance or name	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Busy working condition	0	0	1	1	2	3	2	1	2	8	0	0	1	0	1	2	3	6	2	13	1	0	1	1	3
Problem in environment	0	0	0	0	0	1	1	0	2	4	0	0	0	0	0	3	1	0	1	5	2	1	2	0	5
Problem in the drug	0	0	0	0	0	3	2	3	3	11	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
Problem in medical device	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	1	6	4	13	5	4	2	6	17
Problem in other items	0	0	0	0	0	1	0	0	1	2	0	0	0	0	0	1	3	2	0	6	0	0	1	0	1
Problem in facility	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	3	1	0	5	1	0	0	0	1
Problem in education/training	0	1	2	1	4	3	3	3	1	10	0	0	1	0	1	5	6	5	4	20	2	4	1	3	10
Lack of explanation	0	0	0	0	0	1	0	0	2	3	0	0	0	0	0	5	3	8	3	19	0	1	0	0	1
Others	0	0	0	0	0	0	0	2	2	4	0	0	1	0	1	40	39	34	36	149	5	2	0	1	8
Total	0	14	13	17	44	45	56	51	49	201	0	9	8	0	17	169	162	185	156	672	44	27	20	29	120

(Note) "Cause of event" may be more than one.

Medical equipment, etc.										Examination					Nursing care					Others					Aggregate total
Drainage tube or other tube					Dental equipment																				
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
8	14	5	7	34	0	0	0	0	0	5	7	7	9	28	17	13	34	30	94	6	8	12	7	33	424
1	14	6	4	25	0	0	0	0	0	1	3	1	2	7	40	46	72	58	216	10	12	14	14	50	381
7	8	4	9	28	0	0	0	0	0	1	4	5	3	13	33	41	59	47	180	6	5	14	7	32	364
4	4	0	1	9	0	0	0	1	1	0	0	1	1	2	10	9	19	10	48	3	2	4	6	15	145
0	1	5	5	11	0	0	0	0	0	0	3	2	3	8	13	12	16	10	51	1	2	2	5	10	143
0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	1	3	6	3	13	2	1	0	1	4	27
1	2	1	2	6	0	0	0	0	0	0	0	2	1	3	5	5	7	14	31	2	3	4	2	11	80
0	1	0	1	2	0	0	0	0	0	0	0	0	1	1	3	2	1	1	7	0	2	4	1	7	30
2	0	0	0	2	0	0	0	0	0	1	2	3	1	7	0	6	2	0	8	0	3	4	1	8	69
2	6	0	1	9	0	0	0	0	0	1	2	3	2	8	11	14	22	14	61	4	3	6	3	16	153
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	2	1	5	0	1	1	1	3	18
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	2	3	0	0	0	1	1	2	0	1	2	5	6	4	7	3	20	1	1	1	2	5	61
0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	10	17	19	20	66	3	6	8	4	21	103
0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	0	0	3	2	5	0	0	0	0	0	21
2	0	1	1	4	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	1	3	39
2	0	1	1	4	0	0	0	0	0	0	0	0	0	0	1	3	3	3	10	0	2	4	2	8	31
0	0	0	0	0	0	0	0	0	0	0	2	1	1	4	6	6	3	9	24	2	2	6	2	12	47
4	5	2	1	12	0	0	0	0	0	1	2	0	0	3	10	13	15	8	46	3	0	8	3	14	120
0	6	0	1	7	0	0	0	0	0	0	2	1	2	5	20	17	39	24	100	5	3	5	7	20	155
3	4	6	5	18	0	0	0	0	0	4	9	6	5	24	28	34	49	37	148	18	23	17	13	71	423
36	66	32	42	176	0	0	0	2	2	16	38	38	34	126	215	246	378	294	1,133	66	80	115	82	343	2,834

Fig. II-1-78 Place of Occurrence and Summary of Event

Place of Occurrence × Summary of Event	Ordering					Drug					Blood transfusion					Treatment/procedure				Medical equipment, etc.					
																				Medical device					
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Outpatient examination room	0	0	0	1	1	2	1	0	0	3	0	0	0	0	0	4	4	3	1	12	0	0	0	1	1
Outpatient treatment room	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	3	2	3	10	0	0	0	0	0
Outpatient lobby	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0
Emergency room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4	0	0	0	0	0
Emergency center	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	2	0	0	0	2
Patient room	0	1	2	1	4	10	9	14	14	47	0	3	2	0	5	20	16	20	23	79	8	5	3	3	19
Ward treatment room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	2	3	12	1	0	0	0	1
Operation room	0	1	0	1	2	1	0	1	2	4	0	0	0	0	0	34	33	37	36	140	3	5	5	5	18
ICU	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	3	4	2	4	13	1	1	1	2	5
CCU	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	1	2	5	0	0	0	1	1
NICU	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	0	0	0	1
Examination room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	2	8	0	0	0	0	0
Catheterization laboratory	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	9	11	9	9	38	0	0	0	0	0
Radiotherapy room	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	3	1	1	7	0	0	0	0	0
Radiography room	0	0	0	1	1	0	0	2	0	2	0	0	0	0	0	1	3	3	0	7	1	0	0	1	2
Radioactive scanning room	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dialysis room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	1	6	0	0	0	0	0
Delivery room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rehabilitation room	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0
Restroom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
Hallway	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
Bathroom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stairway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
Others	0	2	4	0	6	2	4	4	3	13	0	1	1	0	2	12	10	12	7	41	2	1	0	1	4
Total	0	5	6	5	16	17	19	24	21	81	0	4	3	0	7	100	98	100	96	394	19	12	9	14	54

Medical equipment, etc.										Examination					Nursing care					Others					Aggregate total
Drainage tube or other tube					Dental equipment																				
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
0	2	0	2	4	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	1	1	3	0	5	28
1	0	0	0	1	0	0	0	0	0	0	2	1	1	4	1	2	0	0	3	0	1	0	0	1	20
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	4	0	0	0	0	0	6
0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	6
2	1	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	14
15	19	10	14	58	0	0	0	1	1	3	3	2	2	10	82	77	133	111	403	20	22	19	21	82	708
1	0	0	1	2	0	0	0	0	0	0	0	2	1	3	1	0	1	0	2	1	0	1	0	2	22
1	1	1	3	6	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2	6	2	4	14	186
0	4	1	3	8	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	1	0	1	2	33
0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	7
0	0	0	0	0	0	0	0	0	0	1	1	4	6	12	0	0	0	0	0	0	1	0	0	1	21
1	1	0	0	2	0	0	0	0	0	1	6	4	2	13	0	0	0	0	0	1	0	0	0	1	56
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	9
0	1	0	0	1	0	0	0	0	0	1	6	6	2	15	0	1	0	2	3	1	0	1	1	3	34
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	0	2	0	3	8
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	7	20	11	41	1	2	3	3	9	52
0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3	11	16	8	38	2	1	8	1	12	53
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2	12	10	31	2	3	1	2	8	39
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	5	4	1	11	0	1	2	2	5	18
0	1	1	1	3	0	0	0	0	0	3	6	4	5	18	14	22	17	16	69	5	11	16	7	39	195
22	31	16	25	94	0	0	0	1	1	10	26	24	21	81	113	131	207	161	612	39	52	58	43	192	1,532

Fig. II-1-79 Establishment of Accident Investigation Board and Summary of Event

Establishment of Accident Investigation Board(Note 1) × Summary of Event	Ordering					Drug					Blood transfusion					Treatment/ procedure				Medical equipment, etc.					
																				Medical device					
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Existing internal investigation board	0	1	1	0	2	6	2	5	2	15	0	1	0	0	1	25	23	16	11	75	4	1	2	4	11
Existing external investigation board	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
Internal investigation board to be established	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
External investigation board to be established	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Existing medical safety committee is in charge of investigation	0	4	4	5	13	10	14	14	18	56	0	3	3	0	6	57	57	58	58	230	13	10	6	8	37
Currently under consideration and undecided	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	5	1	8	0	0	0	0	0
Others	0	0	1	0	1	0	1	3	0	4	0	0	0	0	0	10	10	16	21	57	1	0	1	0	2
No choice(Note 2)	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
Total	0	5	6	5	16	17	19	24	21	81	0	4	3	0	7	100	98	100	96	394	19	12	9	14	54

(Note 1) Multiple choices acceptable

(Note 2) "No choice" means none of the checkboxes for "establishment of accident investigation board" was selected.

Fig. II-1-80 Establishment of Accident Investigation Board and Potential of Residual Disability

Establishment of Accident Investigation Board(Note 1) × Potential of Residual Disability(Note 2)	Death					High					Low				
	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total
Existing internal investigation board	5	4	6	3	18	4	7	6	7	24	22	17	13	8	60
Existing external investigation board	2	0	0	2	4	2	0	0	1	3	0	0	0	0	0
Internal investigation board to be established	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
External investigation board to be established	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
Existing medical safety committee is in charge of investigation	16	15	13	17	61	20	39	23	20	102	60	81	108	94	343
Currently under consideration and undecided	0	1	0	1	2	1	1	1	0	3	0	0	1	1	2
Others	2	2	3	4	11	1	3	1	2	7	10	6	14	14	44
No choice	0	1	1	0	2	1	0	0	0	1	3	1	0	3	7
Total	34	30	28	27	119	31	55	37	33	156	99	107	144	124	474

(Note 1) Multiple choices acceptable

(Note 2) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.

(Note 3) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

Medical equipment, etc.										Examination					Nursing care					Others					Aggregate total
Drainage tube or other tube					Dental equipment																				
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
5	5	1	3	14	0	0	0	0	0	2	3	4	2	11	13	3	15	7	38	5	9	4	2	20	187
0	0	0	1	1	0	0	0	0	0	2	0	0	1	3	0	0	0	0	0	1	0	0	1	2	7
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	3
16	23	12	19	70	0	0	0	0	0	3	23	15	16	57	76	99	141	117	433	23	28	38	29	118	1020
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	6	11	0	1	0	1	2	22
1	0	3	0	4	0	0	0	1	1	1	0	2	1	4	9	24	27	24	84	5	9	13	9	36	193
0	2	0	1	3	0	0	0	0	0	0	0	0	0	0	5	0	7	3	15	0	1	0	0	1	23
22	31	16	25	94	0	0	0	1	1	10	26	24	21	81	113	131	207	161	612	39	52	58	43	192	1,532

None					No disability					Unknown (Note 3)					Aggregate total
January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	January to March	April to June	July to September	October to December	Total	
20	9	16	8	53	6	10	6	4	26	3	1	1	1	6	187
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3
53	76	94	82	305	39	37	42	52	170	10	13	11	5	39	1,020
0	0	3	4	7	1	0	3	1	5	0	1	1	1	3	22
6	21	27	20	74	6	9	15	12	42	2	3	6	4	15	193
0	1	1	1	3	0	1	6	2	9	1	0	0	0	1	23
84	107	146	117	454	55	59	72	74	260	17	20	20	12	69	1,532

[5] Details of Reports from Registered Medical Institutions (by Month of Report)

The tabulation of reports made by registered medical institutions (medical institutions subject to reporting requirement and voluntarily participating medical institutions) between January 31 and December 31, 2008 is shown below.

Fig. II-1-81 Month of occurrence

Month of occurrence		Number of event
2007	November and before	106
	December	77
2008	January	118
	February	111
	March	96
	April	132
	May	135
	June	115
	July	143
	August	112
	September	157
	October	132
	November	83
	December	46
Total		1,563

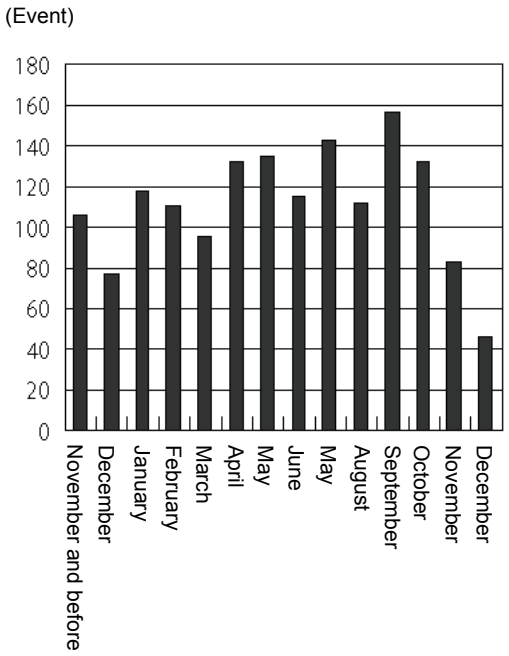


Fig. II-1-82 Day of Occurrence and Weekday/Holiday Category

Day of occurrence	Weekday	Holiday	Total
Mon.	223	19	242
Tue.	231	10	241
Wed.	234	4	287
Thu.	274	3	265
Fri.	245	3	248
Sat.	27	118	145
Sun.	0	135	135
Total	1.271	292	1,563

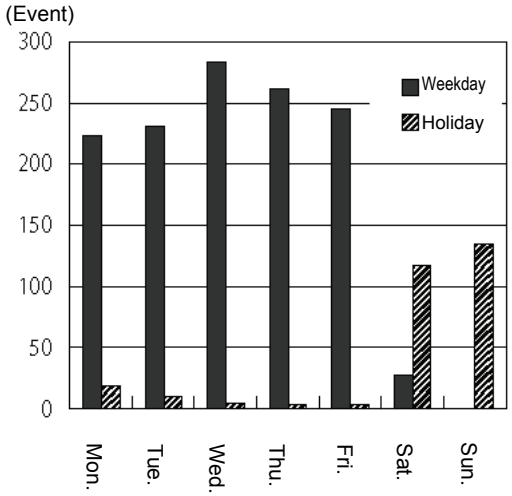


Fig. II-1-83 Time of occurrence

Time of occurrence	Number of event
0:00 – before 2:00	89
2:00 – before 4:00	51
4:00 – before 6:00	64
6:00 – before 8:00	108
8:00 – before 10:00	136
10:00 – before 12:00	227
12:00 – before 14:00	156
14:00 – before 16:00	235
16:00 – before 18:00	150
18:00 – before 20:00	100
20:00 – before 22:00	94
22:00 – before 23:00	82
Time unknown	71
Total	1,563

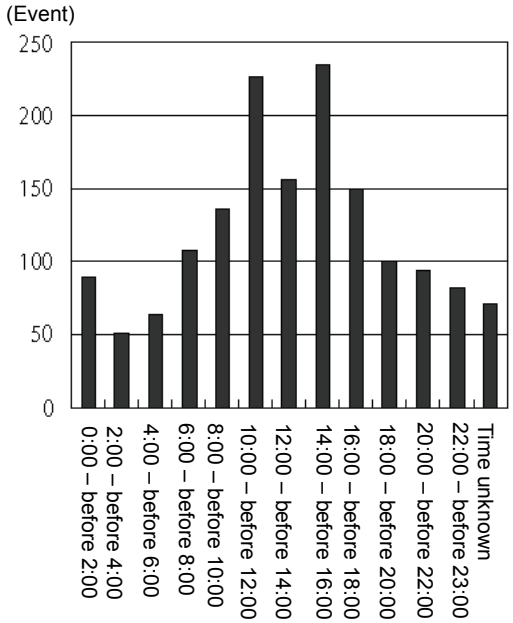
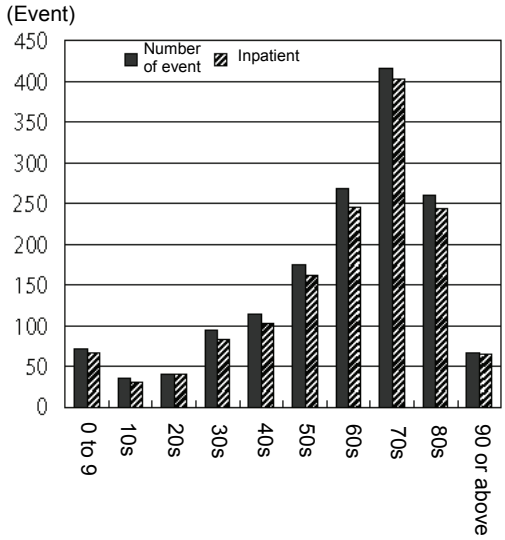


Fig. II-1-84 Patient age

Number of patients(Note)	Patient age	Number of event	Inpatient
1 patient	0 to 9	72	66
	10s	36	31
	20s	41	39
	30s	95	84
	40s	115	104
	50s	175	161
	60s	269	245
	70s	416	404
	80s	260	244
	90 or above	66	65
	Total	1,545	1,443
2 or more	Total	18	12
Aggregate total		1,563	1,455



(Note) This item is the number of reports in which "1 patient" was selected in the checkbox of "Number of Patients" and does not include the number of reports in which "2 patients or more" was selected.
The tabulation is not conducted because the selection of "2 patients or more" becomes described information, and the number of patients and patient age are not always listed.

Fig. II-1-85 Sex of Patients

Number of patients	Sex	Number of event
1 patient	Male	766
	Female	779
	Total	1,545
2 or more	Total	18
Aggregate total		1,563

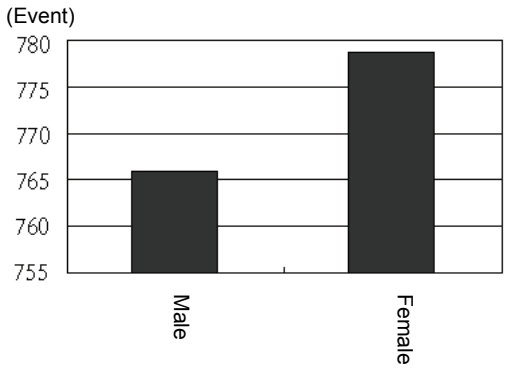


Fig. II-1-86 Inpatient/Outpatient Status and Duration of Hospital Stay

Inpatient/outpatient status		Number of event
Inpatient	Duration: 0 to 31 days	955
	Duration: 32 days or longer	500
	Total	1,455
Outpatient	Initial visit	11
	Follow-up visit	97
	Total	108
Aggregate total		1,563

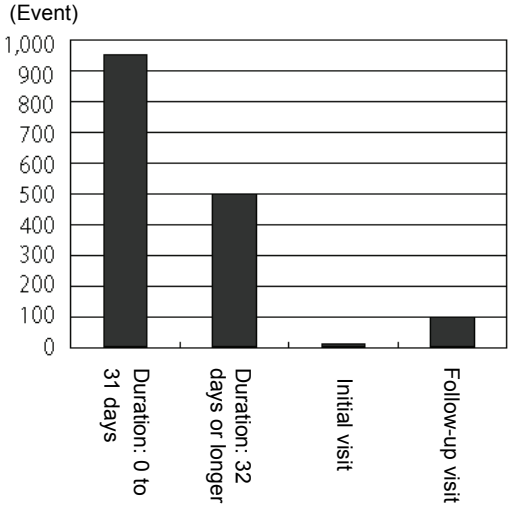


Fig. II-1-87 Person who identified event

Person who identified event	Number of event
Medical staff	1,330
Patient himself/herself	54
Patient's family/caregiver	46
Other patient	54
Others	79
Total	1,563

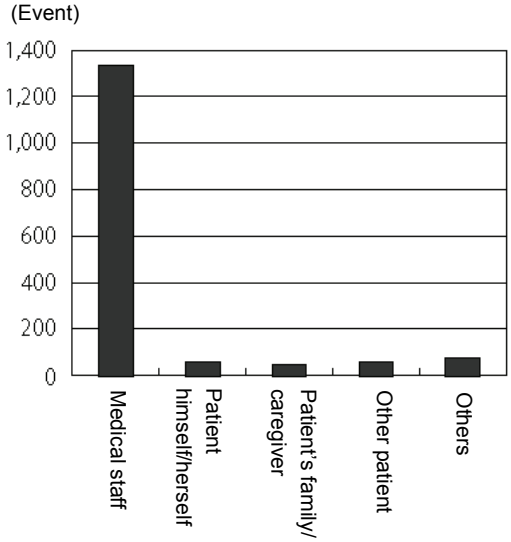
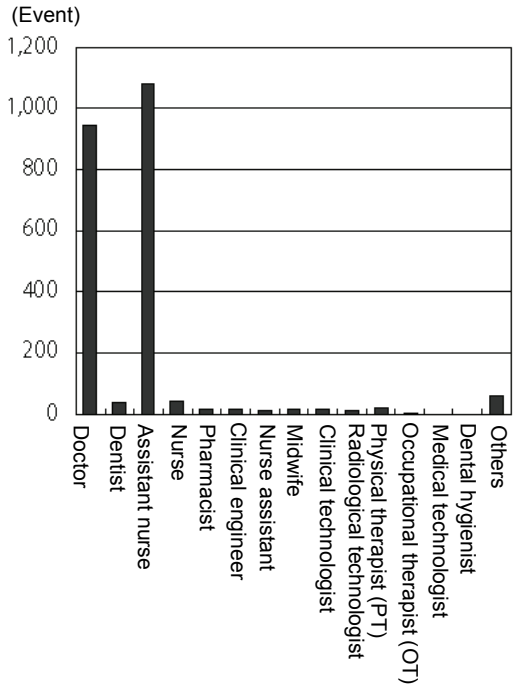


Fig. II-1-88 Job Title of Person Involved

Job title of person involved (Note)	Number of event
Doctor	951
Dentist	37
Nurse	1,088
Assistant nurse	44
Pharmacist	16
Clinical engineer	15
Midwife	9
Nursing assistant	13
Radiological technologist	15
Clinical technologist	11
Physical therapist (PT)	20
Occupational therapist (OT)	6
Medical technologist	0
Dental hygienist	0
Others	60
Total	2,285



(Note) Person involved is a person determined by the medical institution to have been involved in the event occurred; more than 1 person may have been involved.

Fig. II-1-89 Years of Experience of Person Involved by Job Title (Doctor, Dentist, Nurse, Pharmacist)

Job title of person involved(Note) × Years of experience	0 years	1 years	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10 years	11 to 20 years	21 to 30 years	30 years or longer	Total
Doctor	33	18	47	57	36	55	43	42	56	41	35	353	112	23	951
Dentist	1	5	0	1	2	5	1	2	2	1	4	7	3	3	37
Nurse	85	108	99	76	66	44	59	43	33	30	36	203	159	47	1,088
Pharmacist	0	3	0	1	0	0	1	0	0	0	0	7	3	1	16

(Note) Person involved is a person determined by the medical institution to have been involved in the event occurred; more than 1 person may have been involved.

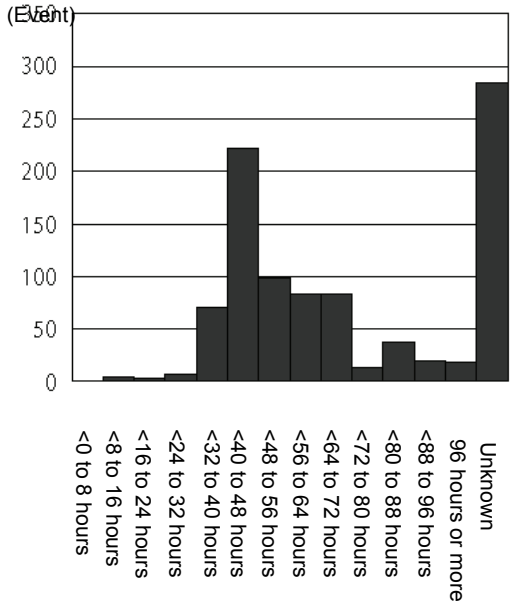
Fig. II-1-90 Number of Years Person Involved (Doctor, Dentist, Nurse, Pharmacist) Has Been Working at Current Department

Job title of person involved(Note) × Number of years at current department	0 years	1 years	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10 years	11 to 20 years	21 to 30 years	30 years or longer	Total
Doctor	229	143	90	68	53	59	42	38	35	21	23	124	23	3	951
Dentist	3	4	0	2	1	5	2	3	4	2	2	4	3	2	37
Nurse	281	248	189	125	86	53	40	25	12	2	4	19	3	1	1,088
Pharmacist	3	3	1	2	1	0	1	0	0	0	1	3	1	0	16

(Note) Person involved is a person determined by the medical institution to have been involved in the event occurred; more than 1 person may have been involved.

Fig. II-1-91 Working Hours (in week previous to event) (Note 1) of Person Involved (Doctors) (Note 2)

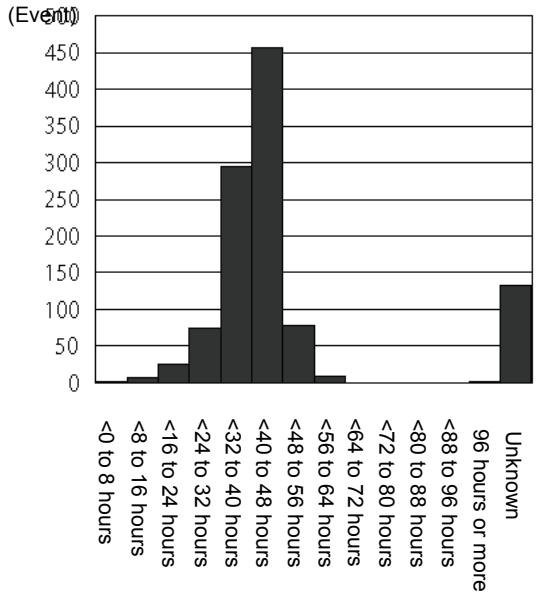
Working hours	January to December, 2008
<0 to 8 hours	0
<8 to 16 hours	4
<16 to 24 hours	3
<24 to 32 hours	7
<32 to 40 hours	71
<40 to 48 hours	223
<48 to 56 hours	100
<56 to 64 hours	84
<64 to 72 hours	84
<72 to 80 hours	13
<80 to 88 hours	37
<88 to 96 hours	19
96 hours or more	18
Unknown	288
Total	951
Average working hours	53.4



(Note 1) Working hours may also include hours worked outside the hospital.
(Note 2) The person involved is a person determined by the medical institution to have been involved in the occurring event, including part-time employees. Multiple persons may have been involved and reported accordingly.

Fig. II-1-92 Working Hours (in week previous to event) (Note 1) of Person Involved (Nurses) (Note 2)

Working hours	January to December, 2008
<0 to 8 hours	2
<8 to 16 hours	7
<16 to 24 hours	26
<24 to 32 hours	74
<32 to 40 hours	298
<40 to 48 hours	460
<48 to 56 hours	78
<56 to 64 hours	9
<64 to 72 hours	0
<72 to 80 hours	0
<80 to 88 hours	0
<88 to 96 hours	0
96 hours or more	1
Unknown	133
Total	1,088
Average working hours	37.3



(Note 1) Working hours may also include hours worked outside the hospital.
(Note 2) The person involved is a person determined by the medical institution to have been involved in the occurring event, including part-time employees. Multiple persons may have been involved and reported accordingly.

Fig. II-1-93 Number of Night Shifts (in week previous to event) of Person Involved (Doctors)

Number of night shifts	January to December, 2008
0 times	370
1 times	280
2 times	72
3 times	18
4 times	5
5 times	2
6 times	0
7 times	0
Unknown	204
Total	951
Average number of night shifts (not including unknown)	0.68

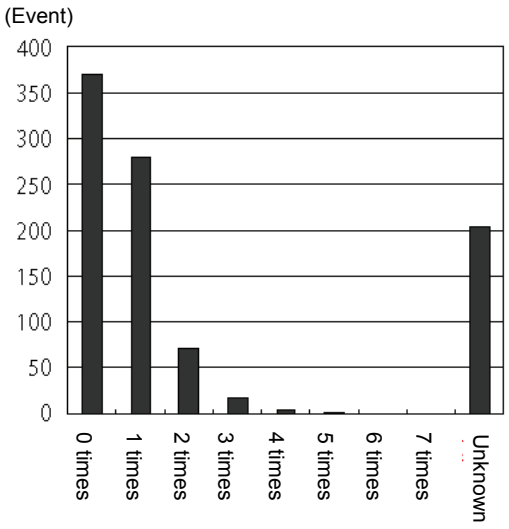


Fig. II-1-94 Number of Night Shifts (in week previous to event) of Person Involved (Nurses)

Number of night shifts	January to December, 2008
0 times	156
1 times	319
2 times	384
3 times	93
4 times	14
5 times	3
6 times	0
7 times	1
Unknown	118
Total	1,088
Average number of night shifts (not including unknown)	1.49

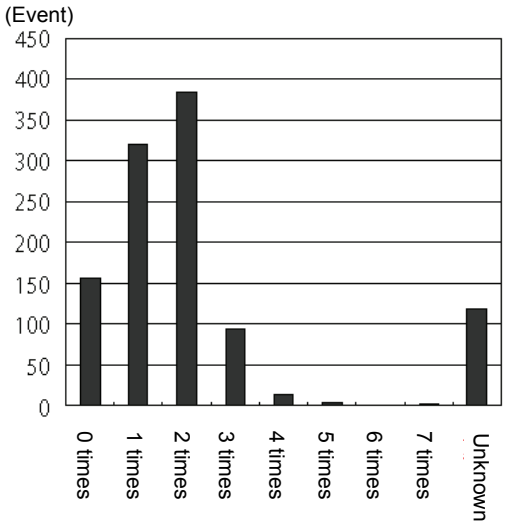


Fig. II-1-95 Summary of event

Summary of event	January to December, 2008	
	Number of event	%
Ordering	12	0.8
Drug	86	5.5
Blood transfusion	6	0.4
Treatment/procedure	385	24.6
Medical equipment, etc.	157	10.0
Medical device	51	3.3
Drainage tube or other tube	105	6.7
Dental equipment	1	0.1
Examination	77	4.9
Nursing care	620	39.7
Others	220	14.1
Total	1,563	100.0

Fig. II-1-96 Potential of Residual Disability

Potential of residual disability(Note 1)	January to December, 2008	
	Number of event	%
Death	152	9.7
High	154	9.9
Low	479	30.6
None	456	29.2
No disability	249	15.9
Unknown (Note 2)	73	4.7
Total	1,563	100.0

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

Fig. II-1-97 Intensity of treatment

Intensity of treatment	January to December, 2008	
	Number of event	%
Intensive treatment(Note 1)	712	45.6
Minor treatment	683	43.7
No treatment	168	10.7
Total	1,563	100.0

(Note 1) See Reference 1 of HPB Notification No. 0921001 (as of September 21, 2004).

Fig. II-1-98 Place of Occurrence

Place of Occurrence	January to December, 2008	
	Number of event	%
Outpatient examination room	27	1.7
Outpatient treatment room	22	1.4
Outpatient lobby	7	0.4
Emergency room	3	0.2
Emergency center	14	0.9
Patient room	739	47.3
Ward treatment room	22	1.4
Operation room	178	11.4
ICU	35	2.2
CCU	4	0.3
NICU	6	0.4
Examination room	16	1.0
Catheterization laboratory	56	3.6
Radiotherapy room	10	0.6
Radiography room	33	2.1
Radioactive scanning room	2	0.1
Dialysis room	10	0.6
Delivery room	0	0.0
Rehabilitation room	15	1.0
Restroom	50	3.2
Hallway	55	3.5
Bathroom	39	2.5
Stairway	1	0.1
Unknown	22	1.4
Others	197	12.6
Total	1,563	100.0

Fig. II-1-99 Clinical Department

Clinical Department (Note)	January to December, 2008	
	Number of event	%
Internal medicine	172	9.0
Anesthesiology	41	2.2
Cardiovascular medicine	128	6.7
Neurology	39	2.0
Respiratory tract medicine	107	5.6
Gastrointestinal medicine	112	5.9
Hematology	29	1.5
Circulatory surgery	26	1.4
Allergy	3	0.2
Rheumatism	14	0.7
Pediatrics	95	5.0
General surgery	140	7.4
Orthopedics	216	11.3
Plastic surgery	13	0.7
Cosmetic surgery	0	0.0
Neurosurgery	86	4.5
Respiratory surgery	31	1.6
Cardiovascular surgery	56	2.9
Pediatric surgery	9	0.5
Pain clinic	2	0.1
Dermatology	17	0.9
Urology	49	2.6
Venereology	0	0.0
Proctology	1	0.1
Gynecology/Obstetrics	28	1.5
Obstetrics	10	0.5
Gynecology	29	1.5
Ophthalmology	32	1.7
Otolaryngology	42	2.2
Psychosomatic medicine	1	0.1
Psychiatry	91	4.8
Rehabilitation	19	1.0
Radiology	29	1.5
Dentistry	9	0.5
Orthodontics	0	0.0
Pediatric dentistry	0	0.0
Dental/oral surgery	22	1.2
Unknown	1	0.1
Others	205	10.8
Total	1,904	100.0

(Note) "Clinical department" may be more than one.

Fig. II-1-100 Cause of Event

Cause of Event (Note)	January to December, 2008	
	Number of event	%
Neglect to check	414	13.9
Neglect to observe	380	12.8
Misjudgment	381	12.8
Lack of knowledge	148	5.0
Deficiency of technique/skill	147	5.0
Delayed reporting	35	1.2
Under unusual physical condition	89	3.0
Under unusual psychological condition	31	1.0
System failure	85	2.9
Inadequate coordination	168	5.7
Inadequate documentation	23	0.8
Similarity in patient's appearance or name	1	0.0
Busy working condition	68	2.3
Problem in environment	116	3.9
Problem in the drug	24	0.8
Problem in medical device	49	1.7
Problem in other items	36	1.2
Problem in facility	49	1.7
Problem in education/training	137	4.6
Lack of explanation	144	4.9
Others	443	14.9
Total	2,968	100.0

(Note) "Cause of event" may be more than one.

Fig. II-1-101 Cases encouraged to be reported

Cases encouraged to be reported	January to December, 2008	
	Number of event	%
Accident due to use of contaminated drug/material/biologic product	4	0.3
Death or disability due to nosocomial infection	1	0.1
Suicide or suicide attempt during hospitalization	44	2.8
Escape of inpatient	6	0.4
Burn during hospitalization	19	1.2
Electric shock during hospitalization	1	0.1
Death or disability of patient due to facility fire	0	0.0
Handing over of infant to wrong parent	5	0.3
No applicable option	1,483	94.9
Total	1,563	100.0

Fig. II-1-102 Establishment of accident investigation board

Establishment of accident investigation board(Note 1)	January to December, 2008	
	Number of event	%
Existing internal investigation board	231	14.0
Existing external investigation board	15	0.9
Internal investigation board to be established	6	0.4
External investigation board to be established	9	0.5
Existing medical safety committee is in charge of investigation	1,106	66.8
Currently under consideration and undecided	32	1.9
Others	233	14.1
No choice(Note 2)	23	1.4
Total	1,655	100.0

(Note 1) "Establishment of accident investigation board" may be more than one.
(Note 2) "No choice" means none of the checkboxes for "establishment of accident investigation board" was selected.

Fig. II-1-103 Summary of Event and Potential of Residual Disability

Summary of Event × Potential of Residual Disability(Note 1)	Death	High	Low	None	No disability	Unknown (Note 2)	Total
Ordering	0	1	3	5	3	0	12
Drug	5	5	23	27	24	2	86
Blood transfusion	0	0	0	5	1	0	6
Treatment/procedure	40	49	112	111	57	16	385
Medical equipment, etc.	8	14	39	45	39	12	157
Medical device	4	5	8	14	13	7	51
Drainage tube or other tube	4	9	31	31	26	4	105
Dental equipment	0	0	0	0	0	1	1
Examination	10	10	16	18	20	3	77
Nursing care	36	51	237	200	70	26	620
Others	53	24	49	45	35	14	220
Total	152	154	479	456	249	73	1,563

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

Fig. II-1-104 Summary of Event and Intensity of treatment

Summary of Event × Intensity of treatment	Intensive treatment	Minor treatment	No treatment	Total
Ordering	5	3	4	12
Drug	30	37	19	86
Blood transfusion	3	1	2	6
Treatment/procedure	232	125	28	385
Medical equipment, etc.	84	60	13	157
Medical device	27	16	8	51
Drainage tube or other tube	57	44	4	105
Dental equipment	0	0	1	1
Examination	41	18	18	77
Nursing care	217	361	42	620
Others	100	78	42	220
Total	712	683	168	1,563

Fig. II-1-105 Potential of Residual Disability and Intensity of Treatment

Potential of Residual Disability(Note 1) × Intensity of Treatment	Intensive treatment	Minor treatment	No treatment	Total
Death	116	9	27	152
High	128	21	5	154
Low	221	232	26	479
None	148	279	29	456
No disability	53	124	72	249
Unknown (Note 2)	46	18	9	73
Total	712	683	168	1,563

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

Fig. II-1-106 Situation and Potential of Residual Disability

Situation × Potential of residual disability(Note 1)	Death	High	Low	None	No disability	Unknown (Note 2)	Total
Related to drug							92
Drug preparation	0	0	0	4	0	1	5
Other drug preparations	0	0	2	0	0	0	2
Subcutaneous/intramuscular injection	0	0	1	5	1	0	7
Intravenous injection	3	4	6	3	5	0	21
Arterial injection	0	0	0	0	0	0	0
Peripheral intravenous drop	0	1	4	6	3	0	14
Central venous injection	1	0	2	1	1	0	5
Oral administration	2	0	6	4	7	0	19
Nose drop/eye drop/ear drop	0	0	1	0	0	0	1
Other drug prescription/administration	0	1	2	2	1	0	6
Oral drug dispensing/management	0	0	0	3	3	1	7
Injection dispensing/management	0	0	0	1	3	0	4
Dispensing/management, others	0	0	1	0	0	0	1
Related to blood transfusion							6
Pre-transfusion testing	0	0	0	0	1	0	1
Blood transfusion	0	0	0	4	0	0	4
Blood transfusion, others	0	0	0	0	1	0	1
Related to treatment/procedure							373
Craniotomy	0	3	2	3	1	3	12
Thoracotomy	1	3	4	3	1	0	12
Cardiotomy	3	0	0	2	0	0	5
Laparotomy	3	2	9	7	5	0	26
Extremities	0	1	6	2	0	0	9
Endoscopic surgery	2	2	12	2	4	0	22
Other surgery	3	4	8	12	5	5	37
Preparation for surgery	1	0	0	1	2	0	4
Preoperative procedure	0	0	2	3	1	0	6
Postoperative procedure	1	2	2	1	4	0	10
Surgery, others	6	3	11	7	5	1	33
General anesthesia (inhalation anesthesia and intravenous anesthesia)	1	2	0	2	0	1	6
Local anesthesia	0	0	1	1	0	0	2
Inhalation anesthesia	0	0	0	0	0	0	0
Intravenous anesthesia	0	0	0	0	0	0	0
Vertebral/epidural anesthesia	0	0	0	1	0	0	1
Anesthesia, others	0	0	0	1	0	0	1
Caesarean section	1	0	1	0	0	0	2
Delivery and artificial abortion, others	1	0	0	2	0	0	3
Blood purification (including hemodialysis)	0	1	0	4	4	0	9
IVR (ex. angiocatheter)	6	7	9	9	3	0	34
Radiotherapy	0	0	2	2	0	1	5
Rehabilitation	1	0	3	4	1	0	9
Invasive dental treatment	0	0	1	0	1	0	2
Endoscopic treatment	0	1	5	7	1	1	15
Treatment, others	2	4	6	7	5	2	26
Central venous line	0	0	6	14	9	2	31

Situation × Potential of residual disability (Note 1)	Death	High	Low	None	No disability	Unknown (Note 2)	Total
Peripheral venous line	0	1	3	2	0	1	7
Catheter for blood purification	1	0	1	1	0	0	3
Feeding tube (NG, ED)	0	0	2	0	0	0	2
Urethral catheter	0	0	0	2	1	0	3
Drainage procedure	0	0	0	1	1	1	3
Wound care	0	0	1	0	0	0	1
Tube placement, others	1	2	4	3	2	1	13
Tracheal intubation	2	2	0	0	0	0	4
Tracheotomy	1	2	0	1	0	0	4
Cardiac compression	0	0	0	0	0	0	0
Oxygen therapy	0	0	0	1	0	0	1
Emergency procedure, others	0	3	4	2	1	0	10
Use/management of medical device							56
Ventilator	2	1	0	3	6	2	14
Oxygen therapy equipment	0	0	0	0	0	0	0
Oxygenator	0	0	0	0	0	0	0
Defibrillator	0	0	0	0	0	0	0
Pace maker	0	0	0	0	1	0	1
Infusion/transfusion pump	0	0	0	0	2	1	3
Blood purification device	0	0	0	2	2	0	4
ECG, blood pressure monitor	1	1	0	0	0	0	2
Pulse oxymeter	0	0	0	0	0	0	0
Use/management of medical device, others	0	2	11	9	6	3	31
Use/management of other dental devices and materials	0	0	0	0	1	0	1
Related to use/management of drainage tube or other tube							104
Central venous line	1	1	6	4	6	0	18
Peripheral venous line	0	0	3	3	1	0	7
Tracheal tube	0	1	2	5	4	0	12
Tracheal cannula	2	3	2	2	1	2	12
Feeding tube (NG, ED)	0	1	1	5	2	1	10
Urethral catheter	0	0	1	2	0	0	3
Chest drainage tube	0	0	1	0	3	0	4
Abdominal drainage tube	0	0	0	2	1	0	3
Ventricular/cisternal drainage tube	0	0	0	0	1	0	1
Subcutaneous continuous suction drainage tube	0	0	1	0	0	0	1
Epidural catheter	0	1	0	0	0	0	1
Catheter/line for blood purification	0	1	2	2	1	0	6
Use/management of drainage tube or other tube, others	2	3	11	5	4	1	26
Related to examination							75
Blood drawing	0	0	3	1	3	0	7
Sample collection, others	2	0	3	2	3	0	10
Other physiological tests	0	2	1	0	1	0	4
General imaging	1	0	1	0	2	1	5
MRI	0	2	0	0	2	0	4
Angiocatheter-aided imaging	3	3	4	6	0	0	16
Lower gastrointestinal imaging	0	0	0	0	0	0	0
Imaging, others	1	2	0	5	2	0	10

Situation × Potential of residual disability (Note 1)	Death	High	Low	None	No disability	Unknown (Note 2)	Total
Upper gastrointestinal	0	0	0	1	0	1	2
Lower gastrointestinal	0	1	4	0	2	1	8
Bronchoscopy	0	2	0	1	0	0	3
Endoscopic examination, others	0	0	0	1	0	0	1
Pathological examination	0	0	1	0	1	1	3
Examination, others	1	1	0	0	0	0	2
Related to nursing care							655
Endotracheal/oral suctioning	0	0	1	0	0	0	1
Changing position	0	2	7	9	1	3	22
Bed bath	0	0	4	2	0	0	6
Help with changing clothes	0	0	4	2	1	0	7
Help with eating	5	4	2	3	0	1	15
Help with bathing	2	0	3	6	2	0	13
Help with elimination	1	3	17	17	4	0	42
Help with moving	0	1	11	12	3	1	28
Transportation	0	0	3	0	0	0	3
Tending patient's belongings	0	0	1	2	1	0	4
Meal serving	0	0	0	0	1	0	1
Patient observation	8	3	11	10	6	1	39
Nursing care, others	8	10	33	25	7	7	90
Oral intake	1	1	1	4	1	1	9
Other feeding or nutrition support	0	1	0	2	1	0	4
While taking a walk	1	0	4	5	1	0	11
While moving from one place to another	2	13	74	44	17	3	153
While going out/sleeping out	2	0	2	0	0	0	4
While eating	3	2	1	0	1	0	7
While bathing	2	2	2	4	1	1	12
While excreting	0	2	18	13	7	3	43
While sleeping	9	4	11	15	4	3	46
Recuperation, others	8	8	37	26	12	4	95
Others	31	16	25	29	21	5	127
No choice (Note 3)	10	3	19	22	16	5	75
Total	152	154	479	456	249	73	1,563

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.
(Note 3) "No choice" means no checkbox for "situation" was selected.

Fig. II-1-107 Details of Event and Potential of Residual Disability

Details of Event × Potential of Residual Disability(Note 1)	Death	High	Low	None	No disability	Unknown (Note 2)	Total
Related to drug							92
Dose error	1	0	3	2	1	0	7
Overdose	0	1	4	7	2	0	14
Dosing speed too fast	0	0	0	0	2	0	2
Patient misidentification	0	0	2	2	5	0	9
Drug mix-up	2	1	3	3	4	0	13
Wrong dosing method	0	0	2	2	1	0	5
Drug prescription/administration, others	3	3	9	10	5	1	31
Dispensing error (wrong dose/number)	0	0	0	0	0	0	0
Dispensing/drug management, others	0	1	2	3	4	1	11
Drug/blood product management, others	0	0	0	0	0	0	0
Related to blood transfusion							6
Cross-match error	0	0	0	0	1	0	1
Error in documentation/recording of results	0	0	0	0	0	0	0
Transfusion testing, others	0	0	0	1	1	0	2
Irradiation of blood products, blood transfusion, others	0	0	0	3	0	0	3
Related to treatment/procedure							373
Patient misidentification	0	0	0	2	0	0	2
Wrong site treatment/procedure	0	1	6	3	2	6	18
Wrong examination/treatment/ procedure, others	0	1	6	2	0	0	9
Wrong method (technique)	3	2	14	15	7	3	44
Neglected/forgotten (treatment/procedure)	0	0	1	1	0	0	2
Unnecessary treatment/procedure	0	1	2	1	0	0	4
Wrong patient position	0	0	0	0	0	0	0
Wrong examination/treatment, others	3	4	5	1	1	1	15
Aspiration	0	0	0	0	0	0	0
Retained foreign object	0	0	13	12	9	1	35
Treatment/procedure, others	31	36	58	73	38	8	244
Use/management of medical device							56
Assembly	0	0	0	0	0	0	0
Forgot to set up/turn on power	1	0	1	0	0	0	2
Malfunction	0	0	0	0	1	2	3
Lack of knowledge	0	0	0	2	1	0	3
Forgot to set alarm	0	0	0	0	0	0	0
Range of alarm setup	0	0	0	0	0	0	0
Neglect in inspection/management before or during device operation	0	1	1	4	2	1	9
Error in sterilization/cleaning technique	0	0	1	0	0	1	2
Breakage	0	0	0	2	1	1	4
Use/management of medical equipment (device), others	2	3	8	6	13	1	33
Related to use/management of drainage tube or other tube							104
Infusion leakage	0	0	6	4	0	0	10
Self-removal	2	1	5	6	2	0	16
Spontaneous dislodgment	0	1	0	2	5	2	10
Disconnection	0	1	0	2	2	0	5
Blockage	1	1	0	0	0	0	2

Details of Event × Potential of Residual Disability(Note 1)	Death	High	Low	None	No disability	Unknown (Note 2)	Total
Breakage/severance	0	0	5	4	7	0	16
Wrong connection	0	1	1	1	1	0	4
Air bubble in tube	0	0	0	0	0	0	0
Use/management of drainage tube or other tube, others	2	6	13	11	7	2	41
Related to examination							75
Patient misidentification (examination)	0	0	0	1	2	0	3
Wrong examination/evaluation technique	0	1	3	0	1	0	5
Error in sample collection	0	0	1	1	0	0	2
Sample misidentification (examination)	0	0	2	0	0	1	3
Lost sample	0	0	0	0	2	0	2
Sample contamination	0	0	0	0	0	0	0
Management of analytical device/ equipment	0	0	0	0	0	0	0
Preparation of examination device/ equipment	0	0	0	1	0	0	1
Result reporting	0	1	0	0	0	0	1
Examination, others	8	11	11	14	11	3	58
Related to nursing care							655
Fall	5	27	153	103	30	13	331
Fall from bed	4	6	12	24	6	4	56
Collision	0	0	2	5	0	0	7
Restraint	0	0	0	2	0	0	2
Severe decubitus (involving muscle layer, Stage III/IV)	0	3	3	4	0	1	11
Aspiration (nursing care)	8	9	2	3	1	1	24
Accidental ingestion (nursing care)	0	0	0	0	0	0	0
Nursing care/recuperation, others	24	11	61	47	26	6	175
Transportation, others	6	0	7	5	1	1	20
Going out/staying out without notice	1	0	0	1	3	0	5
Self medication, others	3	0	4	1	2	1	11
Meal/nutrition, others	1	0	3	6	2	1	13
Others	31	16	25	29	21	5	127
No choice(Note 3)	10	3	19	22	16	5	75
Total	152	154	479	456	249	73	1,563

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.
(Note 3) "No choice" means no "details of event" was selected.

Fig. II-1-108 Place of Occurrence and Potential of Residual Disability

Place of Occurrence × Potential of Residual Disability(Note 1)	Death	High	Low	None	No disability	Unknown (Note 2)	Total
Outpatient examination room	1	3	4	8	8	3	27
Outpatient treatment room	3	1	6	1	10	1	22
Outpatient lobby	0	1	3	2	0	1	7
Emergency room	0	0	2	0	0	1	3
Emergency center	0	2	3	3	6	0	14
Patient room	72	76	228	213	119	31	739
Ward treatment room	2	0	8	7	4	1	22
Operation room	10	20	59	52	26	11	178
ICU	8	2	4	11	7	3	35
CCU	0	0	1	0	2	1	4
NICU	1	1	2	1	1	0	6
Examination room	0	1	4	6	2	3	16
Catheterization laboratory	6	9	21	15	5	0	56
Radiotherapy room	1	2	5	2	0	0	10
Radiography room	1	7	5	11	7	2	33
Radioactive scanning room	1	0	0	1	0	0	2
Dialysis room	1	0	3	3	3	0	10
Delivery room	0	0	0	0	0	0	0
Rehabilitation room	1	0	5	5	4	0	15
Restroom	2	2	18	19	9	0	50
Hallway	0	5	21	20	7	2	55
Bathroom	8	2	10	14	4	1	39
Stairway	0	0	0	1	0	0	1
Unknown	2	2	8	6	2	2	22
Others	32	18	59	55	23	10	197
Total	152	154	479	456	249	73	1,563

(Note 1) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 2) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

Fig. II-1-109 Place of Occurrence and Inpatient/Outpatient Status

Place of Occurrence × Inpatient/Outpatient Status	Inpatient	Outpatient	Total
Outpatient examination room	3	24	27
Outpatient treatment room	6	16	22
Outpatient lobby	1	6	7
Emergency room	0	3	3
Emergency center	14	0	14
Patient room	739	0	739
Ward treatment room	22	0	22
Operation room	175	3	178
ICU	35	0	35
CCU	4	0	4
NICU	6	0	6
Examination room	10	6	16
Catheterization laboratory	55	1	56
Radiotherapy room	7	3	10
Radiography room	20	13	33
Radioactive scanning room	1	1	2
Dialysis room	8	2	10
Delivery room	0	0	0
Rehabilitation room	9	6	15
Restroom	50	0	50
Hallway	52	3	55
Bathroom	39	0	39
Stairway	1	0	1
Unknown	22	0	22
Others	176	21	197
Total	1,455	108	1,563

Fig. II-1-110 Clinical Department and Summary of Event

Clinical Department(Note) × Summary of Event	Ordering	Drug	Blood transfusion	Treatment/procedure	Medical device, etc.			Examination	Nursing care	Others	Total
					Medical device	Drainage tube	Dental equipment (device)				
Internal medicine	1	15	0	31	7	7	0	15	72	24	172
Anesthesiology	0	2	0	23	1	5	0	2	1	7	41
Cardiovascular medicine	1	9	0	44	3	6	0	15	41	9	128
Neurology	0	2	0	4	2	8	0	0	20	3	39
Respiratory tract medicine	0	2	0	11	1	5	0	4	67	17	107
Gastrointestinal medicine	0	4	0	37	3	5	0	14	38	11	112
Hematology	0	1	0	9	0	1	0	3	13	2	29
Circulatory surgery	0	1	0	13	2	1	0	2	5	2	26
Allergy	0	0	0	0	0	1	0	0	1	1	3
Rheumatism	0	0	0	2	0	0	0	1	6	5	14
Pediatrics	2	8	1	14	4	7	0	2	43	14	95
General surgery	1	6	0	37	4	20	0	5	43	24	140
Orthopedics	1	6	0	30	4	2	0	3	140	30	216
Plastic surgery	0	1	0	4	0	1	0	0	3	4	13
Cosmetic surgery	0	0	0	0	0	0	0	0	0	0	0
Neurosurgery	0	7	0	27	5	7	0	2	33	5	86
Respiratory surgery	0	1	0	13	1	6	0	3	7	0	31
Cardiovascular surgery	0	1	0	29	2	6	0	0	11	7	56
Pediatric surgery	0	1	0	1	0	0	0	0	6	1	9
Pain clinic	0	1	0	1	0	0	0	0	0	0	2
Dermatology	0	3	1	4	1	1	0	0	2	5	17
Urology	0	2	1	20	0	7	0	1	14	4	49
Venereology	0	0	0	0	0	0	0	0	0	0	0
Proctology	0	0	0	0	0	0	0	0	0	1	1
Gynecology/Obstetrics	1	2	0	15	2	2	0	0	2	4	28
Obstetrics	0	4	0	2	0	0	0	1	1	2	10
Gynecology	1	2	0	10	2	0	0	2	6	6	29
Ophthalmology	1	1	0	15	2	0	0	1	8	4	32
Otolaryngology	0	1	0	19	1	1	0	1	12	7	42
Psychosomatic medicine	0	0	0	0	0	0	0	0	1	0	1
Psychiatry	0	4	0	6	1	0	0	0	56	24	91
Rehabilitation	0	1	0	4	0	1	0	0	8	5	19
Radiology	0	1	0	10	0	1	0	9	4	4	29
Dentistry	0	0	0	6	0	0	0	1	0	2	9
Orthodontics	0	0	0	0	0	0	0	0	0	0	0
Pediatric dentistry	0	0	0	0	0	0	0	0	0	0	0
Dental/oral surgery	0	1	0	12	1	1	0	1	2	4	22
Unknown	0	0	0	0	0	0	0	0	1	0	1
Others	3	10	3	31	7	18	1	14	84	34	205
Total	12	100	6	484	56	120	1	102	751	272	1,904

(Note) "Clinical department" may be more than one.

Fig. II-1-111 Clinical Department and Potential of Residual Disability

Clinical Department(Note 1) × Potential of Residual Disability(Note 2)	Death	High	Low	None	No disability	Unknown (Note 3)	Total
Internal medicine	22	12	55	52	23	8	172
Anesthesiology	5	10	11	6	6	3	41
Cardiovascular medicine	14	17	39	36	18	4	128
Neurology	0	3	17	14	5	0	39
Respiratory tract medicine	11	9	42	33	8	4	107
Gastrointestinal medicine	11	11	40	29	14	7	112
Hematology	4	5	8	8	3	1	29
Circulatory surgery	2	4	6	8	5	1	26
Allergy	0	0	2	0	1	0	3
Rheumatism	3	1	5	2	2	1	14
Pediatrics	9	15	26	32	12	1	95
General surgery	16	12	46	40	21	5	140
Orthopedics	11	25	93	63	19	5	216
Plastic surgery	1	1	4	4	2	1	13
Cosmetic surgery	0	0	0	0	0	0	0
Neurosurgery	4	17	32	13	13	7	86
Respiratory surgery	2	5	4	12	5	3	31
Cardiovascular surgery	7	9	12	17	8	3	56
Pediatric surgery	0	1	1	4	3	0	9
Pain clinic	0	1	0	0	1	0	2
Dermatology	1	4	5	3	2	2	17
Urology	9	8	18	11	3	0	49
Venereology	0	0	0	0	0	0	0
Proctology	0	0	0	1	0	0	1
Gynecology/Obstetrics	4	1	4	10	7	2	28
Obstetrics	3	2	2	2	1	0	10
Gynecology	0	2	12	9	5	1	29
Ophthalmology	0	3	9	11	4	5	32
Otolaryngology	9	4	12	8	6	3	42
Psychosomatic medicine	0	0	1	0	0	0	1
Psychiatry	13	6	29	19	16	8	91
Rehabilitation	0	4	7	4	4	0	19
Radiology	4	4	6	11	2	2	29
Dentistry	0	0	3	2	3	1	9
Orthodontics	0	0	0	0	0	0	0
Pediatric dentistry	0	0	0	0	0	0	0
Dental/oral surgery	3	2	8	5	2	2	22
Unknown	0	0	0	1	0	0	1
Others	21	19	40	59	50	16	205
Total	189	217	599	529	274	96	1,904

(Note 1) "Clinical department" may be more than one.

(Note 2) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.

(Note 3) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

Fig. II-1-112 Clinical Department and Intensity of Treatment

Clinical Department(Note) × Intensity of Treatment	Intensive treatment	Minor treatment	No treatment	Total
Internal medicine	67	84	21	172
Anesthesiology	30	9	2	41
Cardiovascular medicine	62	54	12	128
Neurology	18	19	2	39
Respiratory tract medicine	45	57	5	107
Gastrointestinal medicine	63	40	9	112
Hematology	18	9	2	29
Circulatory surgery	13	10	3	26
Allergy	0	3	0	3
Rheumatism	7	5	2	14
Pediatrics	32	48	15	95
General surgery	69	60	11	140
Orthopedics	111	95	10	216
Plastic surgery	5	7	1	13
Cosmetic surgery	0	0	0	0
Neurosurgery	50	30	6	86
Respiratory surgery	20	11	0	31
Cardiovascular surgery	34	15	7	56
Pediatric surgery	1	5	3	9
Pain clinic	1	0	1	2
Dermatology	8	8	1	17
Urology	32	14	3	49
Venereology	0	0	0	0
Proctology	0	1	0	1
Gynecology/Obstetrics	10	14	4	28
Obstetrics	4	3	3	10
Gynecology	16	11	2	29
Ophthalmology	11	18	3	32
Otolaryngology	24	12	6	42
Psychosomatic medicine	1	0	0	1
Psychiatry	35	43	13	91
Rehabilitation	10	7	2	19
Radiology	14	10	5	29
Dentistry	0	8	1	9
Orthodontics	0	0	0	0
Pediatric dentistry	0	0	0	0
Dental/oral surgery	11	9	2	22
Unknown	0	1	0	1
Others	80	91	34	205
Total	902	811	191	1,904

(Note) "Clinical department" may be more than one.

Fig. II-1-113 Cause of Event and Summary of Event

Cause of Event (Note) × Summary of Event	Ordering	Drug	Blood transfusion	Treatment/procedure	Medical equipment, etc.			Examination	Nursing care	Others	Total
					Medical device	Drainage tube or other tube	Dental equipment (device)				
Neglect to check	11	68	5	121	26	40	0	20	85	38	414
Neglect to observe	0	11	1	62	6	26	0	3	216	55	380
Misjudgment	4	16	2	80	9	39	0	10	182	39	381
Lack of knowledge	9	23	2	25	12	13	0	1	47	16	148
Deficiency of technique/skill	0	3	0	58	6	14	0	8	47	11	147
Delayed reporting	1	1	0	5	3	1	0	2	16	6	35
Under unusual physical condition	0	8	1	22	1	8	0	4	30	15	89
Under unusual psychological condition	1	5	0	6	1	2	0	1	7	8	31
System failure	3	16	1	26	5	5	1	10	10	8	85
Inadequate coordination	3	18	1	37	4	13	0	8	65	19	168
Inadequate documentation	0	4	0	7	2	0	0	1	7	2	23
Similarity in patient's appearance or name	0	1	0	0	0	0	0	0	0	0	1
Busy working condition	1	13	1	13	4	4	0	3	24	5	68
Problem in environment	0	7	0	8	5	2	0	1	68	25	116
Problem in the drug	0	12	0	2	0	1	0	4	5	0	24
Problem in medical device	0	3	0	16	18	5	1	2	0	4	49
Problem in other items	0	1	0	6	0	5	0	0	13	11	36
Problem in facility	0	1	0	4	2	0	0	5	22	15	49
Problem in education/training	4	13	1	26	8	14	1	5	48	17	137
Lack of explanation	0	3	0	11	1	6	0	5	95	23	144
Others	0	7	0	145	9	17	0	26	159	80	443
Total	37	234	15	680	122	215	3	119	1,146	397	2,968

(Note) "Cause of event" may be more than one.

Fig. II-1-114 Place of Occurrence and Summary of Event

Place of Occurrence × Summary of Event	Ordering	Drug	Blood transfusion	Treatment/procedure	Medical equipment, etc.			Examination	Nursing care	Others	Total
					Medical device	Drainage tube or other tube	Dental equipment (device)				
Outpatient examination room	0	6	0	11	0	4	0	2	0	4	27
Outpatient treatment room	0	3	0	9	0	1	0	4	3	2	22
Outpatient lobby	0	0	0	2	0	0	0	0	4	1	7
Emergency room	0	0	0	2	0	0	0	0	0	1	3
Emergency center	1	2	0	1	2	4	0	1	0	3	14
Patient room	3	50	5	88	18	65	0	9	405	96	739
Ward treatment room	0	0	0	12	1	3	0	1	3	2	22
Operation room	2	4	0	128	18	7	1	3	1	14	178
ICU	0	3	0	13	5	9	0	1	2	2	35
CCU	0	1	0	2	0	1	0	0	0	0	4
NICU	0	0	0	2	1	1	0	0	2	0	6
Examination room	0	0	0	6	0	0	0	9	0	1	16
Catheterization laboratory	0	2	0	38	1	2	0	12	0	1	56
Radiotherapy room	0	1	0	8	0	0	0	0	1	0	10
Radiography room	0	2	0	8	1	1	0	15	2	4	33
Radioactive scanning room	0	1	0	0	0	0	0	1	0	0	2
Dialysis room	0	0	0	7	0	2	0	0	0	1	10
Delivery room	0	0	0	0	0	0	0	0	0	0	0
Rehabilitation room	0	0	0	5	0	0	0	0	2	8	15
Restroom	0	0	0	1	0	1	0	0	39	9	50
Hallway	0	0	0	1	0	1	0	0	42	11	55
Bathroom	0	0	0	0	0	0	0	0	30	9	39
Stairway	0	0	0	0	0	0	0	0	1	0	1
Unknown	0	0	0	2	0	0	0	1	13	6	22
Others	6	11	1	39	4	3	0	18	70	45	197
Total	12	86	6	385	51	105	1	77	620	220	1,563

Fig. II-1-115 Establishment of Accident Investigation Board and Summary of Event

Establishment of Accident Investigation Board(Note 1) × Summary of Event	Ordering	Drug	Blood transfusion	Treatment/ procedure	Medical device, etc.			Examination	Nursing care	Others	Total
					Medical device	Drainage tube or other tube	Dental equipment (device)				
Existing internal investigation board	2	21	1	79	15	22	0	11	51	29	231
Existing external investigation board	0	0	0	8	0	1	0	3	0	3	15
Internal investigation board to be established	0	0	0	1	1	0	0	1	1	2	6
External investigation board to be established	0	2	0	1	1	1	0	1	2	1	9
Existing medical safety committee is in charge of investigation	9	60	5	246	35	78	1	59	460	153	1,106
Currently under consideration and undecided	0	1	0	12	0	0	0	0	15	4	32
Others	1	5	0	61	5	5	0	9	104	43	233
No choice(Note 2)	0	4	0	1	0	2	0	0	15	1	23
Total	12	93	6	409	57	109	1	84	648	236	1,655

(Note 1) "Establishment of Accident Investigation Board" may be more than one.
(Note 2) "No choice" means none of the checkboxes for "Establishment of accident investigation board" was selected.

Fig. II-1-116 Establishment of Accident Investigation Board and Potential of Residual Disability

Establishment of Accident Investigation Board(Note 1) × Potential of Residual Disability(Note 2)	Death	High	Low	None	No disability	Unknown (Note 3)	Total
Existing internal investigation board	40	28	68	58	28	9	231
Existing external investigation board	4	7	3	0	0	1	15
Internal investigation board to be established	2	0	3	0	0	1	6
External investigation board to be established	5	2	1	0	1	0	9
Existing medical safety committee is in charge of investigation	100	113	360	322	164	47	1,106
Currently under consideration and undecided	7	4	5	7	4	5	32
Others	24	13	54	80	47	15	233
No choice	1	1	5	3	12	1	23
Total	183	168	499	470	256	79	1,655

(Note 1) "Establishment of Accident Investigation Board" may be more than one.
(Note 2) "Potential of residual disability" is not necessarily associated with occurrence of event or negligence.
(Note 3) "Unknown" includes indefinite outcome at the time of reporting (within 2 weeks) and events of warning that did not affect patients' conditions in any way.

2 Report on Project to Collect, Analyze, and Provide Medical Near-Miss Information

Medical near-miss information is provided by designated medical institutions and other registered medical institutions. Summary of the project as of Wednesday, December 31, 2008 is reported herein.

[1] Registered medical institutions

The number of registered medical institutions in Project to Collect Medical Near-Miss Information is shown below.

Fig. II-2-1 Number of registered medical institutions

	Number of medical institutions
Total number of registered medical institutions	1,137
Designated medical institutions(among registered medical institutions)	236

Designated medical institutions are those participating in the Project to Collect, Analyze and Provide Medical Near-Miss Information and agreed to cooperate to provide "general coded information." Designated medical institutions have been selected by avoiding biases in institution size and location. The number of beds at the designated medical institutions and their locations as of December 31, 2008 are shown below.

Fig. II-2-2 Designated Medical Institutions by Number of Beds and Location

Number of beds	Number of medical institutions
0-99	21
100-199	34
200-299	29
300-399	41
400-499	25
500-599	30
600 or above	56
Total	236

Location	Number of medical institutions
Hokkaido	14
Tohoku	26
Kanto/Koshinetsu	59
Tokyo	13
Tokai/Hokuriku	37
Kinki	31
Chugoku/Shikoku	31
Kyushu/Okinawa	25
Total	236

The total number of beds at registered medical institutions participating in Project to Collect, Analyze and Provide Medical Near-Miss Information as of December 31, 2008 is 101,802.

[2] Changes in Number of Reports

The summary of collection of medical near-miss information is shown below.

Fig. II-2-3 Changes in Number of Reports

		27th report	28th report	29th report	30th report	Remarks
Month of occurrence		January to March	April to June	July to September	October to December	
Collection period		February 19 to May 12	May 13 to August 11	August 12 to November 10	November 11 to February 9, 2009	
Registered medical institutions	**Total number of registered medical institutions**	1,138	1,136	1,138	1,137	
	Registered medical institutions that made reports	326	318	315	302	
	Designated medical institutions(Note 1)	239	237	236	236	
	Designated medical institutions that made reports	230	229	230	230	Institutions with reporting difficulty in the 27th report: 7 institutions Institutions with reporting difficulty in the 28th report: 6 institutions Institutions with reporting difficulty in the 29th report: 3 institutions Institutions with reporting difficulty in the 30th report: 2 institutions
Number of reports(Note 2)	**Total number of reports**	49,905	59,534	59,773	58,693	
	General coded information	49,228	58,600	58,239	57,915	
	Descriptive information	2,976	4,793	4,543	3,628	
Number of evaluable reports	**General coded information**	49,227	58,600	58,239	57,915	
	Descriptive information	916	2,757	1,873	1,474	

(Note 1) Designated medical institutions are those participating in the Project to Collect, Analyze and Provide Medical Near-Miss Information and agreed to cooperate to provide "general coded information." As of Wednesday, December 31, 2008, 236 institutions have been designated by avoiding biases in institution size and location.

(Note 2) Reports from medical institutions are classified into (A) general coded information, (B) general coded information and descriptive information, and (C) descriptive information. "Total number of reports" shown in the table represents aggregated number of (A), (B), and (C); "number of general coded information" represents aggregated number of (A) and (B); and "number of descriptive information" represents aggregated number of (B) and (C).

[3] Details of Reports

Fig. II-2-4 Month of occurrence

Month of occurrence	Number of event
January	16,664
February	16,271
March	16,195
April	18,758
May	20,004
June	19,711
July	21,147
August	19,636
September	17,376
October	20,459
November	19,032
December	18,336
Month unknown	392
Total	223,981

Fig. II-2-5 Time of occurrence

Time of occurrence	Number of event				
	27th	28th	29th	30th	Total
0:00 – before 2:00	2,812	3,262	3,313	3,141	12,528
2:00 – before 4:00	2,080	2,224	2,154	2,313	8,771
4:00 – before 6:00	1,882	2,184	2,099	2,251	8,416
6:00 – before 8:00	3,437	4,005	4,023	3,959	15,424
8:00 – before 10:00	5,876	6,967	7,101	7,273	27,217
10:00 – before 12:00	5,812	7,410	7,154	7,133	27,509
12:00 – before 14:00	4,717	5,956	6,010	5,858	22,541
14:00 – before 16:00	4,570	5,734	5,641	5,509	21,454
16:00 – before 18:00	4,938	5,975	6,012	5,916	22,841
18:00 – before 20:00	4,660	5,574	5,659	5,501	21,394
20:00 – before 22:00	3,364	3,790	3,846	3,905	14,905
22:00 – before 23:00	2,780	2,972	3,023	3,009	11,784
Time unknown	2,299	2,547	2,204	2,147	9,197
Total	49,227	58,600	58,239	57,915	223,981

Fig. II-2-6 Place of Occurrence

Place of Occurrence	Number of event				
	27th	28th	29th	30th	Total
Outpatient examination room	624	823	1,356	1,377	4,180
Outpatient lobby	113	150	127	143	533
Outpstient, facility others	554	797	727	701	2,779
Emergentcy room	289	285	333	298	1,205
Nurse station	4,833	5,957	6,192	5,852	22,834
Patient room	27,753	32,086	32,117	31,865	123,821
Treatment room	856	1,060	1,014	829	3,759
Bathroom	187	210	214	245	856
Ward facility, others	2,073	2,577	2,631	2,353	9,634
Operation room	1,600	1,980	1,879	1,814	7,273
Delivery room	38	63	45	48	194
ICU	1,477	1,697	1,691	1,688	6,553
CCU	311	334	275	251	1,171
NICU	579	652	709	641	2,581
ICU, others	352	410	365	412	1,539
Examination room	717	835	780	785	3,117
Rehabilitation room	183	254	212	217	866
IVR room	35	41	33	39	148
Radiography/examination room	771	791	779	825	3,166
Radioactive scanning room	64	82	67	61	274
Radiotherapy room	38	56	44	41	179
Dialysis room	680	802	668	724	2,874
Pharmacy/blood transfusion unit	1,237	1,323	1,339	1,373	5,272
Nutritional management/ room/kitchen	394	402	392	390	1,578
Restroom	731	816	836	908	3,291
Hallway	645	750	862	795	3,052
Stairway	11	15	21	16	63
Unknown	1,224	2,201	1,319	2,101	6,845
Other place (within institution)	693	951	946	899	3,489
Other place (outside institution)	165	200	266	224	855
Total	49,227	58,600	58,239	57,915	223,981

Fig. II-2-7 Patient age

Age	Number of event				
	27th	28th	29th	30th	Total
0 to 10	2,765	3,656	3,503	3,736	13,660
11 to 20	857	1,180	1,342	1,109	4,488
21 to 30	1,357	1,757	1,784	1,676	6,574
31 to 40	2,015	2,488	2,690	2,612	9,805
41 to 50	2,283	2,861	3,126	2,927	11,197
51 to 60	5,442	6,544	6,570	6,479	25,035
61 to 70	9,087	11,006	11,010	10,865	41,968
71 to 80	13,018	15,194	15,170	15,237	58,619
81 to 90	7,468	8,714	8,222	8,486	32,890
91 or above	1,267	1,289	1,310	1,367	5,233
Multiple patients involved	384	441	440	439	1,704
Unknown	3,284	3,470	3,072	2,982	12,808
Total	49,227	58,600	58,239	57,915	223,981

Fig. II-2-8 Sex of Patients

Sex	Number of event				
	27th	28th	29th	30th	Total
Male	26,708	31,868	32,084	31,665	122,325
Female	20,431	24,426	24,081	24,233	93,171
Multiple patients involved	402	464	474	455	1,795
Unidentifiable	1,686	1,842	1,600	1,562	6,690
Total	49,227	58,600	58,239	57,915	223,981

Fig. II-2-9 Patient Physical/Psychological State

Patient Physical/Psychological State (Note)	Number				
	27th	28th	29th	30th	Total
Disturbance of consciousness	3,808	4,462	4,093	4,510	16,873
Visual impairment	1,095	1,227	1,252	1,220	4,794
Hearing impairment	868	999	1,008	1,001	3,876
Dysarthria	814	999	848	1,024	3,685
Mental disorder	1,861	2,256	2,491	2,336	8,944
Dementia/amnesia	5,323	5,712	5,355	5,540	21,930
Upper extremity disability	2,447	2,740	2,776	2,839	10,802
Lower extremity disability	4,673	5,097	5,200	5,106	20,076
Gait disorder	5,148	5,768	5,867	6,076	22,859
Bed rest	6,436	7,563	7,116	7,204	28,319
Sleeping	918	1,099	1,209	1,193	4,419
Delirious	2,520	2,788	2,690	2,751	10,749
Under drug influence	2,900	3,482	3,438	3,625	13,445
Anesthetized/pre- or post-anesthesia	1,411	1,799	1,707	1,646	6,563
No disability	13,172	16,949	16,896	16,372	63,389
Unknown	14,243	16,573	16,278	15,677	62,771
Others	5,464	6,764	7,064	6,492	25,784
Total	73,101	86,277	85,288	84,612	329,278

(Note) "Patient Physical/Psychological State" may be more than one.

Fig. II-2-10 Person who identified event

Person who identified event	Number of event				
	27th	28th	29th	30th	Total
Person himself/herself	24,567	28,627	27,799	27,669	108,662
Coworker of same job title	14,935	18,658	18,523	18,292	70,408
Coworker of another job title	4,444	5,529	5,583	5,737	21,293
Patient himself/herself	1,784	2,081	2,128	2,087	8,080
Patient's family/caregiver	1,032	1,151	1,043	1,181	4,407
Other patient	1,015	1,027	1,065	1,034	4,141
Unknown	866	936	1,495	1,315	4,612
Others	584	591	603	600	2,378
Total	49,227	58,600	58,239	57,915	223,981

Fig. II-2-11 Job Title of Person Involved

Job Title of Person Involved (Note)	Number of event				
	27th	28th	29th	30th	Total
Doctor	1,834	2,235	2,935	2,930	9,934
Dentist	35	49	52	39	175
Midwife	468	701	703	621	2,493
Nurse	40,781	48,743	47,664	47,355	184,543
Assistant nurse	659	672	749	697	2,777
Nursing assistant	258	318	298	309	1,183
Pharmacist	1,472	1,601	1,565	1,640	6,278
National registered dietitian	191	250	317	295	1,053
Dietitian	232	250	220	226	928
Cook/cooking staff	613	678	677	609	2,577
Radiological technologist	612	700	624	678	2,614
Clinical technologist	682	774	748	727	2,931
Medical technologist	9	5	5	8	27
Physical therapist (PT)	199	274	276	270	1,019
Occupational therapist (OT)	84	109	96	100	389
Speech therapist (ST)	14	27	33	21	95
Dental hygienist	10	10	17	11	48
Dental technician	0	1	2	2	5
Orthoptist	11	18	15	20	64
Psychiatric social worker	0	0	2	0	2
Clinical psychologist	0	2	0	4	6
Certified social worker	8	6	6	5	25
Certified care worker	29	29	38	61	157
Clinical engineer	227	245	203	266	941
Children's supervisor/child minder	23	24	27	23	97
Administrative staff	326	393	387	416	1,522
Unknown	8,770	10,419	10,052	8,856	38,097
Others	548	483	556	577	2,164
Total	58,095	69,016	68,267	66,766	262,144

(Note) "Job title of Person Involved" may be more than one.

Fig. II-2-12 Years of Experience of Person Involved

Years of Experience of Person Involved	Number of event				
	27th	28th	29th	30th	Total
0 years	6,362	5,311	8,782	8,202	28,657
1 years	4,566	6,354	5,683	5,689	22,292
2 years	4,068	4,832	4,751	4,678	18,329
3 years	3,253	4,360	3,801	3,739	15,153
4 years	2,949	3,785	3,292	3,443	13,469
5 years	2,582	3,493	3,000	2,911	11,986
6 years	1,607	2,186	1,980	2,063	7,836
7 years	1,427	1,800	1,573	1,511	6,311
8 years	1,335	1,730	1,503	1,476	6,044
9 years	1,249	1,524	1,309	1,334	5,416
10 years	1,653	2,117	1,831	1,810	7,411
11 to 20 years	7,175	8,538	7,898	7,941	31,552
21 to 30 years	3,840	4,391	4,072	4,258	16,561
30 years or longer	992	1,226	1,223	1,194	4,635
Multiple persons involved	1,572	1,709	1,765	1,678	6,724
Unknown	4,597	5,244	5,776	5,988	21,605
Total	49,227	58,600	58,239	57,915	223,981

Fig. II-2-13 Number of Years Person Involved Has Been Working at Current Department

Number of Years Person Involved Has Been Working at Current Department	Number of event				
	27th	28th	29th	30th	Total
0 years	13,028	13,748	16,895	16,029	59,700
1 years	8,014	10,922	9,926	10,132	38,994
2 years	6,088	7,407	6,812	7,013	27,320
3 years	4,241	5,639	4,931	4,641	19,452
4 years	3,012	3,808	3,348	3,373	13,541
5 years	2,151	2,773	2,287	2,208	9,419
6 years	1,197	1,468	1,263	1,391	5,319
7 years	786	1,029	877	932	3,624
8 years	530	686	629	663	2,508
9 years	439	536	451	410	1,836
10 years	632	656	597	608	2,493
11 to 20 years	1,427	1,555	1,438	1,466	5,886
21 to 30 years	445	466	440	460	1,811
30 years or longer	304	407	384	347	1,442
Multiple persons involved	1,574	1,733	1,774	1,689	6,770
Unknown	5,359	5,767	6,187	6,553	23,866
Total	49,227	58,600	58,239	57,915	223,981

Fig. II-2-14 Situation in Which Medical Near-Miss Incident Occurred

Situation	27th		28th		29th		30th		Total	
	Number of event	(%)	Number of event	(%)	Number of event	(%)	Number of event	(%)	Number of event	(%)
Ordering/instruction	574	1.2	720	1.2	670	1.2	660	1.1	2,624	1.2
Communication process	1,167	2.4	1,415	2.4	2,131	3.7	2,084	3.6	6,797	3.0
Drug preparation	950	1.9	1,290	2.2	1,084	1.9	1,081	1.9	4,405	2.0
Prescription/drug administration	9,874	20.1	12,594	21.5	12,496	21.5	11,988	20.7	46,952	21.0
Dispensing, drug management, etc.	1,409	2.9	1,679	2.9	1,569	2.7	1,645	2.8	6,302	2.8
Blood transfusion	208	0.4	298	0.5	277	0.5	227	0.4	1,010	0.5
Surgery	623	1.3	751	1.3	750	1.3	771	1.3	2,895	1.3
Anesthesia	52	0.1	87	0.1	86	0.1	95	0.2	320	0.1
Delivery/mechanical abortion	30	0.1	26	0.0	22	0.0	27	0.0	105	0.0
Treatment, others	477	1.0	558	1.0	532	0.9	546	0.9	2,113	0.9
Procedure	357	0.7	387	0.7	452	0.8	379	0.7	1,575	0.7
Examination/interview	100	0.2	135	0.2	102	0.2	147	0.3	484	0.2
Use/management of medical equipment (device)	1,171	2.4	1,447	2.5	1,266	2.2	1,268	2.2	5,152	2.3
Use/management of drainage tube or other tube	7,586	15.4	8,149	13.9	8,189	14.1	8,174	14.1	32,098	14.3
Use/management of dental equipment (device)/material	3	0.0	11	0.0	13	0.0	4	0.0	31	0.0
Examination	2,851	5.8	3,586	6.1	3,368	5.8	3,196	5.5	13,001	5.8
Nursing care	4,579	9.3	4,633	7.9	4,772	8.2	4,877	8.4	18,861	8.4
Meal/nutrition	1,240	2.5	1,608	2.7	1,734	3.0	1,409	2.4	5,991	2.7
Nursing care, others	5,833	11.8	6,024	10.3	6,321	10.9	6,495	11.2	24,673	11.0
Supply transportation	44	0.1	54	0.1	61	0.1	47	0.1	206	0.1
Radiation control	27	0.1	14	0.0	12	0.0	9	0.0	62	0.0
Medical record and information management	405	0.8	552	0.9	557	1.0	468	0.8	1,982	0.9
Explanation to patient/family	283	0.6	315	0.5	323	0.6	340	0.6	1,261	0.6
Facility	85	0.2	116	0.2	130	0.2	115	0.2	446	0.2
Others	9,299	18.9	12,151	20.7	11,322	19.4	11,863	20.5	44,635	19.9
Total	49,227	100.0	58,600	100.0	58,239	100.0	57,915	100.0	223,981	100.0

Fig. II-2-15 Effect of Medical Near-Miss Incident

Effect	27th		28th		29th		30th		Total	
	Number of event		Number of event		Number of event		Number of event		Number of event	
Detected before taking action: slight effect on patient (no treatment necessary)	6,832	13.9	8,277	14.1	7,946	13.6	7,819	13.5	30,874	13.8
Detected before taking action: moderate effect on patient (treatment necessary)	2,242	4.6	2,707	4.6	2,354	4.0	2,568	4.4	9,871	4.4
Detected before taking action: major effect on patient (life-threatening)	858	1.7	1,019	1.7	814	1.4	784	1.4	3,475	1.6
Error occurred but patient not affected	30,900	62.8	35,754	61.0	35,181	60.4	34,959	60.4	136,794	61.1
Unknown	3,290	6.7	4,989	8.5	5,747	9.9	5,637	9.7	19,663	8.8
Others	5,105	10.4	5,854	10.0	6,197	10.6	6,148	10.6	23,304	10.4
Total	49,227	100.0	58,600	100.0	58,239	100.0	57,915	100.0	223,981	100.0

Fig. II-2-16 Cause of Event

Cause of Event (Note)	27th		28th		29th		30th		Total	
	Number of event		Number of event		Number of event		Number of event		Number of event	
Inadequate checking	30,037	23.7	36,861	24.6	37,236	24.7	36,187	24.6	140,321	24.4
Inadequate observation	16,758	13.2	18,388	12.3	18,604	12.3	18,670	12.7	72,420	12.6
Misjudgment	10,544	8.3	12,475	8.3	12,339	8.2	12,145	8.2	47,503	8.3
Lack of knowledge/wrong knowledge	3,243	2.6	5,280	3.5	5,169	3.4	4,377	3.0	18,069	3.1
Deficiency of technique (skill)/erroneous technique (skill)	2,452	1.9	3,539	2.4	3,732	2.5	3,315	2.3	13,038	2.3
Reporting, etc. (forgotten, inadequate/incorrect, inappropriate)	2,376	1.9	3,220	2.2	3,144	2.1	2,983	2.0	11,723	2.0
Physical condition (ex. lack of sleep, being sick)	1,868	1.5	2,101	1.4	2,374	1.6	2,280	1.5	8,623	1.5
Psychological condition(ex. rushed, action based on false assumption)	12,742	10.1	15,498	10.3	15,485	10.3	15,117	10.3	58,842	10.2
System	2,455	1.9	2,817	1.9	2,751	1.8	2,578	1.8	10,601	1.8
Coordination	5,438	4.3	6,634	4.4	6,436	4.3	6,555	4.5	25,063	4.4
Record documentation	1,392	1.1	1,574	1.1	1,607	1.1	1,589	1.1	6,162	1.1
Similarity in patient's appearance (face, age) or name	214	0.2	222	0.1	202	0.1	179	0.1	817	0.1
Working condition	11,145	8.8	12,056	8.0	12,232	8.1	13,107	8.9	48,540	8.4
Environment	1,243	1.0	1,277	0.9	1,559	1.0	1,600	1.1	5,679	1.0
Medical/dental equipment, instrument, material	1,514	1.2	1,594	1.1	1,704	1.1	1,666	1.1	6,478	1.1
Drug	1,519	1.2	1,636	1.1	1,695	1.1	1,665	1.1	6,515	1.1
Other items	1,024	0.8	743	0.5	957	0.6	909	0.6	3,633	0.6
Facility	685	0.5	528	0.4	838	0.6	733	0.5	2,784	0.5
Education/training	3,033	2.4	3,936	2.6	3,616	2.4	3,227	2.2	13,812	2.4
Explanation to patient/family	6,608	5.2	6,780	4.5	7,096	4.7	7,126	4.8	27,610	4.8
Others	10,426	8.2	12,605	8.4	12,129	8.0	11,206	7.6	46,366	8.1
Total	126,716	100.0	149,764	100.0	150,905	100.0	147,214	100.0	574,599	100.0

(Note) "Cause of Event" may be more than one.

Fig. II-2-17 Cause of Event (Details)

Cause of Event (Note)	Detailed cause of event	Number of event				
		27th	28th	29th	30th	Total
Check	Inadequate checking	29,533	36,231	36,533	35,575	137,872
	Others	669	788	859	738	3,054
Observation	Inadequate observation	16,250	17,924	17,987	18,056	70,217
	Others	558	509	673	670	2,410
Psychological condition	Rushed	3,912	4,987	4,825	4,913	18,637
	Irritated	286	271	305	311	1,173
	Nervous	372	763	548	463	2,146
	Preoccupied with other thing	2,533	3,090	3,153	3,094	11,870
	Acted based on false assumption	6,010	7,179	7,094	6,924	27,207
	Acted unwittingly	2,001	2,424	2,293	1,982	8,700
	Others	1,290	1,328	1,728	1,636	5,982
Working condition	Busy	6,210	6,485	6,205	6,924	25,824
	Inadequate personnel management	120	149	109	123	501
	Interrupted procedure	474	549	529	554	2,106
	On duty	202	204	212	233	851
	After duty	44	57	47	67	215
	Worked on night shift	5,000	5,234	5,533	5,915	21,682
	After working on night shift	276	329	393	384	1,382
	Others	714	828	1,023	953	3,518
Judgment	Misjudgment	9,760	11,796	11,456	11,299	44,311
	Others	874	782	993	926	3,575
Explanation to patient/family	Inadequate explanation	3,095	3,361	3,286	3,312	13,054
	Incorrect explanation	131	184	131	133	579
	Insufficient understanding of patient/family	3,753	3,653	3,729	3,737	14,872
	Others	589	610	842	812	2,853
Coordination	Insufficient coordination between doctor and nurse	1,431	1,755	1,632	1,663	6,481
	Insufficient coordination between doctor and technical staff	82	102	89	82	355
	Insufficient coordination between doctor and administrative staff	21	35	29	27	112
	Insufficient coordination between doctors	135	139	153	126	553
	Insufficient coordination between nurses	3,041	3,763	3,541	3,681	14,026
	Insufficient coordination among technical staff	194	243	266	257	960
	Insufficient coordination among staff with different responsibilities	493	656	551	573	2,273
	Insufficient coordination between dentist and dental staff	0	0	0	0	0
	Others	501	483	714	715	2,413
Knowledge	Lack of knowledge	2,406	4,330	4,012	3,195	13,943
	Incorrect knowledge	385	601	535	553	2,074
	Others	555	543	777	767	2,642
Total		103,900	122,365	122,785	121,373	470,423

(Note) "Cause of Event" may be more than one.

Fig. II-2-18 Situation and Cause of Event (27th Report)

Situation × Cause of Event(Note)	Check	Observation	Judgment	Knowledge	Technique (skill)	Reporting, etc.	Physical condition	Psychological condition	System	Coordination
Ordering/instruction	492	88	138	66	23	62	24	150	154	150
Communication process	976	78	226	131	37	185	39	395	155	355
Drug preparation	845	122	163	91	68	67	54	334	76	146
Prescription/drug administration	8,613	1,674	1,619	779	477	533	415	3,475	515	1,424
Dispensing, drug management, etc.	1,177	175	169	75	63	24	60	545	88	102
Blood transfusion	159	30	43	36	16	12	5	61	25	46
Surgery	460	118	106	56	78	46	29	208	38	147
Anesthesia	26	10	10	3	11	5	4	17	4	11
Delivery/mechanical abortion	13	8	9	4	2	6	1	9	3	8
Treatment, others	318	160	136	51	55	42	31	178	36	75
Procedure	224	111	96	45	58	33	18	112	13	54
Examination/interview	68	27	25	8	3	12	5	26	5	25
Use/management of medical equipment (device)	882	291	189	153	131	52	71	368	58	127
Use/management of drainage tube or other tube	3,332	4,642	2,135	301	394	117	213	1,134	104	438
Use/management of dental equipment (device)/material	1	0	0	0	0	0	0	0	0	0
Examination	2,345	288	439	243	151	191	132	984	176	421
Nursing care	1,800	2,680	1,343	200	179	119	155	678	95	310
Meal/nutrition	1,018	198	129	65	40	41	45	272	53	105
Nursing care, others	1,517	3,206	1,400	85	53	60	174	574	45	191
Supply transportation	39	6	10	9	9	8	7	11	12	11
Radiation control	22	6	5	5	3	1	0	7	5	3
Medical record and information management	336	32	54	34	23	28	7	132	44	56
Explanation to patient/family	172	35	68	29	15	32	9	67	26	72
Facility	48	9	9	3	7	7	5	19	12	9
Others	5,154	2,764	2,023	771	556	693	365	2,986	713	1,152
Total	30,037	16,758	10,544	3,243	2,452	2,376	1,868	12,742	2,455	5,438

(Note) "Cause of Event" may be more than one.

Record documentation	Similarity in patient's appearance (face, age) or name	Working condition	Environment	Medical/dental equipment, instrument, material	Drug	Other items	Facility	Education/training	Explanation to patient/family	Others	Total
38	9	107	11	74	35	70	15	107	22	34	1,869
91	7	233	26	22	50	32	23	103	71	25	3,260
59	4	252	39	33	166	33	26	104	54	43	2,779
370	37	2,229	110	145	659	101	65	732	640	316	24,928
38	7	296	20	37	263	25	10	96	26	67	3,363
6	0	46	7	4	5	2	2	27	8	7	547
15	3	79	6	61	11	27	4	54	32	43	1,621
2	0	16	2	9	4	4	1	4	3	7	153
2	0	6	1	2	1	1	1	1	1	1	80
30	2	103	26	40	25	24	23	48	49	57	1,509
10	2	65	9	14	10	14	8	28	22	22	968
5	4	24	3	2	2	2	1	5	13	10	275
18	0	196	31	294	23	78	26	111	34	39	3,172
57	4	1,748	152	303	71	158	53	299	1,186	368	17,209
0	0	0	0	2	0	1	0	0	0	0	4
81	46	567	34	81	24	50	27	192	150	169	6,791
66	7	1,000	178	167	65	156	115	292	1,133	335	11,073
27	6	218	14	9	8	20	8	92	50	118	2,536
22	10	1,163	293	72	32	130	101	216	1,560	497	11,401
6	0	8	5	3	2	4	4	6	4	3	167
0	0	6	1	7	1	2	1	8	3	0	86
28	17	71	12	12	6	15	8	62	17	26	1,020
14	2	50	13	15	9	15	17	44	143	14	861
3	1	14	10	9	2	9	24	12	8	7	227
404	46	2,648	240	97	45	51	122	390	1,379	8,218	30,817
1,392	214	11,145	1,243	1,514	1,519	1,024	685	3,033	6,608	10,426	126,716

Fig. II-2-19 Situation and Cause of Event (28th Report)

Situation × Cause of Event(Note)	Check	Observation	Judgment	Knowledge	Technique (skill)	Reporting, etc.	Physical condition	Psychological condition	System	Coordination
Ordering/instruction	594	72	123	102	47	93	38	204	127	197
Communication process	1,141	108	263	145	36	234	44	441	182	444
Drug preparation	1,088	138	186	122	92	78	55	393	81	160
Prescription/drug administration	10,884	2,148	2,150	1,405	706	713	474	4,503	606	1,765
Dispensing, drug management, etc.	1,416	180	165	128	96	57	82	647	98	113
Blood transfusion	222	52	66	81	21	25	11	121	31	60
Surgery	528	147	131	94	95	62	28	217	34	159
Anesthesia	58	22	20	7	13	4	3	28	5	13
Delivery/mechanical abortion	18	5	11	5	3	5	1	9	2	6
Treatment, others	375	168	146	70	84	50	18	192	28	84
Procedure	272	102	97	66	76	41	23	119	30	62
Examination/interview	102	29	39	12	6	18	4	37	14	34
Use/management of medical equipment (device)	1,069	375	216	240	165	58	42	431	90	159
Use/management of drainage tube or other tube	3,621	4,946	2,296	415	490	159	217	1,276	116	456
Use/management of dental equipment (device)/material	7	3	3	2	2	2	0	4	0	1
Examination	2,897	348	592	458	222	278	151	1,204	265	540
Nursing care	1,944	2,479	1,453	282	290	144	147	774	111	342
Meal/nutrition	1,425	276	239	108	75	77	34	389	93	163
Nursing care, others	1,646	3,147	1,477	99	49	62	163	596	61	217
Supply transportation	44	7	10	5	4	5	1	20	4	8
Radiation control	9	3	3	2	2	2	1	4	1	1
Medical record and information management	467	29	63	39	19	37	15	181	45	70
Explanation to patient/family	214	30	82	38	16	28	8	94	29	75
Facility	52	19	19	8	3	4	2	14	8	9
Others	6,768	3,555	2,625	1,347	927	984	539	3,600	756	1,496
Total	36,861	18,388	12,475	5,280	3,539	3,220	2,101	15,498	2,817	6,634

(Note) "Cause of Event" may be more than one.

Record documentation	Similarity in patient's appearance (face, age) or name	Working condition	Environment	Medical/dental equipment, instrument, material	Drug	Other items	Facility	Education/training	Explanation to patient/family	Others	Total
56	7	129	25	38	30	32	14	96	33	80	2,137
106	13	234	6	24	37	18	10	129	74	42	3,731
61	7	268	27	43	169	40	19	137	58	90	3,312
459	34	2,673	111	121	807	76	34	874	779	399	31,721
47	5	341	17	45	283	26	10	113	30	85	3,984
9	2	72	9	11	7	4	0	41	7	11	863
17	2	95	15	89	14	24	4	70	39	69	1,933
2	0	10	3	6	3	3	1	9	9	12	231
1	0	6	0	2	1	1	1	4	3	1	85
18	4	88	8	31	14	12	6	53	29	46	1,524
15	0	87	8	22	7	12	4	35	25	21	1,124
2	9	25	1	4	0	2	0	14	18	6	376
21	0	224	31	378	23	51	15	187	35	51	3,861
36	7	1,778	137	297	53	126	24	372	1,188	351	18,361
0	0	1	1	4	0	2	0	4	2	2	40
116	50	646	65	92	33	51	27	275	186	156	8,652
35	8	853	153	139	30	96	53	370	986	328	11,017
33	9	259	18	13	8	20	11	146	41	60	3,497
21	5	1,149	335	62	36	74	89	233	1,637	480	11,638
1	1	11	1	3	2	3	1	5	2	2	140
0	0	1	0	1	0	0	0	3	1	3	37
37	14	87	7	11	3	8	5	68	20	29	1,254
9	4	44	6	4	4	4	4	35	141	9	878
0	0	13	7	9	1	7	33	9	7	10	234
472	41	2,962	286	145	71	51	163	654	1,430	10,262	39,134
1,574	222	12,056	1,277	1,594	1,636	743	528	3,936	6,780	12,605	149,764

Fig. II-2-20 Situation and Cause of Event (29th Report)

Situation × Cause of Event(Note)	Check	Observation	Judgment	Knowledge	Technique (skill)	Reporting, etc.	Physical condition	Psychological condition	System	Coordination
Ordering/instruction	570	81	148	96	58	88	44	199	133	191
Communication process	1,902	106	290	155	48	232	52	464	191	499
Drug preparation	969	147	190	140	120	88	74	363	95	173
Prescription/drug administration	10,790	2,140	2,250	1,325	735	810	569	4,566	701	1,805
Dispensing, drug management, etc.	1,346	198	209	131	115	65	101	640	99	148
Blood transfusion	206	44	55	75	33	35	19	116	39	67
Surgery	549	149	134	102	107	57	21	230	29	160
Anesthesia	56	25	16	13	24	4	2	20	4	19
Delivery/mechanical abortion	16	9	6	1	1	1	5	9	1	4
Treatment, others	356	168	151	67	74	53	30	165	36	90
Procedure	325	117	111	87	86	62	27	154	32	78
Examination/interview	75	12	20	13	7	9	3	31	12	22
Use/management of medical equipment (device)	954	324	216	194	157	71	51	393	81	155
Use/management of drainage tube or other tube	3,794	5,046	2,376	441	572	173	207	1,368	153	469
Use/management of dental equipment (device)/material	7	5	4	4	3	4	2	4	5	6
Examination	2,750	380	555	424	213	235	145	1,231	299	496
Nursing care	2,010	2,561	1,392	263	242	159	174	782	140	381
Meal/nutrition	1,520	278	238	104	95	96	42	410	113	188
Nursing care, others	1,662	3,333	1,505	149	83	48	189	714	67	197
Supply transportation	46	10	11	10	10	8	8	23	7	10
Radiation control	6	3	3	1	1	0	0	3	1	3
Medical record and information management	444	37	86	54	36	43	16	167	41	68
Explanation to patient/family	197	34	90	31	14	31	16	95	30	63
Facility	58	23	16	7	9	8	5	22	11	6
Others	6,628	3,374	2,267	1,282	889	764	572	3,316	431	1,138
Total	37,236	18,604	12,339	5,169	3,732	3,144	2,374	15,485	2,751	6,436

(Note) "Cause of Event" may be more than one.

Record documentation	Similarity in patient's appearance (face, age) or name	Working condition	Environment	Medical/dental equipment, instrument, material	Drug	Other items	Facility	Education/training	Explanation to patient/family	Others	Total
70	5	142	32	66	54	51	31	102	47	50	2,258
114	8	269	24	26	46	21	14	137	79	35	4,712
74	4	262	39	60	179	49	34	122	66	55	3,303
498	37	2,778	176	193	762	135	100	819	849	503	32,541
62	1	331	26	56	262	34	21	101	47	73	4,066
13	0	60	12	12	10	7	6	35	7	12	863
14	4	94	13	74	12	18	6	73	19	86	1,951
4	0	11	1	3	5	2	1	12	6	13	241
0	0	7	0	0	0	0	0	1	1	0	62
31	0	89	27	42	24	27	23	51	42	64	1,610
19	2	94	8	24	14	14	8	30	29	23	1,344
2	9	15	1	0	0	1	1	6	10	6	255
26	0	186	31	316	20	53	23	157	28	43	3,479
67	7	1,837	156	321	71	141	55	346	1,119	383	19,102
1	0	2	2	6	1	4	1	5	2	1	69
93	27	663	44	69	26	34	19	241	160	163	8,267
61	15	952	221	170	67	122	98	315	1,211	327	11,663
47	11	268	29	24	12	20	19	114	66	99	3,793
18	5	1,191	381	53	44	123	107	240	1,721	617	12,447
6	0	19	5	6	5	6	4	7	5	5	211
0	1	0	0	0	0	0	0	2	1	1	26
43	15	87	10	13	5	12	9	47	17	41	1,291
9	4	56	7	7	3	5	7	44	163	15	921
2	1	15	11	14	2	15	48	17	6	12	308
333	46	2,804	303	149	71	63	203	592	1,395	9,502	36,122
1,607	202	12,232	1,559	1,704	1,695	957	838	3,616	7,096	12,129	150,905

Fig. II-2-21 Situation and Cause of Event (30th Report)

Situation × Cause of Event(Note)	Check	Observation	Judgment	Knowledge	Technique (skill)	Reporting, etc.	Physical condition	Psychological condition	System	Coordination
Ordering/instruction	559	94	151	96	61	105	64	182	155	221
Communication process	1,847	116	291	152	39	252	64	461	186	449
Drug preparation	931	126	148	109	86	69	56	353	91	173
Prescription/drug administration	10,332	2,068	2,150	1,033	666	695	513	4,466	649	1,808
Dispensing, drug management, etc.	1,440	190	209	113	122	56	100	664	90	125
Blood transfusion	168	34	34	43	35	19	7	94	18	56
Surgery	546	153	146	86	88	66	18	236	44	167
Anesthesia	68	29	16	9	17	5	6	29	0	16
Delivery/mechanical abortion	15	10	6	3	3	2	4	8	1	7
Treatment, others	384	183	150	72	72	45	46	178	44	89
Procedure	257	123	111	60	69	45	29	128	30	70
Examination/interview	108	20	32	17	7	16	4	39	15	36
Use/management of medical equipment (device)	951	340	206	188	155	69	56	399	74	175
Use/management of drainage tube or other tube	3,756	4,986	2,292	396	518	166	235	1,396	139	506
Use/management of dental equipment (device)/material	2	1	0	0	1	1	0	1	0	0
Examination	2,585	375	594	390	207	272	153	1,157	242	486
Nursing care	2,012	2,762	1,421	227	219	159	165	832	113	403
Meal/nutrition	1,250	241	182	93	72	70	37	342	101	181
Nursing care, others	1,620	3,432	1,545	165	117	92	233	707	81	238
Supply transportation	41	8	8	5	9	4	3	17	6	9
Radiation control	8	1	2	1	2	0	0	4	0	0
Medical record and information management	409	31	61	35	23	39	18	170	45	77
Explanation to patient/family	211	41	81	31	12	34	12	78	25	83
Facility	56	27	20	7	7	8	4	27	11	10
Others	6,631	3,279	2,289	1,046	708	694	453	3,149	418	1,170
Total	36,187	18,670	12,145	4,377	3,315	2,983	2,280	15,117	2,578	6,555

(Note) "Cause of Event" may be more than one.

Record documentation	Similarity in patient's appearance (face, age) or name	Working condition	Environment	Medical/dental equipment, instrument, material	Drug	Other items	Facility	Education/training	Explanation to patient/family	Others	Total
90	7	166	41	78	71	64	46	117	65	64	2,497
123	2	303	32	30	42	24	25	119	72	38	4,667
64	2	242	31	33	153	32	20	96	40	96	2,951
484	33	2,846	150	181	746	108	71	709	820	389	30,917
41	3	370	18	30	265	19	9	99	31	47	4,041
5	0	54	4	7	8	6	3	22	3	16	636
14	1	85	16	75	7	16	2	66	29	80	1,941
0	2	11	1	2	4	0	0	5	4	17	241
0	0	5	0	0	0	0	0	2	1	1	68
32	1	122	33	41	25	23	20	43	38	53	1,694
29	2	106	21	26	19	16	10	42	39	19	1,251
4	9	38	2	3	1	4	0	8	21	12	396
29	0	210	34	308	26	60	25	128	44	46	3,523
66	2	2,066	187	301	70	128	55	290	1,140	368	19,063
0	0	1	0	0	0	0	1	0	0	1	9
110	40	685	56	96	36	47	32	218	153	142	8,076
63	12	1,094	239	180	63	122	99	317	1,203	312	12,017
38	5	247	17	25	9	17	15	91	59	85	3,177
40	3	1,359	433	88	45	125	123	246	1,807	649	13,148
3	0	6	4	4	4	5	3	4	2	4	149
1	0	1	0	0	0	0	0	3	0	0	23
33	6	76	7	9	3	10	5	37	7	14	1,115
11	5	68	5	10	6	6	7	32	183	13	954
3	0	20	10	10	1	15	40	13	8	7	304
306	44	2,926	259	129	61	62	122	520	1,357	8,733	34,356
1,589	179	13,107	1,600	1,666	1,665	909	733	3,227	7,126	11,206	147,214

Fig. II-2-22 Situation and Cause of Event (Aggregated Table, 27th to 30th Reports)

Situation × Cause of Event(Note)	Check	Observation	Judgment	Knowledge	Technique (skill)	Reporting, etc.	Physical condition	Psychological condition	System	Coordination
Ordering/instruction	2,215	335	560	360	189	348	170	735	569	759
Communication process	5,866	408	1,070	583	160	903	199	1,761	714	1,747
Drug preparation	3,833	533	687	462	366	302	239	1,443	343	652
Prescription/drug administration	40,619	8,030	8,169	4,542	2,584	2,751	1,971	17,010	2,471	6,802
Dispensing, drug management, etc.	5,379	743	752	447	396	202	343	2,496	375	488
Blood transfusion	755	160	198	235	105	91	42	392	113	229
Surgery	2,083	567	517	338	368	231	96	891	145	633
Anesthesia	208	86	62	32	65	18	15	94	13	59
Delivery/mechanical abortion	62	32	32	13	9	14	11	35	7	25
Treatment, others	1,433	679	583	260	285	190	125	713	144	338
Procedure	1,078	453	415	258	289	181	97	513	105	264
Examination/interview	353	88	116	50	23	55	16	133	46	117
Use/management of medical equipment (device)	3,856	1,330	827	775	608	250	220	1,591	303	616
Use/management of drainage tube or other tube	14,503	19,620	9,099	1,553	1,974	615	872	5,174	512	1,869
Use/management of dental equipment (device)/material	17	9	7	6	6	7	2	9	5	7
Examination	10,577	1,391	2,180	1,515	793	976	581	4,576	982	1,943
Nursing care	7,766	10,482	5,609	972	930	581	641	3,066	459	1,436
Meal/nutrition	5,213	993	788	370	282	284	158	1,413	360	637
Nursing care, others	6,445	13,118	5,927	498	302	262	759	2,591	254	843
Supply transportation	170	31	39	29	32	25	19	71	29	38
Radiation control	45	13	13	9	8	3	1	18	7	7
Medical record and information management	1,656	129	264	162	101	147	56	650	175	271
Explanation to patient/family	794	140	321	129	57	125	45	334	110	293
Facility	214	78	64	25	26	27	16	82	42	34
Others	25,181	12,972	9,204	4,446	3,080	3,135	1,929	13,051	2,318	4,956
Total	140,321	72,420	47,503	18,069	13,038	11,723	8,623	58,842	10,601	25,063

(Note) "Cause of Event" may be more than one.

Record documentation	Similarity in patient's appearance (face, age) or name	Working condition	Environment	Medical/dental equipment, instrument, material	Drug	Other items	Facility	Education/ training	Explanation to patient/family	Others	Total
254	28	544	109	256	190	217	106	422	167	228	8,761
434	30	1,039	88	102	175	95	72	488	296	140	16,370
258	17	1,024	136	169	667	154	99	459	218	284	12,345
1,811	141	10,526	547	640	2,974	420	270	3,134	3,088	1,607	120,107
188	16	1,338	81	168	1,073	104	50	409	134	272	15,454
33	2	232	32	34	30	19	11	125	25	46	2,909
60	10	353	50	299	44	85	16	263	119	278	7,446
8	2	48	7	20	16	9	3	30	22	49	866
3	0	24	1	4	2	2	2	8	6	3	295
111	7	402	94	154	88	86	72	195	158	220	6,337
73	6	352	46	86	50	56	30	135	115	85	4,687
13	31	102	7	9	3	9	2	33	62	34	1,302
94	0	816	127	1,296	92	242	89	583	141	179	14,035
226	20	7,429	632	1,222	265	553	187	1,307	4,633	1,470	73,735
1	0	4	3	12	1	7	2	9	4	4	122
400	163	2,561	199	338	119	182	105	926	649	630	31,786
225	42	3,899	791	656	225	496	365	1,294	4,533	1,302	45,770
145	31	992	78	71	37	77	53	443	216	362	13,003
101	23	4,862	1,442	275	157	452	420	935	6,725	2,243	48,634
16	1	44	15	16	13	18	12	22	13	14	667
1	1	8	1	8	1	2	1	16	5	4	172
141	52	321	36	45	17	45	27	214	61	110	4,680
43	15	218	31	36	22	30	35	155	630	51	3,614
8	2	62	38	42	6	46	145	51	29	36	1,073
1,515	177	11,340	1,088	520	248	227	610	2,156	5,561	36,715	140,429
6,162	817	48,540	5,679	6,478	6,515	3,633	2,784	13,812	27,610	46,366	574,599

Fig. II-2-23 Situation and Effect

Situation × Effect	Slight effect on patient					Moderate effect on patient					Major effect on patient				
	27th	28th	29th	30th	Total	27th	28th	29th	30th	Total	27th	28th	29th	30th	Total
Ordering/instruction	126	173	146	159	604	30	36	58	51	175	6	14	35	18	73
Communication process	219	248	208	233	908	49	43	56	74	222	17	21	31	29	98
Drug preparation	300	323	310	288	1,221	52	72	53	50	227	10	9	9	13	41
Prescription/drug administration	1,093	1,391	1,396	1,345	5,225	201	304	303	329	1,137	174	242	224	198	838
Dispensing, drug management, etc.	574	676	652	640	2,542	77	112	125	116	430	28	21	23	32	104
Blood transfusion	46	53	44	41	184	14	16	12	13	55	14	15	17	9	55
Surgery	83	96	104	133	416	51	77	63	96	287	18	36	17	29	100
Anesthesia	12	11	6	15	44	0	11	10	18	39	3	1	2	4	10
Delivery/mechanical abortion	4	1	5	2	12	2	0	2	2	6	1	1	0	0	2
Treatment, others	37	45	54	61	197	21	33	36	34	124	16	9	4	18	47
Procedure	24	42	22	47	135	17	20	21	26	84	12	17	12	9	50
Examination/interview	14	31	23	42	110	6	7	4	8	25	1	3	3	2	9
Use/management of medical equipment (device)	125	166	155	133	579	52	82	53	59	246	43	30	32	35	140
Use/management of drainage tube or other tube	520	565	506	526	2,117	350	339	350	384	1,423	140	105	131	119	495
Use/management of dental equipment (device)/material	0	2	3	1	6	2	0	0	0	2	0	0	0	1	1
Examination	474	539	460	526	1,999	86	121	96	89	392	8	14	28	27	77
Nursing care	360	342	361	359	1,422	127	148	148	171	594	36	47	44	32	159
Meal/nutrition	171	315	432	324	1,242	23	48	36	38	145	19	31	16	17	83
Nursing care, others	333	387	372	411	1,503	118	155	179	173	625	90	87	81	66	324
Supply transportation	8	16	14	6	44	2	1	2	1	6	1	1	1	0	3
Radiation control	9	4	1	1	15	1	0	1	0	2	0	1	2	0	3
Medical record and information management	84	110	96	84	374	17	11	15	16	59	9	8	4	11	32
Explanation to patient/family	62	43	57	67	229	7	9	14	12	42	2	5	4	5	16
Facility	9	18	15	13	55	5	8	13	9	35	1	2	1	0	4
Others	2,145	2,680	2,504	2,362	9,691	932	1,054	704	799	3,489	209	299	93	110	711
Total	6,832	8,277	7,946	7,819	30,874	2,242	2,707	2,354	2,568	9,871	858	1,019	814	784	3,475

Fig. II-2-24 Day of Occurrence and Weekday/Holiday Category

Day of occurrence	Weekday					Holiday				
	27th	28th	29th	30th	Total	27th	28th	29th	30th	Total
Mon.	5,234	6,696	6,184	5,603	23,717	470	260	429	861	2,020
Tue.	6,143	6,726	7,495	6,698	27,062	210	463	206	378	1,257
Wed.	6,282	7,619	7,665	7,853	29,419	163	44	12	134	353
Thu.	5,967	7,603	7,702	7,933	29,205	340	56	12	18	426
Fri.	6,491	7,694	7,512	7,778	29,475	36	42	42	53	173
Sat.	2,304	2,480	2,599	2,844	10,227	2,668	3,079	2,964	2,895	11,606
Sun.	318	407	445	375	1,545	3,856	4,186	4,180	4,541	16,763
Day unknown	20	46	46	25	137	6	8	2	4	20
Total	32,759	39,271	39,648	39,109	150,787	7,749	8,138	7,847	8,884	32,618

Error occurred but patient not affected					Unknown					Others					Aggregate total
27th	28th	29th	30th	Total	27th	28th	29th	30th	Total	27th	28th	29th	30th	Total	
283	398	313	322	1,316	29	26	28	39	122	100	73	90	71	334	2,624
720	881	874	810	3,285	60	108	844	838	1,850	102	114	118	100	434	6,797
471	729	559	604	2,363	54	77	59	56	246	63	80	94	70	307	4,405
7,290	8,819	8,693	8,362	33,164	541	993	1,012	972	3,518	575	845	868	782	3,070	46,952
527	625	542	656	2,350	59	73	70	64	266	144	172	157	137	610	6,302
109	161	144	102	516	13	27	35	36	111	12	26	25	26	89	1,010
335	384	424	358	1,501	51	70	58	59	238	85	88	84	96	353	2,895
22	35	30	29	116	6	9	19	17	51	9	20	19	12	60	320
18	21	13	20	72	3	0	0	0	3	2	3	2	3	10	105
301	366	317	332	1,316	17	24	30	23	94	85	81	91	78	335	2,113
242	228	290	203	963	17	16	32	21	86	45	64	75	73	257	1,575
64	67	59	72	262	7	7	3	8	25	8	20	10	15	53	484
748	919	767	836	3,270	60	96	108	85	349	143	154	151	120	568	5,152
4,930	5,148	5,204	5,041	20,323	322	649	520	613	2,104	1,324	1,343	1,478	1,491	5,636	32,098
1	8	8	2	19	0	0	0	0	0	0	1	2	0	3	31
1,906	2,363	2,169	1,994	8,432	166	246	297	261	970	211	303	318	299	1,131	13,001
3,247	3,077	3,106	3,104	12,534	198	278	376	407	1,259	611	741	737	804	2,893	18,861
873	1,003	1,049	864	3,789	40	62	81	55	238	114	149	120	111	494	5,991
3,962	4,024	4,137	4,213	16,336	196	209	247	251	903	1,134	1,162	1,305	1,381	4,982	24,673
24	29	34	24	111	4	3	7	5	19	5	4	3	11	23	206
10	7	7	6	30	2	1	0	1	4	5	1	1	1	8	62
241	333	342	288	1,204	24	53	55	41	173	30	37	45	28	140	1,982
167	201	197	188	753	17	18	26	27	88	28	39	25	41	133	1,261
45	60	66	58	229	7	5	11	16	39	18	23	24	19	84	446
4,364	5,868	5,837	6,471	22,540	1,397	1,939	1,829	1,742	6,907	252	311	355	379	1,297	44,635
30,900	35,754	35,181	34,959	136,794	3,290	4,989	5,747	5,637	19,663	5,105	5,854	6,197	6,148	23,304	223,981

Unknown					Aggregate total
27th	28th	29th	30th	Total	
1,236	1,524	1,480	1,313	5,553	31,290
1,323	1,547	1,724	1,429	6,023	34,342
1,427	1,674	1,668	1,649	6,418	36,190
1,372	1,602	1,694	1,634	6,302	35,933
1,257	1,768	1,664	1,626	6,315	35,963
1,024	1,263	1,238	1,154	4,679	26,512
908	1,059	1,127	951	4,045	22,353
172	754	149	166	1,241	1,398
8,719	11,191	10,744	9,922	40,576	223,981

III Current Analysis of Medical Near-Miss/Adverse Event Information

Both medical adverse event information and medical near-miss information were collected in the project started in 2004. Since 2005, medical adverse event information and medical near-miss information covered by individual themes have been comprehensively analyzed.

1 Project Overview and Expert Division Activities

[1] Selection of Themes for Information to be Analyzed

Themes for information to be analyzed have been selected based on expert opinions and in light of (1) generality/universality, (2) event frequency, (3) effect on patients, (4) preventability/avoidability, and (5) nature as object lesson.

[2] Information to be Analyzed

Among medical adverse event information and medical near-miss information provided for the project, those covered by predetermined themes were selected and analyzed. Regarding medical near-miss information, individual Analysis Groups have determined relevant themes related to reported events and been collecting descriptive information.

[3] Analysis System

Analysis Groups consisting of medical safety experts have been reviewing all reported incidents/cases to understand their outlines and determine direction of analysis.

Individual Analysis Group meetings have been held to analyze cases covered by individual themes.

[4] Meetings

Management Committee (a subcommittee specified in the JCQHC act of endowment) meetings and Comprehensive Evaluating Panel meetings for this project held between January 1 and December 31, 2008 are shown below.

(1) Management Committee meetings

Management Committee meetings were held 3 times between January 1, 2008 and December 31, 2008

Fig. III-1-1 Management Committee Meeting

	Date	Agenda
9th	02/19/2008	• 2008 Project to Collect Medical Near-Miss/Adverse Event Information (proposal) • Budget proposal for 2008 Project to Collect Medical Near-Miss/Adverse Event Information
10th	05/22/2008	• Outcome of 2007 Project to Collect Medical Near-Miss/Adverse Event Information • Project to collect medical near-miss information from pharmacies • Restructuring of medical near-miss information collection system
11th	10/01/2008	• Project to collect and analyze medical near-miss information from pharmacies

(2) Comprehensive Evaluation Panel meeting

Comprehensive Evaluation Panel meetings were held 5 times between January 1, 2008 and December 31, 2008.

Fig. III-1-2 Comprehensive Evaluation Panel Meeting

	Date	Agenda
18th	02/07/2008	• Project to Collect Medical Near-Miss/Adverse Event Information: The 12th report (proposal) • Provision of medical safety information in the Project to Collect Medical Near-Miss/Adverse Event Information • Confirmation of continuous participation of registered medical institutions in Project to Collect Medical Near-Miss/Adverse Event Information • Recruitment of cooperating medical institutions in collection of medical safety information
19th	05/14/2008	• 2008 Project to Collect Medical Near-Miss/Adverse Event Information • Project to Collect Medical Near-Miss/Adverse Event Information: The 13th report (proposal) • Workshop hosted by the Division of Adverse Event Prevention • Restructuring of medical near-miss information collection system
20th	07/11/2008	• Project to Collect Medical Near-Miss/Adverse Event Information: 2007 annual report (proposal) • Details and provision of medical safety information in the Project to Collect Medical Near-Miss/Adverse Event Information • Restructuring of medical near-miss information collection system
21th	08/29/2008	• Project to Collect Medical Near-Miss/Adverse Event Information: The 14th report (proposal) • Details and provision of medical safety information in the Project to Collect Medical Near-Miss/Adverse Event Information • Restructuring of medical near-miss information collection system
22th	08/29/2008	• Project to Collect Medical Near-Miss/Adverse Event Information: The 15th report (proposal) • Details and provision of medical safety information in the Project to Collect Medical Near-Miss/Adverse Event Information • Reviewing the choices for medical near-miss/adverse event information reporting items • Restructuring of medical near-miss information collection system

[5] Expert Analysis Group Meeting

At meetings held once or twice a month, Expert Analysis Groups consisting of medical safety experts review all reported incidents/cases to understand their outlines and determine direction of analysis.

Also once or twice a month, individual Analysis Group meetings are held to analyze cases covered by individual themes.

Other than meetings to analyze cases covered by individual themes, "Important Medical Near-Miss Case Database Development Group" has been established as another expert analysis group to select especially important medical near-miss cases and develop a relevant database.

[6] Collection of Follow-Up Information of Medical Adverse Event information

When an Analysis Group determines that further detailed case information from the medical institution is necessary for analysis, it makes written inquiries to the reporting medical institution or, if the institution agrees to cooperate, visits the institution to collect follow-up information. The follow-up information obtained is used for development of medical safety measures.

In 2008, follow-up information on 141 medical adverse events was requested in writing, and 119 events were reported. Details are shown in Fig. III-1-3.

Sixteen medical institutions where 19 medical adverse events occurred were requested for cooperation in on-site visits, and all the institutions cooperated. Summary of the on-site visits is shown in Fig. III-1-4.

Fig. III-1-3 Written Request for Follow-Up Information

Details of requested information	Number of events
Events related to drugs	48
Events related to medical devices	40
Events related to surgery	13
Events related to treatment/procedure	15
Events related to nursing care	9
Events related to examinations/tests	6
Events related to blood transfusion	2
Others	8
Total	141

Fig. III-1-4 Summary of On-site Visits

GE020001	
Summary of event	The attending physician ordered oral Lasix 8 mg, Aldactone 8 mg, Digosin 0.03 mg and Tricloryl for a three-month-old patient with ventricular septal defect and prepared an order form to that effect. The order for Digosin 0.03 mg was written as 0.3 mg by mistake. The pharmacist thought Digosin powder 0.3 mg/1 × 7 days was ordered for fast saturation therapy and did not question the attending physician about the Digosin overprescription when he made an inquiry about other prescription. The patient started to receive the treatment next day, and two days later his heart rate started to decrease. The senior physician investigated the cause and found an overdose of Digosin which was ten times the correct amount.
Objective of on-site visit	• To affirm the fact • To review the checking system at the pharmacy • To review the dispensing rules • To see how the warning function of the ordering system was improved after the event
Attendees from the medical institution	A pharmacist (concurrent position), a nurse (full-time RM), a clerk
Major findings of on-site visit	<Improvement measures taken at the institution> • A warning function had been used for drugs with a maximum dose specified in the package insert before. A warning dose and a maximum dose were determined for the system in accordance with the maximum allowable dose and patient's age (under seven) after the event. • A written notification titled "Notification from Pharmacy" was issued to announce the occurrence of the event and the new warning function. • Drug bottles at the pharmacy were labeled with a specific dose for fast saturation therapy.
GE020002	
Summary of event	Radiation therapy was performed for bone metastasis. The patient had gait disorder afterwards and was diagnosed with radiation myelitis. This was a case of radiation overdose due to neglect of checking the past radiation record.
Objective of on-site visit	• To hear the background and cause of the event • To confirm the results of review of the patient information checking system on electronic charts • To evaluate the improvement measures and the current status
Attendees from the medical institution	Head of the radiology department, attending radiologist, medical safety manager
Major findings of on-site visit	• Radiation therapy will not be planned and performed on the same day in principle because it takes several days for planning based on CAT images. In this case, however, the surgeon requested radiation therapy be given in order to shorten hospitalization. Radiation therapy was therefore exceptionally performed after creating a medical chart with information from the initial consultation. • Although radiation therapy was repeated in the patient, the need to checking the past radiation record was overlooked. • The patient was not informed of long-term radiation complication. • Now an electronic chart system has been introduced to centralize patient information; however, old information is in paper charts and needs to be requested from the medical record department. Although radiation record management should also be centralized, old records cannot be incorporated in the present system. <Improvement measures taken at the institution> • Dose distributions and treatment plans are now sent from the RIS system at the radiation department to the electronic chart system to share necessary information.

GE020003	
Summary of event	Nurse A who was in charge of the patient asked Nurse B to connect a bag of chemotherapy drug before she left for lunch. Nurse B connected 5% glucose solution 250 mL + irinotecan 106 mg (product name, Campto) prepared for another patient instead of normal saline 500 mL + paclitaxel 300 mg (product name, Taxol) without checking "Injection Order and Record" and the patient's name.
Objective of on-site visit	• To hear the background and cause of the event • To review the rules such as chemotherapy procedure • To evaluate the improvement measures and the current status
Attendees from the medical institution	Assistant director (in charge of safety management), GRM, physician in charge of chemotherapy, ward head nurse
Major findings of on-site visit	• In the protocol and the injection order, the generic name "paclitaxel" was used while other drugs were recorded with their product names. • Only patient's name and product name were printed on the IV drip label while physician who prepared the chemotherapy drug handwrote the product name or generic name on the label. There were no uniform labeling rules. <Improvement measures taken at the institution> • Use of only product names in protocols, injection orders and IV drip labels was considered; however, both product and generic names are to be used because different institutions would use different products and use of generic names would be ideal for physician education. Although it takes more of the physician's time, the system is accepted by the staff since it is a teaching hospital. • According to the patient survey about wristband checks by nurses for patient-drug cross-check at the ward where the event occurred, patient wristbands were checked 80% of the time (100% for IV drip).
GE020004	
Summary of event	The nurse in charge saw the patient was asleep without arching his back. The SpO_2 was 95%. The nurse went to help another patient eat and wash his face in another room. Thirty minutes later the nurse heard the alarm of the SpO_2 monitoring device upon entering the patient's room. The device display showed SpO_2 56%, and the patient was pale with his head thrown back. The event was not caught earlier because the nurse left the patient whose condition could have been changed suddenly to attend the another patient who was supposed to be taken care of by other nursing team which did not hear the alarm of the SpO_2 monitoring device.
Objective of on-site visit	• To affirm the fact. • To see if improvement measures are feasible • To check the medical device, its location and nurse circulation patterns, etc.
Attendees from the medical institution	Assistant director (medical safety manager), a full-time chief of medical safety division (nurse), two nurses
Major findings of on-site visit	• The event was not caught earlier because the nurse left the patient whose condition could have been changed suddenly to attend the other patient in the other room and did not hear the SpO_2 alarm. • The alarm was hard to hear because the pulse oximeter was placed in the patient room. <Improvement measures taken at the institution> • At least one nurse will always be within earshot of the device alarm. • Monitoring devices used for patients in beds on the hallway side will be placed by the room entrance so that alarm can be easily heard.

GE020005	
Summary of event	The patient was scheduled for right superficial temporal artery-middle cerebral artery anastomosis. The attending doctor (surgeon) performed craniotomy on the left side by referring to the left-right indication in the 3-dimensional computed tomography angiographic (3DCTA) image. The other surgeon who was to perform anastomosis following craniotomy found the craniotomy had been performed on the left, the wrong side. 3DCTA images had been processed by a substitute machine for about a month due to system upgrading. An out-of-specification information display was included in all images processed during the month: a left-right indication unsynchronized with the image rotation. The surgeon thus mixed up the left-right indication of the image.
Objective of on-site visit	• To affirm the course of event • To review how the left-right mix-up occurred • To review information display on 3DCTA images, etc.
Attendees from the medical institution	Person responsible for medical safety (assistant director), a medical safety manager (nurse)
Major findings of on-site visit	• Unnecessary letters were displayed in the process of image recognition in the substitute machine used during the system upgrade for some reason. Cause of the unnecessary display is being investigated by the institution and the device manufacturer. • Although OR staff thought the surgical site was on the right, the surgeon insisted craniotomy be performed on the left in the OR. A nurse pointed out the surgical site was wrong but no correction was made. • The current surgical site checking procedures requires marking of the surgical site; however, not all clinical departments followed the procedures. The neurosurgery department did not. <Improvement measures taken at the institution> A. Surgical site marking procedures will be individually developed and followed by each clinical department (the idea of uniform procedures was not accepted by many of the staff members). B. Surgeons are required to document preoperative identification of patient and surgical site in electronic charts.

GE020006	
Summary of event	Positive group-B hemolytic streptococcus was documented in the referral letter and the outpatient chart of the patient who was admitted urgently. Penicillin allergy was documented in the referral letter and the outpatient appointment card but not in the outpatient chart. The midwife interviewed the patient, heard about his/her penicillin allergy, and documented it in the obstetric database summary in the inpatient chart. The outpatient chart was delivered to the delivery room later because the admission procedure had been delayed. Physician A saw the inpatient chart and knew the patient was group-B hemolytic streptcoccus-positive but did not check the referral letter. Since vaginal culture performed at the clinic was negative, Physician A telephoned Physician B (senior physician) to tell him about the test. Physician B did not have the patient's chart at hand but told Physician A that IV penicillin should be given to prevent birth canal infection as a general rule if positive group-B hemolytic streptococcus was documented in the chart. Later Physician A gave penicillin to the patient. A rash appeared in the abdomen of the patient three days post-partum, and Physician A learned the patient was allergic to penicillin for the first time.
Objective of on-site visit	• To affirm the fact • To review the in-house rules about documentation of contraindication • To review specific improvement measures
Attendees from the medical institution	A medical safety manager (nurse), an obstetrician
Major findings of on-site visit	• The initial attending physician did not document the drug allergy in the chart although the information was included in the referral letter and the interview form. The second attending physician did not check the documents, thinking he did not need to because the senior physician was supervising. • Those involved in the event made decisions only based on the information in the chart and neglected to interview the patient immediately before treatment. • Information was not adequately passed on to midwives on the next shift because it was busy shift-change time. <Improvement measures taken at the institution> • Raising awareness of individual staff members are the most feasible improvement measures for the time being. • The obstetrics/gynecology department has set rules to put allergy information on the ward patient information board with magnets, put a large "contraindication" mark on the medical chart of relevant patients, and include contraindication information on the upper right corner of obstetric chart. • The current operating procedures require inclusion of contraindication information in the margin of the first page of the inpatient chart (where patient's name and insurance information are provided). Not everyone was familiar with the procedures, however, and the occurrence of the event was announced to raise awareness.

GE020007	
Summary of event	Postoperative analgesia with IV flurbiprofen axetil was performed in the patient who had undergone otolaryngological surgery. Dyspnea appeared after discharge from the OR, and the otolaryngologist determined it was an asthma-like attack. The patient had had mild dyspnea after orally taking Bufferin, and "suspected aspirin asthma" was documented in the referral letter from the former physician. The anesthesiologist did not read the referral letter attached to the outpatient chart. No contraindication information was included in the designated section of the inpatient chart. Flurbiprofen axetil was used for postoperative analgesia since the association between oral Bufferin and dyspnea had not been clear from the patient interview. The anesthesiologist said while there had been no reason to believe aspirin was contraindicated based on the information provided by the patient a different judgment might have been made if the contraindication was included in the designated section of the inpatient chart.
Objective of on-site visit	• To affirm the fact • To hear about the in-house rules for documentation of contraindication • To hear about specific improvement measures to be taken
Attendees from the medical institution	A medical safety manager (nurse), an otolaryngologist
Major findings of on-site visit	• While suspected aspirin asthma had been documented in the referral letter from the former physician, the letter was merely attached to the outpatient chart without adequate information sharing upon admission. The analgesic was given because postoperative analgesia was the priority. <Improvement measures taken at the institution> • Allergy information was to be provided in the designated section of inpatient chart when the event occurred; however, whether "suspected" allergy should also be provided was not clearly specified. • The occurrence of event was announced; no other specific improvement measures have been taken.

GE020008	
Summary of event	Ifomide 10 g/m^2/5 days (specifically, 15 g/5 days for the patient) was scheduled for the patient. The prescribing physician (Physician A) assumed the dose was 15 g/day and prepared an order form by referring to the protocol, ordering 15 g/day instead of 3 g/day. Two days later on Sunday, the day-shift pharmacist (Pharmacist B) noticed the overprescription, checked the package insert and made an inquiry to Physician A, who told the pharmacist the drug should be given as ordered based on the protocol. Pharmacist B dispensed the drug as ordered and asked Physician A to provide the protocol. Next day Pharmacist B told the ward pharmacist C and the head of dispensary D (pharmacist) about the Ifomide overprescription. Later the protocol was checked, and Ifomide overdose was identified. The ordered dose of Ifomide had all been given to the patient by this time.
Objective of on-site visit	• To affirm the fact • To review the prescription checking system • To hear about improvement measures taken at the pharmacy • To hear about in-house chemotherapy protocol management
Attendees from the medical institution	Head of medical safety management division (physician); a physician in charge of medical safety; a physician from the clinical department; a nurse; a pharmacist; chief of medical service division, in-house affairs department; a clerk
Major findings of on-site visit	• The physician assumed 15 g/day was the correct dose and did not correct the wrong assumption even after receiving an inquiry from the pharmacist. The protocol was not checked upon inquiry. • The chemotherapy protocol was not shared by the pharmacy and the clinical department. There were no in-house rules. • The chemotherapy plan was not shared among staff members of different professions. <Improvement measures taken at the institution> • Chemotherapy protocols were registered at the pharmacy to promote information sharing and ensure a checking system. • Protocol check sheet was developed at the clinical department. • Protocols are now available at the ward for reference.
GE020009	
Summary of event	The patient admitted at the emergency room for left subarachnoid hemorrhage received an emergency operation. The right side of the patient's head was partly shaved in the OR, and hematoma removal was started. The surgeon realized the left-right mix-up because intraoperative findings were different from preoperative findings. The wound on the right side of the head was temporarily sutured, and cerebral decompression was performed on the left side.
Objective of on-site visit	• To affirm the background and cause of the event • To hear about the procedures for prevention of left-right mix-up and surgical site marking in emergency situations • To hear about improvement measures taken and evaluation of current status, etc.
Attendees from the medical institution	Chief neurosurgeon at ward, manager of surgical department, head nurse at OR, two safety managers (nurses)
Major findings of on-site visit	• When the patient was transferred to the OR, the ER nurse passed on the patient information to the OR nurse using a checklist at the OR reception. However, the contents of the checklist were not cross-checked with the patient who had been taken into the OR quickly for an emergency operation. • While the CAT images showed the hemorrhage on the left side, the mix-up occurred because anisocoria was right > left generally indicating hemorrhage on the right side. • The surgeon was supposed to declare the surgical site had been confirmed. However, he did not confirm the surgical site or declare the surgical site confirmation in this case. Neither the anesthesiologist nor nurses checked the surgical site. <Improvement measures taken at the institution> • Now patient information is passed on inside the OR so that nurses can talk beside the patient even in an emergency. • Surgeons are required to confirm the surgical site and declare surgical site confirmation even in an emergency.

GE020010	
Summary of event	10% Aleviatin powder 250 mg/day t.i.d. (after breakfast, after dinner and before bedtime) and three other tablets were prescribed for 14 days. The pharmacist used an automatic powder packaging machine to prepare Aleviatin powder packages. Twenty-one two unit-dose packages, total of 42 unit-dose packages, were put into a bag and placed on the checking table. Other pharmacist cross-checked the prescription form and the bag labels. The number of Aleviatin powder packages and the total amount were checked before dispensing. Six days later the patient was taken to the emergency room. The patient's family pointed out the amount of Aleviatin contained in a package had been excessive. The remains of the drug was checked, and some packages contained less than the prescribed 1.38 g while others contained 2.00 g.
Objective of on-site visit	• To affirm the fact • To hear about the checking system at the pharmacy • To hear about how drugs subject to therapeutic drug monitoring (TDM) are handled • To hear about improvement measures to be taken, etc.
Attendees from the medical institution	Head of medical safety division (physician), a GRM (nurse), a pharmacist, two clerks
Major findings of on-site visit	• The automatic powder packaging machine malfunctioned, causing uneven powder packaging. • When used with the "automatic" mode, the machine had been known to malfunction and cause uneven packaging. The machine was not to be used with the "automatic" mode (customarily); however, the pharmacist used it with the "automatic" mode. • The total amount of Aleviatin was checked at the pharmacy but not each individually packaged amount. Uneven packaging was undetected because no visual inspection of individual packages was performed. <Improvement measures taken at the institution> • The automatic powder packaging machine was discarded, and a new machine was introduced. • Monthly quality control of automatic powder packaging machine and recording of results will be ensured. • Thorough understanding of staff members about the checking procedures specified in "Dispensing Procedures" and "Dispensing Error Prevention Procedures" will be ensured.
GE020011	
Summary of event	When transesophageal echocardiography was performed as a preoperative examination, the patient's allergy to Xylocaine documented in the electronic chart was not checked by the physician in charge, the examining physician or the examination room. The examining physician heard about the allergy from the patient immediately before the examination, and an alternative drug was used on short notice.
Objective of on-site visit	• To affirm the fact • To hear about the in-house rules for handling contraindication information • To hear about the reason for not using "Patient Profile Display" • To hear about improvement measures to be taken, etc.
Attendees from the medical institution	Head of medical safety division, a GRM, three clinical technologists
Major findings of on-site visit	• When the attending physician at the outpatient clinic ordered transesophageal echocardiography from the electronic chart terminal, a pop-up reminder of the telephone confirmation "Make sure the patient has no thoracic aortic aneurysm or Xylocaine allergy... (rest omitted)" appeared on the screen. However, no order comment was entered or telephone call was made. • Informed consent forms and checklists had to be printed out from a separate display from the ordering display. • "Patient Profile" display, which should include allergy information, had not been used. <Improvement measures taken at the institution> • Attending physicians at the outpatient clinic will check the allergy information of patients. • The system was improved so that allergy information can be checked or entered when ordering endoscopic examinations via electronic charts. • "Transesophageal echocardiography checklist" prepared at the examination room will be incorporated into the electronic chart system.

GE020012	
Summary of event	Nurse A started to give oxygen at 4 L to the patient two days after removing ventilator. The alarm went off immediately, and the patient looked in pain. Another nurse was called to start applying pressure using a Jackson Rees circuit. The nurses looked at the tracheostomy site and found the catheter mount flex tube had been connected to the tracheal tube with its rubber cap on, causing one-way flow of oxygen. The patient was unable to exhale because of this. The physician on call put the patient on a ventilator and treated him for possible acute myocardial infarction. Later the patient was diagnosed with temporary ischemia or stress cardiomyopathy.
Objective of on-site visit	• To affirm the fact, such as how the inhaler and the flex tube were connected • To hear about the inhalation method used at the institution • To hear about improvement measures to be taken, etc.
Attendees from the medical institution	A RM (nurse), a nurse, a clerk
Major findings of on-site visit	<Improvement measures taken at the institution> • Oxygen tubes with connecting ports that can be connected to oxygen inhalation tubes were collected, and future use is prohibited. Photographs of collected products were distributed to raise awareness. • Inhalation procedures were developed and individual clinical departments were notified. • A recommended method for oxygen inhalator connection was provided using photographs,
GE020013	
Summary of event	The attending physician (Physician A) explained about the trial intraocular lenses to the patient, wrote "scheduled for trial" in red in the patient's chart, and inserted a card with "trial" written on it in the front cover of the chart. Later the patient told the clinical research coordinator (CRC) he would not participate in the trial. When Physician A was informed of the patient's intention from the CRC, he asked "What should I do now?" The CRC replied, "Nothing." Physician A did not write "trial refused" in the chart or removed the "trial" card from the front cover. The patient was scheduled for surgery as a trial participant; he was operated on to insert a trial intraocular lens.
Objective of on-site visit	• To hear about the background and cause of the event • To hear about the intraocular lens management procedures at the ophthalmology department • To hear about the role of CRC and operation flow during a trial • To hear about the current communication system, etc.
Attendees from the medical institution	Assistant director (in charge of medical safety), head of medical safety management division, chief of the clinical department, two persons in charge of reliability assurance form the clinical study support center, a medical safety manager (nurse), chief of management division, OR head nurse
Major findings of on-site visit	• Trial intraocular lens was used for the first time in 10 years. Neither the physician nor ward nurses had experience which clinical trial. • Chart sheets for trial are usually prepared by Medical Professions Division or CRC after obtaining consent from the patient using an informed consent form for trial. However, neither the physician nor ward nurses knew it. • Physician A wrote "scheduled for trial" in red in the chart and inserted a "trial" card in the front cover at his discretion, not following certain rules. The CRC did not know about the remarks in the chart or the "trial" card. Other ophthalmologist took what was written in the chart and the card as reliable information. <Improvement measures taken at the institution> • CRCs will inform relevant staff members of withdrawal of consent by patient and document it in the chart. • Information will be shared using a whiteboard at the ophthalmology department.

GE020014	
Summary of event	The surgical site was checked for retained objects, and correct gauze count was confirmed before suturing the wound after lung removal. The x-ray image taken in the OR was checked by multiple physicians; however some retained gauze was missed. Next day the retained gauze was shown in an x-ray image taken in the ICU. The gauze was surgically removed.
Objective of on-site visit	• To hear about the background and cause of the event • To hear about the gauze count procedures • To hear about how improvement measures are taken and what problems exist, etc,
Attendees from the medical institution	A full-time risk manager at medical safety promotion division (physician), chief of drug management, OR head nurse, OR chief nurse
Major findings of on-site visit	• Open-chest surgery had been repeated in this patient after completing the first surgery and covering the wound with gauze because of postoperative bleeding. • Four types of gauze were prepared for this patient. Gauze that would not normally be used for surgery was also used because it was a reopened wound. • The postoperative chest x-ray image was examined by two physicians, hand-holding the film instead of using a light box. • Timeout implementation rate varies from 30% to 90% depending on clinical department. <Improvement measures taken at the institution> • Types of gauze used in OR will be decreased. Use of gauze count holder will be considered. • Timeout for gauze count was requested from the director of OR to each clinical department in writing. • A light box must be used when checking x-ray images. Two or more physicians should critically check for retained gauze.
GE020015	
Summary of event	The surgery to remove pancreatic tail was completed by the surgeon who asked, "How about the gauze?" to which someone answered "O.K." immediately before closing the surgical wound. Next day some retained gauze was found by portable x-ray.
Objective of on-site visit	• To hear about the background and cause of the event • To hear about the gauze counting procedures • To hear about how improvement measures are taken and what problems exist, etc.
Attendees from the medical institution	A full-time risk manager at medical safety promotion division (physician), chief of drug management, OR head nurse, OR chief nurse
Major findings of on-site visit	• A scrub nurse will count the gauze and put it in a sterile area, (1) blood-soaked gauze will be put into Kaunta-kun (gauze counter/blood measurement device) one by one, (2) normal saline-soaked gauze will be counted, and (3) gauze on the sterile area will be counted. • In the OR, x-ray had to be taken by surgeons when the radiologist was not available (he worked two days a week). X-ray had not been taken in all patients undergoing abdominal surgery. No x-ray was taken in this patient because the radiologist was not available. <Improvement measures taken at the institution> • A radiologist is now available 5 days a week instead of 2 days a week.

GE020016	
Summary of event	The physician prescribed Depakene 40% granule 100 mg t.i.d. (after every meal) for 7 days. The dispensary system received the prescription order before 19:00. Two night-shift pharmacists dispensed and checked the prescribed drug. The dispensing pharmacist suspended his work during the process of measuring the prescribed dose. When he resumed his work, he miscalculated the dose and prepared 12.25 g instead of 1.75 g, a dose that was seven times the prescribed amount. The system-calculated dose shown on the display was correct; however, the dispensing pharmacist believed his own calculation written on a memo pad was correct. The checking pharmacist neglected to calculate the dispensed amount, which should have been checked according to the procedures. He cross-checked the dispensed amount with the miscalculated amount and dispensed the drug. The patient started taking the drug, and later lethargy, NH_3 increase, and general convulsion started to occur frequently. The patient was admitted to the hospital where his former physician was affiliated 12 days after starting the medication. The overdose was identified when a pharmacist from the hospital pointed out potential over dispensing.
Objective of on-site visit	• To affirm the fact • To check how the dispensing check is performed • To hear about improvement measures to be taken, etc.
Attendees from the medical institution	A RM (nurse), manager of pharmacy, deputy manager of pharmacy, a nurse, a clerk
Major findings of on-site visit	<Improvement measures taken at the institution> • For off-hour dispensing of powder drugs, a double-check will be performed the next day. • Amount of powder drug will be calculated by a checking pharmacist, using the prescription display (system-calculated amount) only as a reference. • Suspension of dispensing work should be avoided as much as possible. A plate saying “dispensing” should be placed at the reception window. • The error display of the powder drug checking system was improved, etc.

GE020017	
Summary of event	The patient was transferred from other hospital to receive a bone marrow transplant. The blood type of the patient was O, and the donor blood type was A. Physician A said the donor blood type was O in the pre-transplant conference. Physician B thought it was inconsistent with the information provided earlier and tried to check the donor information. Attached documents were not available, however, and Physician B told Physician A to attach relevant documents to the patient's chart. Physician A mixed-up the blood type of the donor with that of another donor for another patient, which was type O. Two months later bone marrow arrived to the ward from the collection center. The amount was checked by referring to the bone marrow delivery form but not the blood type. Bone marrow transplant was started in the patient's room. Physician A checked the bone marrow collection report again upon leaving the room and found the donor blood type was A. The transplant was discontinued (about 17 mL of blood was presumably transfused into the patient). Later it was identified as mismatched transfusion in which type A erythrocyte hemolysis may occur. Remaining bone marrow was reprocessed to remove hemocytes and plasma and used for transfusion in the patient.
Objective of on-site visit	• To affirm the fact • To hear about the bone marrow transplant procedures • To hear about the checking procedures for bone marrow transplant, etc.
Attendees from the medical institution	Three physicians, two nurses in charge of medical safety, two clerks
Major findings of on-site visit	• Several patients from the hospital where Physician A worked part-time were waiting for bone marrow transplant. • HLA type and weight of donor are priorities in donor selection for bone marrow transplant. A blood type mismatch is therefore not so noticable. • Those involved in the event were preoccupied with cell count check only when checking the bone marrow. • The donor blood type mix-up by Physician A had been noticed but could not be corrected. • The donor information (e.g. examination report) was in possession of Physician A so that other physicians were unable to check. Physician A was instructed to attach the donor information to the patient's chart but he did not do so. <Improvement measures taken at the institution> • Two or more physicians will check relevant documents. • Patient and donor information will be read aloud when receiving bone marrow from the collection center. • Bone marrow transplant packages will be labeled with the blood type after checking. • The blood transfusion department will be involved in the checking process.

GE020018	
Summary of event	Left and right breast tissue was submitted to the pathology laboratory. The right breast tissue was labeled as 1 and the left breast tissue as 2. Breast tissue was processed in the ascending order: Tissue 1 (right breast) and then Tissue 2 (left breast). Processed Tissue 1 was to be put on the left slide and Tissue 2 on the right slide; however, Tissue 2 was put on the left slide and Tissue 1 on the right slide. The slides were labeled as 1 and 2 from left to right as specified in the procedures used at the pathology laboratory, so Sample 1 contained left breast tissue and Sample 2 right breast tissue. The pathologist diagnosed Sample 1 with fibroadenoma and Sample 2 with carcinoma. The result for Sample 1 was reported as that for right breast and the result for Sample 2 for left breast.
Objective of on-site visit	• To check the current process of pathological sample preparation • To hear about the background and cause of the event • To hear about the implementation of improvement measures and what problems exist
Attendees from the medical institution	Head of medical safety division (assistant director), director of pathology laboratory (physician), assistant to the head of medical safety division, acting manager of nursing department, a clinical technician
Major findings of on-site visit	• There were no uniform rules for pathological sample identification. Two samples from one patient would be labeled with the same identification number in some cases while they would be handled separately in other cases. • The crucial information to distinguish the left and right breast was translated into simple numbers that merely suggested serial order when preparing the samples. The importance of identification was not adequately understood by the person who prepared the samples. • When handling two or more tissues, an incision was made to one tissue to be placed on the right side (Sample 1) for distinction. In this case, however, two samples both looked like they had an incision. The person who prepared the samples thought the tissue with an incision, which was to be placed on the right side (Sample 1), was placed on the left side (Sample 2). <Improvement measures taken at the institution> • In addition to the original rule to make an incision to samples, a hole will be made in each corner with a pin as another mark. • Section placed on a slide and paraffin block from which the section came will be compared for cross-check.

GE020019	
Summary of event	The nurse reported unprescribed drug was mixed in the drug package for the patient. TS-1 capsule (anticancer drug) was mixed in the package prepared for the patient to whom oral Dops had been ordered. Further investigation at the pharmacy found three more TS-1 capsules in the drug package for the patient and 14 capsules in the cassette for the automatic tablet packaging machine. The cassette for Dops had been replaced in the previous year. Since then drugs had been prepared with the automatic tablet packaging machine for three patients including this one. Awareness had not been raised about similar appearance of TS-1 25-mg capsule and Dops 100-mg capsule.
Objective of on-site visit	• To affirm the fact • To review the procedures for automatic tablet dispensing machine use • To review the procedures for dispensed drug use, etc.
Attendees from the medical institution	A physician in charge of medical safety management, a pharmacist
Major findings of on-site visit	• Anticancer drugs were not handled separately from other drugs. <Improvement measures taken at the institution> • The automatic tablet packaging machine is no longer used for anticancer drugs. • Drugs requiring intensive management such as anticancer drugs must be dispensed in heat-sealed packages to distinguish them from other drugs. • When setting already-dispensed drugs in a cassette to reuse, two pharmacists should be involved in the checking process. • Cassettes should be periodically checked to see if other drugs are mixed. • "Intensive management drug return form" should be prepared when returning drugs requiring intensive management to the pharmacy. • Drugs expected to be discontinued or switched will be prescribed for a small number of days at the clinical department.

2 Individual Theme Review by Expert Division

The 2008 annual report summarizes medical adverse events reported between January 1 and December 31, 2008 and included in "Individual Theme Review" in the 13th to the 16th periodic reports.

[1] Medical Adverse Events Related to Drugs

One hundred thirty-two medical adverse events related to drugs reported between January 1 and Wednesday, December 31, 2008 were analyzed.

(1) Details of medical adverse events related to drugs

Summaries of the reported events are shown in Fig. III-2-1. In summarizing individual medical adverse events, the flow of drug therapy is categorized into ordering, receiving order/briefing, preparation, drug administration, observation and monitoring after drug therapy, and others (Fig. III-2-2).

A. Ordering

The 13th report included nine events. One event involved a prescription error which resulted in an amount 10 times the prescription amount, one event involved a mix-up of the unit "mg" and the number of bottles that resulted in overdose, two events involved anticancer drug overdose, and two events involved use of contraindicated drugs.

One of the medical institutions introduced a system that shows a "Warning" alert on the screen when the maximum dose is exceeded and requires the prescribing physician's ID and password for medication orders to prevent over prescription.

The 14th report included three events. Two events were related to drug specifications, and one event involved dosing error.

The 15th report included seven events. Three events involved use of contraindicated drugs, and two events involved prescription of wrong anticancer drugs for chemotherapy.

The 16th report included seven events. One event involved drug mix-up due to similar product names, one event involved entering of a prescription order based on mixed-up drug specification, one event involved a dosage error with a drug to be diluted, two events involved forgotten orders for necessary medication, and two events involved use of contraindicated drugs.

B. Receiving order/briefing

The 13th report did not include any event related to receiving order/briefing.

The 14th report included one event that involved use of a contraindicated drug.

The 15th report included two events. One event involved dopamine hydrochloride overdose due to dose miscalculation.

The 16th report included three events. One event involved dosage error with a drug to be diluted, one event was related to a drug brought by the patient, and one event involved overdose due to unclear oral communication of unit.

C. Preparation

The 13th report included nine events. One event involved the mix-up of a glycerin container with ethanol container for enema, one event involved treatment with insulin 100 U instead of 10 mL, two events involved a setting error of infusion pump flow rate, one event involved oral medication mix-up, one event was related to drugs requiring careful mixing, and one event involved a dosage error at the time of powder packaging.

The 14th report included eight events. Three events were related to drugs prepared in injection syringes, one event involved IV administration of nose drop, one event involved drug mix-up due to similar drug names and appearances, and one event involved overdose due to miscalculation at the time of dispensing.

The 15th report included four events. One event involved use of expired vaccines, one event was related to drugs prepared in injection syringes, and one event involved a patient taking the wrong oral medication due to the mixing of other drugs in the cassette for the automatic tablet packaging machine.

The 16th report included 12 events. Two events involved drug mix-up due to similar product names, one event involved mix-up of drugs kept in the same drawer, one event involved mix-up of drugs prepared in injection syringes, one event involved a dosage error with a drug to be diluted, one event involved overdose due to misunderstanding of insulin content, two events involved dose mix-up at the time of dispensing, and one event involved an oral medication given to another patient.

D. Drug administration

The 13th report included five events. One event involved a dosage error which occurred because the injection was given according to another patient's medical chart, one event involved a wrong administration route, and two events involved the use of the wrong drug due to a patient misidentification.

The 14th report included 12 events. One event involved drug mix-up at the time of examination, two events involved an overdose 10 times the prescribed amount due to a setting error of the infusion pump flow rate, three events involved use of the wrong drug due to a patient misidentification, one event involved use of an expired drug, three events involved extravascular leakage of infusion fluid, and one event involved a drug allergy.

The 15th report included 17 events. Two events involved extravascular leakage of infusion fluid, one event involved IV injection of a drug to be given via continuous IV infusion, two events involved setting errors of infusion pump flow rate, three events involved mix-up of drugs prepared in injection syringes, and one event involved use of a contraindicated drug.

The 16th report included 19 events. Four events involved extravascular leakage of an anticancer drug, and two events involved concurrent use of a flammable drug and a cautery knife causing a burn injury in the patient.

E. Observation/monitoring after drug therapy

The 13th report included three events. One event involved extravascular leakage during IV infusion of gabexate mesylate, and one event involved a drug allergy.

The 14th report included six events. One event involved extravascular leakage during infusion of gabexate mesylate, two events involved extravascular leakage during pump infusion, and one event involved port occlusion.

The 15th and 16th reports did not include any event related to observation and monitoring after drug therapy.

F. Others

The 13th report did not include any event categorized as other.

The 14th report included three events. One event involved drug allergy, and two events were related to biopsy in patients taking Warfarin or Bayaspirin.

The 15th report did not include any event categorized as other.

The 16th report included two events related to patient-controlled oral medications.

(2) Medical near-miss incidents related to drugs

Medical near-miss incidents reported in the 27th report (January to March), the 28th report (April to June), the 29th report (July to September), and the 30th report (October to December) were analyzed.

Events related to contraindicated drugs, which was one of the descriptive information items in the 27th to the 29th Medical Near-Miss Incident Reports, were also analyzed.

A. Events related to drugs

The events are summarized based on the six levels in the flow of drug therapy such as "ordering," "receiving order/briefing," "preparation," "drug administration," "observation and monitoring after drug therapy," and "others" on the vertical axis and event details on the horizontal axis in the matrix (Fig. III-2-3).

B. Events related to contraindicated drugs

Contraindication means “not to be given to the patient.” In this report contraindicated drugs are categorized as follows based on the events related to contraindicated drugs reported by medical institutions.

i) Drugs to be avoided or those that should not be given depending on the underlying disease, medical history and/or constitution of the patient

ii) Drugs that must not or should not be used in combination with other drugs

iii) Drugs inappropriately mixed, or should not be mixed, with other drugs

The events are summarized based on the six levels in the flow of preparation/administration of contraindicated drugs such as "ordering," "receiving order/briefing," "preparation," "drug administration," "observation and monitoring after drug therapy," and "others" on the vertical axis and event details on the horizontal axis in the matrix (Fig. III-2-4).

Fig. III-2-1 Summary of Medical Adverse Events Related to Drugs: 13th to 16th Reports

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
[Drug mix-up]				
1	Ordering	None	When processing an extramural prescription for an outpatient using a prescription ordering system, "NovoRapid Injection 300 FlexPen" was entered into the system by mistake instead of "NovoRapid 30 Mix Injection FlexPen." The error was found immediately and corrected, and a correct prescription was given to the patient. The physician thought he had deleted the wrong prescription from the system; however, it was still in the system and shown on the display. When the patient came for his appointment the following month, he was given a wrong prescription for NovoRapid Injection 300 FlexPen instead of NovoRapid 30 Mix Injection FlexPen because the former had not been deleted and was still on the system display.	13th
2	Preparation	High	Nurse A prepared enemas for four patients (low-birth-weight infants). Twenty-five percent glycerin 4 mL had been ordered for each patient. According to the regular procedures 25% glycerin solution was to be put in a cup from a 500-mL bottle and warmed before preparing the drug in syringes. However, Nurse A took the bottle of ethanol disinfectant without giving it much thought and put it into syringes, thinking it was glycerin enema. Nurse A, Nurse B and Nurse C each gave ethanol enema to her patient. The patients all had normal stool immediately after enema. However, the first patient had mucous and bloody stool followed by the second and the third patients. Drug mix-up was found because the remaining solution in the discarded syringes smelled like alcohol.	
3	Preparation	None	After infusion, diluted Bisolvon inhalant (Bisolvon inhalant 1 mL + normal saline 3 mL) was injected instead of normal saline lock. The diluted Bisolvon inhalant was to be used for treatment and prepared in a colored syringe. Syringes for inhalant and normal saline lock for several patients to be cared by the nurse were individually prepared on a tray and placed on a wagon.	14th
4	Preparation	Low	The patient visited the pediatric clinic for bleeding from the wound after fenestration of impacted tooth. Desmopressin 0.3 μg mixed with normal saline was ordered. The in-house formulary listed only one type of Desmopressin, which was a nose drop. Without realizing it was a nose drop, the person diluted the ordered dose of Desmopressin in normal saline 50 mL and intermittently administered to the patient for seven times over seven days. Later it was found that an IV formulation of Desmopressin was also available.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
[Drug mix-up]				
5	Preparation	No disability	When the surgical site was disinfected with cotton balls soaked with Popiyodon in the central operation room, Popiyodon foam appeared in the disinfected area and lint from disintegrated cotton balls adhered to the skin. The same thing happened in the adjacent operation room, and the disinfectant was switched to Isodine. The investigation in the central operation room found surfactant-containing Popiyodon Scrub had been used by mistake. After switching the disinfectant to a generic, the OR staff was not well enough informed of the similar product name. The bottle designs for Popiyodon solution and Popiyodon Scrub were also similar.	14th
6	Preparation	None	Nurse B took over the duties from Nurse A before the patient came to the examination room. After the shift change, Nurse B saw a bag of normal saline 500 mL with deleted labeling of heparin 5000 in red on the IV drip pole, thought it had been normal saline prepared by Nurse A, and connected it to the infusion device. Suspicious about the elevated ACT, the physician asked if heparin had been mixed with the normal saline. Inquiry to Nurse A revealed it was not prepared by her but prepared by someone else three days earlier by mixing heparin 5000 U with normal saline. The solution had not been used for other patients.	
7	Preparation	None	The patient received Acmain and antibiotics peripherally. At the end of the treatment Lasix 40 mg was given instead of heparin/normal saline. Later the drug mix-up was identified when heparin/normal saline to be used for the patient was found unused. Patient ID and drugs to be used must be checked using PDA when giving drug therapy. In this case, however, PDA could not be used because "Operation List" was not obtained. The syringe containing Lasix was thought to be heparin/normal saline and used without checking. Heparin/normal saline was to be used in this patient and one other patient and prepared on separate trays. The nurse thought one syringe containing heparin/normal saline and the other containing Lasix 40 mg prepared on a tray for other two patients were both heparin/normal saline.	
8	Drug administration	None	The radiologist requested the physician to give an injection as specified in the order form before performing RI examination. The physician injected 67 Ga instead of 1231-MIBG. The error was identified when the radiologist returned to the treatment room to request an injection for the next patient and found the drug that should have been used in the previous patient was there.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
[Drug mix-up]				
9	Receiving order/ briefing	No disability	"Fentanyl 1.3 mg (26 mL) + 2% Xylocaine 22 mL; 48 mL in total at 4 mL/h" was ordered. The nurse checked the in-house drug code book and requested "Xylocaine E 2% injection (20 mL)" using a temporary drug request form. Two nurses who checked the form both thought "E" was part of the drug name. The night-shift nurse noticed the drug name in the order form and the label of dispensed drug were different when she mixed the drugs; however, she started IV infusion thinking "E" had been omitted in the injection order. The following day the night-shift nurse saw drugs dispensed at the pharmacy and found the drug mix-up, reported the accident to the doctor on call and asked if the drug should be changed. The doctor told the nurse to continue Xylocaine E, thinking the drug was given epidurally. Next morning the doctor discontinued Xylocaine E and switched it to the right drug.	15th
10	Preparation	No disability	The nurse reported an unprescribed drug was mixed in the drug package for the patient. TS-1 capsule was mixed in the package prepared for the patient to whom oral Dops had been ordered. Further investigation at the pharmacy found three more TS-1 capsules in the drug package for the patient and 14 capsules in the cassette for the automatic tablet packaging machine. Drugs had been prepared with the automatic tablet packaging machine for three inpatients including this one. Awareness had not been raised about the similar appearance of TS-1 25-mg capsule and Dops 100-mg capsule.	
11	Preparation	No disability	The nurse opened the Myelo tray to prepare two syringes, an 18-G injection needle, a spinal needle and Isodine for disinfection during examination. The physician connected a needle to the syringe, and the nurse put 1% Xylocaine Polyamp 10 mL from the bottle in her hand into the syringe. Although Omnipaque 240 (10 mL) had not been prepared in a syringe, the physician thought the syringe containing Xylocaine had Omnipaque in it and injected Xylocaine into the patient's spinal canal. The physician realized it was not Omnipaque when 6 mL of Xylocaine was injected and no myelogram was shown.	
12	Preparation	Low	The intern anesthesiologist called the supervising physician on PHS and asked if an antagonist against muscle relaxant was necessary for a postoperative patient. The intern asked, "Is the reverse necessary?" to which the supervising physician replied, "Prepare half the usual amount." The intern thought he should prepare atropine sulfate 1A + neostigmine 2A. When preparing the drug, the intern only looked at the letters "Neo" on the drug label on the tray and took the bottle of Neosynesin on the right thinking it was neostigmine. He took out Neosynesin 2A and gave it to the patient without checking the ampule.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
[Drug mix-up]				
13	Drug administration	No disability	Local anesthetic Omnicain injection and heparin/normal saline for heparin flush were prepared in syringes in the clean area for a catheter examination. The patient felt bad and had bradycardia and nausea during the examination. The symptoms were likely caused by IV injection of local anesthetic. The syringe containing heparin/normal saline may have been mixed up with that containing Omnicain.	15th
14	Drug administration	Low	Intravitreal injection with Avastin and Kenacort and subconjunctival injection with Gentacin were scheduled during the ophthalmologic surgery. After the surgeon intravitreally injected Avastin, the nurse handed him the syringe containing Gentacin instead of Kenacort. Gentacin was injected intravitreally.	
15	Ordering	Death	After examining the patient, the doctor-on-call (Physician A) entered "Sakushi" into the electronic chart system to search a drug "Saxizon" but "Succin" was shown on the display. The doctor thought "Succin" was the correct drug name and ordered "Succin 200 mg × 2A + normal saline 100 mL." Nurse B went to the pharmacy to receive Succin and checked the drug with Nurse C who gave it to the patient. When Nurse D checked on the patient an hour later he was moving. However, the patient's breath was arrested when Nurse D checked on him again about an hour later. Physician A checked the drug label and realized he had ordered "Succin" by entering a wrong drug name in the system. "Succin" had been discontinued at the hospital except for surgical use.	16th
16	Preparation	None	The physician wrote "Thiuragyl (50 mg) one tablet/day after breakfast" in the paper-based medical chart. The clerk searched the drug name by entering "Chi" into the receipt processing computer, which showed "Thyradin-S" as the search result. The clerk entered "Thyradin-S" into the computer. The drug was dispensed at the extramural pharmacy as prescribed since it was the first prescription processed for the patient. When the patient came for his appointment two weeks later Thiuragyl was prescribed. The prescription error was found when the pharmacy notified the hospital of the totally different prescription from the previous one.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
17	Preparation	No disability	Six tablets of Thiuragyl 50 mg t.i.d. for five days were prescribed for the patient admitted for treatment of Graves' disease. Pharmacist A dispensed six tablets of Thyradine-S 50 μg for five days by mistake. Pharmacist B checked the prescription but did not realize the drug mix-up. He checked the number of tablets and dispensed the drug to the ward. The ward nurse double-checked the drug but did not find the mix-up because she neglected to cross-check the drug name on the heat-sealed sheet with that on the bag. Although the patient knew the drug name on the bag was different from that on the heat-sealed sheet, he took the drug for four days without making an inquiry to a nurse or a pharmacist. Pharmacist A dispensed Thyradine-S by mistake and Pharmacist B could not detect the drug mix-up because both Thyradine-S and Thiuragyl were treatment for thyroid disease and their names were similar.	16th
18	Preparation	Low	One Utemerin tablet was taken out of the bottle in the storage room and given to the patient for pre-amniocentesis treatment. Thirty minutes later the nurse realized Metenarin had been given instead of Utemerin. The drug used for pretreatment was taken from the ward storage room because amniocentesis was performed immediately after the patient's admission. Utemerin and Metenarin were stored in the same drawer. When a Utemerin sheet is cut into individual tablets, some tablets will not have any indication labeling on their package. The tablet used in this case did not have indication labeling on its package.	
19	Preparation	None	The new nurse took out Bisolvon inhalant prepared for nebulizer inhalation in another patient from the drug refrigerator by mistake instead of heparin/normal saline. The nurse injected Bisolvon into the peripheral IV route of the patient, assuming it was heparin/normal saline. The senior nurse realized the drug name Bisolvon was written on the syringe and stopped the injection; however, 1.6 mL of Bisolvon had already been injected. Drugs for IV injection and topical drugs were stored in the same refrigerator at the ward.	
20	Preparation	Low	The nurse gave the patient Sosegon 15 mg and Atalax-P 25 mg as ordered. The patient had increased heart rate, decreased blood pressure and arrhythmia immediately after the treatment. Proternol 1A had been given by mistake instead of Atalax-P 25 mg x 1A. No "one tray for each patient" rule had been used when preparing drugs.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
21	Preparation	Low	Lasix and Sigmart had been continuously given to the patient using an infusion pump. The low-level warning alarm went off for Sigmart. Lasix was set on the infusion pump instead of Sigmart. Later the attending physician ordered to discontinue Lasix because it had been given at a fast rate. The nurse checked and saw the flow rate for Lasix had been set at 0.5 mL/h as ordered but Lasix was set on the pump on which Sigmart should have been set at 5 mL/h.	16th
[Wrong dose]				
22	Ordering	None	After examining the patient referred from another hospital, the physician entered Digosin powder 2 mg instead of 0.2 mg, which was the dose prescribed by the patient's former physician, in the prescription system. Five days later the patient called to complain he had been vomiting continuously. At the next outpatient appointment two days later, the blood concentration of Digosin was found to exceed the upper therapeutic limit, suggesting overdose.	13th
23	Ordering	High	The order for chemotherapy that had been given according to the regimen prescription in advance was deleted after the physician entered a discharge order. The physician then newly entered an order for chemotherapy. Exal 5.5 mg was to be prescribed. However, the prescription display showed "Exal 10 mg." The default unit was "bottle," and the physician entered "5.5" without realizing the default unit. Five and a half bottles of Exal (55 mg) were dispensed to the ward and given to the patient. Warnings are shown on the display when abnormalities are detected in the drug ordering system. The warning system was not effectively used since warnings appeared too frequently.	
24	Ordering	None	The physician prepared an order form according to the protocol. Ifosfamide 15 g was to be given over five days (3 g/day); however, the physician thought ifosfamide 15 g/day was to be given and wrote "15 g" in the order form. The pharmacist was suspicious and made an inquiry to the physician who told him the treatment should be given as ordered. The drug was therefore dispensed as ordered. The overdose was identified by the pharmacist who later checked the protocol. All the prescribed dose of ifosfamide had been given to the patient by then.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
25	Ordering	Low	Navelbine injection was started in the patient. The drug was given eight days later again. Usual Navelbine dose is 25 mg/m^2 x 1.53 m^2 = 38.25 mg according to the National Cancer Center data or 30 mg/m^2 ×1.53 m^2 = 45.9 mg according to the overseas data. However, Navelbine 60 mg was given to the patient. The wrong dosage was identified when the physician talked with a medical representative from the pharmaceutical company next day. The patient had adverse drug reactions such as bone marrow depression and ileus. Although warnings are displayed on the electronic chart system in case of overdose, they had not been taken seriously because even slight overdoses would trigger a warning.	13th
26	Preparation	No disability	The physician wrongly thought Humalin R 10 mL contained 100 U and gave the patient 10 times the usual dose of insulin.	
27	Drug administration	None	Patient A had been using 5 units of Novolin N FlexPen while Patient B had been using 10 units of Penfil 30R. The nurse in charge measured the blood glucose of Patient A first and then attended other patients in the morning. The nurse later checked the amount of insulin by referring to the inpatient order form filed in the medical chart and injected 10 units of Novolin N FlexPen to Patient A. Forty minutes later the nurse checked the medical chart of Patient B before giving him a morning insulin injection and found her own signature in the "injection given" section. It turned out she had referred to the medical chart of Patient B before giving an injection to Patient A and had injected 10 units of insulin instead of 5 units.	
28	Ordering	Unknown	The patient had been taking prednisolone 17.5 mg prescribed at other hospital. The patient visited the outpatient clinic by referral. Physician A entered an extramural prescription order into the system by referring to the prescription given by the patient's former physician. The referral letter said prednisolone 5 mg tablet × 3.5 (17.5 mg/day). Prednisolone 5 mg tablets were not available at the hospital, and Physician A prescribed prednisolone 1 mg tablet × 3.5 instead of prednisolone 5 mg tablet × 3.5. Physician A handed the prescription form to Physician B who checked its contents and handed the prescribed drug to the patient. Ten days later the patient started taking the drug prescribed at the hospital because he finished taking the drug prescribed by his former physician. The patient was later taken to the hospital by ambulance with gastrointestinal symptoms such as abdominal pain, vomiting and diarrhea. Physician C who saw the patient found the prescription error.	14th

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
29	Ordering	Low	An order for oral Cortril (15-0-5) mg had been entered in the outpatient medical chart by the attending physician. When the patient came for his outpatient appointment, the physician prescribed Cortril and wrote "Cortril (15-0-5)" in the prescription form and the medical chart. The dispensing pharmacist went to the outpatient clinic to ask whether the unit was number of tablets or dose. The physician told the pharmacist the unit was number of tablets, and 20 Cortril tablets/day were dispensed. Cortril is available in 10-mg tablets; however, the physician thought one tablet contained 1 mg when he responded to the pharmacist's inquiry. The same prescription was ordered a month later at the next appointment. When the patient came yet another month later for his appointment, he was admitted for aggravation of inflammation. Cortril overdose was found by the physician in charge of admission who checked the outpatient prescription.	
30	Ordering	No disability	The physician prescribed Comtan 100 mg 6T 1 × 7 days by mistake instead of 6T 6 × 7 days. When the pharmacy asked the physician if the correct prescription was 6 ×, the physician replied, "1 x is correct," mixing up Comtan dose with Dopaston dose. Leader Nurse A did not notice the difference between 6T 6 × and 6T 1 × when she checked the copy of the previous prescription. Nurse-in-charge B gave the prescribed drug to the patient together with other drugs. Next day Leader Nurse C found the prescription error when she prepared noon medication.	14th
31	Preparation	Unknown	The physician prescribed "Depakene 40% granule 100 mg t.i.d. (after every meal) for 7 days." The dispensary system received the prescription order before 19:00. Two night-shift pharmacists dispensed and checked the prescribed drug. The dispensing pharmacist suspended his work during the process of measuring the prescribed dose. When he resumed his work, he miscalculated the dose and prepared 12.25 g instead of 1.75 g, a seven-times excessive dose. The system-calculated dose shown on the display was correct; however, the dispensing pharmacist believed his own calculation written on a memo pad was correct. The checking pharmacist neglected to calculate the dispensed amount. He cross-checked the dispensed amount with the miscalculated amount and dispensed the drug. The patient started taking the drug, and later lethargy, NH_3 increase, and general convulsion started to occur frequently. The patient was admitted to the hospital where his former physician was affiliated 12 days after starting the medication. The overdose was identified when a pharmacist from the hospital pointed out potential over dispensing.	
32	Ordering	Low	The attending physician ordered chemotherapy for the patient. The physician in charge entered the order for anticancer drugs into the ordering system on Sunday when the patient was admitted. One of the anticancer drugs (Cisplatin) was prescribed for 4 days instead of 1 day as intended by the attending physician and given to the patient.	15th

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
33	Ordering	Low	According to the chemotherapy regimen Cisplatin was to be given on Day 1 and 5-FU from Day 1 to Day 5 followed by 3-week drug cessation. However, the attending physician gave the antitumor drugs to the patient on Week 2 because two-week treatment was to be followed by one-week drug cessation according to the chemoradiation therapy regimen for esophageal cancer.	
34	Ordering	None	Crushed Neodopaston 150 mg divided into 6 doses was increased to 300 mg divided into 6 doses when the patient came for his outpatient appointment. Later the patient was admitted to be monitored for treatment effect. When the pharmacist checked the drugs brought by the patient, he wrote "Neodopaston 600 mg divided into 6 doses" in the patient drug check sheet without checking the prescription given at the previous outpatient appointment. One month later when the patient finished the drugs he had brought, Intern A temporarily prescribed Neodopaston 600 mg divided into 6 doses (for 7 days) according to the patient drug check sheet. Intern B prescribed the same dose for the following month. The attending physician decreased the dose because the patient's symptoms were aggravated; however, symptoms did not improve. The prescription error was found when the attending physician checked the pre-admission dose.	15th
35	Receiving order/ briefing	Death	The patient's blood pressure decreased after sedation. Inovan 0.3 Syringe 3 γ was ordered, and Inovan 0.3% Syringe 3 γ (11.7 mL/h) was started. The drug and gamma level were confirmed with the physician when the treatment was started but no double-check was performed by nurses. Four hours later a nurse checked the syringe pump to find the gamma level had been calculated based on dopamine 50 mg/50 mL when the correct content of dopamine was 150 mg/50 mL in Inovan 0.3 Syringe. Three times the usual dose 9 γ/h was given as the result.	
36	Ordering	None	The previous order that had been given a month earlier was copied on to the computer system and transferred for treatment of Ewing's sarcoma. Endoxan 100 mg/vial had been discontinued after the previous treatment and now only 500 mg/vial was used. When the previous order for "Endoxan 100 mg/vial x 4" was copied, a warning to remind the physician that 100 mg/vial was no longer available appeared on the screen. However, the physician entered "Endoxan" again without noticing the displayed dose of 500 mg/vial, thinking the warning was given because of the base material. When the patient's blood was sampled 10 days later bone marrow depression was unexpectedly worse considering the past treatment course. Use of five times the scheduled dose of Endoxan was detected when protocol was checked.	16th

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
37	Ordering	None	An order for Denosine was printed in the order form as "Dissolve 1 vial of Denosine (500 mg) in injection solution 20 mL, mix 5 mL (= 75 mg) of the mixed solution with normal saline 100 mL, and div at 100 mL/h." The middle part should have been written as "3 mL (= 75 mg)." The nurse saw the order, prepared mixed solution 5 mL (125 mg), and overdosed the patient three times. The overdose was found two days later when the nurse received an order for continuous treatment.	16th
38	Receiving order/ briefing	Low	An order was given for Prograf (5 mg = 1 mL) dissolved in normal saline 10 mL, mixing 0.25 mg = 0.5 mL of the solution in normal saline 100 mL, and giving it to the patient at 2 mL/h. When the attending physician changed the order to mix 0.3 mL (= 0.15 mg) of 10-time dilution of Prograf in normal saline 100 mL, he write "mix Prograf 0.15 mg = 0.3 mL in normal saline 100 mL." The nurse saw the order, prepared the drug by mixing Prograf 0.3 mL (= 1.5 mg) in normal saline, and gave it to the patient. While anticancer drugs needed to be checked by a senior physician before treatment, immunosuppressants were only checked by a third-year physician. The warning "Do not change the composition" was written separately from the order for dose change. The second-year nurse who had been trained to become a leader nurse thought the drug was to be used undiluted.	
39	Receiving order/briefing	None	The nurse gave the patient two Minzain tablets after dinner as well as before bedtime from the drug bag left by the patient's family. The patient eventually took three Minzain tablets in total because he spit out one of the two tablets taken after dinner. The level of consciousness decreased afterwards. According to another patient in the same room, the patient told the nurse he had already taken "a half" of the drug but the nurse had him take two tablets, saying that was the order. The patient was overdosed with Minzain (six times the usual dose) when half a tablet should have been given only before bedtime. The drug bag said, "once daily for 28 days" and "two tablets at a time," and it looked like "after dinner" and "before bedtime" were circled together. The patient had cognitive impairment. The nurse did not know the effect of Minzain because it was not in the hospital formulary.	
40	Receiving order/ briefing	None	The physician orally ordered the nurse to give "IV injection of Dormicum 4 mil," intending to administer Dormicum 4 mg to the patient for pre-intubation sedation. The nurse thought Dormicum 4 mL (20 mg) was ordered, prepared Dormicum 2A in a syringe, and administered the drug to the patient saying, "I'll inject two ampules of Dormicum, 4 mL." After intubation, the physician wrote the drug he had orally ordered as "Dormicum 1A" in the injection order form. That the physician had intended to use 4 mg when he had given the oral order was found when the nurse told him she had used 2A.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
41	Preparation	No disability	The physician gave an order to take 50 mg (5 mL) of 1% Olives IV infusion 200 mL (diluted lidocaine 2000 mg) and mix with 5% glucose solution 50 mL to administer in 30 minutes. The nurse prepared 1% Olives for IV infusion 200 mL + 5% glucose solution 50 mL and administered to the patient. The attending physician found the overdose when he saw Olives for IV infusion had been connected to the IV route during treatment. The nurse thought 1% Olives for IV infusion 200 mL contained lidocaine 50 mg. When cross-checking the drug with the ward order form, the nurse read aloud the order "5% glucose solution 50 mL, Olives for IV infusion, administration rate of 30 minutes" together with the leader nurse. However, the dose was not read aloud for cross-checking.	16th
42	Preparation	None	IV infusion of "normal saline 500 mL + heparin sodium 5000 units (2.5 A)" and "normal saline 39 mL + Humalin-R 100 units (1 mL)" was ordered. Nurse A saw "100 units/mL" written in the vial label, thought one vial contained 100 units, and prepared 1 vial 1000 units (10 mL) + normal saline 39 mL. Cross-check was performed with Nurse B by reading aloud, "normal saline 500 mL + heparin sodium 5000 units" and "normal saline 39 mL + Humalin-R 100 units;" however, the empty vial was not shown to Nurse B. IV infusion was started, and Nurse A felt uneasy although she did not realize she made a mistake then. She monitored the patient every 15 to 30 minutes. About one hour and a half later, the patient had cold sweat with decreased blood glucose of 33 mg/dL. Nurse A checked the order from and found Humalin-R 1000 units had been given to the patient.	
43	Preparation	None	Caffeine 0.003 g was prescribed for one patient and 0.001 g for another. One-percent powder dispensed at the pharmacy in advance was to be used since measuring was difficult. However, caffeine bulk powder was used because of device bottle mix-up. Although the newly introduced powder formula checking system warned about the drug mix-up, the dispensing pharmacist ignored the warning, presuming it was system malfunction. The pharmacist dispensed the drug manually.	
44	Preparation	None	The prescription form specified a less-than-usual dose of Risperdal for the pediatric patient. Generally simple syrup is mixed to make measurement of an oral dose easy. The pharmacist miscalculated the amount of simple syrup to be mixed. Instead of "2 mL t.i.d. for 10 days (total of 60 mL)," he used only one-third of the amount of simple syrup ordered. He prepared Risperdal 20 mL and told the patient to take 2 mL at a time. The dispensing error was found when the patient noticed there was too little of the remaining drug after taking it four times and made an inquiry.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
[Wrong method]				
45	Drug administration	No disability	Nurse A on the midnight shift set Fentanyl 20 A (40 mL) and normal saline 60 mL to a Deltec pump. The nurse had the patient tell her his name, check the drug, and connected Fentanyl to the three-way stopcock to start treatment. Ropion 1A was additionally given because the wound pain was not relieved. Later Nurse B on the day shift found the Deltec pump containing Fentanyl had been connected to the three-way stopcock for route cleaning.	13th
[Wrong dosing speed]				
46	Preparation	No disability	The nurse wrongly set Vasolator at 20 mL/h when it should have been 2 mL/h and Salipex at 30 mL/h when it should have been 3 mL/h (she thought she had set the flow rate right). The nurse checked on the patient 20 minutes and 30 minutes after starting the treatment but did not notice the flow rate error. The nurse found the error for the first time when the completion alarm went off about an hour after starting the treatment.	13th
47	Preparation	No disability	Pump infusion of Cisplatin that should have been given at 50 mL/h was completed in about 10 minutes.	
48	Drug administration	No disability	The nurse mistook the tens place of the flow rate set button for a ones place when setting the flow rate of syringe pump. As a result, ten-times the scheduled dose was given to the patient in five hours. Buttons for decimal places were also the same color and could easily be mistaken. More than two nurses checked on the patient before the completion alarm went off but no one found the flow rate error. Several different types of syringe pumps were used at the hospital.	
49	Drug administration	Low	IV infusion of Olives was started at 6 mL/h using an infusion pump in a patient who had fainted and was taken to the emergency clinic. Several tests were later performed for detailed examination. Epileptiform seizure occurred, and the physician gave IV injection of Cercine 1/2 ampule to the patient. The seizure stopped once but recurred, and the patient was transferred from the general ward to HCU. It was found Olives had been given at 60 mL/h when the patient was admitted to HCU.	14th
50	Observation/monitoring after drug therapy	No disability	The patient was receiving two packs of Fulcaliq 2 from a double-lumen catheter inserted to the left groin. The nurse changed the Fulcaliq pack at 5:00 and adjusted the flow rate to 100 mL/h at 6:00. The patient was lying on the right side then and later went to the bathroom. When the nurse checked on the patient 50 minutes later the patient complained about difficulty breathing. He said palpitations had started in the bathroom followed by sticky sputum and difficulty breathing and that he could barely manage to get back to his room. There had been 1000 mL of the replacement fluid left when the nurse checked at 6:00. However, it was found all the fluid was infused within 50 minutes after that.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
51	Drug administration	Unknown	The patient was receiving noradrenaline 3A (1 g/mL/A) + normal saline 47 mL (total of 50 mL) at 3 mL/h and Saxizon at 50 mL/h from an infusion pump for septic shock. The completion alarms for both Saxizon and noradrenaline went off at the same time, and the nurse in charge stopped Saxizon and replaced noradrenaline with a new bag. The nurse connected noradrenaline to the syringe pump for Saxizon by mistake. The syringe alarm went off 20 minutes later. Another nurse checked to find noradrenaline had been given at 50 mL/h.	15th
52	Drug administration	No disability	Two infusion pumps were set on an IV infusion stand. The main replacement fluid was given at 60 mL/h and Kakodin was given at 10 mL/h from a CV line. When the infusion pump was checked because the patient's heart rate had remained at 110, it was found the flow rate for Kakodin had not been set as ordered.	
53	Drug administration	No disability	Twenty-four hour treatment with Hicaliq-RF 500 mL + Vitaject Injection 1 kit + 10% normal saline 20 mL + Mineralin Injection Syringe 2 mL + Neoamyu 200 mL (700 mL in total) was scheduled from 5:00. The day shift nurse thought the treatment was about two hours behind the schedule based on the infusion bottle scale at 14:00 and adjusted the flow rate based on the remaining fluid and time. Later the level of consciousness and SpO2 decreased, and the blood test showed an elevated glucose level of 1119. The hyperglycemia may have been caused by a large amount of replacement fluid given in a short time.	16th
[Patient misidentification]				
54	Preparation	No disability	Three packages of oral medication for Patient A and Patient B were placed on the table (two for Patient A and one for Patient B). All packages had the respective patients' name printed on them. The nurse took Patient A by wheelchair to the table, took two packages, checked the name of Patient A on one of the packages, opened both packages and had the patient take the medication. Later another patient told the nurse he had medication for Patient A. The nurse then realized she gave Patient A the medication prepared for Patient B.	13th
55	Drug administration	None	Oxycontin (narcotic) 5 mg was to be given to the patient at 19:00. The drug was given to the other patient in the same room because the medication was behind schedule and the nurse was in a hurry, neglecting drug checking procedure.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
56	Drug administration	No disability	Nurse A who was in charge of Patient D told NurseB and Nurse C to give "an injection of Predonine soluble 5 mg + normal saline 20 mL" to Patient D at 4:00 and took a break. When preparing the injection for Patient D, Nurse B looked at the injection order for Patient E and said to Nurse C who was nearby, "I prepared Saxizon 1/2 in the syringe". Nurse B assumed she had double-checked the medication by talking to Nurse C and gave Patient D a "Saxozin" injection prepared for Patient E. "Predonine soluble + normal saline" for Patient D and "Saxozin + normal saline" for Patient E had been placed side by side on the same tray.	13th
57	Preparation	No disability	Lasix injections were to be given to two patients at 1:00. "0.4 mL of solution prepared with Lasix 1A (2 mL) and normal saline 2 mL (4 mL in total)" was ordered for Patient A and "Lasix 0.5 mL" for Patient B. The nurse checked the syringe label before giving a Lasix injection to Patient A and saw "Lasix 0.5" written on it. She asked the other nurse who prepared the medication, "Is this 0.5 mL out of 4 mL of solution prepared with Lasix 1A and normal saline 2 mL?" The other nurse said yes, and the nurse thought more than the ordered dose was in the syringe for some reason. She injected 0.4 mL of the syringe contents to Patient A. When the nurse was about to give a Lasix injection to Patient B, she noticed the syringe had the name of Patient A. She checked with the other nurse who prepared the medication again and realized for the first time that undiluted Lasix 0.4 mL had been given to Patient A.	14th
58	Drug administration	Low	Patient A told the nurse the drip infusion had been completed when they passed each other in the hallway. The nurse took an infusion bottle from the nurse station without checking the label and connected it to Patient B without confirming it was Patient A. Later the nurse realized the infusion bottle for Patient A had been connected to Patient B who was in the next bed.	
59	Drug administration	None	The mother with Rh-incompatible pregnancy (she was Rh-negative) gave a natural, vaginal birth. Anti-D globulin was scheduled for the mother because the baby was Rh-positive. The physician gave the baby an intramuscular injection of anti-D globulin, which should have been given to the mother, 1 mL in each buttock. The physician had a thorough understanding of the necessity and indication of globulin but totally forgot about it in this case.	
60	Drug administration	None	The nurse received a nurse call from a patient when she was distributing medications. She put oral medication for the other patient on the bedside table of the patient who had called. The patient asked another nurse if he should take the medication on the table, and the nurse helped him take it without checking the medication order. One hour later the patient's family noticed there was an empty medication bag with another patient's name. The patient had decreased blood pressure and vomited about two hours later.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
61	Ordering	No disability	The nurse found Prednisolone powder in the prescription for Patient A on tube feeding while preparing his oral medication. Suspiscious of the prescription, the nurse checked the medication order in the patient's medical chart and found no prescription of Prednisolone; however, Patient A had already received the drug once. The physician mixed up the names of Patient A who was periodically taking oral Prednisolone and Patient B when preparing embossed cards. The nurse who received the prescription order did not check the patient's name.	15th
62	Drug administration	No disability	The nurse took the oral medication prepared in a syringe for another patient and injected it through the feeding tube without checking the patient's name. Another nurse noticed the syringe prepared for the other patient was missing. The syringe contained Diovan 80 mg and Adalat-L 20 mg. Many patients were receiving oral medications through feeding tubes at this ward, and syringes containing medications for several patients were put in the same tray and carried on a wagon. Patients' names were written on vinyl tape and put on syringes. Syringes were often on top of each other or roll around in the tray, however, making it difficult to check patients' names.	
63	Preparation	Low	The nurse took out the medication prepared for another patient, assuming it was for the patient she intended to treat. Because the nurse assumed the medication was for her patient, she neglected to cross-check the medication with the drug name in the work sheet or to check the patient's identification before giving it to the patient.	16th
[Other]				
64	Ordering	Low	The inpatient in the ophthalmologic ward had premature ventricular contraction and tachycardia after receiving dialysis treatment. The attending physician, an ophthalmologist, requested the cardiovascular internist on call to treat the patient. Antiarrhythmic treatment with IV 2% lidocaine hydrochloride 0.25 mL was given as ordered. The patient's condition did not improve after the treatment. The cardiovascular internist was consulted again, and the patient was put under monitoring. The ophthalmologist consulted the pharmacy and decided to give the patient one Sunrhythm capsule (50 mg) as needed. Three Sunrhythm capsules (50 mg/capsule) a day, one capsule at a time, were prescribed per day on a daily basis. On the third day the patient was unable to sit up, had light-headedness and somnolence and vomited. On the fifth day severe tachycardia occurred. A cardiovascular internist on call saw the patient and found an increased QT. Sunrhythm was discontinued based on suspected drug poisoning. The ophthalmologist and the cardiovascular internist did not exchange patient information at the start of and during the Sunrhythm therapy.	13th

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
65	Ordering	None	Consultation for diabetes control was requrested from another clinical department. The request form said, "Please provide the patient with consultation including diet recommendation." Only diet instruction was given to the patient. However, the requesting department thought drug therapy was included in the consultation. Prescription of the anti-diabetes drug was discontinued. The treatment discontinuation was documented in the electronic chart as "prescription of anti-diabetes drug at this ward discontinued as of today." The patient was thus left untreated for diabetes for one month, and his blood glucose increased.	13th
66	Ordering	Low	A patient did not seem to sleep at night. He seemed restless and went into another patient's room without permission. Oral Lendormin and Risperdal were given as ordered by the attending physician in advance. The patient still did not seem to sleep, and the nurse contacted the attending physician who ordered intramuscular Hirnamin. Hirnamin was given; however, the drug was contraindicated for the patient.	
67	Ordering	No disability	Despite the warning "has had allergic reaction to Xylocaine" in the electronic chart, the attending physician, the examining physician, and the examination room did not check the chart before performing transesophageal echocardiogram. The electronic chart system had a function to recommend allergy information review before ordering tests and examinations; however, the display was not checked. The examining physician realized the patient was allergic to Xylocaine when he explained the examination procedure to the patient. An alternative drug was used instead of Xylocaine, and the examination was performed.	
68	Preparation	None	Aleviatin was scheduled for a patient for convulsion control. Expected change of Aleviatin composition was not fully understood, and pre- and post-infusion normal saline flush was not performed. As a result the central venous catheter was obstructed and had to be removed.	
69	Preparation	No disability	Cefzon, an oral antibiotic, was prescribed for three days to prevent wound infection. The medicaion was not prepared on the first day because the medication cart was not there. The night shift nurse was not aked to prepare the medication. The patient had never taken the medicaion.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
70	Preparation	None	10% Aleviatin powder 250 mg/day t.i.d. (after breakfast, after dinner and before bedtime) and three other tablet medications were prescribed for 14 days. The pharmacist used an automatic powder packaging machine to prepare Aleviatin powder packages. Other pharmacist cross-checked the prescription form and the bag labels to ensure the number of tablets and product names were correct. The number of Aleviatin powder packages and the total amount were checked before dispensing. Six days later the patient had slurred speech and difficulty walking after taking the morning dose and was taken to the emergency room. The patient's family pointed out the amount of Aleviatin contained in a package had been excessive. It was found that individual packages contained less than the prescribed 1.38 g except for one package that contained 2.00 g. Uneven packaging was caused by malfunction of the automatic powder packaging machine. The total amount of Aleviatin had been checked; however, uneven packaging was undetected because no visual inspection was performed on individual packages.	13th
71	Preparation	None	At the hospital, stickers indicating "insulin not added" are placed on sterile drugs if no insulin is added at the pharmacy. The drug ordered that day had no sticker on it because it was not sterile. The drug was prepared at the ward. Since two attending physicians were both unavailable, another physician prepared the IVH. Humalin-R 26 units, which was included in the drip infusion label, was first mixed followed by all other drugs. When the mixing was done, the physician placed his seal in the "prepared by" section of drip infusion label and hanged the bottle on an IV pole. The nurse in charge on the day shift wrongly assumed the solution contained no insulin because it had no "insulin not added" sticker for sterile drug, no signature or seal of person who prepared the drug beside the "insulin" printing on the label. The nurse thought it was infusion solution containing Humalin-R 26 units and treated the patient with it without checking with the physician who prepared the drug about the seal in the "prepared by" section on the label. The patient became hypoglycemic as the result.	
72	Drug administration	None	6% sodium hypochlorite was used for root canal treatment. 6% sodium hypochlorite adhered to the glove because the micropipette had been placed on the tray; it had not been returned to the bottle. The dentist continued treating the patient without realizing the drug adhesion. The drug on the glove was transferred to the skin on the left corner of patient's mouth which eventually turned slightly red.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
73	Observation/monitoring after drug therapy	None	A patient started receiving FOY (gabexate mesilate) from the peripheral IV line for treatment of severe infection complicated with DIC. Around 14:30 next day the skin of the central part of peripheral IV line insertion site turned white, about the size of 2 x 5 centimeters. There was no swelling suggestive of extravascular leakage around the insertion site. The attending physician was ordered to monitor the patient. The insertion site was checked an hour later. Two hours later the area of whitened skin around the insertion site spread to the size of 5 × 9 centimeters, and the patient was scheduled to consult an orthopedist next day. The orthopedist saw the patient, determined the skin was likely to become necrotic, and treated the affected area. FOY 2000 mg was mixed with glucose solution 500 mL and given to the patient peripherally; however, the staff knew the maximum dose of FOY specified in the package insert was 1000 mg. A peripheral venous line was used because a central venous line was thought quite risky in the patient with concurrent DIC. A dosage and drug concentration of 2000 mg were required for treamtent and had to be used.	13th
74	Observation/monitoring after drug therapy	High	A patient scheduled for surgery had temporary cardiopulmonary arrest after receiving lumber spinal anesthesia and antibiotics. It was thought to be anaphylactic shock induced by Pansporin or isobaric Marcain. Preoperative interview with the patient had not suggested allergy to antimicrobial or local anesthesia. The patient had not been thought allergic to antimicrobial or local anesthesia because he had received local anesthesia in outpatient clinic without having any previous symptom.	
75	Observation/monitoring after drug therapy	Low	A patient had his first post-discharge appointment at the outpatient clinic 10 days after his discharge. He complained about numbness in left ulner side potentially caused by extravascular leakage of infusion fluid in the left forearm that had occurred during his hospitalization. The patient had had no pain or numbness during his hospitalization but started feeling numb after his discharge. Although the cause was unclear, Methycobal was prescribed based on suspected peripheral nerve damage. The patient was put under follow-up.	
76	Preparation	No disability	A study drug was requested to be used from March; however, in February the research group sent to the hospital a drug that was to expire at the end of the month. The physician who received the drug did not check the expiration date. The ward nurse kept the drug in a locked cabinet in the nurse station but did not check the expiration date. The drug was used for 19 days in March. Two and a half months later the research group notified the hosptial of the expiration. The in-house pharmacy was not to be involved in management of drugs used in the clinical trial.	14th

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
77	Receiving order/briefing	Low	The attending physician prescribed Gatiflo for a patient scheduled to be discharged. Next day the physician realized the patient was allergic to Gatiflo and stopped the prescription order. The discharge prescription was received during the twilight shift. The initial prescription was given to the patient, however, because the person did not know the order had been stopped on the previous day. Two days later the patient called the hospital to say he had a rash in the genital area after taking the prescribed medication for one day. The patient's Gatiflo allergy and the order to discontinue the prescription were found out when the prescription was checked.	
78	Drug administration	No disability	The physician ordered Novoloin-N for a patient. Novolin-N dispensed at the pharmacy was checked by the nurse and the patient, and 4 units were subcutaneously administered. After treatment next day the patient pointed out the drug had expired.	
79	Drug administration	High	A patient had previeously required treatment for adverse reaction to Excegran. The physician ordered contrast CT scan, and the nurse passed on the adverse reaction information to the radiologist. The radiologist decided to perform contrast CT scan because the adverse reaction that had required treatment was associated with Excegran and not with contrast medium, contrast examination was required to determine tumor depth and metastasis, and the attending physiciah had given a written consent for contrast examination. The patient had mild vertigo immediately after the examination started, and drug eruption appeared next day.	14th
80	Drug administration	None	The intern inserted a butterfly needle into a patient's arm under supervision of the physician and the nurse for contrast examination. The insertion site was checked, and the nurse secured the needle with adhesive tape. Contrast medium injection was then started using an injection machine. The laboratory technician later noticed "something was wrong with the pressure", checked the patient and found extravascular leakage of contrast medium.	
81	Drug administration	Low	The physician injected Picillibacta into a patient with acute pneumonia taken to the emergency outpation clinic at night. Later systemic drug eruption appeared. The physician had not checked for allergies because the patient was admitted at night. He was unfamiliar with the electronic chart and did not know how to check for allergies on the system.	
82	Drug administration	Low	Ravonal was continuously given from the peripheral line for cerebroprotection. Subcutaneous tissues became necrotic because of extravascular leakage of the drug.	
83	Drug administration	Low	Antibiotic was infused to the 11-month-old patient using an infusion pump. The blockage alarm of infusion pump went off. The nurse removed the adhesive securing the needle to check the insertion site and found the tip of the right pollex had turned dark red. The insertion site was slightly swollen and red. The plastic surgeon diagnosed the patient with Stage 1 to 3 decubitus.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
84	Observation/monitoring after drug therapy	Low	The pediatrician inserted and secured a needle in the back of a patient's right hand at 3:50. Although there was no backflow of blood, 10% glucose solution 1 mL was injected intravenously. No swelling of the insertion site was seen during the intravenous administration. 10% glucose solution was then started at 7 mL/h using a syringe pump. At 5:00 10% glucose solution 1 mL was given intravenously because of low blood sugar. The patient was checked three times after that, and no abnormality was seen in the insertion site. However, the right wrist and the upper arm were markedly swollen, and redness along the vein in the right upper arm was seen at 12:45. Transparent fluid was leaking from the insertion site, and blisters appeared on the right wrist and the back of the right hand. Two days later a blister about 30 mm x 20 mm in size appeared, stretching from the back of the right hand to the right wrist.	
85	Observation/monitoring after drug therapy	Low	A Jelco needle was secured in the right internal malleolous for contiuous drip infusion using an infusion pump. The area below the knee to the toe was found swollen due to extravascular leakage late at night. Extravascular leakage had been anticipated in the patient because of difficulty securing blood access, and the insertion site had been secured with a splint and elastic bandage. The insertion site was difficult to check because of the bandage.	
86	Observation/monitoring after drug therapy	Low	Nurse A asked Nurse B to replace the infusion bag. Nurse B went to the patient's room to replace the infusion bag and found the drip infusion connected to the port had already been completed. Blood was backflowing almost halfway up the infusion line. The infusion line was under the patient's body. Normal saline flush did not go through; the port had been blocked.	14th
87	Observation/monitoring after drug therapy	No disability	The nurse prepared "morphine hydrochloride (narcotic) 10 mg 1 mL 1A" in a syringe, and the physician intravenously injected 1/2 A to the patient. The physician accidentally pushed the plunger of the syringe after the intravenous injection and discarded the remaining 1/2 A. The physician told the nurse nearby and the night shift leader nurse about the discarded morphine. The leader nurse did not know she should report that morphine hydrochloride had been discarded. About 7 hours later she told the nurse with 10 years of clinical experience about the discarded morphine. The senior nurse told the younger nurse that she should have reported to the night shift head nurse. Both the physician and the nurse lacked knowledge about the narcotic handling procedures.	
88	Observation/monitoring after drug therapy	None	Panabate (gabexate mesilate) 2000 mg + 5% glucose 100 mL were continously infused into the right forearm at 4 mL/h. Next day extravascular leakage and ulcer the size of 2 × 2.5 cm were found in the right forearm. Ten days later it was diagnosed as necrosis in the right forearm. Skin graft was performed subsequently.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
89	Other	Death	The allergy questionnaire form said a patient had had an allergic reaction to a cephem antibiotic Kefral. An allergy test was performed when antibiotic drip infusion was ordered. The test was negative, and drip infusion was given. The patient's condition did not change. The same drip infusion was given next day and 4 days later but no remarkable change was seen in the patient's condition. About 10 days later the same drip infusion was given again after incision and drainage. Two minutes after starting the infusion the patient had redness in the face and general rigor and fell into shock.	
90	Others	None	Tongue biopsy was scheduled for a patient. The outpatient physician performed a pre-biopsy blood test as ordered by the attending physician. The test result was checked on the electronic chart before biopsy. Since the result was shown as "being processed" on the chart, the attending physician and the outpatient physician determined biopsy could be performed. After the biopsy, the patient was checked for hemostasis and sent home. Later the patient called the physician on call and told him he was bleeding in the mouth and sought treatment at the emergency outpatient clinic. The physician on call and the outpatient physician examined the patient thoroughly and determined it was coagulation abnormality associated with warfarin and treated the patient with the assistance of the department of cardiovascular medicine. The patient had been referred to the hospital for detailed examination 2 weeks earlier. The attending physician and the outpatient physician had interviewed the patient then and known he had been taking warfarin 3 mg.	14th
91	Others	No disability	Mammotome biopsy (needle biopsy) was performed for mammary adenoma. It took a long time to stop bleeding. Inquiry of the patient revealed she had been taking prophylactic Byaspirin. When the patient was asked about oral medications she had been taking at the outpatient clinic before biospy, she said she had been only taking antihypertensive and antihyperlipidemic. However, Byaspirin had been prescribed at the nearby clinic besides Norvasc and Crestor. Product names were not asked when the patient was interviewed about her oral medications at the outpatient clinic.	
92	Ordering	Death	A patient was admitted for amniocentesis. Cephem antibiotics were documented as contraindicated in the patient's chart; however, drip infusion of a cephem antibiotic Otsuka CEZ-MC was given. The allergy/contraindication information was not adequately documented in the electronic chart system.	
93	Ordering	No disability	Cystoscopy was performed in an inpatient at the urology outpatient clinic. The physician asked the patient about allergies and gave two tablets of Cravit. After the patient went back to the ward, he complained his scalp was itchy. Later the patient lost consciousness. The patient's eyeballs were upturned, the patient's pulse could not not be felt, and the patient's respiration was arrested. The contraindicated drug section of the patient's chart cover had the drug name "quinolone" in red; however, the physician did not know Cravit was quinolone.	15th

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
94	Ordering	Low	The attending ward physician prepared an order form for Voltaren suppository 25 mg and gave the drug to the patient. Twenty minutes later the patient said, "my whole body itches," and fell into a pre-shock state. Voltaren had been documented as a contraindicated drug in the allergy section of electronic chart. The patient had told the outpatient physician, the nurse in charge, and the ward pharmacist that Voltaren was contraindicated for him. However, the outpatient physician had not passed on the information to the ward physician.	15th
95	Preparation	No disability	The pharmacy checked manufacturing numbers of stocked influenza vaccines for 2007 to return them to the distributor. When the distributor was contacted, some vaccines were found to have manufacturing numbers indicating they had been made in 2006. Medical charts of patients who had received influenza vaccine were checked, and 7 patients were found to have received vaccines manufactured in 2006. Further investigation revealed 6 bottles of expired vaccines returned to the pharmacy had been dispensed and used in patients.	
96	Drug administration	None	A patient intravenously received EOB Primovist for MRI imaging and had difficulty breathing about 5 minutes later. Facial cyanosis appeared, and sound indicating upper airway consticton was heard. The event was unpredictbale because the patient had had no allergic reaction in previous MRI sessions.	
97	Drug administration	None	A patient's blood pressure decreased after receiving one-shot injection of Aleviatin 250 mg (bolus injection). Correct dosing rate for Aleviatin injection (from injection port) was not used because of lack of knowledge about the drug.	
98	Drug administration	Low	The nurse checked for blood backflow and absence of change in the injection site and started chemotherapy with Oncovin drip infusion. Asked to change the Adriacin infusion bottle, the nurse went to the patient who complained about discomfort in the injection site. The nurse checked the injection site and found no redness or swelling. Later the patient had necrotizing fascilitis due to extravascular leakage.	
99	Drug administration	Low	A patient was receiving 24-hour continuous drip infusion of Pitressin from a syringe pump to control urinary volume. The first-year nurse who was on the night shift for the first time checked the order for continuous drip infusion of Pitressin (Pitressin 20 units + normal saline 19 mL) together with a senior nurse. The first-year nurse took the primary and antibiotic infusion bottles and a syringe containing Pitressin to the patient's room for infusion replacement. After confirming the start of the primary and antibiotic drip infusion using PDA, the nurse intravenously injected Pitressin instead of continuous infusion.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
100	Drug administration	None	Antiphlogistic was prescribed for morning and evening use for swelling of the affected area. The patient had normal cognitive function and was able to take oral medication by himself. The antiphlogistic tablet sheets were handed to the patient. Later the patient complained about stomach discomfort. Urinary tract infection was suspected based on elevated CRP and treated; however, the symptom did not improve. The gastrointestinal department was consulted but the symptom was further aggravated. The patient was transferred to the gastrointestinal department and underwent an emergency laparotomy. The patient had taken the tablets without removing their package, resulting in bowel perforation.	15th
101	Drug administration	No disability	Drip infusion of Solacet D 500 mL was replaced. An hour later no change was seen in the infusion solution. Two hours later Takepron was injected from the injection port (normal saline was injected before and after Takepron). Six and a half hours later numerous small dark purple suspended solids were found in the infusion line, inside the filter, and in Solacet D solution.	
102	Drug administration	Death	A patient received iodine contrast medium 138 mL for CT imaging. The patient started to cough, and administration of contrast medium was stopped immedieately. However, the patient had cardiopulmonary arrest.	
103	Drug administration	Low	A Jelco needle was inserted into the left inner ankle to start continous drip infusion of Soldem 3A 500 mL × 2 using an infusion pump. Three days later the entire left lower extremity became swollen, and drip infusion was continued after checking for blood backflow and drip. Later that night a blister about the size of 0.5 × 2 cm appeared in the injection site on the left inner ankle. Epidermis was peeled in the area about 4 × 4 cm in size when the bandage securing the injection site was removed before needle removal. Four days later the injection site in the left inner ankle was extensively necrotic (about 10 × 7 cm). The skin around the necrotic area had turned white.	
104	Drug administration	High	Contrast medium was used for postoperative CT examination without any problem. Five months later the patient visited the outpatient clinic to receive a follow-up CT examination. About 40 seconds after contrast medium injection the first CT shot was taken, and the patient complained he felt sick. The CT session was discontinued. The patient later complained about shortness of breath and lost consciousness.	
105	Drug administration	No disability	After antibiotic treatment, heparin lock was performed in the patient with heparin-induced thrombocytopenia to whom heparin was contraindicated. The nurse who performed heparin lock said to the nurse in charge of the patient, “The antibiotic is completed. Now I’ll do heparin lock.” When the nurse in charge remembered heparin was contraindicated and told the other nurse to stop, heparin/normal saine lock had already been performed. A sign saying “heparin contraindicated” had been placed beside the patient’s pillow; however, the nurse did not see it because it was after lights out.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
106	Drug administration	High	An indwelling needle was placed in the peripheral vein in the right thigh for drip infusion. Redness associated with phlebitis occurred during drip infusion of 50% glucose and Aspara K for electrolyte abnormality. Opsite was applied to the affected area for skin protection. Blisters appeared 6 days later, and epidermis peeling and ulcer in part of the affected area were seen 2 days after that.	15th
107	Drug administration	Low	A patient had received Omnipaque for CT examination 3 months earlier without any problem. Iopamiron 300 was used for a recent CT examination. The patient was responsive when the examination was over; however, he later went into cardiopulmonary arrest. The patient was revived with Bosmin and chest compression.	
108	Ordering	Low	Tube feeding had been switched to intravenous hyperalimentation in a patient. Multivitamins were included in the infusion prescription issued prior to MM/DD. The physician prepared an infusion order for after DD four days earlier. He forgot to include multivitamin in the prescription form. The same infusion order was given for one month after that. That multivitamin had been missed for about a month was found when an injection order was prepared in the subsequent month. Nurses who had received orders never made an inquiry to the physician, thinking, "Vitamins are missing, but it must be intentional." The pharmacists had not checked the prescription, either.	16th
109	Ordering	High	A patient who had been transferred to another hospital for Amiodarone pneumonia was transferred back to the hospital after his symptoms improved. A missing order for steroids was found for the first time. Steroids had been omitted from the prescription upon previous transfer, and other physicians had not checked the prescription.	
110	Ordering	None	Drip infusion of an antibiotic Meropen was given for 4 days to a child admitted for treatment of pneumonia. Later the patient was discharged with improved condition; however, he sought treatment at another hospital for severe restlessness the following day. The family was informed by the physician at the other hospital that the restlessness might be due to decreased blood concentration of valproate associated with Meropen therapy received while taking antiepileptic. The investigation conducted after hearing about the course of treatment from the family revealed drip infusion of Meropen had been given to the patient who had been on antiepileptic therapy prescribed elsewhere. The antiepileptic therapy had been documented in the medical chart at the time of admission but the attending physician had not known of it.	
111	Ordering	Low	A patient had a seizure, and Aleviatin was given to prevent further seizure. However, Aleviatin was contraindicated for the patient. Underlying causes of accidents include neglected contraindication check and an error with data registration from the computer terminal.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
112	Preparation	None	Predonine 12.5 mg/day (morning) was prescribed for 13 days at the internal medicine outpatient clinic. A one-week dose of Predonine was prepared, and the rest was kept in the drug box in the nurse station. On the periodic prescription day the following week, the nurse who was asked to give medications to the patient by the nurse in charge of the patient forgot to prepare a one-week dose of Predonine. Therefore, Predonine 12.5 mg/day was not given to the patient for one week. The patient had just started medication self-management, and the drug bag had been given to him without any explanation. Missed Predonine went unnoticed for a week.	
113	Drug administration	Death	A CT examination was performed to determine the amputation site because the previous CT examination was inconsistent with clinical findings. The patient had difficulty breathing and seemed nervous when he came to the examination room. Oxygen 1 L was started. The test dose of contrast medium was injected from the right iliac artery without any problem. The patient's respiratory condition later became worse, however. The patient was treated with immediate intubation/mechanical ventilation, chest compression, and medication. Although definitive cause has not been identified, it was likely to be anaphylactic shock associated with contrast medium.	
114	Drug administration	High	A patient complained he felt sick when 93 mL of Omnipaque (300) was intravenously injected for CT examination. The patient's condition rapidly got worse because of anaphylactoid shock, and the patient eventually fell into cardiopulmonary shock. Brain hypoxia occurred despite immediate resuscitation.	16th
115	Drug administration	None	A patient complained about angialgia during thoracoabdominal CT examination. Contrast medium injection was discontinued after about 10 mL had been given. The nurse checked for extravascular leakage, and injection was resumed. CT examination was started immediately after the injection was resumed. The patient's condition changed right after that; he lost consciousness and fell into shock. The staff performed emergency life-support procedure. Spontaneous breathing returned, and the patient was able to speak about 4 hours later.	
116	Drug administration	Low	A patient had been diabetic and self-injecting insulin. PET examination was scheduled for next day, and the patient was to fast. However, the patient self-injected insulin 10 units in the morning. PET examination was therefore postponed till the afternoon. The patient had been instructed to fast and not to use insulin in the morning the day before examination; however, the patient lacked the necessary understanding.	
117	Drug administration	Death	A patient had been diagnosed with early stomach cancer. Surgery was recommended to the patient and his family but was refused. The patient chose chemotherapy instead, and oral TS-1 capsules were started. The initial treatment was scheduled for 2 weeks instead of 4 weeks. On Day 3 the patient was urgently taken to the hospital with fever and disturbance of consciousness and subsequently admitted for treatment of bone marrow depression, infection, and aggravation of renal failure associated with the anticancer drug.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
118	Drug administration	Low	After ileostomy and sigmoid colon mucous fistula creation for treatment of ulcerative colitis, Novecutane L was sprayed on the median wound. A cautery knife was subsequently used for skin incision, and sprayed Novectane L caught fire. The fire was immediately distinguished using gauze; however, the patient got burned. That Novectane L contains organic solvent had been forgotten.	16th
119	Drug administration	Low	After preoperative disinfection, a patient's body was covered with sheet. Additional drainage was required based on intraoperative findings. Skin incision was made using a cautery knife after further disinfection with Maskin solution (ethanol). The sheet soaked with Maskin solution caught fire.	
120	Drug administration	None	Blood backflow was checked, and drip infusion was started for chemotherapy. No abnormality was seen in the injection site at 15:40 and 16:00. At 16:25 the drip was found inadequate. The injection site was not swollen but mild redness was seen on the center side.	
121	Drug administration	None	Drip infusion of anticancer drug (Avastin) was given. The injection site was checked every hour. Nine hours later a 4 cm × 2 cm area around the injection site was swollen.	
122	Drug administration	None	A patient received chemotherapy (Avastin + FOLFOX) for the first time that day. An orientation leaflet had been used to inform the patient of things to keep in mind during chemotherapy. A vascular access was created in the left forearm for chemotherapy. There was no swelling or pain in the injection site 2 hours after starting the treatment. One hour later the left injection site was swollen (3 × 3 cm) and turned red.	
123	Drug administration	No disability	A patient complained about an injection site pain when about 20 mL of Paraplatin 552 mg + 5% glucose solution 250 mL still remained. Despite swelling of the injection site, all the remaining drug was given followed by slow drip infusion of Solacet F 500 mL as scheduled. The incidence was reported to the leader nurse and the attending physician who ordered needle removal and cooling of the affected area.	
124	Drug administration	Unknown	A patient came for a chemotherapy appointment. Drip infusion of Kytril and Decadron was given from the subcutaneous central venous reservoir. Avastin, Isovorin, and Elplat were then given in the order stated. The nurse then checked to see that there were no skin abnormalities. When Isovorin and Elplat 200 mL were completed, the patient complained about discomfort in the injection site. The skin of the affected area was swollen, and the patient consulted a dermatologist and started treatment for skin ulcer.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
125	Drug administration	No disability	Drip infusion of Soldem 3A 500 mL was replaced late at night. The infusion line and the injection site were checked, and no abnormalities were seen. Two and a half hours later the nurse went to the patient's room to check the drainage and drip but not the injection site because the patient was asleep, wrapped up in the blanket. Early in the morning the injection site was checked, and extravascular leakage was found. When Perme-Aid was removed from the injection site after stopping the drip infusion to remove the needle, the epidermis was partially peeled. The affected area was treated with Azunol and covered with lint. Swelling and blisters associated with extravascular leakage were seen in the left upper arm. Later effusion was seen in the left forearm.	
126	Drug administration	High	The IVH line was removed because of catheter fever. Dopamine hydrochloride was given from the right leg, and Bfluid was given from the left leg. One day the infusion needle was removed because of extravascular leakage in the left leg and redness along the vein in the injection site. Bfluid was connected to the right leg line. Again redness appeared along the vein from the injection site. The injection needle was removed, and vascular access was created in the left arm. Small blisters appeared in the right leg after the infusion needle removal, with redness spread along the vein close to the knee. An ulcer developed in the right leg and was gradually aggravated and became necrotic.	16^{th}
127	Drug administration	Low	The patient was receiving dopamine hydrochloride for decreased blood pressure from the main line and Bfluid from the injection port. The infusion needle was removed because of extravascular leakage. Blisters appeared in the injection site five hours later. Wound dressing was used for treatment. Three days later an ulcer occured.	
128	Drug administration	No disability	Actos 30 mg and Euglucon 2.5 mg were given to the fasting patient in the morning for scheduled gallium scintigraphy. The nurse did not know the patient was fasting in the morning. The order for oral antidiabetic was not confirmed when the examination order was given.	
129	Drug administration	None	A patient had undergone numerous CT examinations. The patient had a tracheotomy and CV port because of repeated aspiration. A CT was performed for detailed examination to identify the cause of sepsis and dyspnea. Since peripheral vascular access was hard to create, contrast medium Iopamiron 300 was injected from the CV port. When 30 mL was injected intravenously, the skin of the patient's upper body turned red. The patient had an anaphylactoid reaction with a severe cough and conjunctival hyperemia.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
130	Drug administration	No disability	At dawn a patient said to the nurse, "I will take sleeping pills and go to sleep. Do not wake me up." Five minutes later the patient was not in his room, and the nurse looked for him. A nurse working at other ward found the patient sleeing in the hallway outside the ward. Diabetic hypoglycemia was suspected because the patient was diabetic and in a coma. However, his blood glucose level was normal. The physician on call suspected psychotropic use and checked the drug bag to find 11 tablets of Depas 0.5 mg and 11 tablets of Nelbon 5 mg were missing, presumably taken by the patient.	16th
131	Others	Low	A patient had been self-managing oral Plavix. The patient's medication status was checked, and it was found he had missed taking his medication for 3 days.	
132	Others	Low	A patient previously treated as an inpatient at the psychiatry ward was admitted for detailed examination. While the patient's complaint about irritation and frustration was being reported to the physician on call, the patient admitted he had taken 4 to 5 doses of self-managed oral medications: Depaken, Myslee, Reslin, Rohypnol, and Anafranil.	

Fig. III-2-2 Occurrence of Medical Adverse Events Involving Drugs: 13th to 16th Reports

		Drug mix-up	Dose error	Wrong method			Wrong dosing speed	Patient misidentification	Others	Total
				Route of administration	Concentration	Duration				
Process	**Ordering**	2	12	0	0	0	0	1	11	26
	Receiving order/ briefing	1	4	0	0	0	0	0	1	6
	Preparation	15	6	0	0	0	2	3	7	33
	Drug administration	3	1	1	0	0	5	6	37	53
	Observation/ monitoring after drug therapy	0	0	0	0	0	1	0	8	9
	Others	0	0	0	0	0	0	0	5	5
Total		21	23	1	0	0	8	10	69	132

Fig. III-2-3 Occurrence of Medical Near-Miss Incidents Related to Drugs: 27th to 30th Reports

		Drug mix-up	Dose error	Wrong method			Wrong dosing speed	Patient misidentification	Others	Total
				Route of administration	Concentration	Duration				
Process	Ordering	14	60	0	0	2	3	7	54	140
	Receiving order/ briefing	14	35	1	1	5	16	0	46	118
	Preparation	299	368	4	5	5	41	123	353(Note)	1,198
	Drug administration	34	123	10	0	1	349	50	678	1,245
	Observation/ monitoring after drug therapy	0	2	0	0	0	0	0	9	11
	Others	22	33	4	0	0	138	49	84	330
Total		383	621	19	6	13	547	229	1,224	3,042

(Note) Including 43 cases involving closed ports that should have been opened to mix drugs when preparing infusion solution.

Fig. III-2-4 Occurrence of Medical Near-Miss Incidents Related to Contraindicated Drug: 27th to 30th Report

		Drug hypersensitivity	Disease	Combined use	Compounding	Administration to special patients			Others	Aggregate total
						Pregnant/ postpartum women	Elderly	Children		
Process	Ordering	31	4	6	3	0	0	0	2	46
	Receiving order/ briefing	9	0	1	0	0	0	0	4	14
	Preparation	13	1	2	9	0	0	0	1	26
	Drug administration	18	4	16	39	0	0	0	0	77
	Observation/ monitoring after drug therapy	0	0	0	0	0	0	0	0	3
	Others	4	0	0	0	0	0	0	1	2
Aggregate total		75	9	25	51	0	0	0	8	168

[2] Medical Adverse Events Related to Medical Devices

Twenty-three medical adverse events related to mechanical ventilators reported between January 1 and December 31, 2008 were analyzed.

(1) Medical adverse events related to ventilators

Medical adverse events related to ventilators were categorized according to situation/device part involved in the event: power supply, oxygen supply, breathing circuit, heated humidifier, setting/operation panel, ventilator, and others (Fig. III-2-5).

A. Power supply

The 16th report included one event in which the power was not turned on after ventilator withdrawal training.

B. Oxygen supply

The 13th report included one event in which a patient received no oxygen because of an unconnected oxygen tube in the portable ventilator. The 15th report included one event in which the patient's respiratory condition was aggravated because the oxygen tank of the portable ventilator was left empty.

C. Breathing circuit

The 13th report included four events involving disconnected breathing circuits, one event related to water trap connection, and one event related to a disconnected exhalation valve. The 14th report included two events related to disconnected breathing circuits, one event involving wrong circuit connection, and one event involving a broken circuit. The 15th report included two events in which the tracheal tubes were almost dislodged.

The 16th report included six events. Two events involved dislodged tubes connecting the ventilator and exhalation valve, one event involved no ventilation of a patient because of an artificial nose connected to the Jackson Rees circuit, and one event involved temporary aggravation of patient's respiratory condition due to an inadequate water trap connection.

D. Heated humidifier

The 13th report included one event involving aggravation of patient's respiratory condition because of a dislodged water supply cap in the humidifier chamber.

E. Settings/operation panel

No event was reported.

F. Ventilator

The 16th report included one event involving a defect in the ventilator.

G. Others

No report included events categorized as others.

(2) Details of medical near-miss incidents related to medical devices

A. Medical near-miss incidents related to ventilators

Medical near-miss incidents reported in the 27th report (January to March, 2008), the 28th report (April to June, 2008), the 29th report (July to September, 2008), and the 30th report (October to December, 2008) were analyzed (Fig. III-2-6).

Fig. III-2-5 Summary of Medical Adverse Events Related to Ventilators: 13th to 16th Reports

No.	Category	Potential of Residual Disability	Place of Occurrence	Summary of event	Periodic report
1	Power supply	Death	Patient room	Ventilator withdrawal training was started. Thirty minutes later the patient made a nurse call to complain about difficulty breathing. The ventilator (T-Bird VSO2) was connected without turning on the power. Twenty-five minutes later the patient was found to be not breathing. An emergency call was made followed by ventilation with Ambu bag. According to the ward procedures, a ventilator was to be connected to a test bag without turning off the power during withdrawal training. Therefore, the nurse assumed the ventilator power was on.	16th
2	Oxygen supply	High	Radiography room	Two physicians and one nurse let the intern monitor the patient on the ventilator (portable ventilator Parapak 200D) and left the examination room. Oxygen was to be supplied to the patient from the oxygen tank brought from the emergency center; however, the oxygen tube was not connected to the ventilator. The patient was out of oxygen for a while and subsequently had a temporary cardiac arrest.	13th
3	Oxygen supply	Unknown	Others	The regular ventilator of the patient was switched to a portable ventilator (Legendair) attached to an oxygen tank before going to the X-ray room for enteral tube placement. The X-ray room had a large oxygen tank since there was no plumbed-in oxygen failities. However, the patient's portable ventilator was not connected to the oxygen tank in the X-ray room after he arrived. The oxygen tank the patient brought with him went to empty during the examination, aggravating the patient's respiratory condition. The patient was using a percutaneous oxygen saturation monitoring device but not a portable respiratory/pulse monitoring device when he came to the X-ray room. Decrease in oxygen level was unnoticed because the alarm of the portable ventilator was off.	15th
4	Breathing circuit	Death	Patient room	The tracheal tube was removed and connected to the test bag to turn off the ventilator alarm (Savina) coming from the tracheotomy. Two nurses went through the procedure. One and a half hour later, the nurse in charge went to the patient's room and found the ventilator was still connected to the test bag.	13th

No.	Category	Potential of Residual Disability	Place of Occurrence	Summary of event	Periodic report
5	Breathing circuit	No disability	Patient room	The nurse in charge went to the patient's room to complete tube feeding. The patient was unconscious and had facial cyanosis and decreased SpO_2. The ventilator (LP-6 PLUS) was inspected, and the oxygen circuit on the back of the ventilator was disconnected.	13th
6	Breathing circuit	Death	Unknown	The nurse went to the patient's room to find the tracheal cannula had been disconnected from the ventilator for one minute and twenty seconds. The patient fell into cardiopulmonary arrest despite ventilation with a reservoir bag.	
7	Breathing circuit	None	Patient room	The nurse connected the breathing circuit to the tracheal cannula of the patient with one hand and went to other room. The monitor alarm for the patient was displayed on the PHS screen. However, the nurse assumed it was just a noise because the monitor had been making noises frequently and turned off the PHS. The nurse went to the adjacent nurse center and checked the monitor display when the alarm display was shown on PHS again. The patient's heart rate was 38, and the alarm of the ventilator (LTV1000) had been going off. The nurse went to the patient's room to find the flex tube was disconnected from the tracheal cannula.	
8	Breathing circuit	No disability	Others	A patient was transferred from the emergency center to the ward and admitted to the stroke care unit. The ventilator (LTV1200) connected to the patient at the emergency center was still being used. More than two staff members checked the ventilator operation. The patient's respiratory condition was aggravated followed by cardiac arrest despite normal ventilator function. The patient was given cardiac compression and resuscitated successfully. The alarm did not go off then. Later a test lung was attached to the ventilator to check for leakage. The ventilator was not activated but free of abnormalities. Operation check by a representative from the manufacturer showed the same result. The main power was turned off, and the corrugated tube and water trap were removed and connected again. The ventilator was activated again. The representative from the manufacturer said the malfunction might have been caused by water trap leakage.	

No.	Category	Potential of Residual Disability	Place of Occurrence	Summary of event	Periodic report
9	Breathing circuit	Unknown	Patient room	The alarm for low minute ventilation volume of the ventilator (LTV1200) went off frequently at night. The ventilator was checked for leakage but no abnormalities were found. The physician from another clinical department came to perform ventilation with a Jackson Rees circuit because the physician on call was resuscitating another patient at the emergency outpatient clinic and the ME was attending an emergency operation. No abnormality was seen in the patient's condition. The ventilator was also checked, and no abnormality was found. Two hours later the representative from the manufacturer found a disconnected exhalation valve. Inspection by the representative revealed the diaphragm near the exhalation valve had been dislodged in the case and not connected properly.	13th
10	Breathing circuit	No disability	Emergency center	The breathing circuit of the patient's ventilator was dislodged to set off the alarm. However, the nurse in charge was in the room at the back of the hallway to attend other patient and did not hear the alarm. The leader nurse who was attending another patient heard a persistent alarm from the central monitor and became suspiscious. She checked the patient and found his heart rate was 30s/min.	14th
11	Breathing circuit	None	Patient room	The nurse asked the clinical engineer to inspect the ventilator. When the clinical engineer checked the replaced breathing circuit, he connected the artificial nose to the warmer/humidifier circuit and attached the artificial nose to the pateint. The patient's breathing was compromised because of increased exhalation resistance.	
12	Breathing circuit	No disability	Patient room	The student paramedic and the nurse measured weight of patient on ventilator using a scale. The inflated tracheal cannula cuff was dislodged.	
13	Breathing circuit	No disability	Patient room	A patient's family felt moisture on the outside of the breathing circuit and found that there was leakage when moving the circuit to drain the droplets in the circuit to the water trap. The respresentative of manufacturer found a crack a little smaller than 1 mm on the inhalation side of the circuit.	

No.	Category	Potential of Residual Disability	Place of Occurrence	Summary of event	Periodic report
14	Breathing circuit	None	Patient room	A patient was on a ventilator for acute aggravation of chronic heart failure. The patient was resltess; he kicked over the drip infusion stand. One hour later the patient started to move violently. His legs were restrained; however, the patient still tried to get up. Propofol was given, and the patient was sedated for a while. About three hours later the nurse heard the ventilator alarm and went to the patient's room to find the tracheal tube was dislodged.	15th
15	Breathing circuit	Low	Patient room	A six-day old patient was on a ventilator. Since the patient's condition was stable, his hair was washed as scheduled once a week. Usually patient's hair would be washed by two nurses; however, the patient's hair was washed by the mother and a nurse. The ventilator alarm went off while washing the patient's hair. SpO_2 decreased to 60%, and tachycardia and general cyanosis occurred. The attending physician checked to find the tracheal cannula was almost dislodged because the securing band was loose.	
16	Breathing circuit	Unknown	Others	The low pressure alarm of ventilator (CV5000) went off. Nurse A turned the alarm to the mute mode, and Nurse B performed tracheal suction. Nurse A checked the circuit for leakage and connected it. The low pressure alarm went off again, and Nurse A again checked for leakage. The physician determined the ventilator had malfunctioned based on the patient's cyanosis and chest movement and started cardiac compression. Nurse A checked the circuit to find the exhalation valve tube connector had been disconnected from exhalation valve alpha.	16th
17	Breathing circuit	No disability	Patient room	The nurse went to the patient's room to check the ventilator (Newport Ventilator E150). The low pressure alarm went off frequently. Airway pressure dropped to 1 to 2, and SpO_2 was 61%. The physician was contacted, the oxygen level setting of the ventilator was increased from 0.21 to 0.5, and manual ventilation was started. Later the exhalation valve was found disconnected from the ventilator. The valve was connected again.	

No.	Category	Potential of Residual Disability	Place of Occurrence	Summary of event	Periodic report
18	Breathing circuit	High	Operation room	The physician connected a Jackson Rees circuit (OR Jackson Rees Set) to the breating circuit to administer oxygen. The physician then connected the filtered artificial nose, and the patient was poorly ventilated and subsequently had pneumothorax.	
19	Breathing circuit	None	Patient room	The alarm went off for SpO_2 decrease after water was removed from the breathing circuit (Servo 900) and connected to the patient. Tracheal suction was performed, assuming sputum retention. No sputum was suctioned, however, and the patient's respiratory condition was furgher aggravated. Inspection of the ventilator found the water trap had been loose.	
20	Breathing circuit	None	Emergency center	A patient was in the weaning process from the ventilator. Arm restraint and mittens were used because the patient was quite restless. His lower extremities were also restrained. The ventilator alarm went off, and the nurse turned around to see the patient was removing his tracheal tube with mittened hands.	16th
21	Breathing circuit	No disability	Patient room	A patient was on ventilator (EVT-2200). Involuntary movement was seen, especially when the patient was on his right side. The patient was positioned so that he would not be able to reach the breathing circuit when he was on his right side. The ventilator alam went off. The nurse went to the patient's room to find the tracheal cannula was disconnected from the ventilator. The patient's left hand might have reached the cannula connector to remove it from the ventilator.	
22	Warmer/ humidifier	No disability	Patient room	The chamber and the breathing circuit were removed to add water to the warmer/humidifier of the ventilator (LTV series). The nurse stopped adding water because she was asked to help giving treatment to other patient. When she left the room she heard the ventilator alarm and saw "LOW" displayed. She checked the ventilator and determined there was no abnormality. Two to three minutes later the nurse went to the next room to help give treatment to another patient. Hearing the ventilator alarm again, she went back to the patient's room to find him with facial cyanossis. Inspection of the ventilator found the water supply cap of the humidifier chamber had been off.	13th

No.	Category	Potential of Residual Disability	Place of Occurrence	Summary of event	Periodic report
23	Ventilator	No disability	Patient room	A patient was on a ventilator (Newport Ventilator HT50). The nurse went to the patient's room to find the patient was sweating excessively from his face and chest. His eyes were open but he was unresponsive. Heart rate was 128, and SpO_2 was 99% to 100%. The alarm did not go off during subsequent inspection with a test lung. Numerous water droplets were seen inside the circuit, however, and water run to the test lung and inside the exhalation circuit when the circuit was held up. The patient's consciousness increased after several minutes of ventilation with Ambu bag. A breathing circuit defect was suspected, and the corrugated tube was replaced. Later the ventilator was replaced because the end-expiratory pressure was decreased only to 5 despite PEEP of 0.	16th

Fig. III-2-6 Medical Near-Miss Incidents Related to Ventilators: 27th to 30th Reports

Category	Number of event
Power supply	4
Oxygen supply	8
Breathing circuit	36
Heated/humidifier	25
Settings/operation panel	16
Ventilator	8
Others	16
Aggregate total	113

[3] Medical Adverse Events Related to Nursing Care for Pediatric Patients

In this annual report, pediatric patients under the age of 15, or those usually treated by pediatricians, were included in the analysis. Pediatric patients were categorized by developmental stage, i.e. neonate (under 28 days), infant (28 days to under 1 year), toddler (1 year to under 6 years), schoolchild (6 years to under 12 years), and adolescent (12 years to under 15 years).

The characteristics of pediatric patients include 1) being reared and cared for and in the growing/developmental process, 2) clinical progress may suddenly change, 3) directly getting information or cooperation from the patient tends to be difficult, 4) participation of parents and other family members in the treatment process is required in addition to that of the patient him/herself, and 5) severity assessment based on early symptoms is difficult. The growth and developmental process and the participation of family members in the treatment process greatly affect the nursing care for pediatric patients.

Focusing on the nursing care for pediatric patients, medical adverse events involving patients under the age of 15 for which the code "nursing care" had been selected or those for which other codes had been selected but considered to be related to nursing care were analyzed. "Nursing care for pediatric patients" in this annual report refers to care provided to assist daily activities such as bathing, toileting and nutrition. Medical adverse events related to nursing care for pediatric patients reported between October 2004 and December 31, 2007 are included in the 2007 annual report (Note).

(1) Details of medical adverse events related to nursing care for pediatric patients

Three events related to nursing care for pediatric patients were reported between January 1 and Monday, March 31, 2008 (Fig. III-2-7).

Fig. III-2-7 Summary of Medical Adverse Events Related to Nursing Care for Pediatric Patients (13th Report)

No.	Potential of Residual Disability	Summary of event
[Meal (nutrition)]		
1	None	The length of feeding tube in a 4-month-old patient was checked by referring to the mark originally placed on the tube before feeding milk into the tube. The patient vomited and subsequently had aspiration pneumonia. The tube had been inserted higher up than it should have been; the tube mark was found to be 8 centimeters too high.
2	None	The feeding tube in a one- year-and-four-month-old patient was replaced before feeding milk. When milk was fed for the second time convulsion occurred followed by SpO_2 decrease. The physician checked the patient, and milk feeding was resumed. Wheezing started, and a subsequent X-ray found that the magen tube in the esophagus was inverted.
[Hygiene]		
3	Low	Four towels were put into a plastic bag and warmed in the microwave oven for three minutes to give a bedbath to the four-year-old patient with cerebral palsy. The warmed towels were put on another towel placed on the corner of the bed near the patient's right foot while giving him a bedbath and changing clothes. Later blisters were found on the dorsum of the right and left feet.

(Note) Pages 191 to 197 in the 2007 annual report

[4] Medical Adverse Events Related to Rehabilitation

In this annual report, medical adverse events reported between January 1 and December 31, 2008, twelve events categorized with the "place of occurrence" code for "functional training room" or with other codes but considered to have been related to rehabilitation and involving a rehabilitation specialist such as a physical therapist (PT), occupational therapist (OT) and speech therapist (ST) were analyzed (Fig. III-2-8). Medical adverse events related to rehabilitation reported between October 2004 and December 31, 2007 are included in the 2007 annual report (Note).

(1) Details of medical adverse events related to rehabilitation

Medical adverse events related to rehabilitation reported between January 1 and September 30, 2008 included 10 events related to fractures or muscle ruptures due to exercise: two events involved fractures due to passive exercise, two events involved falls during ocupational therapy, two events involved falls, one event involved a child who fell during exercise therapy, one event involved luxation during voluntary training, and one event involved muscle rupture after therapeutic electrical stimulation. One event categorized as other was related to management of liquid oxygen supply to a patient during gait training.

(2) Details of medical near-miss incidents related to rehabilitation

Medical near-miss incidents occurring in 2008 and included in the 27th (July to September 2008) and the 28th (October to December 2008) reports were analyzed.

The details of events are categorized into "Aspiration/accidental ingestion/suffocation," "Burn," "Patient misidentification," "Exercise-related fracture or muscle rupture," "Prosthesis/ orthosis," "Aggravation of general condition" and "Others" and summarized with types of rehabilitation involved in Fig. III-2-9.

(Note) Pages 198 to 202 in the 2007 annual report

Fig. III-2-8 Summary of Medical Adverse Events Related to Rehabilitation: 13th to 15th Reports

No.	Potential of Residual Disability	Summary of event	Periodic report
[Exercise-related fracture or muscle rupture]			
1	Low	Manual ROM training of right shoulder and elbow joint was given following hot pack thermal therapy in a patient with decreased bone density lying on her back. A clicking sound was heard when the patient's right shoulder was raised: she had a fracture.	13th
2	Low	Passive external rotation was attempted in a patient with limited ROM, causing fracture. The patient had osteoporosis and may have been prone to fracture.	
3	None	A patient was sitting on a stool to rest during gait training with a walker. He lost his balance and fell.	
4	No disability	A patient was given help when moving from the wheelchair to the bed on his left. His left leg was caught on the footrest when he sat down on the bed. The PT hunched and held the patient under the buttocks because holding him under the armpits was painful for the patient. The PT was not looking at the legs of the patient when the latter was hurt.	
5	None	A patient fell forward and hurt his face when he was taking a walk as part of the occupational therapy program.	**14th**
6	None	The OT told a patient who came to the training room to practice getting in and out of the bathtub to wait in front of the bathtub for training. The patient waited standing without using a chair beside him. The patient tried to lift his leg and fell while the OT was turning his back to the patient to prepare for the training for one to two minutes.	
7	Low	The patient's left toe was caught on the floor, and he fell when he turned around during the gait training using parallel bars in the PT room. The PT was attending another patient while keeping this patient within his sight because the patient had had no problem with gait training before.	
8	Low	After the rehabilitation training was completed, the PT helped the patient move from the matress to the bed and sit down on the edge of the bed. Because the patient had been able to stably sit on the edge and put his shoes on and take them off by himself, the PT told the patient to put on his shoes and left to clean up. Hearing a thud, the PT turned around to see the patient lying on the floor. The patient later told the PT that he bent over to put on his shoes and fell forward.	
9	No disability	A patient had skipped rehabilitation training for three days because of a fever after hip joint replacement. Rehabilitation training resumed, and the PT helped the patient move from the wheelchair to the bed to start strength training. The PT told the patient to start voluntary training of legs and left to receive a visitor. About 10 minutes later the patient complained about pain around the hip joint. Hip dislocation was diagnosed based on a X-ray. The PT had not adequately instructed the patient about what should be avoided during voluntary training.	

No.	Potential of Residual Disability	Summary of event	Periodic report
10	No disability	While the OT was documenting the training record in a patient's chart and the mother of the three-year-old patients was putting away the step platform used for training, the patient who was standing beside his mother fell backward.	15th
[Others]			
11	None	Therapeutic electric stimulation was performed for 20 minutes in a patient with medial meniscus injury. After the patient went home pain in the medial great muscle started. The patient was later diagnosed with medial great muscle strain. The voltage had been set lower than usual. However, the patient had shaved his thigh and cleaned the skin for efficient electric stimulation, causing low electric resistance and stronger muscle contraction.	13th
12	None	A patient on liquid oxygen 6 liters was receiving gait training in the hallway. SpO_2 decreased to below 90% after walking about 15 meters. The patient sat down to rest but SpO_2 did not improve. The patient was returned to his room on a wheelchair, and SpO_2 improved after the oxygen mask was switched to the oxygen supply in the room. Later a nurse found the liquid oxygen had been low.	14th

Fig. III-2-9 Occurrence of Medical Near-Miss Incidents Related to Rehabilitation: 27th to 28th Reports

	Aspiration/ accidental ingestion/ suffocation	Burn	Patient misidentification	Exercise-related fracture or muscle rupture	Prosthesis/ orthosis	Aggravation of general condition	Others	Total
Exercise	0	0	2	183	3	26	46	260
Physical therapy	0	5	0	1	0	1	6	13
Occupational therapy	2	0	1	21	0	4	17	44
Speech therapy	0	0	1	2	0	0	5	9
Unknown	0	0	4	5	0	3	21	33
Others	0	0	0	5	0	0	4	9
Total	2	5	8	217	3	34	99	368

[5] Medical Adverse Events Related to Blood Transfusion

Medical adverse events related to blood transfusion is a newly selected theme included in the 13th annual report. Of relevant medical adverse events reported, those categorized with the "blood transfusion" code for "Summary of Event" and "Details of Event" and those otherwise related to blood transfusion were analyzed.

(1) Details of medical adverse events related to blood transfusion

Seven medical adverse events related to blood transfusion reported between January 1 and Wednesday, December 31, 2008 were analyzed.

In summarizing individual medical adverse events, the flow of blood transfusion procedure was categorized into "ordering," "receiving order/briefing," "preparation," "examination," "implementation," "observation and monitoring after implementation," and "others." (Fig. III-2-10)

A. Ordering

The 14th report included one event in which unprocessed bone marrow was used because the donor blood type had been misidentified.

B. Receiving order/briefing

No event was reported.

C. Preparation

The 13th report did not include any event related to preparation.

The 14th report included one event in which a different patient name was printed on the cross-matched blood sample label.

The 15th report included one event in which the receipt number of cross-matched blood sample was mixed up, resulting in a patient misidentification and subsequent blood transfusion in the wrong patient.

The 16th report included one event in which syringes containing blood product were mixed up and the patient received the blood product prepared for another patient.

D. Examination

The 16th report included one event involving sample mix-up after blood sampling.

E. Implementation

The 13th report did not include any events related to implementation.

The 14th report included one event involving connection of FFP prepared for another patient.

The 15th report did not include any events related to implementation.

The 16th report included one event in which the infusion line for blood product was connected to the drainage tube.

F. Observation and monitoring after drug therapy

No event was reported.

G. Others

No event was reported.

(2) Medical near-miss incidents related to blood transfusion

Medical near-miss incidents occurring in 2008 and included in the 27th (January to March), the 28th (April to June) and the 26th (July to September) reports were analyzed. In summarizing medical near-miss incidents related to blood transfusion, details of incidents were categorized into "sample mix-up," "patient misidentification," "product mix-up," "product misidentification," "wrong dose," "transfusion rate," "storage/maintenance," "procedures," "outcome documentation," "outcome evaluation," and "others." (Fig. III-2-11)

<Note>

Ten events related to blood transfusion reported between January 1, 2006 and December 31, 2007 and included in the 13th report were categorized into "sample mix-up," "patient misidentification," "product mix-up," "product misidentification," "wrong dose," "infusion rate," "storage/maintenance," "procedures," "outcome documentation," "outcome evaluation," and "others" in the matrix in Figs. III-2-12 and III-2-13.

Fig. III-2-10 Summary of Medical Adverse Events Related to Blood Transfusion: 13th to 16th Reports

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
[Patient misidentification]				
1	Preparation	No disability	Fresh frozen plasma LR 6 units was requested for Patient A (type AB). A blood transfusion form saying "Patient A (type B)" and cross-matched blood of Patient B were submitted. Transfusion schedule for Patient B was checked with the ward but no transfusion was scheduled. Test of cross-matched blood sample with Patient B's name and blood type (type B) on the label found blood type was AB. Inquiry to the ward revealed printed sample labels had been mixed-up.	14th
[Product mix-up]				
2	Drug administration	None	Nurse A used a constant temperature bath in the initial treatment room and in the patient room to quickly defrost a large amount of FFP for blood transfusion in a patient with hemorrhagic shock. The constant temperature bath in the patient room had FFP for other patients as well. Nurse B took out FFP from the constant temperature bath in the patient room and hanged it on the drip infusion stand without cross-checking the blood provision form and the patient with the FFP. Nurse A connected the hanged FFP to the transfusion line and started transfusion without checking the FFP. Mismatched transfusion was found when about 70 mL of FFP had been transfused.	14th
[Others]				
3	Ordering	None	The patient was transferred from another hospital to receive a bone marrow transplant. The blood type of the patient was O, and the donor blood type was A. Physician A said the donor blood type was O in the pre-transplant conference. Physician B thought it was inconsistent with the information provided earlier and tried to check the donor information. Attached documents were not available, however, and Physician B told Physician A to attach relevant documents to the patient's chart. Physician A mixed-up the blood type of the donor with that of another donor for another patient, which was type O. Two months later bone marrow arrived at the ward from the collection center. The amount was checked by referring to the bone marrow delivery form but not the blood type. Bone marrow transplant was started in the patient's room. Physician A checked the bone marrow collection report again upon leaving the room and found the donor blood type was A. The transplant was discontinued (about 17 mL of blood was presumably transfused into the patient). HLA type and weight of donor are priorities in donor selection for bone marrow transplant. Blood type mismatch was therefore not so questionable.	14th

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
4	Preparation	No disability	Obstetrics/gynecological outpatient X pointed out the blood type checked at this hospital was different from what she had thought. The outpatient midwife made an inquiry to the laboratory. Patient X's blood type was A Rh+ according to the test record; however, a retest found the blood type was AB Rh+. The initial test was wrong. Blood samples of other patients tested on the same day were retested, and the blood type of outpatient Y, which was A Rh+, was found to have been reported as AB Rh+. The blood transfusion record was tracked back from the day the event occurred, and it was found type AB Rh+ blood had been transfused in Patient Y on the day the wrong blood typing occurred. Blood typing had been performed for two patients at the same time, and sample receipt number had been mixed up because samples of the two patients had been on the blood typing device. Blood typing had not been performed for cross-matching for Patient Y.	15th
5	Preparation	None	MAP was ordered for Patient A (type O) and Patient B (type A), and transfusion product for the two patients was prepared around the same time. The product was checked by the physician and the nurse and divided into several syringes on separate preparation tables by the nurses in charge of the patients. The first syringe was checked by the physician and the nurse at the bedside of the two patients, and transfusion was started around the same time using syringe pumps. Hearing the completion alarm for the first syringe of Patinet A (type O), the leader nurse handed the syringe containing transfusion product for Patient B (tyep A) to the nurse in charge, assuming it had been prepared for Patient A. The nurse in charge connected the syringe to the pump without checking whose syringe it was. The nurse in charge of Patient B saw the syringe contained only 70 mL instead of the 120 mL ordered for Patient B and felt suspiscious. She checked to find the transfusion product prepared for Patient B (type A) had been given to Patient A (type O).	16th
6	Examination	No disability	Blood sampling was ordered for an inpatient admitted for chemotherapy because no blood typing had been performed. The day-shift nurse attempted sampling but could not find a vein suitable for drawing blood. The night-shift nurse performed the sampling instead. Next day the patient's blood type was documeted as type B (+) in the report form and submitted to the ward. Two weeks later the physician asked the patient what blood type he had before ordering 2 units of packed red blood cell, and the patient said, "It's type A." The phyisician entered type B (+) in the transfusion order form, however, because it was the result of blood typing performed earlier. Later the transfusion department pointed out the transfusion order form said tyep B (+) while the prepared cross-matched blood was type A (+). The sample label and the patient's name had not been cross-checked when performing blood sampling.	

No.	Process	Potential of Residual Disability	Summary of event	Periodic report
7	Drug administration	None	Using an infusion pump, continuous intraperitoneal irrigation was performed by connecting normal saline 500 mL, infusion set and an extension tube with Planecta to the connector of pleated tube for drainage. The nurse in charge connected the platelet transfusion line to Planecta of the continuous intraperitoneal irrigation tube by mistake. About 100 mL of platelet was transfused. Although Planecta would not be usually used, it was connected to the irrigation tube because the latter was too short and needed to be extended. The nurse had not checked the insertion site and the connector of the line when connecting the platelet. She also missed the green tape with "for irrigation" written on it placed in the middle of the line. The peripheral line, the irrigation tube, and the dialysis line were placed on the right of the patient, and the former two were hanged on the same drip infusion stand.	16th

Fig. III-2-11 Occurrence of Medical Near-Miss Incidents Related to Blood Transfusion: 27th to 29th Reports

		Mix-up			Product misidentifi-cation	Wrong dose	Transfusion rate	Storage/ maintenance	Procedures	Outcome		Others	Total
		Sample	Patient	Product						Document-ation	Evaluation		
Process	Ordering	0	2	0	0	2	0	0	0	0	0	7	11
	Receiving order/ briefing	0	0	1	3	14	3	0	2	0	0	27	50
	Preparation	2	10	10	5	12	4	83	65	0	0	117	308
	Examination	3	4	0	0	0	0	0	8	1	8	6	30
	Drug administration	0	3	0	0	11	61	1	13	1	0	49	139
	Observation and monitoring after implementation	0	0	0	0	0	0	0	0	0	0	7	7
	Others	0	0	0	0	0	0	1	1	0	0	11	13
Total		5	19	11	8	39	68	85	89	2	8	224	558

Fig. III-2-12 Summary of Medical Adverse Events Related to Blood Transfusion

January 1, 2006 to December 31, 2007

No.	Process	Potential of Residual Disability	Summary of event
[Sample mix-up]			
1	Examination	Low	A patient's blood was typed as B during his previous hospitalization. The pre-transfusion blood typing of cross-matched blood of the patient showed type O. The nurse had cross-checked the sample tube with the order form the day before blood sampling. Sample tubes had been bundled with a rubber band and placed in a cup for each patient. The nurse had removed "cross-matched blood request form" from the sample tube for cross-matched blood to check the patient's name, wrapped the tube with the request form again, and placed it in the cup with tubes for other patient. The patient's name on the request form had not been visible. The physician had performed blood sampling without checking the patient's name. The newly sampled cross-matched blood was thus typed as B.
[Patient misidentification]			
2	Examination	Low	Mismatched transfusion of type B blood in the type O patient four months earlier was identified when the recent blood transfusion was performed in the patient. In the morning of the day of accident four months earlier, the blood sample drawn for blood biochemical test was typed. However, the sample was not the patient's. "Patient misidentification for blood sampling" was thought to be the cause based on the blood biochemical test performed in the morning.
3	Drug administration	Unknown	The physician ordered a transfusion of the blood product in Patient A. The nurse cross-checked the blood product, the patient's name and blood type together with other nurse who took the blood product from the transfusion department in the nurse station. Later the nurse went to the bedside of Patient B and connected the product without making sure he was Patient A. Two hours later the physician went to the bedside of Patient B and found unordered blood product was connected.
[Product mix-up]			
4	Preparation	High	Transfusion blood and a transfusion order form were placed on the triple wagon to be taken to the OR for Patient A. The physician took out packed red blood cell from the refridgerator for transfusion in Patient B in the next bed and put it between the blanket and the matress of Patient B to warm it to room temperature. No transfusion order for Patient B was given, and the physician did not tell anyone for which patient the packed red blood cell in Patient B's bed would be used. Having received no transfusion order for Patient B, the nurse assumed the packed red blood cell was for Patient A. She put the packed red blood cell on the triple wagon and took it to the OR. The nurse handed over the packed red blood cell to the OR nurse without performing a double-check. The anesthesiologist connected the packed red blood cell, assuming it had been checked by the nurse. The packed red blood cell prepared for Patinet B was thus used for Patient A.
5	Drug administration	Unknown	Type A FFP prepared for another patient was used in the patient for whom type O FFP had been prepared.

No.	Process	Potential of Residual Disability	Summary of event
6	Drug administration	Low	Intraoperative autotransfusion was scheduled for the patient. The nurse took out the patient's blood from storage and cross-checked the ID of the blood product and the order form together with the physician. Later the physician started autotransfusion in the patient but immediately discontinued when he realized the name on the blood product was not the patient's. The blood cross-checked by the physician and the nurse was of another patient who was also scheduled for transfusion on the same day.
7	Drug administration	Low	Packed red blood cell for Patient A (type AB Rh +) and Patient B (type A Rh +) having the same given name as Patient A and admitted in another department was prepared in syringes and stored in the transfusion blood refridgerator. The nurse took out syringes from the refridgerator and performed transfusion as ordered. The leader nurse later checked transfusion blood in the refridgerator to find one type A syringe for Patient B was missing. Packed red blood cell for Patient A had been transfused in Patient B.
[Procedure]			
8	Examination	Low	Cross-matching was performed in the type B blood product and a patient's blood using the normal saline method. All test tubes including controls showed slight coagulation. The suspiscious tester called the person in charge of blood transfusion. The tester was told to continue the test because the slight coagulation was likely to be a nonspecific reaction. Later the OR called and asked to bring the blood product immediately. The tester told the OR the cross-matching had not been completed; however, the OR told him just to perform irradiation and bring the product without cross-matching. The tester dispensed the type B blood product. Later blood typing was performed again, showing the product was type A, not type B. At the hospital, test tubes for blood typing are labeled with capital letters "A," "B" or "D" for anti-A serum, anti-B serum or anti-D serum for RBC testing and with lower case letters "a" or "b" for type A and type B for serum test. The test tubes had been labeled the other way around for the patient, resulting in wrong blood typing.
[Outcome evaluation]			
9	Examination	Low	Two years earlier a patient had irregular antibody, positive anti-E antibody and anti-c antibody. However, the test performed three monthes earlier showed negative irregular antibodies. Two packs of cross-matched MAP (4 units) were dispensed and given to the patient as ordered. One and a half hours later the patient had epigastric discomfort and vomited. MAP was discontinued and other cross-matched MAP was used; however, the patient still vomited. Next day the physician in charge of blood transfusion ordered a retest of the patient's stored blood, and inapprorpiate cross-matching was revealed.
[Others]			
10	Others	Death	The condition of a compromised patient with aplastic anemia was suddenly aggravated possibly because of platelet contaminated with staphylococcus and of the patient's immunodeficiency. The patient's stored platelet segment was cultured after the sudden change of the patient's condition, and staphylococcus was detected. The test report was immediately sent to the blood center together with the patient's blood sample. DNA analysis was performed both at the blood center and the hospital. The pulse-field electrophoresis showed a consistent DNA pattern of staphylococcus detected in the patient's blood sample and the stored platelet segment.

Fig. III-2-13 Medical Adverse Events Related to Blood Transfusion

January 1, 2006 to December 31, 2007

		Mix-up			Storage/ maintenance	Procedures	Outcome		Others	Total
		Sample	Patient	Product			Documentation	Evaluation		
Process	Ordering	0	0	0	0	0	0	0	0	0
	Receiving order/briefing	0	0	0	0	0	0	0	0	0
	Preparation	0	0	1	0	0	0	0	0	1
	Examination	1	1	0	0	1	0	1	0	4
	Drug administration	0	1	3	0	0	0	0	0	4
	Observation and monitoring after implementation	0	0	0	0	0	0	0	0	0
	Others	0	0	0	0	0	0	0	1	1
Total		1	2	4	0	1	0	1	1	10

[6] Medical adverse events related to retained foreign objects during surgery

In the 15th report, medical adverse events related to retained foreign objects during surgery was included as an individual theme for the first to the fourth reports (Note) (reporting period: from October 2004 to December 31, 2005). In this report 92 medical adverse events related to retained foreign objects during surgery reported between January 1, 2006 and September 30, 2008 were analyzed. Summary of medical adverse events related to retained foreign objects during surgery is shown in Fig. III-2-14.

(1) Details of medical adverse events related to retained foreign objects during surgery

Surgeries can be categorized into i) those involving incisions such as thoracotomy, laparotomy and craniotomy (including scope-assisted surgeries such as thoracoscopy and laparoscopy) and ii) catheter and endoscopic surgeries. This report includes medical adverse events related to retained hygiene products and medical devices (hereafter, medical devices, etc.) used for procedures in the surgical site during surgeries categorized as i).

The number of events included in the previous report as the individual theme is presented in the table.

A. Number of reported events

i Types of surgeries involving retained foreign objects

Reported medical adverse events related to retained foreign objects are shown in Fig.III-2-15. The number of reported events was comparable for different types of surgeries in 2005. More events related to laparotomy were reported in 2006, 2007 and 2008: 15 events, 9 events and 12 events, respectively. While eight and ten events related to thoracotomy or open-heart surgery were reported in 2005 and 2006, the number decreased to two and one in 2007 and 2008. The number of events related to scope-assisted surgeries was one in 2005 and 2006, zero in 2007, and four in 2008. Surgeries categorized as other included ophthalmologic and dental surgeries. Reported events include one involving retained foreign object found after several decades. No significant change was seen in the trend of reported events in the past four years.

ii Details of retained foreign objects

Detais of retained foreign objects are shown in Fig. III-2-16. The number of events involving retained gauze was nine in 2005, 26 in 2006, 15 in 2007, and 15 in 2008. No significant change was seen in the trend of reported events in the past four years.

iii Situation of finding retained foreign objects

The situations of finding retained foreign objects are categorized into “during surgery,” “before leaving the OR (including the recovery room),” “before discharge,” and “after discharge” and shown in Fig. III-2-17. The number of events categorized into “during surgery” and “before leaving the OR” was three in 2005, 11 in 2006, five in 2007, and six in 2008. The data show that medical institutions have been taking small steps for early detection of retained foreign objects. The number of events related to retained foreign objects found after discharge was four in 2005, nine in 2006, 11 in 2007, and seven in 2008. One of those events involved a retained foreign object found after several decades; steps to prevent retained foreign objects were not actively taken several decades ago.

B. Retained foreign objects during surgery

Retained foreign objects during surgery were categorized as follows:

i Retained: unremoved medical devices, etc. (e.g. gauze, suture needle, forceps) used for surgery that should have been removed from the surgical site at the time of or before completing the surgery

ii Breakage/disassembly: component or part of component of medical devices, etc. (e.g. tip of scalpel, part of metal ring) retained in the surgical site due to breakage or disassembly

The table in Fig. III-2-18 shows categories of retained foreign objects in the column and types of retained foreign objects in the row.

Retained medical devices, etc. reported were mostly gauze; 56 events involved retained gauze. Ten events involved breakage/disassembly of small medical devices such as tip of scalpel and suture needle. Other retained foreign objects included fragment of severed wire.

Timing of detecting (or suspecting) retained foreign objects are categorized into "during surgery," "before leaving the OR (including the recovery room)," "before discharge," and "after discharge" and shown in the column, and retained foreign objects during surgery are shown in the row of the table in Fig. III-2-19.

Retained foreign objects during surgery included gauze (56 events) and cotton balls (10 events) used to remove blood, exudate, and lavage fluid. Suture needles (5 events) and forceps (5 events) were also included.

Types of surgeries involving retained foreign objects are categorized into "craniotomy," "thoracotomy," "open-heart surgery," "laparotomy," "extremity surgery," "scope-assisted surgery," and "other" and shown in the column, and types of retained foreign objects are shown in a row of the table in Fig. III-2-20.

Gauze was the most reported retained foreign object in laparotomy (30 events), and cotton ball was the most reported in craniotomy (9 events).

C. Moments of detecting retained foreign objects during surgery

Moments of detecting retained foreign objects are defined as "when the retained foreign object was detected (or suspected)" and categorized into "during surgery," "before leaving the OR (including the recovery room)," "before discharge," and "after discharge" and shown in the column, and reasons for detection are categorized into "counting of medical devices, etc," "X-ray/CT, etc." "occurrence of symptom suggesting foreign object," and "others" and shown in the row of the table in Fig. III-2-21.

i Counting of medical devices, etc.

Retained foreign objects were detected after counting medical devices in nine events, timing of detection was during surgery in six events. The following are examples of how retained foreign objects were detected.

- The foreign object was detected in X-ray performed because medical device count was inconsistent.
- The first X-ray failed to detect the foreign object but the second X-ray detected it.

ii X-ray/CT, etc.

Retained foreign objects were detected in X-ray/CT, etc. in 56 events, timing of detection was after leaving the OR or before discharge in 36 events and after discharge in nine events. The following are examples of how retained foreign objects were detected.

- The wound was closed because the medical device count was consistent; however, postoperative X-ray found a retained foreign object.

- The medical device was lost in the surgical site. Visual inspection could not find it but X-ray did.
- The retained foreign object was found in CT performed for post-craniotomy follow-up.
- The retained foreign object was found by chance during an examination (e.g. CT) performed for other disorder.

Some events involved clinicians who did not critically read the X-ray image showing retained foreign object and therefore missed the object.

iii Occurrence of symptom suggesting foreign object

Retained foreign objects were detected due to occurrence of symptom suggesting foreign object in 17 events, timing of detection was after discharge in 16 events. In the 17 events foreign objects were detected because of occurrence of symptoms such as swelling, mass, pain, fever, and circulatory failure.

iv Others

The following are examples of events categorized into "others."

- Breakage of medical device was noticed during the surgery but the device was lost in the patient's body.
- Breakage was detected after the medical device was used and returned to the scrub nurse who noticed its form was different from the original form.

D. Cause of retained foreign object during surgery and setting in which accident occurred

Estimation and analysis of common causes of retained foreign object during surgery and settings in which accidents occurred are summarized below.

i Unestablished rules

No device counting rules existed under the following two circumstances.

- Surgery not performed in the OR (e.g. in the catheter room)
- When the wound was shallow or small (characteristics of the wound)

ii Violation of rules

- Rules for using gauze containing radiopaque steel wire were not followed.
- Rules for gauze counting were not followed.
- Rules for performing X-ray before closing wound were not followed.

iii Indistinguishable medical devices, etc. or surgical site

- Gauze or medical devices, etc. that were not normally used were mixed.
- Different types of gauze (e.g. gauze containing radiopaque steel wire and not containing such wire) was used together.
- Gauze or medical devices, etc. was counted in the head based on an assumption of consistency, without visually checking.

iv Complicated circumstance

- Different gauze handling procedures were used before, during and after use.
- Gauze or medical devices, etc. were placed in separate areas such as the surgical site, the instrument table, and outside the clean area.
- The surgical site visibility decreased due to severe bleeding.

- Used medical devices, etc. were not adequately checked because urgent procedures were prioritized in the emergency situation involving bleeding.
- Retained foreign object was noticed and looked for during the surgery but could not be found. The wound had to be closed because of the patient's general condition.
- The nurse was unable to concentrate on device counting because she was also handing out instruments to the surgeon.
- X-ray was unfeasible because of the special position of the patient or use of special medical device.
- Surgery was prolonged, and device counting was performed as the wound was closed.

v Limitation of X-ray
- Unclear contrast due to the patient's position or the angle made it difficult to detect the foreign object.

vi Communication or recording error
- Inadequate communication because of change of surgeon and nurses during surgery
- The number counted by the surgeon was inconsistent with that counted by the nurse.
- Several surgeons and nurses were involved, making it unclear with whom the responsibility of recording lay.

vii Inadequate education
- Surgeon education for prevention of retained foreign objects was inadequate because of annual turnover.

viii Staffing
- More than the scheduled staff was necessary for device counting but nobody was available because of other emergency operation.

E. Steps to prevent retained foreign objects during surgery

Many medical institutions are taking steps to prevent retained foreign objects during surgery, such as counting of gauze and medical devices, etc. and postoperative X-ray. This report analyzed i) postoperative (or intraoperative) X-ray and ii) gauze counting.

i Postoperative (or intraoperative) X-ray

X-ray was performed for postoperative follow-up or to check for retained foreign objects in 54 events (not including events of which details were unavailable because the surgeries were performed in the past). The foreign object was detected in the first X-ray in 31 events. Reasons for failure to detect foreign objects include the following.
- The opacity was identified but thought to be due to another cause; "An abnormal opacity was found but thought to be calcification."
- The X-ray image was read with an assumption of "no foreign object" based on consistent device count.
- Abnormal opacity was not detected because of inappropriate X-ray condition.

One of the issues related to X-rays is that foreign objects are not necessarily found because the patient is immobilized for surgery. Some medical institutions develop X-ray images in a setting that makes it easy to detect the steel wire in the gauze in cooperation with radiological techonlogist.

In eight evets the foreign object could not be detected in X-ray but later identified in CT or MRI. Some medical institutions perform postopeartive CT when a retained foreign object is suspected based on inconsistent device counting.

ii Gauze counting

Of 56 events involving retained gauze, gauze counting rules were available in 34 events. Rules were followed in 29 events.

In 20 events no retained gauze was determined based on gauze counting but later identified. In 10 events retained gauze was suspected and searched but could not be found. Reasons for gauze counting errors include the following.

- Gauze used for epidural anesthesia that generally would not be counted was included in the counted gauze.
- Invisible gauze in the surgical site counted by the scrub nurse was inconsistent with that counted by the circulating nurse.
- There were gauze count recording rules but no established procedures; nurses used different counting methods.

Gauze counting is performed at many medical institutions; however, retained foreign objects are not prevented. Whether the gauze counting rules are appropriate, whether the rules can be applied to a variety of surgeries, specific counting methods, and task sharing among staff members should be reviewed.

Details of five events in which gauze counting rules were not followed are as follows:

- Final gauze counting was not performed.
- Number of pieces of gauze taken out of the surgical site should have been recorded in the gauze count sheet but was not recorded.

Reasons for not following the rules included matters of higher priority and busy situation, such as other procedures performed at the same time and treatment of severe bleeding.

Some medical institutions are using dedicated holders and trays for used gauze to ensure gauze counting while other put all used gauze in a bucket and later count them one by one.

(2) Medical near-miss incidents related to retained foreign objects during surgery

Events occurring in 2008 and included in the 27th (January to March) and the 28th (April to June) reports were analyzed. Types of surgeries are categorized into “craniotomy,” “thoracotomy,” “open-heart surgery,” “laparotomy,” “extremity surgery,” “scope-assisted surgery,” and “others” and shown in the column, and types of retained foreign objects are categorized into “gauze,” “cotton ball/towel,” “suture needle,” “forceps,” “scalpel,” “tubes,” and “others” and shown in the row of the table in Fig. III-2-22. The 2nd report (Table 3 in page 32) includes places where temporarily lost medical devices during surgery were found. This report also includes such information (Fig. III-2-23).

Fig. III-2-14 Summary of Medical Adverse Events Related to Foreign Bodies Left Behind during Surgical Procedures (15th Report)

No.	Potential of Residual Disability	Summary of event
[During the operation] 13 events		
Gauze, etc.		
1	No disability	Posterior thoracic vertebral decompression and fixation was performed. When the number of gauze was counted at the time of closure of the wound, one sheet was missing in the clean field and the contaminated field. Therefore, X-ray films of the thoracic vertebral area were obtained but gauze could not be identified. Since the amount of hemorrhage from the operative field was large, the wound was closed once, and X-ray films of large areas were obtained. As a result, gauze was detected in the lower cervical vertebral area. The wound was opened immediately, and the gauze was extracted.
2	Unknown	Thoracic aortic artificial blood vessel replacement was performed. When the number of gauze was counted before closing the chest, the operating room nurse reported that one sheet was missing. The operative field was carefully searched but the gauze was not found. The operating room was also searched and X-ray films were taken, but the gauze was not found, and the chest was closed. On postoperative coronary arteriography, the gauze was identified. The chest was opened again in the operating room, and the gauze left behind was extracted.
3	Low	The number of gauze was counted before peritoneal suture in gynecological vaginal surgery. At the time of wound closure, one sheet of gauze folded in four was missing, and the nurse asked to check the gauze, but the surgeon was engaged in the hemostatic operation and could not check it. The gauze was not found yet after closure of the wound, but the operation was terminated considering the status of anesthesia. Subsequently, gauze left behind in the abdominal cavity was confirmed on X-ray films, and the gauze was extracted by vaginal surgery.
4	Unknown	The gauze count (second counting) disagreed at the time of closure of the abdomen, and more than one person searched every corner of the room, including inside of the trash cans, but the gauze was not found. The surgeon searched inside of the abdominal cavity, but the gauze was not found. While the chest was left opened, a film was placed beneath the bed, and the chest and abdomen were X-rayed, but the shadow of the gauze was not detected. After closure of the wound, a film was placed directly under the body and the second X-ray film was obtained, but the shadow of the gauze was not detected, and the patient left the operating room. On the day after the operation, a foreign body suggestive of gauze was detected on X-ray, and the gauze left behind was identified on CT. Since the gauze overlapped with the vertebral body, it was not imaged on X-ray.
5	Low	Before gastric cancer operation was started, both the surgeon and nurses confirmed that there were 60 sheets of gauze. Before closure of the abdomen, the gauze count did not match, and the abdominal cavity was searched, and abdominal plain X-ray examination was performed, but gauze was not clearly detected on the image, and the abdomen was closed. After that, abdominal plain X-ray examination was performed again but the gauze was not detected. After the operation, abdominal plain X-ray films were obtained twice, but the gauze was not found. The patient visited our hospital for periodical examination at one year after the operation. At that time, a cystic mass was detected in the area posterior to the remaining stomach on abdominal CT, and a linear high-concentration structure suggestive of a gauze wire was observed inside of the mass. It was judged to be the gauze left behind during the surgical procedure as a result of radiological reading and abdominal plain X-ray examination.
6	Low	During the fixing operation after reduction of pelvic fracture and femoral fracture, about 5000 mL of blood was lost from an area around the pelvic artery. Since the bleeding point was unknown, pressure hemostasis by packing with three towels was attempted. At this time point, the gauze count did not coincide by one sheet, and the fact was reported to the surgeon. The intrapelvic area was examined by fluoroscopy. Since three towels with radiopaque steel wire were present, one sheet of gauze with a radiopaque steel wire could not be detected. However, identification of the bleeding site was necessary, and the wound was closed while one sheet of gause was still missing in order to move the patient to the antiography room immediately. After the operation, one sheet of gauze was extracted at the same time with removal of the hemostatic towels.

No.	Potential of Residual Disability	Summary of event
Cotton pad, etc.		
7	Unknown	Pulmonary resection was performed. On counting before closure of the chest, one cotton ball (10 mm in diameter; they are placed at the tip of forceps and are used to hold blood vessels, etc.) was found to be missing. The thoracic cavity was searched but the cotton ball was not found and the chest was closed. The right lung field was carefully examined again on the X-ray films obtained immediately after the operation, but it was concluded that there were no cotton balls left behind. However, when CT was performed on the periodical examination at 1 year after the operation, a spherical structure containing a linear highly absorbent substance inside was observed behind the anterior mediastinum and the sternal bone in the right thoracic cavity. When the X-ray films obtained in the past were re-examined carefully, a linear highly absorbent substance was confirmed, and a cotton ball left behind was diagnosed. The cotton ball could not be identified in the original X-ray films because it was present at a position overlapping with the sternal bone and the vertebral body.
8	Unknown	During a brain tumor operation (microscopic operation), the number of Delicot(with a strap of 20 cm, 10mm×13mm), which is used instead of gauze, was counted by the surgeon and a nurse after 130 sheets had been used. Two sheets were missing and searched. One sheet was found beside a drape, but one sheet was still missing. It was searched by X-ray during the operation, but any finding suggestive of residue in the brain was not observed and the head was closed. After that, Delicot left behind in the brain was observed on head CT before the patient left the room. The fact that a sheet of Delicot was left behind and the fact that it was unlikely to be harmful were explained to the family, and it was decided that the case should be followed by watchful waiting without performing craniotomy immediatley. Although Delicot is made of a material that can be imaged by X-ray, it could not be identified because of the small size. Delicot is a product with a strap, but the strap had been cut short before the operation.
Medical devices (left behind)		
9	Low	Scleral plugs (tweezers for vitreous surgery) were used during vitreous surgery. At the time of inspection of the numbers of devices before completion of the surgery, a nurse reported that one scleral plug was missing. The surgeon searched the operative field to confirm that nothing was left behind. The operating time exceeded 2 hours, the patient strongly complained of pain, and the operative field could not be secured adequately. The surgery was terminated. The plug was not found while the room was cleaned. An X-ray examination was performed on the following day, and a plug left behind in the eye was observed. The fact was explained to the patient, and the plug was surgically extracted. Since scleral plugs sometimes drop on the floor and are found after the surgery has been terminated, the surgeon assumed that, also in this case, the plug had dropped on the floor.
Medical devices (breakage/disassembly)		
10	Low	While the bone in a deep area was scraped off with the finest Micro forceps during suboccipital decompression, the tip broke. When the Micro forceps was retrieved from the operative field, a nurse found that the tip was missing, and immediately reported the fact to the surgeon. The surgeon searched the operation site by ultrasound and miscroscopy, and nurses searched the spaces between gauze and the floor, but the tip was not found. The instrument table, operative field, floor and areas around the devices were searched again before dural suture, but the tip was not found, and the head was closed while the residue to the tip could not be confirmed. At a later date, MRI was performed, and the tip left behind was identified from there being a metal artifact. Since the patient was in an abdominal position and a microscope was set up, the use of portable X-ray devices and C arm X-ray devices was difficult.
11	Low	During the surgical procedure of total hip replacement, a nurse found that the metalic ring part of the chain connecting the pin retractor used to open the wound of the joint had broken, came off, and fell on the surgical table. The nurse reported that to the surgeon. The surgeon inspected the operative field, but did not find any fallen part. Judging from the shape of the broken chain, it was assumed that the welded part opened up and the chain came off. The operative field was washed with a large volume of physiological saline solution repeatedly. The wound was closed. After X-ray examination for confirmation, a metal piece of 2 or 3 mm in size was detected outside of the cervical part of the artificial hip joint. Surgical devices and materials had been inspected before sterilization and when placed on the table on the day of surgery, and no problems had been found. Since the presence of the foreign body was discovered before completion of the surgery, it was possible to take out the foreign body. However, since the patient was in a state with a high risk of infection, and the effect of the substance left behind was assumed to be small, the metal piece was not extracted.

No.	Potential of Residual Disability	Summary of event
12	Low	While a screw hole was being produced with a drill during fixation of tranplanted bone in artificial joint replacement, the tip of the drill (about 1.5 cm) broke at a position presumably in the pelvis. The piece was left behind because extraction of the piece via the operation site was extremely difficult. Potential fatigue of the drill was considered, but such an event was not observed during inspection of the broken drill. Although the procedure of the use was appropriate, it was likely that a strong force was applied on the device during use.
13	None	The tip (about 7 mm) of the loop electrode of the electric cautery broke during transvaginal hysteroscopic uterine myomectomy. Attempts were made to remove the broken tip by intrauterine curettage, intravaginal irrigation and aspiration, but the piece could not be removed. The course of the event was explained to the family during the operation. On X-ray films, the tip was found to be trapped behind the myoma, and it was considered difficult to further cope with the situation by transvaginal operations. At the end of the operation, the presence of the loop electrode was confirmed again on X-ray films, but it was considered unlikely that the piece would enter the abdominal cavity. Thus, it was decided to follow up the course by watchful waiting, and informed consent of the patient and the family was obtained. The amount of blood lost was 167 g. The loop electrode used in this procedure is a relatively fragile instrument of which the tip is thin. In this case, breakage due to deterioration was believed to be the reason why it was left behind. Loop electrodes are sold as re-usable products. Our policy was to replace them with new ones when breakage was confirmed, but to use them after re-sterilization as long as there was no macroscopic breakage. Moreover, since its durability varies depending on the patients for whom the product was used, the supplier had not established the usable life and had left it to the hospital's discretion how to use the product. After that, open uterine myomectomy and surgical extraction of the metal piece were performed.
[Until leaving the operating room] 9 events		
Gauze		
14	Low	Since the results of gauze counting performed during the operation matched, the abdomen was closed. However, a foreign body was detected in the right abdominal cavity on X-ray examination conducted in the postoperative recovery room. Gauze with radiopaque fibers used during the operation was revealed to have been left behind, and the abdomen was opened again and a sheet of gauze was extracted from the abdominal cavity. It was possible that one sheet of normal gauze used for epidural anesthesia was mixed in gauze with radiopaque fibers during perioperative gauze counting. A nurse making the rounds counted the gauze without noticing it, and did not realize that one sheet was still left behind in the abdominal cavity even after the last counting.
15	Low	Total hysterectomy was performed. Since the counts of gauze and instruments matched, the abdomen was closed. After that, abdominal X-ray examination was performed to confirm the absence of foreign bodies. After the patient recovered from anesthesia, a nurse who was directly assisting the operation pointed out during preparation for sending the patient back to the ward that a sheet of gauze with a handle was missing. The operating room was searched but the gauze was not found, and a foreign body left behind in the abdominal cavity was suspected. Since the patient had recovered from anesthesia, a possibility that the gauze might have been left in the body was explained and the patient's consent was obtained. Then, the abdomen was opened again. Gauze with a handle was found in the cavity and was removed. The nurse directly assisting the operation was too busy and was not capable of counting instruments according to the check list, but did not tell that fact to the surgeon and the nurse indirectly assisting the operation. Moreover, arrangements had not been made between the surgeon and the nurses about the procedure to return the gauze used in the operative field.
16	Unknown	After completion of the procedure of pulmonary resection, inside of the thoracic cavity was examined and the number of gauze was counted. It was judged that no foreign bodies were left behind, and the chest was closed. The chest was X-rayed in the supine position before removal of the tracheal tube. An abnormal shadow was observed on the X-ray film, and gauze left behind was identified. The body posture was returned from the supine position to the lateral position, and the chest was opened again. Gauze was found over the diaphragm and removed. Before the first closure of the wound, air leakage occurred. Therefore, a sheet of gauze was used during suture and application of TachoComb (sheet-shaped biological tissue adhesive/closing agent). It was likely that this gauze was lost to verification. At the time of gauze counting, a sheet of normal gauze was found to have been mixed in. Thus, multiple factors caused the gauze to be left behind in the body.

No.	Potential of Residual Disability	Summary of event
17	Low	During resection of a tumor in the knee joint, posterior and anterior approaches were used. Therefore, the tumor was resected from the back in the abdominal position and from the frong in the supine position. Tourniquets were used in the operation, but were released in the middle of the operation because the operation extended over many hours. At that time, gauze was used as stuffing for pressure hemostasis. After completion of the procedures by both posterior and anterior approaches, postoperative X-ray examination was performed for confirmation. As a result, a line of gauze was detected. Since the patient had recovered from anesthesia, the fact was explained to the patient on the spot, and a part of the wound was opened again to extract the gauze. Since the tumor was large and a large cavity was present around the joint, there was a possibility that gauze might be left behind. However, the number of gauze was not counted.
18	Low	A shadow suggestive of large gauze was detected in the thoracic cavity on chest X-ray examination. The number of gauze was counted again, and a sheet of large gauze was found to be missing. The chest was opened again and a sheet of large gauze was extracted. The following factors are considered to lie in the background of this accident: (1) The nurse directly assisting the operation and the nurse indirectly assisting the operation did not share information about the gauze placed in the body and the gauze which was used in the operative field and thus could not be collected. Therefore, the rule that the count should be specified on the white board was not abided by precisely. (2) Although three sheets of gauze were missing in the first gauze counting, the nurse wrongly assumed that the count agreed when the nurse came to know that two sheets were used in the operative field, and the counting was not conducted again. (3) At the time of second gauze counting, the nurse did not confirm the number of gauze aloud, judged that the gauze count was OK, and reported that to the surgeon because no gauze had been exchanged with the operative field. (4) Third gauze counting was not performed.
Medical devices (left behind)		
19	Low	In surgical anastomosis of the coronary artery, a shunt tube for securing blood flow in the peripheral coronary artery was dropped in the cardiac vesicle during the procedure of anastomosing the coronary artery. The surgeon intended to remove the tube after the anastomosing proceudre, but forgot to remove it, and closed the chest while the shunt tube remained in the cardiac vesicle. On the postoperative portable imaging, a foreign body was detected in the body, the chest was opened again, and the shunt tube was collected. Usually, when any foreign bodies, such as gauze, are intentionally left in the body during the operation, the fact is notified to the nurse who plays the role of handing instruments to the surgeon. However, the sugeron did not tell the nurse that a shunt tube dropped in the cardiac vesicle. Moreover, the nurses were changed during the anastomosing procedure. Although the rule was to make a memo of the additional instruments and materials taken out to ensure precise transfer of information between nurses. However, the nurse forgot to record the postoperative count in the memo.
20	None	During the operation, the surgeon closed the wound without noticing that a fish hook was left behind under skin of the cervical region. The nurse pointed out that a fish hook was missing. A part of the wound was opened, and the inside was examined, but the fish hook was not found. Therefore, the surgeon judged that nothing had been left behind. On the postoperative X-ray, the fish hook was detected. The fact was explained to the patient's family, the wound was opened again, and the fish hook was extracted.
Medical devices (breakage/disassembly)		
21	Unknown	When artificial knee joint replacement was completed and postoperative X-ray examination was performed for confirmation, a small shadow was detected in the operative field. The saw blade used in the operation was inspected, and the blade was found to be broken. Since no pieces were identified on fluoroscopy, the wound was opened and the broken piece of the saw blade was searched under direct vision, but the piece was not found. The piece was presumed to have slipped into the bone. It was not considered to have any effects on the body, and the operation was completed.
22	None	Artificial hip joint replacement was completed. A metal piece of the size of about 2 × 6 mm was detected near the hip joint on the X-ray films of the hip joint immediately after the operation. The surgical site was opened again, and the metal piece was extracted. After that, the piece was found to be a piece broken due to metal fatigue of the device used for hammering in the hit joint cup. The device was routinely inspected visually by the supplier.

No.	Potential of Residual Disability	Summary of event
[Until discharge] 41 events		
Gauze, etc.		
23	No choice	On the X-ray films taken two days after the operation, a shadow of a foreign body was detected in the left thoracic cavity, and the shadow was judged to be gauze left behind in the body. The fact was explained to the family, consent was obtained, and a sheet of gauze was surgically extracted. Since the gauze counts before and after the operation agreed, it was not properly recognized during the process of examining for radiopaque gauze on X-ray films immediately after the opertion that the effect of pleural effusion and overlapping with the shadow of the heart may make radiopaque gauze invisible.
24	Low	Colectomy was performed. At the time of closure of the abdomen, there was no gauze left behind in the visible area of the abdominal cavity. The surgeon confirmed with the nurse that there was no discrepancy in the numbers of gauze and surgical instruments, and closed the abdomen. On the X-ray films of the thoracic and abdominal regions obtained on the day after the operation, a foreign body was detected in the abdominal cavity, and it was confirmed to be gauze on CT. Laparotomy was performed under general anesthesia, and gauze (gauze with a strap), which was present near the Doulas' pouch, was extracted.
25	Low	After wound closure in total hysterectomy, the last gauze counting was not conducted. The operation extended for many hours, and the X-ray examination, which was to be performed before wound closure, was not performed. After closure of the peritoneum at the end of the operation, agreement of the gauze count was confirmed and the fascia and the skin were closed. On the following day, gauze left behind under the skin was detected on abdominal CT. Laparotomy was conducted again to extract the gauze.
26	Unknown	Peritonitis was suspected, and emergency surgery was performed. The abdominal wall was extremely thick due to the presence of a large amount of subcutaneous fat, and the appropriate visual field could not be obtained despite the use of wound retractors and other instruments. After agreement of the gauze count was confirmed, the abdomen was closed. Abdominal X-ray examination was performed two days after the operation. The attending physician confirmed movement of intestinal gas, and oral intake of meals was started. The systemic condition was uneventful, but slight fever persisted. Thus, the attending physician and the supervisory physician examined the imaging findings and hematological test findings again four days after the operation. As a result, they noticed a finding suggestive of a foreign body anteriorly to the lumbar vertebra on the abdominal X-ray films obtained on the second postoperative day. Abdominal X-ray examintion and abdominal CT examination were performed immediately, and gauze left behind in the abdominal cavity was diagnosed. On the following day, the foreign body was surgically extracted.
27	Unknown	At the time of closure of the abdomen after formation of colostomy, large Mikulicz gauze (6 sheets) and small gauze (4 sheets) placed in the clean area were counted. The nurse directly assisting the operation reported to the nurse indirectly assisting the operation that 1 sheet of large gauze and 3 sheets of small gaze were present in the clean area. The indirectly assisting nurse confirmed that there were 5 sheets of large gauze and 1 sheet of small gauze in the contaminated area, and confirmed that the total numbers agreed. At the time of suture of the muscle layer, the number of gauze was counted again. Since agreement of the total count was confirmed, the abdomen was closed and the operation was completed. On the following day, abdominal plain X-ray examination was conducted to examine the postoperative course, and a shadow of gauze left behind in the body was detected. The fact was immediately explained to the patient, and a sheet of large Mikulicz gauze was surgically extracted. During the operation, the directly assisting nurse counted the gauze by handing the wire, and did not visually check the gauze. The nurse assumed that a sheet of large gauze was present on the patient's chest.
28	Low	After tumor extraction, instruments, needles and gauze were counted. The surgeon found no problems in observation of the abdominal cavity. After the patient returned to the ward, gauze was detected in the abdominal cavity on postoperative portal X-ray examination. The patient was laparotomized on the same day and a sheet of gauze was extracted. The factors which form the background of the accident are as follows: (1) A sheet of gauze inserted into the abdominal cavity for hemostasis fell out of the body, but it was not visually confirmed. The gauze was assumed to remain inserted, and the number of gauze was counted. Four nurses played the role of handing instruments one after another. (2) Generally, staff members tended to take breaks hastily, and not to wait for the timing of replacement. (3) Time-out was claimed among medical teams and gauze counting was not performed.
29	Low	Since the gauze count agreed, they did not notice that gauze was left behind in the body.

No.	Potential of Residual Disability	Summary of event
30	Low	A radiopaque substance was detected in the abdominal cavity on CT 6 days after coagulation therapy of hepatic cancer. Since there was a possibility that gauze used in the operation remained in the body, emergency surgery was performed.
31	Low	After surgical formation of colostomy, the nurse reported to the surgeon that there was no problem in counting of the number of gauze at the end of the operation, and the surgeon completed the operation. However, gauze left behind in the body was detected on abdominal X-ray examination on the 1st postoperative day. Emergency surgery was performed to extract the gauze left behind in the body.
32	Low	Surgery of the liver was performed. The operation took many hours due to severe adhesion and massive hemorrhage resulting from portal thrombosis. Loss of gauze was not found on gauze counting at the end of the operation, and the abdomen was closed. Moreover, any obvious finding of gauze left behind was not observed on the abdominal plain X-ray films, and the opertion was terminated. On CT on the second postoperative day, gauze was found to be left behind in the right external iliac vein region where the portal graft was collected. On the following day, laparotomy was performed to extract the gauze. The factors which form the background of the accident are as follows: (1) The gauze was narrowly visible but extremely unclear on the abdominal plain film. (2) Since the operation took many hours, the surgeon was not attentive enough. (3) The barium line of the gauze was not clear.
33	Unknown	After partial resection of the small intestine, a towel was inserted to secure the operative field, and a stoma was created via an extraperitoneal route. The instruments for closing the abdomen were prepared and were covered with cloth. At that time point, counting was performed. However, towels might have been mixed with the towels for closing the abdomen. The X-ray after closure of the abdomen showed a towel, but the surgeon in charge overlooked it. A trainee doctor noticed a foreign body, but did not dare to tell that to supervisory doctors. Vital signs were unstable, and the nurses making the rounds were busily coming in and out of the operating room.
34	Unknown	Around the beginning of the operation, the surgeon placed 3 sheets of gauze with a strap over the right dorsal surface of the liver to make detachment of the area around the gallbladder easy. Total gastrectomy and low anterior resection of the rectum were performed. At the time of closure of the abdomen, 2 sheets of the gauze with a strap on the right dorsal surface of the liver were removed but one sheet was left. Since gauze with a strap was also used in hemostasis in other tissues, a total of 9 sheets was believed to have been used in this operation. However, since the nurse in charge of indirect assistance of the operating room did not accurately know the number of the gauze placed in the operative field, there might have been a mistake in the last counting. At a later date, the gauze left behind on the inferior surface of the liver was detected on abdominal CT, and emergency surgery was performed. The factors lying in the background of this accident are as follows: (1) Although the rule was to record the number of gauze in the hemorrhage counting table whenever gauze with a strap was placed in the operative field, but the record was not made properly. (2) Massive hemorrhage occurred during the operation, and staff members were very busy. (3) Since an emergency surgery was being performed, it was impossible to ask for the help of other nurses, and only one nurse was indirectly assisting the operation.
35	None	After partial mastectomy, the irrigation process was started immediately after the tissues were extracted. Before irrigation, Nurse A who was directly assisting the operation counted the number of gauze, but did not record the results in the record form. After that, a drain was inserted into the wound. Nurse A was paying attention to confirming the type of the drain, and was not watching the surgeon's hands. After that, a drain was inserted and the wound was closed successively. Therefore, the nurse did not count the number of gauze before closure of the wound. Moreover, X-ray films for confirmation of the absence of materials left behind in the body were not taken. On the following day, gauze was visualized on postoperative chest X-ray examination. The gauze was left behind under the skin. Factors lying in the background of this accident were as follows: (1) The surgeon did not pause before moving on to the procedure of closing the wound. (2) During the surgeon's work process, the nurse indirectly assisting the operation was also paying attention to other things, and forgot to carry out the last gauze counting. (3) Since the operation did not fall under the categories of laparotomy, thoracotomy, and craniotomy, the rule did not make it mandatory to conduct X-ray examiantion for confirmation of the absence of materials left behind during the operation.

No.	Potential of Residual Disability	Summary of event
36	None	During Caesarean section, the first gauze counting was performed and the incision in the uterus was closed. The rule was to take out 2 sheets of Mikulicz gauze after this process, but the bilateral fallopian tubes were pulled out to perform sterilization operation. At that time, Mikulicz gauze slipped into a space behind the uterus. Before closure of the peritoneum, the second gauze counting was performed and the count was considered OK. The surgeon received the report that the gauze count was OK, and did not confirm it. After that, the nurse directly assisting the operation and the nurse indirectly assisting the operation conducted a third (final) gauze counting. Gauze was counted as 50/50 sheets, and Mikulicz gauze was counted as 2/2 sheets, and the count was recorded as OK. Gauze was counted by visually confirming it, but Mikulicz gauze was counted only by voice. At a later date, Mikulicz gauze was found to be left behind on CT. In other operations, the straps of the Mikulicz gauze are hooked on forceps to prevent it from being left behind in the body. However, forceps were not used to make sure of the baby's safety during Caesarean section.
37	Low	Emergency Hartmann operation and surgical hemostasis of the left internal iliac vein were performed due to massive melena. No problems were detected in the gauze counting at the time of abdominal closure, and the operation was terminated. On abdominal X-ray on the following day, gauze left behind in the body was detected, and was confirmed on CT at a later date. Urgently, the skin immediately below the site of right Penrose insertion was incised by about 2 cm, and the gauze was extracted.
38	None	At the time of abdominal closure, the gauze count disagreed. The abdominal cavity was searched and X-rayed, and nothing was considered to be left behind in the abdominal cavity. On the following day, X-ray examination was performed for re-confirmation, and a finding suggestive of a steel wire of the gauze was observed. It was confirmed on CT, and emergency laparotomy was performed to extract the gauze. The patient weighed over 120 kg, and had quite a large amount of intraperitoneal fat, which became the causes of massive hemorrhage and prolonged operation. While there was a possibility that gauze was hidden by intraperitoneal organs or fat, power of concentration and power of observation is necessary to detect whether anything is missing. Because of the patient's constitution, the conditions for X-ray imaging were poor. Moreover, the shadow suggestive of the steel wire of the gauze was present at a location overlapping with the spinal column, which made detection even more difficult. Because the staff members were in a clean state wearing gown and gloves, the procedure to change the imaging conditons on the display of the personal computer was not conducted during observation.
39	Low	Laparoscopic right nephrectomy was performed. The surgeon checked gauze, and irrigated the wound. Since the irrigation of the wound was started, the nurse with the role of handing instruments counted the gauze aloud, the nurse making the rounds counted the number of used gauze as "zero," and the nurse with the role of handing instruments checked the gauze in the operative field and said "zero" aloud. Gauze was counted aloud. The nurse making the rounds entered OK in the gauze count confirmation table. Gauze counting was performed two more times before wound closure. The subsequent two gauze counts also matched. The nurse with the role of handing instruments reported to the surgeon that the count matched, and the wound closure was completed. Since the gauze count agreed, X-ray examination was not performed. After the operation, the patient showed signs of infection. On the abdominal CT for re-confirmation, a wire-like metal piece was detected in the right pelvis. After reconfirmation on plain abdominal X-ray, the piece was proved to be gauze left behind in the body, and the foreign body in the abdominal cavity was surgically removed.
40	Low	A patient was laparotomized by incision of the para-rectus muscle of the right lower abdominal region, and a sheeth of 7Fr 10 cm long was inserted via the ileal venous branch. At this time point, the surgeon was replaced by a radiologist. The shape of bifurcation was confirmed by portography. After that, the target portal branch was catheterized, and the right portal branch, the branch in the left medial segment, and the caudate branch were embolized with fibrin glue, coil and Histoacryl. After that, the surgeon took his turn again, removed the sheeth, and closed the abdomen. On the following day and two days after the surgery, abdominal plain X-ray films were taken. Gauze was found to be left behind in the abdominal cavity, and surgery was performed again.

No.	Potential of Residual Disability	Summary of event
41	Low	Thoracoscopic resection of the left pulmonary superior lobe and mediastinal lymph node dissection were performed. The absence of gauze left behind in the thoracic cavity was visually confirmed, and the gauze was counted outside of the operative field. The count disagreed by one sheet in the first counting, but the count agreed in the second counting. Thus, the chest was closed and the operation was completed. Like ordinary respiratory surgery, chest X-ray films were taken in the operating room, and more than one physician investigated the presence or absence of foreign bodies, but they did not notice the finding of the gauze left behind. On the following day, chest X-ray films were taken at ICU in the morning, but the finding of the gauze left behind in the body was not obtained easily. At the time of examination in the evening on the same day, gauze left behind in the body was detected for the first time on the chest X-ray films.
42	No disability	The pancreatic tail excision was surgically removed. The patient was severely obese and the surgical operation was difficult. Hemostasis was difficult at several parts during the operation. The operation was performed while concomitantly using compression with tearable gauze. Immediately before wound closure, the surgeon asked "Number and the gauze?" and the answer was "OK." Thus, the wound was closed and the operation was completed. On the following day, postoperative routine portable X-ray exmination of the chest and abodmen was conducted, and a foreign body suggestive of gauze was detected. The fact that gauze was suspected to be left behind in the body was explained to the family, and an agreement to the conduct of re-operation was obtained. The factors lying in the background of this accident are as follows: (1) The surgeon was replaced by another surgeon during the course of operation, and therefore, the focus of the confirming work might not have been constant. (2) The nurse making the rounds was replaced, and continuity of the counting work was interrupted. (3) At the time of takeover of the work, the count was reported to be correct.
43	No disability	Emergency surgical reparation of uterine inversion was performed by laparotomy in the lithotomy position. After the operation, the measures to cope with infection were taken, and DIC therapy was performed simultaneously. However, the patient had intense abdominal pain, and the presence of a foreign body was suspected. X-ray examination was conducted on the 3rd postoperative day. The condition was diagnosed as being caused by a foreign body (gauze) left behind in the body, and laparotomy was performed again. Column-shaped gauze was found in the abdominal cavity, and was extracted. The factors lying in the background of this accident are as follows: (1) The number of column-shaped gauze was not counted. (2) Since the operation was performed as emergency surgery to save life at midnight, the staff was rushed. (3) Since the size of the column-shaped gauze was 23 cm x 8 cm x 6 cm, it was considered unlikely to be left behind in the body, and thus, a manual for counting it had not existed.
44	None	Surgery to produce gastric fistula and intestinal fistula was performed. After the operation, postoperative radiography of the intestinal tract was conducted to confirm the position and functions of the tube, and a linear shadow resembling the line of radiopaque gauze was detected near the site of gastrostomy tube insertion. For the operation, 30 sheets of gauze with radiopaque line (10 sheets are provided in one package), and 2 sheets of Mikulicz gauze were prepared. The anesthesiologist used 3 sheets to clean the tracheal cannula and as gauze placed in the mouth. After detection of this event, infected wastes and burnable wastes containing the gauze, etc. used during the operation were examined, and 29 sheets of gauze with radiopaque line and 2 sheets of Mikulicz gauze were identified. Since the number of gauze with radiopaque line used during the operation was 30, the shadow was diagnosed as gauze left behind in the abdominal cavity. The nurse, who served as an indirect assistant and determined the amount of blood loss during the operation, counted the number of gauze by checking each gauze using two sets of tweezers, and putting 5 sheets each as a pile in a pus basin. The nurse who served as the direct assistant notified to the indirectly assisting nurse at the end of the operation that 7 sheets of unused gauze remain on the instrument table, and asked the nurse to make a final confirmation. The indirect assistant nurse searched the remaining gauze together with the physician in charge of the patient who attended the operation, counted the gauze again, and reported to the surgeon that there were 30 sheets of gauze with line.
Cotton pad, etc.		
45	Low	After total tumorectomy, a small cotton pad for hemostasis was found to be left behind in the intracranial space on head plain X-ray and CT on the following day. Numerous cotton pads are necessary for protection of the brain and hemostasis during the operation, but the pieces were small and difficult to count when mixed with blood. At our hospital, cotton pads other than the extremely small cotton pads of the size of 1 cm square do not have straps for preventing them from being left behind.

No.	Potential of Residual Disability	Summary of event
46	Low	The postoperative course was good. A CT scan performed the next day found the compressed small cotton pad remained intracranially. A reoperation was done immediately. This department requires many small cotton pads (Delikot) for brain protection and hemostasis during procedures. They are difficult to be counted because of their smallness and the fact that they are mixed with blood. In surgeries of this hospital, threads for preventing pads from going missing were not attached except for very small 1 cm-square pads.
47	Low	The postoperative course was uneventful. Three days after the operation, a brain CT found a cotton pad for hemostasis intradurally. It went unnoticed because the differentiation from the clips was difficult in the next day CT scan and the retained cotton was nearby the brain surface and the cranial bone fixing plates.
48	Low	A postoperative brain CT found two Delikot microsheets (about 5 mm-sized), used for the control of hemorrhage during the excision surgery for an arterio-venous (AV) malformation, were left behind in the excision space. After the excision of AV malformation, the hematoma space and its surroundings were inspected under a microscope, but the remainding sheets were not found at that time. Although the resection of the sheets was considered best, hemorrhage was suspected of occuring during the procedure. From a medical viewpoint, preservation of the status quo was determined best. An explanation was given to the family and consent was obtained. Delikot microsheets are originally used with threads for detection, but sheets with cut threads were used because the threads could disturb a deep site operation.
49	None	A brain CT scan and an X-ray after the vascular anastomosis revealed a cerebroprotective sheet (Bemsheet). In some cases, it is intentionally left behind intracranially to wrap an aneurythm in some cases. However, in this case, it was not intentionally left behind and it might react as a foreign body in the future. Based on this consideration, an explanation was given to the family and the cerebroprotective sheet was surgically removed. Usually, cerebroprotective sheets are used without the threads cut for a deep-site operation. Because threads disturb sutures for surgery of brain surface vessels, most protective sheet threads used were cut.
50	No disability	After the excision of an intracranial tumor and hemostasis were completed, Bemsheets were removed and all sheets were identified as having been taken out by visual inspection. In this operation, a total of 200 Bemsheets were used. A direct assistant nurse informed that the number of Bemsheets after the surgery might be fewer than that before. The surgeons checked the surgical site again and indirect assistant nueses to search the operating room. After that, one sheet each was found between the dura and the cerebellum and in the cover sheets around the surgical site, respectively. The dura was sutured after repeated visual inspection of the surgical site. However, the shortage of four Bemsheets were then identified and a brain X-ray was taken in the operating room. One of the four was found in the room and no residual Bemsheets were considered to be left behind intracranially based on the X-ray image. The wound was sutured and the patient was discharged from the room. After the operation, a brain CT was done to check for a hemorrhage and the condition of the tumor excision. Two Bemsheets were revealed suspected of being between the brain stem and the cerebellum. At a later date, a repeated craniotomy was performed to remove the Bemsheets from around the brain stem. During the first operation, the surgeon did not notice that he cut the strings of the Bemsheets at the time of the tumor excision. Therefore, the presence of the Bemsheets was not able to be recognized from the brain surface. The used Bemsheets were radiopaque, but the plain X-ray could not reveal the Bemsheets because of the shooting angles, etc.

No.	Potential of Residual Disability	Summary of event
Medical instruments (retained)		
51	Low	After a total laparoscopic excision of the bladder, a laparotomy was performed under diagnoses of ileus and ureteral stenosis by the gastroenterological and urological surgeons. After the median incision of the lower abdomen, the repair of the ileus and re-anastomosis between the left ureter and the ileum conduit, no hemorrhage or retained items were verified before wound closure. The closure was performed without noticing that the Kocher's forceps was aberrant in the abdominal cavity. A notification that the final count of the instruments did not agree with the initial one from a nurse was not done. The patient recovered from the anesthesia and was transported to the ward. The physician noticed that the foreceps in the abdominal X-ray image. The patient and his/her family received an explanation about the situation. With the patient under general anesthesia, the re-laparotomy was performed and the Kocher was removed. The following were pointed out as potential backgrounds of this situation: (1) During the closing procedure, the insertion of the drain tube done midway after the start of the peritoneum suture interrupted the procedure and the surgeon was distracted from the presence of the forceps used first, (2) The surgeon selfishly assumed that the first used forceps were removed by the assistant, (3) The assistant did not notice that Kocher's forceps that were first used were located on the end of the cephalated portion of the wound, (4) Although the first count of instruments may be sometimes performed during a closing procedure, counting aloud in cooperation between surgeons and nurses was not done, (5) At the first count (during the closure), the actual number of the instruments became unclear because the items were added afterwards.
52	Unknown	Because the surgeons were told that the count of the instruments was OK, they closed the wound without a sufficient check of the number of the instruments or a thorough exploration of the abdominal cavity. After the patient was transported to the ICU, it was noticed that one forceps was missing. An X-ray was taken to reveal the forceps in the abdominal cavity. The patient and his/her familiy received the explanation. With the patient under general anesthesia, it was removed.
53	Low	A coronary bypass surgery, a closure of the left auricle and a mitral valvuloplasty were performed. At the end of the procedure, it was verified that the counts of sponges, needles and instruments were correct and the wound was closed. The nurses mainly counted the items. An X-ray was taken in the operating room and it was determined that there were no retained foreign bodies and the tubes were correctly located. The patient was transported to the ICU. Approximately a half month after the surgery, a coronary angiography was performed. At this time, one needle was found retained in the pericardium. Given the timing of when this needle was used, it might have been left behind during the canulation, the closure of the left atrium, hemostasis of the anterior mediastinum or the wound closure. No needles were lost during the surgery and the needles were handed from the surgeon to the nurse as usual. The X-ray taken in the operating room was reviewed, but the identification of the needle was difficult. A total of six chest X-rays were taken before the discovery of the needle after the surgery. At least 2 radiographs were considered to reveal the finding suspected to be the needle by the later verification. The followings were pointed out as potential backgrounds of this situation: (1) The X-ray taken was of poor quality because it was taken not by a radiological technologist but by a physician (mainly by an intern), (2) A few nurses changed during the surgery and the needles may have not been counted properly at any time point, (3) During the surgery, a total of four direct assistant nurses changed, (4) The sterile bag in which used needles were placed was the same one used through the surgery. The bag was not changed by each change of a direct assistant nurse, (5) Based on the results of the needle count and the X-ray reading, it was determined that there were no retentions, and the physician in charge ignored the small shadow of the needle.
54	None	A chest and abdominal X-rays were taken the next day after a total gastrectomy, and a retained forceps in the abdominal cavity was found by a radiological technologist. The patient and his/her family were informed that a forceps was left behind in the abdominal cavity. Surgery was performed to remove the forceps. The followings were pointed out as potential backgrounds of this situation: (1) A proper count of the instruments was not performed because an action which deviated from the manual for the standard counts of instruments occurred, (2) A direct assistant nurse currently counts instruments. Actually, during the closing procedure, a direct assistant nurse counts instruments while handing them to the surgeon for closing. Therefore, it was difficult to concentrate on counting.

No.	Potential of Residual Disability	Summary of event
55	None	An X-ray taken 11 days after a coronary bypass surgery and aortic valve replacement found a spring-shaped object suspected to be a foregn body in the pericardium. The CT scan the next day revealed that the foreign body was a bulldog forceps and its location was determined. The patient's family received the explanation and consent for the removal surgery was obtained. The removal of the foreign body was performed. Bulldog forceps were used as a weight attached to the opposite side of the suture thread. It was suspected of detaching spontaneously and falling into the pericardium without being noticed. A count of plastic bulldog forceps when closing the wound and at the end of a surgery was not determined to be a duty. The wound was closed without exploring under a suspicion of a missing item. Although an X-ray after surgery may identify a foreign body, it is difficult to be detected without suspision of a foreign body. Therefore, it was detected after more than 10 days passed.
56	Unknown	A right hepatic lobectomy was performed. The final count at the end of the operation did not show any missing items. An abdominal X-ray was taken in the operating room after the operation to detect any foreign bodies in the abdominal cavity, indicating a tubular foreign body about 3 cm in length and about 4 mm in thickness in the left upper abdomen. The physician in charge thought it to be a pancreatic duct stent tube placed in the intestine during the operation one year before and not a retained foreign body in the abdominal cavity. A high fever developed in the early morning of the third hospital day and the central venous catheter was removed. However, fever occurred again in the evening of the same day and an emergency abdominal CT scan was performed to detect the origin of the fever. A tubular foreign body was found in the left upper free abdominal cavity. The tube was removed surgically. The nurse checked the sponges and the other items back to the instrument table from the surgical field, but did not check all the items again at the end of the operation with the circulatory nurses.
57	No disability	An abdominal X-ray after the renal transplantation found a linear shadow near the operative wound. A CT scan revealed a shadow suspected to be a surgical needle in the wound. The number of the needles used and the rest was not counted, and the nurses checked the needles only when handing to a surgeon by their visual inspection.
58	No disability	The shunt tube was unintentionally left behind in the pericardium and the wound was closed during the coronary bypass surgery. A chest X-ray was taken to find a retained foreign body before the patient left the operating room. Although the surgeon noticed an abnormal shadow in the X-ray image, the surgeon thought the abnormal shadow to be pleural calcification and did not compare the film with the previous X-rays because the patient had an obsolete tuberculosis with pleural calcification. A CT scan taken 3 days after the operation found an abnormal shadow in the pericardium and the reoperation was performed 4 days after the operation to remove the retained item. The following were pointed out as potential backgrounds of this situation: (1) The patient underwent the bypass surgery for two vessels disease and three shunt tubes were used. The nurse determined that all tubes were returned after collecting two because the number of shunt tubes used was usually fewer than that of bypasses, (2) The number of the shunt tubes used and collected was not counted.
59	None	An emergency coronary bypass surgery was performed. The number of the clips used was counted during and after the procedure, and an X-ray was taken. However, the clip was found to be missed at the final counting immediately after the patient returned to the room. A repeated X-ray found the clip in the postero-lateral side of the left ventricle. The re-thoracotomy was performed to remove it. The followings were pointed out as potential backgrounds of this situation: (1) The patient required an emergency operation outside surgery hours when there were fewer doctors and nurses, (2) Many instruments were used for cardiovascular operations, (3) Nobody noticed the retained clip before the closure although several persons checked the X-ray image, (4) The count of the clips was not sufficiently performed.
60	No disability	A drain tube was inserted at the end of a total gastrectomy and its location was adjusted in the abdominal cavity. The drain tube was cut and its end was placed outside the abdominal cavity. However, the surgeons and the nurses did not notice it and the drain tube got lost in the abdominal cavity during the closure. An X-ray taken immmdiately after the operation did not show this because of the overlap of the pasted AED paddle. An X-ray fluoroscopy after one week found the retained drain tube in the abdominal cavity.

No.	Potential of Residual Disability	Summary of event
Medical instruments (disassembled or broken)		
61	Low	An extra-short drill was bent and broken during acetabuloplasty using screws in the hip arthroplasty and bone graft procedure. The drill-driver was returned to the manufacturer and the broken pieces were handed from the assistant surgeon to the direct assistant nurse. The nurse placed the pieces beside the bent screw, saying "These are broken pieces" for the manufacturer. The direct assistant nurse noticed that some pieces were not collected while she washed and put the instruments in order after the end of the operation. The nurse searched the trash bags, but did not find the pieces and asked the surgeons whether they might be left behind. An X-ray taken after the end of the operation did not show any retained items. The X-ray after the end of the operation was reviewed the next day and found a shadow the same shape as the pieces under the wound. The broken pieces were then found in the bone marrow. The doctor in charge explained that the pieces were less likely to exibit a bad effect on the patient's body although they were foreign bodies like the artificial bone inserted and a removal procedure might have a greater risk. It was decided that a removal procedure would not be performed. The followings were pointed out as potential backgrounds of this situation: (1) Nobody checked whether the bent broken extra-short drill retained its original form due to a lack of communication, (2) The assistant surgeon handed them to the nurse, saying "These are broken pieces," but did not ask to check whether all pieces were collected, (3) The direct assistant nurse said "These are broken pieces" to the manufacturer when he/she received the pieces and thought that all pieces were collected because the manufacturer did not point out anything, (4) The surgeons concentrated on the operating field and could not afford to check the pieces, (5) The indirect assistant nurse could not pay attention to the pieces because he/she was not notified about them.
62	No disability	A removal of an implant was performed with the patient under local anesthesia. An X-ray after the operation found a radiopaque shadow suspected to be a broken piece of the implant removed or a cutting tool.
Medical instruments (others)		
63	Low	An X-ray was taken after mandibular correction under a ward physician's order. A radiopaque shadow about 3 × 1 mm was found in the edge of the right ramus of the mandible. The patient and his/her family received an explanation that there was a retained foreign body that required reoperation, and they gave consent. The retained item was a metal fragment including a wire.

No.	Potential of Residual Disability	Summary of event
[After discharge] 27 reports		
Gauze, etc.		
64	Low	Aortic valve and ascending aorta replacement was performed. The initial gauze count in the final phase of the operation (before the closure of the pericardium) was OK. But the second count (before the closure of the sternum) was not the same as the first one and the nurse pointed out that one piece of gauze was missing. A chest X-ray was taken and the attending physicians and a radiologist explored it, but could not discover its cause. The postoperative course was uneventful and the patient was followed on an outpatient basis. About 6 months later, the patient visited the outpatient depatment and underwent a chest X-ray (2 direction), which found retained gauze. It was determined that an emergency treatment was not required. The gauze count was thought to be erroneously performed by the nurses during the operation due to the time lag of counting between the nurses and the surgeons. Several surgeons explored the gauze in the chest X-ray image (front view), failing to discover it. The foreign body was difficult to detect because it overlapped the spine. CT scans were performed 5 times before the retained gauze was discovered, but it was not detected. Because the X-ray taken in the operating room did not reveal the missing gauze, retention was denied at that time and information about it was not provided to other people.
65	Low	An X-ray had been taken after lung surgery. The patient underwent the operation of breast cancer about 3 weeks later and was discharged from the hospital 3 months after the operation. An X-ray taken about one year later for regular outpatient check-up found the retained gauze.
66	Low	The patient received chemotherapy during the hospitalization. The patient experienced left flank pain after discharge and an abdominal CT scan showed a great cystic tumor requiring a surgery. The foreign body was found in the throracic cavity during the surgery. It was thought to be a gauze used 10 years ago during the surgery of the lung cancer.
67	Low	An emergency cesarian section was performed 10 years ago. The operation was uneventful and the gauze count was determined to be correct before the closure. A confirmatory X-ray was not performed at this time. The patient experienced low abdominal pain about 2 years ago and visited another hospital. An abdominal X-ray revealed an object suspected of being retained gauze. The patient visited our hospital. The film found an abscess-like tumor and gauze wires in the right lower abdomen. Gauze was discovered in the tumor.
68	High	The patient had been followed by another hospital after the operation and had not visited our hospital for 20 years. Tumors with pain developed in the posterior side of the right thigh and lower leg. Vascular diseases were suspected based on the results of the CT scan. The patient was transported to our hospital. Vascular diseases were denied by a physician of the vascular surgery. A biopsy (right lower leg) performed by orthopedics showed hematoma. The patient was followed on an outpatient basis. The part of the biopsy in the right lower leg was crushed and a large amount of exudate was drained. Incision and debridement was performed. The tumor in the thigh was cut during the procedure and four pieces of gauze were taken out from the medial side of the thigh. The gauze counts and use of gauze with wire was not performed 20 years ago.
69	Low	Gauze suspected of having been left behind during an operation about 6 years before was found. A massive hemorrhage ocurred during the initial operation. The gauze count used during the procedure was not correct.
70	Low	Cholecystectomy and adnexectomy were performed. After a gynecologist performed laparotomy, a surgeon performed cholecystectomy. The excised gallbladder might have been malignant, but a rapid pathological test showed it was benign. The surgeon left the operating room. Hysterectomy was pereformed and the gauze and towels were counted before wound closure. A confirmatory abdominal X-ray was then taken and it was determined that there was no retained gauze. The abdomen wound was closed. Fever and diarrhea continued after the operation. Chest X-rays were performed three times every few days, but the retained gauze was not noticed. A CT scan taken due to abdominal pain and diarrhea after the discharge revealed the retained gauze. It was removed surgically with the use of laparoscopy. The following was pointed out as potential backgrounds of this situation: (1) Two departments performed the operation simultaneously with different diagnosis, (2) The confirmatory X-ray was ordered by the gynecologist and the field for the radiograph was not definitely ordered (the gynecologist did not know the field necessary for post-cholecystectomy), (3) The circulating nurses probably changed during the gauze count, which might have made the count incorrect, (4) The standard of nursing records was not known to all staff and recorded timings differed among nurses.

No.	Potential of Residual Disability	Summary of event
71	Low	A gauze was retained. Radiopaque gauze was used, but an abdominal X-ray was not taken. It was found 14 years after an emergency cesarian section.
72	Low	Excision of abdominal aortic aneurythm/synthetic graft replacement and reconstruction of the inferior mesenterium were performed. A total of four wrapping pieces of gauze without X-ray detectable threads was used for hemostasis. It was confirmed that three were outside and the remaining one was inside of the body before the end of the operation. But no one confirmed that the four was outside the body and the wound was closed. Left flank pain developed 5 months after the operation and a tumor formation was noticed. An emergency laparotomy was performed under the diagnosis of intussusception of the small intestine. The remaining wrapping gauze without X-ray detectable threads, as well as perforation and adhesion of the small intestine were observed. Excision and re-anastomosis of the small intestine was performed.
73	Low	Pacemaker implantation was performed. Debridement was performed due to wound infection in the operating room after 3 months. The wound was opened for the removal of the ICD and one piece of gauze wrapped with tissue adhered to the pocket where the ICD was inserted.
74	Unknown	The patient underwent total prostatectomy 7 years ago. A tumor was found in the pelvis by a CT scan later and was determined to be an inflammatory one. It was followed by blood tests and CT scans. Although the patient had no subjective symptoms, the tumor in the pelvis became larger. Recurrence, impaired blood circulation, collection of lymphatic fluid or retained gauze were suspected. For these reasons, the tumor was excised. As a result, a foreign body (gauze fibers) retained during the previous operation were found and removed. The preventive measures for retained items during operations were not sufficient during the previous operation. Much gauze was used due to a massive hemorrhage.
75	Low	A lumbar operation was performed at another hospital 28 years ago. An MRI was performed for pain in the left leg, revealing a tumor near L5. The operation was performed at our hospital. The tumor was incised during the operation and the object contained in the tumor was gauze.
76	Low	Anterior cervical arthrodesis was performed 11 years ago. A bone graft was taken from the right ilium. Afterward, the patient experienced tenderness of the right ilium and fever and was admitted to hospital. Administration of antibiotics failed to improve the condition. An operation of the right ilium was performed with the patient under general anesthesia. The pus and the gauze used in the previous operation were taken out. The patient and his/her family received explanations immediately after the end of the operation. A gauze count was not performed for neurosurgeries.
77	Low	Retained gauze was found during the operation of extradural (subcutaneous) abscess and removed. It was probably left behind during the several repeated craniotomies for multiple brain tumors.
78	Low	The patient underwent pacemaker implantation with a good recovery after the operation and was discharged from the hospital. Afterwards, hemorrhage occurred from the wound and wound infection was suspected, resulting in the patient's hospitalization. The patient showed no worse clinical course and was discharged from the hospital after improvement of the swelling of the pocket. Several days later, swelling of the pacemaker pocket developed and hepatoma was noticed and punctured. The patient was treated with oral antibiotics and followed up. The patient was scheduled to be admitted to hospital and underwent an incision of the wound after one month. However, the patient was considered to have no active hemorrhage and to be followed up because swelling did not occur again. About 5 months later, the pocket showed a swelling tendency again and the wound was incised. The bloody contents were drained out. The gauze used during the previous operation remained in the pocket.
79	Low	The patient had pain in the hip and knee joint and visited another hospital. An X-ray revealed a foreign body suspected to be gauze in the pelvis. Based on the results of the ultrasonography, it was determined to be gauze used during the abdominal hysterectomy 30 years ago. Although X-ray detectable gauze was used during the operation, identification including a confirmatory X-ray was neglected.

No.	Potential of Residual Disability	Summary of event
80	Unknown	A bone fragment was taken from the left ilium during the operation of the left knee 17 years ago. When the patient was hospitalized for another operation, swelling and pain of the left ilium increased. The removal of the left ilium hematoma and excision of the pseudomembrane was performed. During this time, part of the fibers suspected of being gauze was taken out from the bone marrow of the ilium. The retention of the gauze was not identified from the operation record or the medical chart 17 years ago. At that time, the X-ray detectable routine gauze currently used began to be introduced and both gauze with and without X-ray detectable lines were used depending on the kind of surgery. Surgery of the ilium was included in the category of "counter measures for situations in which the need need for counting is difficult to determine." Counting was decided after consulting doctors based on the judgement of the area and depth of the operating field. Gauze with radiopaque lines were used when counting was performed.
81	None	Excision of the maxillary bone cyst was performed with the patient under general anesthesia. A tampon (3 × 30 cm) used for hemostasis during the operation was left behind. It was found and taken out during the incision and pus was drained at the general dental clinic that referred the patient to the hospital.
82	None	Splenectomy, cholecystectomy and partial excision of the liver were performed. Patterned gauze (with lead lines) attaching weights (for prevention of being left behind) were inserted into the right and the back side of the liver and the gallbladder was placed in the center of the operating field during cholecystectomy. This time, patterned gauze without weights were used. The whole abdominal cavity was washed after cholecystectomy and partial excision of the liver. The surgeon and the assistant confirmed that there were no hemorrhage, bilious leakage or retained gauze and instruments in the abdominal cavity by visual inspection and searching with hands before the closure. They were also informed that the gauze count and instruments used before and after the procedure were the same by direct and indirect assistant nurses. They determined that there were no retained items including gauze and closed the wound. A chest and abdominal X-ray was taken after the closure. They did not notice the retained gauze because they focused on the location of the drain and the diaphragm elevation considering the patient's body size while reading the X-ray. They did not notice the retention although abdominal X-rays were taken several times during the postoperative course. Fever occasionally developed after the operation, but the inflammatory markers were reduced over time. They thought that fever was due to the excision of the spleen and administered antipyretics. The patient experienced high fever after being tranported to another hospital. Abscess in the abdominal cavity was suspected and an abdominal CT scan was performed. An object suspected to be a foreign body was found in the back of the liver. The patient was immediately transferred back to our hospital. The family received an explanation from our department. An emergency operation was performed to remove the foreign body. The object taken out was a patterned gauze. The abdominal X-rays after the operation showed the gauze. It was not noticed because they mainly explored postoperative complications such as intestine obstruction. In patients with hepatic cirrhosis, the accumulation of pleural effusion and ascites commonly occurs after excision of the liver, and postoperative fever generally develops after excision of the spleen. Therefore, both symptoms did not lead to a suspicion of retained gauze.
83	Low	After arthroscopic manipulation and nail extraction were performed, the patient was discharged from the hospital and received outpatient rehabilitation. Redness, pain and tenderness developed in the medial side of the left upper arm. An emergency MRI was performed. The pateient had accumulation of pus in the medial side of the left upper arm and underwent an operation. The pus was drained after the subcutaneous tissue was detached and one piece of retained gauze was found at the back. Radiopaque gauze are used for the insides of wounds, but ordinary gauze for sterilization were used during the operation, which may have been attributable to the retention. Two kinds of gauze were placed on the instrument table.
84	No disability	The patient underwent hysterectomy at our hospital 17 years ago and had good clinical course. An X-ray taken at another hospital the year before last found a retained gauze. Gauze with a marker were already used in the operation. However, a confirmatory X-ray was not performed when the gauze count was determined to be correct.
85	None	The patient had a subjective symptom of lower abdominal pain. The symptom was due to a gauze with wires retained during the operation 20 years before. The foreign body in the abdominal cavity was removed and determined to be gauze.

No.	Potential of Residual Disability	Summary of event
86	None	A laparoscopic operation of gallbladder cancer was performed. The fluid collection attributable to the foreign body was found under the right side of the diaphragm in the CT scan taken at outpatient visit about 6 months later. The retained gauze was identified. It was removed surgically with laparoscopy after a certain period of observation. A postoperative X-ray was read, but it was uncertain who did it because there was no confirmatory signature. Gauze count was performed, but the towel gauze count was not recorded.
Cotton fragments, etc.		
87	Low	Excision of brain tumor was performed. The postoperative course was uneventful and a head MRI before discharge showed no definite abnormal findings. The patient was discharged from the hospital. When the patient visited the outpatient department, circulation disorder of the cerebrospinal fluid and swelling of the brain were found in the head CT scan and the patient was admitted to the hospital. Based on the results of the head MRI after re-hospitalization, circulation disorder of the cerebrospinal fluid was considered to be caused by adhesion from an unknown reason occurring in the excision part of the brain tumor. Steroids were administered, but the disorder did not improve. Thus, re-craniotomy was scheduled to remove the intracranial adhesion and explore the reasons. A surgical cotton fragment (about 1 cm in diameter, with threads) containing granulated tissue was identified in the left cerebral ventricle, the previous lesion, during the re-craniotomy. The circulation of the cerebrospinal fluid was improved after it was removed. The patient and his/her family received explanations after the operation. The surgical cotton fragments that caused this were different from gauze used in general surgical operations. Since they were smaller and the number of them used was greater than general gauze, counts of them before and after operations were likely to be incorrect. Surgical cotton fragments have threads (a few cm) not to be missed in a narrow operating field. The threads of the cotton fragment found during the re-operation was cut partially. For this reason, it was retained in a blind spot of the operating field during the procedure.
Medical instruments (retained)		
88	Low	Evolution of brain tumor was surgically removed. The patient underwent an operation for gastric cancer last year. Radical treatment was determined to be difficult based on the findings of laparotomy. An intestinal fisutula was constructed for post-operative nutrition supply. The patient complained of low back pain after one year and visited orthopedics. A pelvic X-ray pointed out a foreign body. One needle used during the operation was found to be left behind in the abdominal cavity.
Medical instruments (broken or disassembled)		
89	No disability	The patient had undergone operations for anal fistula at our and another hospital starting 20 years ago. The patient had micturition pain and visited the urologic department. A urinary tract X-ray with contrast medium found a foreign body and a pelvic CT scan was performed. The CT scan revealed that it was in the wall of the rectum. It was removed with a transanal excision procedure. It was made of metal and thought to be the broken tip of a surgical needle. It was uncertain in which operation it was left behind.
Medical instruments (others)		
90	Unknown	The attending physician ordered an X-ray 3 days after a jaw correction operation. A small opaque shadow was found but not identified what it was. The patient was discharged from the hospital later. A confirmatory X-ray taken after about 3 weeks revealed an opaque shadow larger than the one found in the previors X-ray, and it was determined to be investigated. The patient's consent was obtained and it was removed surgically on the same day. A small fragment of wire was found to have been left behind under the oral mucosa. The cutting method for the ligated wire was problematic during fixation with the wire of the mandibular bone fragment, and confirmation of possible retained items including wires was insufficient during the closure.

No.	Potential of Residual Disability	Summary of event
[Unknown] 2 reports		
Cotton fragments and towels, etc.		
91	Low	Cotton measuring 7 mm × 8 mm was left behind in the excised space of the brain tumor. Two surgeons confirmed that there were no retained items after the excision of the brain tumor. The actual site where it was retained was on the back side of the brain, a blind point for the two surgeons. Although the site should be explored before wound closure, the exploration was omitted because damage of the brain and hemorrhage could occur if the back of the brain was operated more than was needed.
Medical instruments (broken or disassembled)		
92	Low	Laminoplasty was performed for the prevention of worsening symptoms of cervical spondylosis. The follow-up image found the tip, a couple millimeters in length of a drill in the vertebral arch. The tip of the drill was thought to be broken during the procedure and remained in the vertebral arch. The risk of excision of the retained foreign body is low and its removal is planned in the future.

Fig. III-2-15 Type of Surgery in That Retention of Foreign Body Occurred: 15th Report

	October to December 31, 2004	January 1 to December 31, 2005	January 1 to December 31, 2006	January 1 to December 31, 2007	January 1 to September 30, 2008	Total
Craniotomy	0	0	5	3	3	11
Thoracotomy	3	3	7	0	0	13
Cardiotomy	1	5	3	2	1	12
Laparotomy	2	4	15	9	12	42
Extrimities	1	3	5	3	2	14
Endoscopic surgery	2	1	1	0	4	8
Others	1	6	2	11	2	22
Unknown	0	0	2	0	0	2
Total	10	22	40	28	24	124

Fig. III-2-16 Type of Foreign Body Retained: 15th Report

	October to December 31, 2004	January 1 to December 31, 2005	January 1 to December 31, 2006	January 1 to December 31, 2007	January 1 to September 30, 2008	Total
Gauze	3	9	26	15	15	68
Cotton ball, etc.	0	0	5	2	3	10
Suture needle	3	4	1	3	1	12
Forceps	1	1	3	2	0	7
Scalpel	0	0	0	0	1	1
Tube	0	1	1	1	1	4
Others	3	7	4	5	3	22
Total	10	22	40	28	24	124

Fig. III-2-17 Situation in that Retention of Foreign Body is Discovered: 15th Report

	October to December 31, 2004	January 1 to December 31, 2005	January 1 to December 31, 2006	January 1 to December 31, 2007	January 1 to September 30, 2008	Total
During surgery	0	2	5	3	5	15
Before discharge from an operating room	0	1	6	2	1	10
Before discharge from a hospital	6	15	19	11	11	62
After discharge from a hospital	4	4	9	11	7	35
Unknown	0	0	1	1	0	2
Total	10	22	40	28	24	124

Fig. III-2-18 (1) Details of Retained Foreign Body in Surgery: 15th Report

	Gauze		Cotton ball		Suture needle		Forceps	
	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008
Retained	12	56	0	10	6	4	2	4
Broken/ Disassembled	0	0	0	0	1	1	0	1
Others	0	0	0	0	0	0	0	0
Total	12	56	0	10	7	5	2	5

Fig. III-2-19 (2) Details of Retained Foreign Body in Surgery: 15th Report

	Gauze		Cotton ball		Suture needle		Forceps	
	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008
During surgery/incision	0	6	0	2	1	0	0	0
Before discharge from an operating room	0	5	0	0	0	1	0	1
Before discharge from a hospital	6	22	0	6	4	2	2	2
After discharge from a hospital	6	23	0	1	2	2	0	2
Unknown	0	0	0	1	0	0	0	0
Total	12	56	0	10	7	5	2	5

Fig. III-2-20 Type of Surgery and Details of Foreign Body Retained: 15th Report

	Gauze		Cotton ball		Suture needle		Forceps	
	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008
Craniotomy	0	1	0	9	0	0	0	1
Thoracotomy	2	6	0	1	1	0	2	0
Cardiotomy	0	1	0	0	4	1	0	1
Laparotomy	4	30	0	0	1	2	0	2
Extrimities	3	5	0	0	0	0	0	0
Endoscopic surgery	1	3	0	0	1	0	0	1
Others	2	8	0	0	0	2	0	0
Unknown	0	2	0	0	0	0	0	0
Total	12	56	0	10	7	5	2	5

Fig. III-2-21 Reason of Discovery for Retained Foreign Bodies in Surgery: 15th Report

	Count		X-ray, CT scan		Occurrence of symptom		Others	
	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008
During surgery/incision	0	6	0	3	0	0	2	4
Before discharge from an operating room	0	1	1	8	0	0	0	0
Before discharge from a hospital	3	2	15	36	1	1	2	1
After discharge from a hospital	0	0	2	9	2	16	4	0
Unknown	0	0	0	0	0	0	0	0
Total	3	9	18	56	3	17	8	5

Scalpel		Tube		Others		Subtotal		Total
October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	
0	0	1	3	7	3	28	80	108
0	1	0	0	3	7	4	10	14
0	0	0	0	0	2	0	2	2
0	1	1	3	10	12	32	92	124

Scalpel		Tube		Others		Subtotal		Total
October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	
0	1	0	0	1	3	2	13	15
0	0	0	1	1	2	1	9	10
0	0	1	2	8	5	21	41	62
0	0	0	0	0	2	8	28	36
0	0	0	0	0	0	0	1	1
0	1	1	3	10	12	32	92	124

Scalpel		Tube		Others		Subtotal		Total
October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	
0	0	0	0	0	0	0	11	11
0	0	0	0	1	0	6	7	13
0	0	1	1	1	2	6	6	12
0	0	0	2	1	0	6	36	42
0	0	0	0	1	5	4	10	14
0	1	0	0	1	0	3	5	8
0	0	0	0	5	5	7	15	22
0	0	0	0	0	0	0	2	2
0	1	1	3	10	12	32	92	124

Unknown		Subtotal		Total
October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	October 2004 to December 31, 2005	January 1, 2006 to September 30, 2008	
0	0	2	13	15
0	0	1	9	10
0	1	21	41	62
0	2	8	27	35
0	2	0	2	2
0	5	32	92	124

Fig. III-2-22 Occurrence of Medical Near-Miss Incident Related to Retention of Foreign Body: 27th to 28th Reports

	Gauze	Cotton ball	Suture needle	Forceps	Scalpel	Tube	Others	Unknown	Total
Craniotomy	0	5	1	0	0	0	2	0	8
Thoracotomy	2	1	0	0	0	0	2	0	5
Cardiotomy	2	0	3	0	0	0	0	0	5
Laparotomy	22	3	10	5	0	1	2	1	44
Extremities	7	0	1	0	1	1	4	0	14
Endoscopic surgery	3	0	1	1	0	0	1	0	6
Others	9	2	5	0	0	1	3	0	20
Unknown	8	2	6	3	0	0	4	0	23
Total	53	13	27	9	1	3	18	1	125

Fig. III-2-23 Places Where a Missing Item of Medical Near-Miss Incident was Discovered (Note): 27th to 28th Reports

	Gauze	Cotton ball	Suture needle	Forceps	Others	Unknown	Total
Around operating field	1	0	2	0	0	0	3
Instrument table	1	0	0	0	0	0	1
Trash box	5	1	1	0	1	0	8
Floor	0	0	7	0	0	0	7
Around patient	3	1	0	0	0	0	4
outside a room	0	0	0	1	0	1	2
Total	10	2	10	1	1	1	25

(Note) This table shows 25 events in which medical items were discovered from places other than a patient's wound among all events reported.

[7] Medical Adverse Events Related to Hospital Room Equipment including beds

Among the medical adverse events reported between January 1 and December 31, 2008, the events for which the code "nursing care" and the code "the others" had been selected from the code information of "summary of event" or the other ones considered to be related to hospital room equipment including beds were extracted. Hospital room equipment was limited to "bed and bed rail," "bedside cabinet," "overbed table" and "nurse call" and analysis of them was performed.

(1) Details of medical adverse events related to hospital room equipment including beds

Details of medical adverse events related to hospital room equipment including beds reported between January 1 and December 31, 2008 were summarized in Table III-2-24. The events were classified into "bed and bed rail," "bedside cabinet," "overbed table" and "nurse call" (Fig. III-2-25).

A. Bed and bed rail

Five events related to beds and bed rails were reported. The heads of the patients were stuck in the space between a bed and a bed rail in two cases. The fingers of the patients were pinched in a lever handle of a bed rail in two cases. The face of the patient was covered with a mat fitted to a bed rail for prevention of injury in one case.

B. Bedside cabinet

No events were related to bedside cabinets.

C. Overbed table

Two events were related to overbed tables. The patients tried to move using an overbed table as a support and the table moved, in both cases resulting in the patient falling.

D. Nurse call

No events were related to nurse calls.

(2) Details of medical near-miss incidents related to hospital room equipment including beds

Medical near-miss incidents related to hospital room equipment occurring in 2008 and included in the 29th (June to September, 2008), the 30th (October to December, 2008) reports were analyzed.

As with medical adverse events, details of medical near-miss incidents were classified into "bed and bed rail," "bedside cabinet," "overbed table" and "nurse call" (Fig. III-2-26).

<Note>

A total of 12 medical adverse events related to hospital room equipment including beds reported between January 1, 2006 and December 31, 2007 are shown in Fig. III-2-27.

Fig. III-2-24 Summary of Medical Adverse Events Related to Hospital Room Equipment Including Beds: 16th Report

No.	Potential of Residual Disability	Summary of event
Bed and Bed rail		
1	None	Hearing the patient's scream, a nurse went to the room to find that the patient had her right 5th finger pinched in the stopper of the separate-type bed rail lever (right side) set in the direction of the patient's feet. The lever was opened immediately. The patient had a hemorrhage due to the laceration at the top of the finger. When the patient tried to stand up from the portable toilet holding the bed rail, the patient's right 5th finger was pinched in the stopper and the bed rail rose. A fracture of the right 5th distal phalanx was diagnosed based on the result of an X-ray the next day.
2	Death	A patient with Parkinson disease had difficulty in oral intake and gastrostomy was constructed. The patient received oral medicines and rehabilitaion therapy. The patient had been confined to bed, but was enable to remain in the sitting position. When the nurse went to the room, the patient already fell asleep. After about one hour, when the nurse went to the room again, the patient had his/her neck on the side stuck between the poles of the bed rail and was in a state of cardiopulmonary arrest.
3	None	The patient with cerebral palsy frequently bumped against the bed rail when moving. So the bed rail was fitted with a mat for prevention of injury. The patient, having thrown back his/her body was found to have stopped breathing with his/her face in the bed rail mat. Resuscitation was immediately applied, his/her respiration appeared and his/her consciousness recovered as before. A protective item of bed rails was changed to foaming polystyrol mat and a therpy mat.
4	No disability	Hearing a voice calling "Nurse." and going to the room, the nurse found that the patient holding the bed rail with his/her hand had his/her right 5th finger pinched in the lever of the bed rail. When he/she stood up his/her upper body holding the bed rail with his/her right hand, the 5th finger was pinched in the space of the bed rail lever and would not come out.
5	No disability	Hearing the cough of a patient with consciousness disorder, the nurse went to the room and found that the patient had his/her head stuck between the bed rail poles. One bed rail pole nearly came off. The used bed rails had different heights of poles and the safety bar was not set.
Overbed table		
6	Low	When a patient with stable full ambulation stood up from the bed and put both his/her hands on the overbed table, the overbed table moved and the patient fell on his back hitting his/her buttocks and thighs.
7	None	A patient used a walking frame in the daytime and a portable toilet at night. When the patient went to the portable toilet holding the overbed table, the table moved and the patient promptly held the walking frame. The walking frame also moved and the patient fell. The patient was instructed to stand up using an assistant bar and usually did as instructed. However, the overbed table and the walking frame was placed in reach and the patient held them.

Fig. III-2-25 Type of Medical Adverse Events Related to Hospital Room Equipment Including Beds: 16th Report

Type	January 1, 2006 to December 30, 2007(Note)	Tuesday, January 01, 2008 to December 31, 2008
Bed and bed rail	9	5
Overbed table	2	2
Bedside cabinet	0	0
Nurse call	1	0
Total	12	7

(Note) Listed as reference

Fig. III-2-26 Type of Medical Near-Miss Incidents Related to Hospital Room Equipment Including Beds: 29th to 30th Reports

Type	Number of event
Bed and bed rail	60
Overbed table	33
Bedside cabinet	14
Nurse call	6
Total	113

<Note>

Fig. III-2-27 Summary of Medical Adverse Events Related to Hospital Room Equipment Including Beds

January 1, 2006 to December 31, 2007

No.	Potential of Residual Disability	Summary of event
Bed and bed rail		
1	Unknown	Because the bed rail was not locked after a patient's diaper was changed, the bed rail opened and the patient himself/herself moved. At that time, the patient hit the front head on the bed rail to have laceration.
2	Death	A patient was admitted to a private room of the open ward of the psychiatric department. When the nurse went to the room in the morning, the patient was found in a state of cardiopulmonary arrest, had the towel bound to the bed rail wound tightly around his/her neck with his/her legs streched out on the floor. Cardiopulmonary resuscitation was performed, but the patient died. The police conducted a coroner's examination and interviews and determined that no criminality was found.
3	Low	When a patient tried to go down from the bed leaning on the bed rail, the rail moved down and the patient had his/her right hand strongly hit the floor and it was broken. It was supposed that the bed rail was loosely fixed.
4	Low	When a patient tried to see outside and set the position of the electrical bed highest, the position suddenly moved down to the lowest and the patient hit his/her lower back. When the nurse saw the bed, it was at the lowest position. The bed was immediately changed. The broken bed was checked and it was found that the back section could move but the whole bed did not move up and down even with the sound of a working motor.
5	Low	A patient was admitted to the isolation ward because the patient's speech and behavior had shown suicidal thoughts before hospitalization. The patient was seen lying in bed after meeting his/her family. Thirty minutes after that, the patient was found to have the bath towel bound to the bed rail wound around his/her neck.
6	Unknown	Since a child with severe psychomotor disability got cranky and cried, the care provider held him/her and watched him/her at the bedside. Twenty minutes after leaving the bedside for other affairs, the care provider went to the room noticing that no voice was heard and found the patient unconscious with his/her face in the blanket covering the bed rail to protect the patient from bumping himself/herself. The patient immediately received airway maintenance and aspiration and his/her respiration and consciouness rapidly recovered.
7	High	After admission, a patient had alcohol withdrawal symptoms and received physical restraint to prevent falling. The care provider saw that the patient lay in bed on the his back clapping his/her hands and took care of the other patient in the same room. About 20 minutes later, the care provider found that the patient had his/her neck stuck in the space between the bed rail poles. The patient had a congested face and stopped breathing with an undectactable pulse of the carotid artery. Intra-tracheal intubation was performed by a physician. Spontaneous respiration recovered after a few minutes and the patient was tranported to the ICU.
8	Death	A patient could not convey his/her will due to dementia and his movements were extreme. The back section of the bed was tilted at a 60-degree angle and tube-feeding was started. Fifteen minutes after the last observation, the patient was checked because no sound was heard. The patient was found to be in a state of cardiopulmonary arrest with his/her neck stuck between the two poles of the left bed rail.
9	None	A patient had an earphone cord around his neck with the ear buds fixed to both bedrails. The earphones were connected to the TV on his left. He forgot about the earphones when he raised the electrical bed and was tangled with the earphone cord. The other patient in the next bed called the nurse station, saying "The patient in the next bed is noisy." The nurse found the patient had turned pale. The patient was treated and regained consciousness.
Overbed table		
10	Low	When a patient tried to move to the portable toilet from the bed for urination, the patient put his/her hand on the overbed table and the table moved. The patient lost his/her balance and fell.

No.	Potential of Residual Disability	Summary of event
11	Low	A patient stood up to go to the toilet. The patient fell because the patient leaned on to the overbed table to support himself/herself. The patient had lacerations in his/her posterior head which required suture with three stiches.
Nurse call		
12	Death	The nurse on the night duty round found that a patient with depressive tendencies was in respiratory arrest, sitting on the bed with the back section at 90 degrees, and had the cord of the nurse call wound around his/her neck. Immediately life supportive treatment was provided but did not work, and the patient's death was confirmed.

[8] Database of Medical Near-Miss Incidents

The Committee for Preparing the Database of Medical Near-Miss Incidents has been reviewing events to be widely shared to enhance medical safety, primarily those considered as warnings and reported by medical institutions. The database of medical near-miss incidents, including incidents selected from those reported in the 27th - 29th reports in 2008, is now available together with information categorized according to the general codes (Fig. III-2-28).

Fig. III-2-28 Database of Medical Near-Miss Incidents

		Date	Incident No. and number of incidents included
27th	14th report	January to March	21 incidents selected from Incident No. 27-1 to No. 27-916
28th	15th report	April to June	23 incidents selected from Incident No. 28-1 to No. 28-2757
29th	16th report	July to September	19 incidents selected from Incident No. 29-1 to No. 29-1873

3 Medical Adverse Event Information to Be Shared

[1] "Medical Adverse Event Information to Be Shared"

In the process of individual review by Expert Analysis Groups of medical adverse events reported by participating medical institutions in 2008, a decision was made to publish event summaries that should be widely shared. The event summaries are shown in Fig. III-3-1.

Fig. III-3-1 Medical Adverse Event Information to Be Shared

Summary	Details	Periodic report
Drug	An event related to interruption of drug delivery was reported. During drug delivery, the nurse received a nurse call and answered it. At that time, the nurse placed the oral-dose drug for Patient B on the table for Patient A having called the nurse. Patient A later asked another nurse whether or not the oral-dose drug on the table should be taken. The nurse helped the patient take the drug without checking the dosing instruction for this patient. One hour later, a family member of Patient A noticed that there was a vacant oral-dose drug pack intended for use by Patient A. (See No. 60 in Fig. III-2-1, page 199 for details.) (KY020001)	14th
Drug	Events related to drug expiration date were reported. 1) Novolin N, delivered from the pharmacy, was checked by the nurse and the patient and was then injected subcutaneously. On the following day, the drug was administered again in the same way but, after the dose, the patient said: "The expiration date for Novolin N is already over." It was then confirmed that the expiration date for the drug was April 2007. (See No. 78 in Fig. III-2-1, page 204 for details.) (KY020002)	14th
	2) When the clinical trial plan was submitted to the regulatory authority, treatment with the test drug was scheduled to begin in March. However, the drug with an expiration date which was the end of February was delivered. (See No. 76 in Fig. III-2-1, page 203 for details.) (KY020003)	14th
	3) To return the unused influenza vaccines for the year 2007 to the wholesaler, the pharmacy checked the lot number of the vaccines in stock. When the relevant log numbers were reported to the wholesaler, it was found that some vaccines carried the lot numbers for 2006. The medical records for individuals having received the influenza vaccine were then checked to find that seven individuals had received the vaccine designed for use during 2006. (See No. 95 in Fig. III-2-1, page 207 for details.) (KY020004)	15th
Drug	An event releated to a contraindicated drug was reported. A child with pneumonia received four days of drip infusion of an antibiotic Meropen. He child was later discharged from the hospital but developed intense unrest on the following day and consulted another medical facility. The child's family was given an explanation by the physician at that facility: "Use of Meropen during treatment with an antiepileptic probably reduced blood valproic acid level, leading to symptoms of unrest." Our subsequent check revealed that drip infusion of Meropen had been performed on the patient despite ongoing oral intake of the previously prescribed antiepileptic which the patient had carried into our hospital. (See No. 110 in Fig. III-2-1, page 209 for details.) (KY020005)	16th

Summary	Details	Periodic report
Drug	An event involving use of a wrong drug placed into a syringe was reported. When taking heparinated physiological saline from the drug refrigerator, a nurse erroneously took out Bisolvon (stock solution for inhalation) prepared for use with a nebulizer for another patient. The nurse injected it intravenously via the peripheral vein into this wrong patient. At that ward, drugs for intravenous injection had been stored in the refrigerator accommodating topical-dose drugs as well. (See No. 19 in Fig. III-2-1, page 221 for details.) (KY020006)	16th
Drug	Events involving use of diluted drugs at wrong dose levels were reported. 1) A printed dosing instruction on Denosine was issued, stating: "Denosine (500 mg), 1 vial, is dissolved with 20 mL of water for injection. 5 mL=75 mg of this solution is combined with 100 mL saline and administered by drip infusion at a rate of 100 mL/h (the correct equation should be 3 mL=75 mg). The nurse combined 5 mL (125 mg) with saline, resulting in an overdose. (See No. 37 in Fig. III-2-1, page 195 for details.) (KY020007)	16th
	2) A dosing instruction was issued, stating that Prograf (5 mg = 1 mL) is combined with saline to a total volume of 10 mL. Of this solution, 0.5 mL (0.25 mg) is combined with 100 mL saline and administered at a rate of 2 mL/h. Then, the attending physician intended to give instructions for a dose of 0.3 mL (0.15 mg) of 1:10 diluted Prograf after being combined with 100 mL saline, but erroneously entered "Prograf 0.15 mg = 0.3 mL to be combined with 100 mL saline for administration." The nurse receiving this instruction combined 0.3 mL (=1.5 mg) of stock Prograf solution with saline and administered the mixture to the patient. (See No. 38 in Fig. III-2-1, page 195 for details.) (KY020008)	16th
	3) The physician gave instructions, stating that 50 mg (5 mL) is to be taken out from Olives 1% 200 ML (dilution type lidocaine 2000 mg), followed by administration of Olives 1% 50 mg for Drip Infusion + 5% glucose 50 mL in 30 minutes. The nurse, however, prepared Olives 1% 200 mL for Drip Infusion + 5% glucose 50 mL and administered it to the patient. When ordering the drug, the patient erroneously thought that Olives 1% 200 mL for Drip Infusion contained 50 mg lidocaine. (See No. 41 in Fig. III-2-1, page 196 for details.) (KY020009)	16th
Treatment/ procedure	An event invovling wrong identification of patient at physician's office was reported. At an outpatient critical care unit, the full name of Patient A, visiting the office on a holiday to receive an injeciton, was called by the nurse. Patient B responded to that call and entered the office. Neither the physician nor the nurse noticed the entery of the wrong patient. Usually, identification of the patient is confirmed by asking the patient to speak his/her name when entering the physician's office. This time, the step had been skipped.(KY020010)	13th

Summary	Details	Periodic report
Treatment/ procedure	Events involving gauze remaining in the body after surgery, respite gauze counting at the end of operation, were reported. 1) During laparoscopic nephrectomy, the surgeon checked the remaining number of gauze pieces and then cleaned the wound. The nurse conducted gauze counting twice before wound closure and reported the counts to the surgeon. The physician skipped postoperative radiography because the gauze count was acceptable. No one noticed any abnormality on CT scans conducted 2 days after surgery. Because of symptoms such as fever, CT scans were taken again on the 3rd postoperative day, revealing gauze on the small bowel serosa. (KY020011)	14th
	2) The abdomen was opened with incision of the rectus abdominis muscle in the hypogastric region. After final gauze counting and checking with fluoroscopy, the abdomen was closed. No abnormality was noted on the X-ray taken on the following day, but remaining gauze was detected on the X-ray taken two days after surgery. The gauze was removed by re-operation. (KY020012)	14th
	3) After left pneumonectomy, the operative field was checked and the gauze count was confirmed to be acceptable. So, the chest was closed. X-ray was taken within the operating room and was checked by multiple physicians. No one noticed any remaining gauze. On the following day, X-ray taken at ICU revealed gauze. It was removed by re-operation. (KY020013)	14th
	4) Immediately before resection of the pancreatic body and tail, the surgeon "How about gauze?" The answer was: "OK." So, the surgeon completed the operation. On the following day, a foreign body possibly representing gauze was detected on an X-ray taken with a portable X-ray device. (KY020014)	14th
	5) A patient underwent cesarean section in 2006. The surgeon completed the operation after confirming the number of gauze sheets. Because of abdominal pain, the patient consulted a local medical facility in October 2008. At that time, a gauze sheet remaining in her body was detected. It was removed by open abdominal surgery. (KY020015)	16th
Treatment/ procedure	Events involving errors in intraocular lenses during ophthalmic surgery were reported. 1) Two intraocular lenses (one for myopia and the other for hyperopia were prepared for a patient scheduled to receive surgery. On the day before the operation, use of the lens for myopia was decided through discussion with the patient. At night, the surgeon erroneously entered the power of the lens for hyperopia in the voucher for this patient. On the day of surgery, the intraocular lens for hyperopia was inserted on the basis of the wrong information on the voucher. (KY020016)	15th
	2) The intraocular lens planned for insertion was a product of Company A (SA60AS+22.0D). The lens prepared by the attending physician immediately before surgery was a product of Company B (VA60BBR+22.0D). The surgeon instruction another physician verbally to change the lens. The physician gave instructions and a nurse checked the lens and prepared a product of Company A (SN60WS+22.0D). Immediately before insertion, the surgeon became aware of a error and gave instructions to change the lens into SA60AS+22.0D. The person instructed did not receive the instruction accurately and prepared SA60AS+12.0D. As a result, a wrong lens was inserted into the patient. (KY020017)	15th
	3) During surgery, the surgeon concentrated attention on the operative field and failed to check the refractive index of the intraocular lens. As a result, an intraocular lens with a wrong refractive index was inserted. The error in refractive index was detected by the postoperative visual acuity measurement. A re-operation to replace the lens was carried out. (KY020018)	15th

Summary	Details	Periodic report
Treatment/ procedure	Events involving errors in errors in location during dentaltreatment were reported. 1) A patient was scheduled to receive extraction of left upper first premolar (No. 24) and second molar (No. 27). However, because the first molar (No. 26) was absent and the tooth defective area was wide, the surgeon during surgery mistook the second premolar (No. 25) as the first premolar (No. 24) and removed the second premolar (No. 25) and second molar (No. 27). At this department, there has been a practice of checking the location of teeth in the direction of the most posterior tooth to the most anterior tooth. (KY020019)	15th
	2) A patient was scheduled to receive extraction of two excessive impacted teeth the median region of the upper jaw under general anesthesia. During surgery, the surgeon mistook the non-erupting left upper lateral incisor as one of the impacted teeth and removed it. Postoperative X-ray revealed a remaining excessive impacted tooth, unveiling the fact that the left upper lateral incisor had been removed erroneously. (KY020020)	16th
Treatment/ procedure	An event involving a packing gauze with cartilage remaining in the nasal cavity was reported. During surgery for a patient with chronic sinusitis, 5 pairs of packing gauze (each part consisting of 2 sheets of packign gauze carrying chloramphenicol) were inserted into the right nasal cavity, and 3 pairs of the same gauze were inserted into the left nasal cavity. Two days after surgery the physician removed one pair from each nasal cavity. On the same day, the patient reported: "Gauze came out of my mouth." The nurse found two sheets of packing gauze and reported their finding to the physician. On the 5th postoperative day, the physician removed the packing gauze sheets from the nasal cavities. There was no remaining gauze when checked by endoscopy. After discharge from the hospital, packing gauze came out of the nose when the patient blew his/her nose.(KY020021)	16th
	Reduction surgery was carried out to treat a blowout fracture of the left orbit. Two pairs of packing gauze (each pair consisting of 2 gauze sheets, 3 × 20 cm, carrying chloramphenicol) were inesrted into the nasal cavity. On the 6th postoperative dat, the two pairs of gauze were removed (the operaion report included a statement on 2 packing gauze sheets). At that time, a endoscopic checkup, which is usually performed, was skipped. After discharge from the hospital, the patient's grandmother informed the hospital that gauze had come out of the nasal cavity. When the physician checked by endoscopy, one sheet of remaining gauze was detected. (KY020022)	16th
Treatment/ procedure	An event involving radiation of the wrong side was reported. A patient was referred from another medical faciity to the outpatient radiology department to receive postopeative radiotherapy for right breast cancer. On the day scheduled for CT simulaiton, the patient arrived at the hospital later than the appointed time and did not recive marking of the area for irradiation. Later, the physican failed to check the location on the medical records and entered "left" as the side for irradiaiton into the treatment plan. Linac graphy was carried out on the left side, referring to the treatment plan. During the subsequent approximate one month period, 25 sessions of radiotherapy were administered. When the patient later visited the referred hospital, the physician noticed that radiation had been applied to the wrong side. The patient had thought that something was strange during radiotherapy sessions but had persuaded herself that this was for the purpose of prevention of recurrence. (KY020023)	16th

Summary	Details	Periodic report
Treatment/ procedure	Events involving combined use of electrocautery and inflammable drugs were reported. 1) For the treatment of ulcerative colitis, ileostomy and sigmoid mucous fistula were created. After closure of the abdomen, Novectane spray was applied to the median wound to create stoma. Then, electrocautery was used to incise the skin. This resulted in inflammation of the Novectane spray fluid on the skin. Fire was immediately distinguished but burns were caused in the patient. (See No. 118 in Fig. III-2-1, page 211 for details.) (KY020024)	16th
	2) After preoperative disinfection, the patient was covered with a sheet of cloth. Additional disinfection with Maskin Ethanol was carried out and the skin was incised with electrocautery. This resulted in inflammation of the sheet through which Maskin Ethanol had permeated. (See No. 119 in Fig. III-2-1, page 211 for details.) (KY020025)	16th
Medical device	Events involving inappropriate use of blood glucose measuring devices were reported. 1) When attempting to measure blood glucose level with a simplified blood glucose measuring device (Precision Exceed), the nurse erroneously attached the cartridge sensor designed for another blood glucose measuring device (LFS Quick Sensor) and conducted measurement with that device. Blood glucose reading was low and it did not improve despite a dose of glucose. At that time, the blood glucose measuring device and the sensor were checked to find the error. This blood glucose measuring device could be turned on even when the sensors manufactured by several other manufacturers were used, resulting in recording of erroneous blood glucose levels. (KY020026)	13th
	2) For a patient receiving peritoneal dialysis with icodextrin dialysate, blood glucose level was measured with a blood glucose measuring device of GDH method using PQQ as a coenzyme (Nipro Free Style Meter). Insulin was administered on the basis of the thus measured blood glucose level. Later, blood glucose level was measured with another device based on the glucose oxidase method (GOD). The blood glucose reading was lower with this device. So, blood glucose level was measured again using both devices. The reading with the GDH-based device was 215 mg/dL while the reading with the GOD=based device was 91 mg/dL. It was thus shown that blood glucose level was overestimated by the inappropriate measuring device in this case, resulting in administration of insulin at dose levels higher than needed. (KY020027)	13th

Summary	Details	Periodic report
Medical device	Events involving burns due to the neutral electrode used for electrocautery were reported. 1) Before surgery, the surgeon checked that the incision and coagulation buttons of the electrocautery worked well. Intraoperatively, the nurse noticed continued generation of sound from the electrocautery. When the nurse lifted the electrocautery, it was found that the linen had burnt and a 1 × 0.5 cm area of femoral skin had been affected. The coagulation button of the electrocautery had been kept in the "ON" position. (KY020028)	14th
	2) Intraoperatively, fire was started in the gauze placed within the operative field during hemostasis with electrocautery. The manufacturer responded to the inquiry about this event saying that during electrocautery it is necessary to keep the tip of the device out of contact with any object other than the tissue to be electrocauterized to avoid the risk of burns and to prevent burning. (KY020029)	14th
	3) During open surgery for the treatment of liver cancer, radiofrequency wave was applied for 8 sessions (12 minutes/session). The neutral electrode was attached to both thighs under the surgical linen. When the neutral electrodes were removed, third degree burns were noted at 2 points of the right thigh. During the use, the status of the neutral electrodes was not checked. (KY020030)	14th
	4) Surgery was carried out using a combination of CO_2 laser and electrocautery. When the CO_2 laser was to be switched to electrocautery, the pedal for the laser was erroneously pushed, resulting in inflammation of the linen. The patient sustained burns affecting about 10 × 30 cm area on the posterior side of the left thigh. (KY020031)	16th
Medical device	Events involving erroreous setting of flow rate (entering in a wrong digit number) for the syringe pump, etc. 1) When the nurse set the flow rate for the syringe pump, the number of tens was mistaken as the number of units on the setting button, resulting in administration of the drug with a volume 10 times greater than the planned volume in 5 hours.(KY020032)	14th
	2) For a patient carried to the critical care unit, drip infusion of Olives was started at a rate of 6 mL/h. The patient was later moved from the general ward to HCU. When entering HCU, it was found that the rate for Olives drip infusion had been set at 60 mL/h. (KY020033)	14th
Medical device	Events invovling burns due to erroneous connection of medical devices were reported. To enable breast-feeding for a sick infant, the lead wire plug was disconnected while keeping the ECG monitor electrdoes placed on the child's skin. The power cord for the oxygen saturation mesuring device was removed from the device. Upon completion of breast-feeding, the ECG electrode lead wire was erroneously conntected to the 3-hole socket for the power cord of the oxygen saturation measuring device, instead of connectign to the plug. The child began crying, and an error was found by checking. The child sustained burns affecting 3 areas around the ECG electrode. (KY020034)	14th
Medical device	An event involving inproper use of a puncturing device for blood sampling was reported. A diabetic patient had been using a puncturing device for blood sampling named "Acelet" at home. During the hospital stay, a puncturing device available at our hospital was used for this patient, because the patient had not brought the patient's own device from home. The nurse used Acelet, available at the ward, for this patient. The use of a third device for multiple patients had been prohibited. (KY020035)	15th

Summary	Details	Periodic report
Medical device	An event involving failure to set the parameters for receivign signals from the Central Monitor was reported. ECG for Patient A used Tansmitter (1) and the data were dispalte don the Central Monitor (for 8 patients). Sevarl days later, Transmitter (1) for Patient A was switched to Transmitter (2), and Transmitter (1) began to be used for Patient B, with a plan of displaying the ECG data from Patient B on the Central Monitor (for 3 patients). At that time, the channel of the Central Monitor (for 8 patients) was not set to receive signals from Transmitter (2). As a result, the ECG data from Patient B were displayed on both the Central Monitor for 8 patients and the Central Monitor for 3 patients. Because the two monitors had been placed with some distance from each other near the entrance of the Nurse Station, it was not noticed that the ECG data from Patient B had been displayed on the two monitors. On the following day, the ECG for Patient A (actually the ECG for Patient B) showed signs of Af, and primary pacing was carried out on Patient A. At the end of pacing, the nurse noticed that the ECG data on the monitor were those for Patient B. (KY020036)	16th
Medical supplies, etc.	An event involving inproper use of a tube for oxygen inhalation therapy was reported. 1) Nurse A began oxygen inhalation therapy (4L) for Patient A. An alarm was soon generated. When the route was checked, the patient showed signs of agony. It was found that a tracheal tube had been connected to the site of tracheotomy with the rubber stopper of the catheter mount flex tube kept closed. Oxygen flow was in a single direction, making expiration impossible for the patient. (KY020037)	13th
Medical device	2) A pateint was being carried on a bed from the ward to the endoscopy office attended by Nurse A and a trainee physician. At the elevator hall of the ward, Chief Nurse noticed that the patient was in agony. Chief Nurse checked and found that an oxygen tube had been connected directly to the tracehal tube, making it impossible for the patient to expire. Immediate countermeasures allowed the patient's condition to improve, but right pneumothorax had developed. Pneumothorax seemed to be attributable to pressurization due to inappropriate attachment of the oxygen tube. (KY020038)	15th

Summary	Details	Periodic report
Examination	Events related to handling of pathology specimens were reported. 1) A pathologist cut out stomach tissue from the surgically resected specimen, and a technologist assisted this process. Three day later, the direction of the sections observed under a microscope was not consistent with different sections, and the pathologist prepared a report after checking the finding together with the technologist, stating: "the oral stump was positive." The attending physician, reading the report, explained to the patient: "it is highly probably that the unresected stomach has cancer cells." Histopathological examination after the additional operation revealed no residual cancer. During the conference, it was found possible that when the pathologist prepared a graph reconstructing the entire specimens, the section for the oral stump was replaced with a section from the tumor center. (KY020038)	15th
	2) Tissue samples were taken from both breasts and submitted to the pathology laboratory using separate containers for the right and left breast specimens. At the Pathology Laboratory, the tissue from the left breast was numbered 1 and that from the right breast was numbered 2. The tissues were then processed in the sequence of Number 1 (right breast) first and Number 2 (left breast) second. The next step was, according to the plan, to mount the right breast section on the left part of the glass slide and the left breast section on the right part. However, during this step, the notch indicating the right section appeared to be present in Number 2 specimen (left breast). For this reason, the left breast section was mounted on the left side of the glass slide and the right breast slide on the right side. The label for the glass slide was numbered by 1 and 2 from the left to right, according to the rules at the Pathology Laboratory. As a result, the section labeled 1 was actually the right breast tissue and the section labeled 2 was the right breast tissue. The pathologists diagnosed the section labeled 1 as cancer and the section labeled 2 as fibroadenoma. The section labeled 1 was reported as the right breast (in fact the left breast) and the section labeled 2 was reported as the left breast (in fact the right breast). Then, partial resection of the right breast was carried out on the basis of the pathological diagnosis. The pathological examination of the resected tissue allowed a diagnosis of fibroadenoma. Thus, a mistake in recognition between the right and left breasts was found. (KY020039)	15th
Nursing care	An event related to the temperature of glycerin edema was reported. The fluid glycerin enema for preoperative use was placed into a towel warmer to keep its temperature constant. Forty minutes later, the fluid was taken out and cooled with tap water for a while in the patient' s room. When the container's temperature was checked by placing it on the medial skin of the nurse's own forearm, it was not hot. So the nurse applied the enema to the patient. When the fluid was injected in a volume of 50 mL, the patient complained: "It's hot." So, the tube for injection was withdrawm. On the following day, red watery stool was noted, and endoscopy suggested that the patient probably had injury of rectal mucosa caused by high temperature enema fluid. (KY020040)	13th
Nursing care	An event involving erroneous delivery of contraindicated food was reported. A patient was found in a reduced consciousness level at the lavatory sink after food ingestion. Consciousness reovered soon, but blood pressure had fallen, requiring an intervention. About one hour later, redness appeared on the patient's arms. The patient answered the question: "I drank milk served for breakfast." Dairy products had been prohibited for this patient since admission to this hopsital because of an allergy. However, milk was erroneously served to this patient this time. The patient had experienced shock following intake of milk before. (KY020041)	15th

Summary	Details	Periodic report
Others	Events related to dislocation of patients from bed to bed were reported. 1) After bathing was assisted, the patient was moved in the trolley bath (a special bathing device) to the patient's room, with a bath towel placed over the patient. When the patient was lifted from the trolley bath towards the bed, the paralyzed patient's hand, supported by the nurse, was caught in the trolley bath's groove. The nurse did not notice it because it had been masked by the bath towel. The patient sustained a fracture. (KY020042) 2) When the patient after right shoulder arthroplasty was moved onto the table for catheterization, his/her head was hit against the bed's metallic component, causing bruise. Suturing with 3 stitches was needed. (KY020043)	13th
	3) A nurse and a paramedic trainee measured the body weight of a patient receiving respiration on a scale. At that time, the tube was withdrawn with the cuff of the tracheal cannula kept inflated. (KY020044)	14th
Others	Events relateed to the bedside-rail or hand-rail were reported. 1) When a nurse visited the patient's room at night, the patient was found in cardiopulmonary arrest with the neck (facing sideways) caught between the bed's fences. It remained unknown how the patient became caught, but the patient had shown visual hallucination before and measures such as installment of a bed-leaving sensor had been taken. However, no spacer had been attached to the bed. (KY020045)	13th
	2) A patient, having persistent symptoms, lacked spontaneous movements and lay on the left side, using a pillow. Two hours later, the patient was found with his/her head caught between the left fences of the bed. The fence was of a long single type, and the head had been coughed in the lower part of the fence's hand-rail (a space of about 35 × 25 cm). The patient was rounding the body, with the trunk serving as the center and it was difficult for the patient to keep a certain position. (FK020046)	14th
	3) A patient with cerebral palsy had come into contact with the bed fence during bodily movement. To avoid injury, the fence was covered with mattress. Later, the patient was found in respiratory arrest with his/her face in contact with the mattress of the bend fence, assuming a backward leaning position. The patient was immediately treated and returned to his/her previous condition. After this event, the bed fence was switched to a styrofoam and a therapy mattress.(KY020047)	15th
	4) A patient's voice calling a nurse was heard. When the nurse entered the patient's room, the patient was found grasping the bed fence with the right hand and the patient's right little finger caught in the fence liver. The patient later explained that when the patient was standing up from the bed, he/she held the bed fence with the right hand and raised the trunk, but the little finger was caught in the space of the bed fence liver at that time. The patient was diagnosed as having a fracture and received splint fixation. (KY020048)	15th
	5) A nurse heard coughing at night. When the nurse entered a patient's room, the patient was found with the neck caught in bed fence. One bed fence was half off from the bed. Bed fences with different heights had been used. (See No. 5 in Fig. III-2-24, page 260 for details.) (KY020049)	16th

Summary	Details	Periodic report
Others	Events involving errors in verbal communication were reported. 1) The intern orally sought advice from the supervising doctor on PHS when the blood pressure of the patient dropped during anesthesia. The supervising doctor intended to use ephedrine 8 mg. He gave an oral order for IV ephedrine "2 mil," meaning diluted ephedrine 2 mL (ephedrine 1 mL (40 mg) is diluted by normal saline 9 mL as a general practice at the department). However, the intern gave the patient undiluted ephedrine 2 mL after hearing "2 mil (80 mg)." (KY020050)	12th
	2) A physician orally instructed the nurse, saying: “Dormicum 4 milli intravenous injection,” intending to instruct injection of 4 mg Dormicum. The nurse understood it as an instruction for injection of Dormicum 4 mL (20 mg) and prepared Dormicum 2A in a syringe. The nurse injected it while saying: “I will inject two ampoules of Dormicum, with an amount of 4 milli.” (See No. 40 in Fig. III-2-1, page 195 for details.) (KY020051)	16th

[2] "Medical Adverse Event Information to Be Shared, Second Report"

Reported events similar to those included in Medical Adverse Event Information to Be Shared in the previous report were included herein as "Medical Adverse Event Information to Be Shared, Second Report." (Fig. III-3-2)

A picture of a magnetic substance magnetically pulled towards an MRI device is given (Fig. III-3-3) as material for use in medical aafety education, etc.

Fig. III-3-2 Medical Adverse Event Information to Be Shared

Summary	Details	Periodic report
Drug	Events related to communication of drug allergy information (page 206, 2007 annual report) 1) Xylocaine allergy, described in the electronic records, was overlooked but use of this drug was avoided because the physician conducting the test noticed the history of Xylocaine allergy during explanation to the patient before the test. (See No. 67 in Fig. III-2-1, page 201 for details.) (FK020001)	13th
	2) The physician administered Picillibacta Injection intravenously. The patient later developed drug eruption on the whole body. Checking the history of allergies had not been performed on this patient admitted at night. (See No. 81 in Fig. III-2-1, page 204 for details.) (FK020002)	14th
	3) The patient's medical records included a statement as to cefems as contraindicated drugs. Despite this statement, an antibiotic of cefem family was administered by drop infusion via the side-tube. Although an electronic medical record system had been introduced to this hospital, entry of information as to contraindications for reason of allergy was insufficient. (See No. 92 in Fig. III-2-1, page 206 for details.) (FK020003)	15th
	4) The physician in charge at the ward instructed Voltaren Suppository 25 mg and this drug was administered to the patient. The patient developed systemic itching sensation, hotflushes and pre-shock condition. Voltaren had been described as a contraindicated drug in the allergy column of the electronic medical record for this patient. (See No. 94 in Fig. III-2-1, page 207 for details.) (FK020004)	15th
Drug	Events related to misconception of insulin unit (page 167, 2005 annual report and page 211, 2007 annual report) Humulin R was administerd at a dose level 10 times higher than the planned dose because the drug was mistaken as a 100 Unit 10 mL prparation. (See No. 26 in Fig. III-2-1, page 192 for details.) (FK020005)	13th

Summary	Details	Periodic report
Drug	Wrong medication order due to order entry error (terminal operation error). (page 206, 2007 annual report) 1) Exal was prescribed in an amount of 5.5 vials (55 mg) although it should have been mg. The drug was administered at the wrong dose level. (See No. 23 in Fig. III-2-1, page 191 for details.) (FK020006)	13th
	2) When entering information on Digoxin Powder, its amount was entered as 2 instead of the intended amount 0.2 mg. (See No. 22 in Fig. III-2-1, page 191 for details.) (FK020007)	13th
Drug	An event invovling administration of high concentration gabexate mesilate via a peripheral vein was reported. (page 167, 2005 annual report) Panabate (gabexate mesilate) 2000 mg + 5% glucose 100 mL was serially infused via the right forearm at a rate of 4 mL/h. On the following day, extravasal leakage and ulcers were noted on the right forearm. (See No. 88 in Fig. III-2-1, page 205 for details.) (FY020008)	14th
Drug	Events involving bleeding of patients on Warfarin (page 200, 2006 annual report and page 211, 2007 annual report) A patient, using oral-dose warfarin, received hematological test prior to tongue tissue biopsy. The physician in charge and the attending physician at the outpatient clinic checked hematological test data on the electronic medical record prior to biopsy. At that time, the electronic record displayed that the results of hemostasis test were under collection. So, the physician judged it posisble to conduct biopsy. Biopsy was thus carried out. After returning home, the patient reported oral bleeding to the physician on night duty and visited the outpatient critical care unit. (See No. 90 in Fig. III-2-1, page 206 for details.) (FK020009)	14th

Summary	Details	Periodic report
Drug	Events invovling extravasal leakage during drip infusion with syringe pump, etc. were reported (page 201, 2006 annual report) 1) A pediatrician prepared the child right dorsum manus for drip infusion. After confirming the absence of blood regurgitation and swelling of the punctured area, infusion of 10% glucose solution with a syringe pump was started. Later, marked swelling was noted on the right wrist and brachium, accompanied by redness of the skin along the blood vessels of the right brachium. Transparent fluid leakage from the trace of puncture was noted, accompanied by blister formation on the right wrist and dorsum manus. (See No. 84 in Fig. III-2-1, page 205 for details.) (FK020010)	14th
	2) A Jelco needle was inserted into the medial malleolus of the right foot, and drip infusion with an I.V. solution pump was ongoing. Swelling of the area between the knee and foot tip due to leakage of the infused fluid was detected. In this case, securing a blood vessel for infusion had been difficult and splint fixation with elastic bandage had been carried out for fear of leakage during infusion. As a result, the punctured area was difficult to check. (See No. 85 in Fig. III-2-1, page 205 for details.) (FK020020)	14th
Drug	Drug mix-up due to similar drug names (page 205, 2007 annual report) 1) Physician A on night duty entered “Sakushi” on the keyboard to enter “Sakushizon (Saxizon)” into the electronic medical record. The system displayed “Sakushin (Succin)” and the physician mistook it as equal to “Sakushizon (Saxizon)” and issues instructions for injecting “Succin 200 mg 2A + saline 100 mL.” Nurses A went to the pharmacy to receive Succin and administered it to the patient after checking it with another nurse (Nurse C). One hour later, Nurse D visited the patient’s room to find respiratory arrest in the patient. Physician A at night duty checked Nurse B as to the drug administered. A t that time, erroneous entry of “Succin” was found. (See No. 15 in Fig. III-2-1, page 189 for details.) (FK020012)	16th
	2) The physician entered “thiouracil (50 mg), one tablet/day after breakfast” into the paper medical record. A clerk, attempting to enter it into the computer, sought the drug name beginning with “Chi (Thi)” and the system displayed “Thyradin S” first. The clerk entered this name into the computer. The pharmacy outside the hospital handed the drug specified in the prescription to the patient. When the patient visited the hospital again 2 weeks later, thiouracil was prescribed, and the dispensing pharmacy pointed out a difference to the previously prescribed drug. At that time, the erroneous entry of the drug name on the previous prescription was found. (See No. 16 in Fig. III-2-1, page 189 for details.) (FK020013)	16th
	3) A patient received a prescription of thiouracil 50 mg 6 tablets three times daily for 5 days. Pharmacist A erroneously dispensed Thyradin S 50 μg 6 tablets for 5 days. Pharmacist B, playing the role of counter-checker checked the prescritpion but did not notice the difference in the drug and delivered the drug to the ward after confirming the number of tablets. At the ward, the nurse conducted double-checking but did not confirm consistency between the name of the heat-packed drug and the drug name on the drug bag. So, the error was not detected. The patient was aware of the disrepancy between the drug name on the drug bag and the name of the heat-packed drug but took the drug orally for 4 days without aasking the nurse or pharmacist. (See No. 17 in Fig. III-2-1, page 190 for details.) (FK020014)	16th

Summary	Details	Periodic report
Drug	Wrong administration route (page 206, 2007 annual report) Serial peritoneal cavity washing was ongoing with an I.V. fluid pump, by connecting the combination of saline 500 mL and I.V. fluid set + 3-member planector-attached extention tube (LMS) to the pleats drain (irrigation type) connectort. The nurse in charge erroneously connected the platelet transfusion line to the line for serial peritoneal cavith washing. A green tape on which "for washing" was printed had been attached to the line, but the nurse overlooked it. (See No. 7 in Fig. III-2-10, page 230 for details.) (FK020015)	16th
Blood transfusion	Patient misidentification in blood transfusion (page 207, 2007 annual report) MAP for a 9-year-old patient A (blood type O) and patient B (blood type A) was ordered, and a preparation was made. The physician and the nurse double-checked it. The fluid was filled into 50 mL injectors, A separate injection preparing stand was used for the two patients. Each stand was prepared by the nurse in charge of each patient. For both patients, the first dose was double-checked by the physician and the nurse at approximately the same time, and administartion of blood preparation with the syringe pump was started. Upon completion of transfusion of the first bottle for Patient A, an alarm went and the leader nurse hearing the alarm made the mistake of thinking that the syringe prepared for transfuson to Patient B was for use in Patient A and handed it to the nurse in charge. The nurse reeceiving it administered it to Patient A without a further check. (See No. 5 in Fig. III-2-10, page 230 for details.) (FK020016)	16th
Treatment/ Manipulation	Surgical site mix-up (left and right) (2 events) (page 201, 2006 annual report and page 212, 2007 annual report) 1) During an emergency operation on a patient with cerebral bleeding, it was found that craniotomy was being erroneously made on the right side when incision of the scalp and burr hole creation at 2 points had been completed. (FK020017)	13th
	2) A patient with cerebral bleeding visiting the outpatient critical care unit began to receive emergency surgery. First, the right side was partially dehaired and hematoma removal was begun. The physician noticed the ongoing surgery on the wrong side (the left side was planned) on the basis of discrepancy between preoperative and intraoperative findings. (FK020018)	13th
	3) When the patient entered the operating room to receive ophthalmic surgery, Physician A in charge checked verbally checked the Magic marking in the vicinity of the left temple on the operated side. Physician B disinfected the left eye (to be operated on) and placed a cloth in such a manner as to expose the right eye as the operative field. Physician C (serving as an assistant) found some residual lashes on the right eye exposed from the cloth, although removal of lashes of the eye scheduled for surgery is usually performed on the previous day. Physician C thought that eyelash removal had been forgotten and removed the right eye's lashes at that time. Physician D entered the operating room ready for surgery and performed surgery on the right eye believing that this eye was planned for surgery. Upon completion of surgery, the operating room nurse succeeded information to the ward nurse using the operating room patient nursing record. In that record, the column for operative procedure specified the operated side as "left" but the nurse did not notice a discrepancy because the right eye had been covered with gauze. After the patient returned to the ward, Physician E (in charge of the ward) checked the patient and replaced the right eye's gauze with a transparent bandage but did not notice the error. On the following morning, during the examination by Physician B, the patient's family member asked checking the operated eye. At that time, surgery on the wrong side was found. (FK020019)	14th

Summary	Details	Periodic report
Medical device	Events related to magnetic resonance imaging (MRI) (page 208, 2007 annual report) 1) Upon completion of MRI, the physician in charge carried a stretcher filled with an oxygen tank into the MRI office. At that time, adsorption of the oxygen tank onto the MRI device occurred. The physician was anxious about the patient's condition and attempted to discharge the patient from this room as soon as possible. The nurse, seeing such a situation, voluntarily returned the stretcher for MRI into the original position. The patient was not affected by this event. (Fig. III-3-3.) (FK020020)	13th
	2) After emergency MRI the physician carried a stretcher fitted with an oxygen tank into the MRI office to discharge the patient from this room as soon as possible. At that time, the technologist attempted to stop it, but it was too late and the oxygen tank jumped out and was drawn onto the gantry immediately below the testing table. Neither the patient nor the technologist was affected. The physician knew that metals need to be removed before entering the MRI office. However, since patients were often scheduled to receive other tests after MRI, there was a habit of carrying a stretcher into the MRI office. Furthermore, at this hospital, there was no physical protective wall such as the fore-room or fence in the MRI office. (FK020021)	16th
Medical device	Events related to disconnection or loosening of respirator circuits were reportedd. (page 209, 2007 annual report) 1) The oxygen connection of the respiratory became detached. (See No. 5 in Fig. III-2-5, page 218 for details.) (FK020022)	13th
	2) The water supply cap of the moistening chamber of the respirator became detached. (See No. 22 in Fig. III-2-5, page 221 for details.) (FK020023)	13th
	3) Leakage from the water trap of the respirator occurred. (See No. 8 in Fig. III-2-5, page 218 for details.) (FK020024)	13th
	4) The circuit connection of the respirator became detached. (See No. 10 in Fig. III-2-5, page 219 for details.) (FK020025)	14th
	5) When a low pressure alarm of the respirator (CV5000) was heard, the nurse checked for leakage from the circuit and connected it again. However, the alarm went again. The physician checked the system. When the circuit was checked, disconnection of the expired air valve tube connector from the expired air valve alpha was detected. (See No. 16 in Fig. III-2-5, page 220 for details.) (FK020026)	16th
	6) The respirator (New Port Ventilator E150) generated a low pressure alarm frequently, resulting in 61% reduction in SpO_2. Disconnection of the tube joining the expired air valve and the respirator' s main unit was detected. (See No. 17 in Fig. III-2-5, page 220 for details.) (FK020027)	16th
	7) When the respirator circuit (Servo 900) was attached again after removal of water, it generated an alarm, and reduction in SpO_2 was noted. Aspiration was conducted because a sputum pool seemed to be present. However, sputum did not appear and the patient's respiration further exacerbted. Inspection of the respiratory revealed loosening of the water trap. (See No. 19 in Fig. III-2-5, page 221 for details.) (FK020028)	16th

Summary	Details	Periodic report
Medical device	Wrong connection of ventilator circuit (page 209, 2007 annual report) 1) When circuit renewal for respirator was checked, an artificial nose was attached to the circuit designed for use in the heating humidifier. (See No. 11 in Fig. III-2-5, page 219 for details.) (FK020029)	14th
	2) The physician connected a Jackson-Rees circuit (or Jackson-Rees set) to the respiratory to enable oxygen supply. Immediately after that, ventilation became impossible for the patient, resulting in pneumothorax. (See No. 18 in Fig. III-2-5, page 221 for details.) (FK 020030)	16th
Medical device	Connection of infusion solution to a wrong drainage tube in a patient with multiple drainage tubes (page 209, 2007 annual report) The line for intravenous fentanyl admiistration was connected to a threee-way active cock for the washing route. (See No. 45 in Fig. III-2-1, page 197 for details.) (FY020031)	13th
Nursing care	Events involving burn occurring during nursing care (page 200 and 203, 2006 annual report and page 213, 2007 annual report) 1) The patient wanted his/her paralyzed side to be warmed. The patient had had such an experience before, and a PET bottle filled with hot water was placed on the cushion after being covered with a towel. The nurse later found the patient fixing the PET bottle with a cord to his/her leg. The nurse explained the danger involved and removed the PET bottle from the leg. Later, a low temperature burn was detected on the paralyzed thigh. (FK020032)	13th
	2) A clean towel packed into a vinyl bag was placed in the vicinity of the right thigh of the patient for the purposes of cleaning and the patient lay on his/her right side. During cleaning, the patient complained of heat. When checked after cleaning of the back, redness was detected on the right thigh. The towel had been in contact with the patient leg while lying on the right side. (FK020033)	13th
	3) Four towels were placed into a vinyl bag and heated for 3 minutes in a microwave oven for use in cleaning. These towels were placed over the towel at the corner of the bed facing the right foot. Cleaning and dressing were conducted. Then, blisters were found on the right and left dorsum pedis. (See No. 3 in Fig. III-2-7, page 217 for details.) (FY020034)	13th
	4) When assisted bathing, checking the set temperature reading was not performed. The nurse erroneously pushed the button for 57°C and hot water at this temperature was supplied. When hot water pooled in the bath tab, the nurse did not check the water with a thermometer or her hand before guiding the patient into the bath. The nurse noticed an error in the temperature setting when redness began to appear on the patient's skin. (FK020035)	14th
	5) To warm a child 1 year and 4 months old, a hot pillow was placed between his/her legs. A heated wet towel, covered with another towel, was placed on both thighs. About 8.5 hours later, the hot pillow, whose temperature had become low, was reheated, accompanied by reheating of the wet towel. Thirty minutes later, the nurse felt both thighs of the child to be warm during blood pressure measurement. At that time, the nurse found that the hot pillow was in direct contact with the lower part of crus. Later, blister formation and exudates were noted on the left crus. (FK020036)	14th

Summary	Details	Periodic report
Others	Events related to facility management (page 210, 2007 annual report) 1) An outside engineer closed the shut bulb during repair of leakage from the medical use oxygen outlet. At that time, there was an error in recognition of the stopping range, resulting in interrupted oxygen supply to the room in an unexpected manner. There had been no prior discussion about shut bulb stopping between the hospital staff in charge and this outside engineer. (FK020037)	14th
	2) Before irradiation at the radiotherapy office, the alarm lamp, which is used to indicate Linac errors and the inability to emit radiation, fell, making it impossible to emit beams. When checked in detail, the temperature set for the cooling water of the device had exceeded 38°C and had reached 48°C. The radiotherapy office had not been informed in advance of the schedule for the repair work involving interrupted water supply. (FK020038)	14th

Fig. III-3-3 An oxygen tank magnetically pulled towards an MRI device (13th Report)

IV Provision of Medical Safety Information

In addition to preparation and publication of periodic and annual reports, the service to provide part of the obtained information to the participating medical institutions by fax was started in 2006 as part of the Project to Collect Medical Adverse Event/Near-Miss Information.

Medical safety information was provided to medical institutions 12 times in total between January 2008 and December 2008.

1 Summary of the service to provide medical safety information

[1] Objective

Among the information collected in the Project to Collect Medical Adverse Event/Near-Miss Information, information to be widely shared will be provided to the participating medical institutions to promote prevention of occurrence/recurrence of medical adverse events.

[2] Medical institutions

A. Medical institutions subject to reporting requirements as well as voluntarily participating medical institutions in the Project to Collect, Analyze, and Provide Medical Adverse Event Information

B. Registered medical institutions in the Project to Collect, Analyze, and Provide Medical Near-Miss Information

Starting with Medical Safety Information No. 15, the service has been offered three times to medical institutions that wished to receive fax information other than those described in A and B above. The service has been provided to 4,232 medical institutions so far.

[3] Information provision

Information is provided by fax.

Information is also made available to other parties concerned and the general public on the Japan Council for Quality Health Care website.

[4] Provided information

Medical Adverse Information No. 14 to No. 25 was issued between January and December 2008 (Fig. IV-1-1).

Fig. IV-1-2 shows events reported to the Division of Adverse Event Prevention by December 31, 2008 that were similar to those included in Medical Safety Information. Fig. IV-1-3 shows the events occurring in 2008, resembling the events whose information was supplied as medical safety information between December 2006 and December 2007.

Fig. IV-1-1 Provision of Medical Safety Information

No.	Month of information supply	Information provided
2006		
No 1	December	Misconception of insulin content
2007		
No 2	January	Bone marrow depression due to antirheumatic (methotrexate) overdose
No 3	February	Rectal perforation associated with glycerin enema
No 4	March	Drug mix-up
No 5	April	Burn during assisted bathing
No 6	May	Misconception of insulin unit
No 7	June	Extravascular leakage in pediatric patients
No 8	July	Surgical site mix-up (left-right)
No 9	August	Confusing of total product amount and content of active ingredient
No 10	September	Magnetic material (e.g. metal products) taken in the MRI room
No 11	October	Blood transfusion in wrong patient
No 12	November	Contact during patient transfer
No 13	December	Neglected check of infusion pump flow
2008		
No 14	January	Erroneous connection to catheter/drain
No 15	February	Wrong drug placed into a syringe
No 16	March	Medical safety information provided in 2007
No 17	April	Burns during use of a hot water bottle
No 18	May	Drug administered at a wrong dose level due to discrepancy in interpretation of the prescription
No 19	June	Use of unsterile medical supplies
No 20	July	Failure to transmit a modification of instructions
No 21	August	Precaution in the use of blood glucose measuring devices
No 22	September	Erroneous prescription in chemotherapy plan
No 23	October	Error in units upon entry of information on prescription
No 24	November	Error in connection of respiratory circuit
No 25	December	Wrong identification of patient at the time of doctor's examination

Fig. IV-1-2 Similar Events Reported after Issuance of Medical Safety Information

Provision No.	Number of events reported after issuance	Details	Summary of event
No.14	3	Erroneous connection to catheter/drain	Nurse A, in a midnight shift, set I.V. solution containing fentanyl on the Dell Deck Pump and connected it to the patient. At that time, Nurse A checked the patient's name and drug in the room. On the following day, Nurse B during the day shift found that I.V. solution containing fentanyl had been conntecd to the route for washing of the upper pancreatic margin. (AN020001)
			A nursing assistant erroneously connected a tube for feeding to the dialysis catheter. The route for tube feeding had a connector connectable also to the dialysis catheter. (AN020002)
			A peripheral line, a dialysis line and a drain for peritoneal cavity washing had been inserted into a patient. The peripheral line and the drain for washing used the same drip infusion bar. Nurse A erroneously connected a drain for peritoneal cavity washing when attemtpting to administer plateelt. The nurse overlooked the green tape, labeled "for washing", attached to the drain (cf. Medical Safety Inforamtion No. 28) (AN020003)
No.15	1	Wrong drug placed into a syringe	A recently employed nurse attemped to take out heparinated saline from the drug refrigerator. At that time, the nurse erroneously took out Bisolvon Solution (stock solution for inhalation), which had been prepared for nebulization for another patient. The nurse believed it to be heparinated saline and injected it intravenously. The senior nurse, who attended the junior nurse, noticed the label "Bisolvon" on the injector and immediately stopped injection. By that time, however, 1.6 mL of the solution had been injected. At this ward, drugs for injection had been stored together with the drugs for topical administration in the same refrigerator.(AN020004)
No.17	2	Burns during use of a hot water bottle	The patient had complained of hypotention, hypothermia and cold sensation of extremitries and was using an electric blanket and a hot pillow. Nurse A cheked at about 17:30 and 19:00 that the patient's skin was not in contact with the hot pillow and that there was no blister or redness in the fingers. At about 1:10, Nurse B found blister on 4 left-hand fingers. (AN020005)
			At about 16:30, the patient complained of hypothermia and intense cold sensation of extremities. For this reason, hot compresses were applied. A hot pillow was inserted between the patient's legs, and a warmed wet towel was placed between the patient's thighs, with a towel cover placed over it. At 1:00, the nurse in a semi-night shift renewed the hot pillow and the wet towel for thighs. At about 1:30, the nurse for the midnight shift found that the thigh was in direct contact with the hot compresses and removedthe compresses immediately. Slight redness was note d on both crura. At 3:00, bilister on left crus was found, and the blister had partially become broken, resulting in leakage of exudate. On the right crus, redness was noted at that time. (AN020006)

No.19	2	Use of unsterile medical supplies	When introduction of anesthesia was completed for a patient of the cardivacular surgery department carried into the operating room to receive stent insertion under general anthesia, it was found during a final check of devices and materials that the expiration date for the syringe use had elapsed.(AN020007)
			While preparing devices for the second operation for the day, Nurse A found abnormal coloration in the plasma sterilization indicator of the steril normal handpiece. After a further check, the handpiece was found to be inadequately sterile. Nurse B and Chief Nurse checked the normal handpiece used for the first operated patient during that day and found it also to be inadequately sterile. Nurse C, who had been involved in preparation for the first operation, was aksed, and it was found that the nurse had not checked the sterile pack's indicator. (AN020008)
No.20	1	Failure to transmit a modification of instruction	The attending physicain prescribed oral-dose gatifloxacin for a patient scheduled to be discharged from the hospital. At about 16:00 on the following day, the attending physician noticed that gatiflxoacin was contraindicated for this patient and instructed cancellation of the previous prescription. A nurse during the semi-night shift had received the intitial prescription for the patient scheduled to be discharged and handed the prescribed drug to the patient without noticing cancelaltion of the instruction. After discharge from the hospital, the patient orally took gatifloxacin and devloped redness in the pudendum. (Medical Safety Information No. 28) (AN020009)
No.22	2	Erroneous prescription in the chemotherapy plan	According to the treatment plan, medication was to be suspended for 3 weeks after "cisplatin (on Day 1 only) + 5 FU (on day 1-5)" treatment. The attending physician, however, erroneously applied another chemotherapy regimen, instead of the originally planned regimen, and continued to hand the anti-cancer drugs to the patient for the second week, although suspension had been planned for that week. (Medical Safety Information No. 28) (AN020010)
			The attending physician issued an instruction to perform chemotherapy for a patient. The physician in charge of this patient on the day entered this instruction for anti-cancer drugs into the ordering system on Sunday, when the patient was hospitalized. At that time, one of the anticancer drugs (cisplatin) was entered for use on 4 days instead of the one-day period intended by the attending physician. As a result, the drug was administered for 4 days to the patient.(AN020011)
No.25	1	Wrong identification of patient at the time of doctor's examination	When the family name of Patient A planned to receive lower lip biopsy was called, Patient B in the waiting room answered "Yes." Doctor C invited Pateint B into the office, without asking the patient to speak the name. Doctor D, believing Patient B to be Patient A, explained the biopsy procedure to Patient B and carried out a lower lip biopsy. Upon completion of biopsy, the nurse handed the basic card to the patient, and it was found that the patient having just undergone lower lip biopsy was not Patient A. (AN020012)

Fig. IV-1-3 Medical safety information on similar events taking place in 2008

Provision No.	Number of events reported after issuance	Details	Summary of event
No.1	2	Misconception of insulin content	Under a doctor's instruction, Nurse A prepared "Salien 39 mL + Humalin R 100 Units." At that time, Nurse A noticed the label "100 U/mL" on the insulin vial and believed that one vial contained 100 U. As a result, the nurse combined 39 mL saline with Humalin R 1000 Units (one 1 mL vial) and administered the mixture to the patient, although the correct amount should have been Humalin R 100 Units (1 mL). Nurse A and Nurse B failed to check the unit during double-checking. (Medical Safety Information No. 31) (AN020013)
			Because hypoglycemia persisted in the patient, the insulin dose level was checked and it was found that it had been administered at a dose level 10 times higher than usual. One vial of HumalinR was mistaken as a 100 U 10 mL preparation (a 1000 U 10 mL preparation in fact) and was used erroneously.(AN020014)
No.4	3	Drug mix-up	Physician A during night duty put a word "Sakushi" in the search engine to enter "Saxizon" into the electronic medical record. The system displayed "Succion" and the physician mistook this as meaning "Saxizon" and entered it into the medical record. As a result, an instruciton of "Succsin 200 mg 2A + saline 100 mL" was issued. Nurse B and Nurse B checked the drug and Nurse C administered it to the patient. When Nurse D visited the patient's room 2 hours later, the patient was in respiratory arrest. Physician A during night duty checked the drug and found an erroenous entry. At this hospital, use of Saxizon had been discontinued, but Succin had been used for surgery. (Medical Safety Information No. 31) (AN020015)
			The physician enter "thiouracil (50 mg) one tablet daily after breakfast" on a paper medical record. The clerk put the word "chi" in the search engine to search for a drug name beginning with Chi on a computer for processing billing. The system displayed "thyradin S" first, and the clerk entered this name into the computer. The pharmacy outside the hospital dispensed the drug as prescribed to the patient since this was the first precription for that patient. Two weeks later, thiouracil was precribed again and the pharmacy found a discrepancy from the drug specified in the previous prescription, pointing out this problem over telephone to the hospital. Thus, the erroneous drug name entered into the previous prescirption was detected.
			For a patient admitted to receive treatment of Basedow's disase, thiouracil 50 mg 6 tablets three times day for 5 days were prescribed. Pharmacist A erroneously dispensed Thyradin S 50 μg 6 tablets for 5 days. Pharmacist B, playing the role of counter-checker checked the prescription but did not notice the difference in the drug and delivered the drug to the ward after confirming the number of tablets. At the ward, the nurse conducted double-checking but did not confirm consistency between the name of the heat-packed drug and the drug name on the drug bag. So, the error was not detected. The patient was aware of disrepancy between the drug name on the drug bag and the name of the heat-packed drug but took the drug orally for 4 days without aasking the nurse or pharmacist.(AN020017)

No.5	1	Burn during assisted bathing	Two nurses assisted a patient bathing. When the bath tub was prepared, the nurse pushed the adjacent 57°C button instead of the intedned 42°C button, and hot water began to fillthe bath tub. Later, the nurse guided the patient into the bath tub without checking the water temperature with a thermometer or her hand. The patient sustained burns. (Medical Safety Information No. 31) (AN020018)
No.7	4	Extravascular leakage in pediatric patients	For a child, 1 year and 2 months old, a 24G peripheral line was secured in the left foot in the operating room. The child returned to the ward at 10:30. Upon returning to the ward, intense bodily moveemnt was seen, causing instability of the splint and loosening of the punctured area. So, fixation was repeated. Later, the child continued intense bodily movemnts. Three hours and a half after returning to the ward, absence of redness and swelling on the left knee was confirmed macroscopically. Five hours and a half after returning home, the child was found to have swelling and induration of the infusion needle puncture site of his/her left foot to the left thigh as well as minor bleeding and blisters on the skin.(AN020019)
			At 3:50, the pediatrician secured a drip infusion route in the right dorsum manus of a child. Blood regurgitation was absent, but 10% glucose (1 mL) was infused intravenously. At the time of intravenous infusion, lack of swelling at the punctured site was confirmed. Then, 10% glucose infusion with a syringe pump was started at a rate of 7 mL/h. About one hour later, the blood glucose level was low, and 10% glucose was infused at a volume of 1 mL. Subsequent observation at 3 points of time revealed no abnormality in the punctured site. However, about 9 hours after the infusion routed was secured in the right dorsum manus, intense swelling of the right wrist and brachium was noted. Outflow of transparent fluid from the trace of the puncture was seen, accompanied by blisters on the right wrist and dorsum manus. Two days later, blisters (about 30 × 20 mm) formed from the right dorsum manus to the wrist. (AN020020)
			A Jelco needle was inserted into the medial malleolus of the right foot, and serial drip infusion was carried out with an I.V. fluid pump. Later, swelling and blisters due to leakage of the infused fluid were seen on the area between the knee and tip of the foot. A splint had been fixed with an elastic bandage to prevent leakage, but this masked the punctured area. (Medical Safety Information No. 31) (AN020021)
			An 11-month-old patient was receiving drip infusion of an antibiotic with an I.V. fluid pump. An obstuction alarm of the I.V. fluid pump went, and the nurse removed fixation for infsuion to enable observation of the punctured areas. Dark red skin was noted at the tip of the right thumb. The punctured area showed mild swelling and redness. The plastic surgeon rated it as a first to third degree pressure ulcer. (AN020022)

No.8	3	Surgical site mix-up (left-right)	A patient carried to the outpatient critical care unit underwent surgery for treatment of bleeding within the left frontal lobe and subarachnoid hemorhage. After the patient was carried into the operating room, Physician A dehaired the right part of the patient's head and fixed the head with a head immobilizer. Surgery was started by Physician A, B and C. After craniotomy, Physician C found that it was the wrong operated side because of a difference between the preoperative and intraoperative findings. (AN020023)
			A patient received emergency surgery with left craniotomy to remove a hematoma. The physician incised the scalp and created two burr holes. At that time, the physician found that craniotomy had been done erroneously on the right side. The incision on the right side was closed immeiately and craniotomy on the left side was started. During the operation, all staff members involved had believed that the right location was being operated on. Checking the operated site before the start of operation was insufficient. Furthermore, since the number of staff available for this night emergency surgery was small, the preoperative check of the operated site was not sufficient. (AN020024)
			In the operating room, Physician A checked the name of the patient and the site for operation (left eye) and attached a marking with a Magic pen to the area near the left temple. Physician B disinfected the area around the eye for operation (left eye) and placed a cloth in a manner so as to expose the right eye. Physician C found some lashes remaining around the right eye exposed from the cloth. Thinking that resection of lashes had been forgottem the physician removed the lashes. Then, Physician D entered the operating room and began surgery on the right eye, believing that this eye had been planned for surgery. On the following day, a comment by the patient's family triggered detection of surgery on the wrong eye (cf. Medical Safety Information No. 31) AN020025
No.10	1	Magnetic material (e.g. metal products) taken in the MRI room	After emergency MRI, the physician carried a stretcher fitted with an oxgen tank into the MRI office to enable the patient to be discharged from this office. As a result, the oxygen tank jumped out and was magnetically pulled toward the gantry immediately before the testing table. The oxygen tank was of a type designed for setting in parallel to the floor below the stretcher bed and so jumped below the testing table, without injuring the patient. (Medical Safety Information No. 31) (AN020026)
No.11	1	Blood transfusion in wrong patient	The thermostat contained blood preparations for Patient A and Patient B. Nurse C, intendign to administer the preparation to Patient A, took the blood preparation for Patient B from the thermostat and mounted it on the drip infusion stand. At that time, the nurse failed to verify the blood voucher with the preparation and to check compatibility between the patient and the blood preparation. Nurse D administerd the blood preparation mounted on the drip infusion stand to Patient A without further checks. Transfusion of incompatible blood was detected after transfusion of about 70 mL. (Medical Safety Information No. 31) (AN020027)

V Basic Information Survey at Registered Medical Institutions in 2008

The Division of Adverse Event Prevention carried out a basic information survey at medical institutions registered with the medical event information collection, analysis and provision program thanks to the cooperation of the registered facilities, with a goal of collecting information to be referenced to during processing and analysis of medical event information at our division in the future. This survey was designed to enable comparison of data with those from the national survey covering nationwide medical institutions in Japan. The results of this survey are presented below.

[1] Objectives

The survey was aimed at collecting information from medical institutions needed for processing and analysis of medical event information.

[2] Medical institutions

(1) Medical institutions subject to reporting requirement: 272 (as of December 31, 2008)

(2) Voluntarily participating medical institutions: 252 (as of September 30, 2008; medical institutions expressing the intention of remaining in this program also in fiscal 2009).

[3] Topic surveyed

The survey was conducted on the topics specified below.

(1) Bedsize category

Number of beds for psychiatric patients, number of beds for infected patients, number of beds for patients with tuberculosis, number of beds for chronic disease care, number of beds for general care, and total number of beds as of October 1, 2008.

(2) Number of outpatients

Number of outpatients managed during September 2008

(3) Number of discharged patients

Number of patients discharged during September 2008

(4) Number of employees

Number of physicians (on a permanent employment basis), number of dentists (on a permanent employment basis), number of pharmacies (on permament employment basis), number of nurses (on permanent employment basis) and number of clerical staff members as of October 1, 2009.

[4] Results

(1) Collection of responses

A. Medical institutions subject to reporting requirement: 272 facilities (recollection: 100%)

B. Voluntarily participating medical institutions: 252 facilities (recollection: 100%)

(2) Results

Results of the survey are summarized in Tables V-1-1 through V-1-6.

Fig. V-1-1 Results of the basic information survey at medical institutions registered with this program

Mother body			No. of Medical institutions	No. of beds for psychiatric patients	No. of beds for infected patients	No. of beds for tuberculosis patients	No. of beds for chronic disease care
No. of Medical institutions subject to reporting requirement	Government	National University Corporation	46	1,962	18	131	0
		National Hospital Organization	145	4,770	22	3,316	843
		Ministry of Health, Labour and Welfare (National Centers)	13	0	0	0	0
		Ministry of Health, Labour and Welfare (Sanatoriums for Hansen's Disease)	8	1,055	4	40	0
	Municipality	Prefecture	1	445	11	90	0
		Japan Association of Municipal and Prefectural Colleges and Universities	9				
		Local independent administrative institutions	1				
	Corporation	School juridical organization	49	1129	10	17	0
	Total		272	9,361	65	3,594	843
No. of Voluntarily participating medical institutions	Government	National University Corporation	1	0	0	0	0
		Japan Labour Health and Welfare Organization	2				
	Municipality	Prefecture	6	675	88	123	50
		City/village	23				
		Japan Association of Municipal and Prefectural Colleges and Universities	1	841	113	262	399
	Mother body of public medical institution other than municipality	Japan Red Cross	48				
		Saiseikai Imperial Gift Foundation	4				
		National Welfare Federation of Agricultural Cooperatives	7				
		National Health Insurance Association Federation	1				
		All Japan Federation of Social Insurance Associations	36				
		Employees' Pension Welfare Corporation	1				
		Mutual Aid Associations and their associations	6				
	Corporation	School juridical organization	9	2,507	25	102	3,099
		Healthcare corporation	76				
		Charitable organization	14				
		Company	7				
		Other corporations	5				
	Individual practitioner		6	0	0	0	108
	Total		253	4,023	226	487	3,656
Aggregate total			525	13,384	291	4,081	4,499

No. of beds for general care	Total number of beds	Total number of outpatient visits	No. of discharged patients	No. of physicians (permanent employment basis)	No. of dentists (permanent employment basis)	No. of pharmacists (permanent employment basis)	No. of nurses (permanent employment basis)	No. of clerical staff members
32,161	34,272	1,427,554	62,056	17213.38	2182.90	1706.90	27151.65	5592.25
47,408	56,359	1,171,494	44,274	6376.16	114.38	1169.00	32031.10	3850.85
6,941	6,941	1,073	14	111.96	19.00	37.00	1157.30	227.80
4,008	5,107	293,000	13,937	1332.45	23.75	162.90	3092.15	467.83
6,921	7,467	324,011	9,400	3,199.28	206.80	322.00	6,045.10	639.40
29874	31030	1793425	43766	14235	4362	1623.70	25007.97	4348.33
127,313	141,176	5,010,557	173,447	42468.63	6908.43	5021.50	94485.27	15126.46
1,384	1,384	76,738	2,369	326.20	151.20	48.70	1,066.50	125.00
10,478	11,414	405,498	15,984	1,971.66	50.60	373.80	8,392.80	1,030.60
38,249	39,864	1,595,903	67,739	7,608.95	118.48	1,404.72	30,629.42	5,600.47
25,827	31,560	1,167,314	39,038	5,424.13	225.36	1,235.90	19,979.96	5,051.18
144	252	12,429	163	20.15	1.00	13.20	97.60	57.00
76,082	84,474	3,257,882	125,293	15351.09	546.64	3076.32	60166.28	11864.25
203,395	225,650	8,268,439	298,740	57819.71	7455.07	8097.82	154651.55	26990.71

Fig. V-1-2 Number of medical institutions classified by number of physicians

No. of physicians (permanent employment basis)	No. of medical institutions subject to reporting requirement	No. of voluntarily participating medical institutions	Total
<0 to 10 persons	39	36	75
<10 to 20 persons	44	37	81
<20 to 30 persons	30	26	56
<30 to 40 persons	20	23	43
<40 to 50 persons	8	19	27
<50 to 100 persons	31	59	90
<100 to 200 persons	14	44	58
<200 to 300 persons	19	8	27
<300 to 400 persons	26	1	27
<400 to 500 persons	19	0	19
<500 to 600 persons	13	0	13
600 persons or above	9	0	9
Total	272	253	525

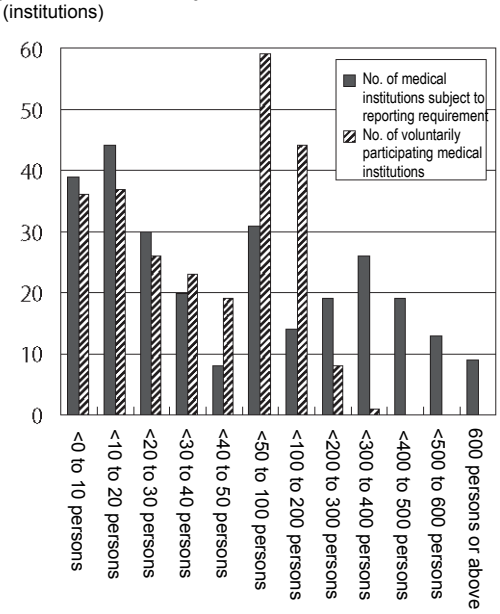


Fig. V-1-3 Number of medical institutions classified by number of dentists

No. of dentists (permanent employment basis)	No. of medical institutions subject to reporting requirement	No. of voluntarily participating medical institutions	Total
<0 to 2 persons	152	184	336
<2 to 5 persons	29	53	82
<5 to 7 persons	6	8	14
<7 to 10 persons	12	6	18
<10 to 20 persons	29	0	29
<20 to 50 persons	16	0	16
<50 to 100 persons	1	0	1
<100 to 150 persons	7	2	9
<150 to 200 persons	7	0	7
200 persons or above	13	0	13
Total	272	253	525

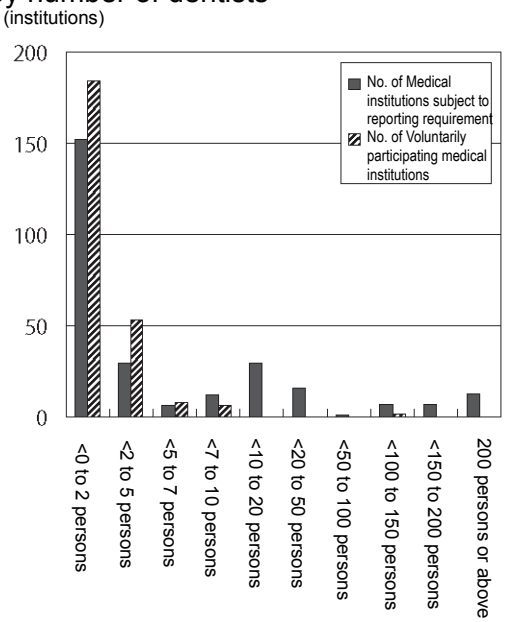


Fig. V-1-4 Number of medical institutions classified by number of pharmacists

No. of pharmacists (permanent employment basis)	No. of medical institutions subject to reporting requirement	No. of voluntarily participating medical institutions	Total
<0 to 10 persons	143	111	254
<10 to 20 persons	37	93	130
<20 to 30 persons	29	39	68
<30 to 40 persons	21	7	28
<40 to 50 persons	16	3	19
<50 to 60 persons	11	0	11
<60 to 70 persons	9	0	9
70 persons or above	6	0	6
Total	272	253	525

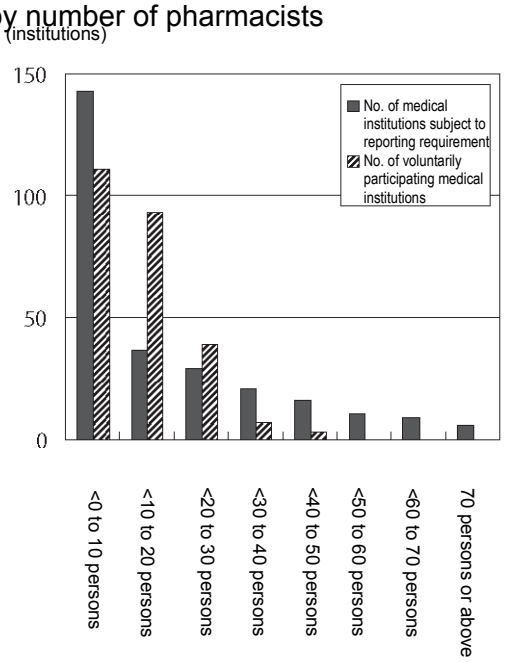


Fig. V-1-5 Number of medical institutions classified by number of nurses

No. of nurses (permanent employment basis)	No. of medical institutions subject to reporting requirement	No. of voluntarily participating medical institutions	Total
<0 to 100 persons	44	68	112
<100 to 200 persons	70	57	127
<200 to 300 persons	49	52	101
<300 to 400 persons	14	25	39
<400 to 500 persons	26	25	51
<500 to 600 persons	15	14	29
<600 to 700 persons	18	8	26
<700 to 800 persons	11	2	13
<800 to 900 persons	6	2	8
<900 to 1000 persons	9	0	9
1000 persons or above	10	0	10
Total	272	253	525

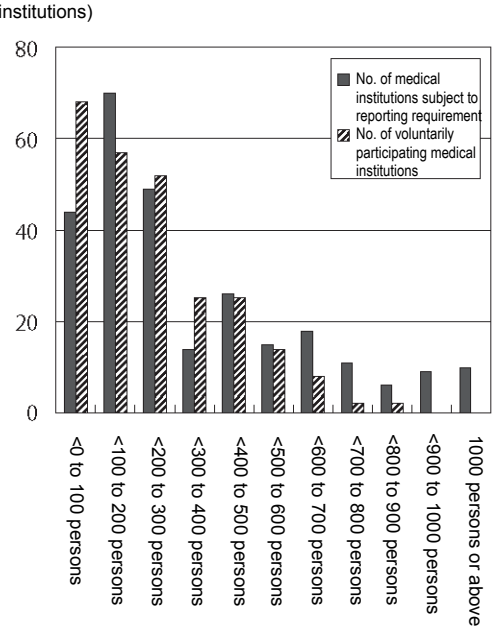
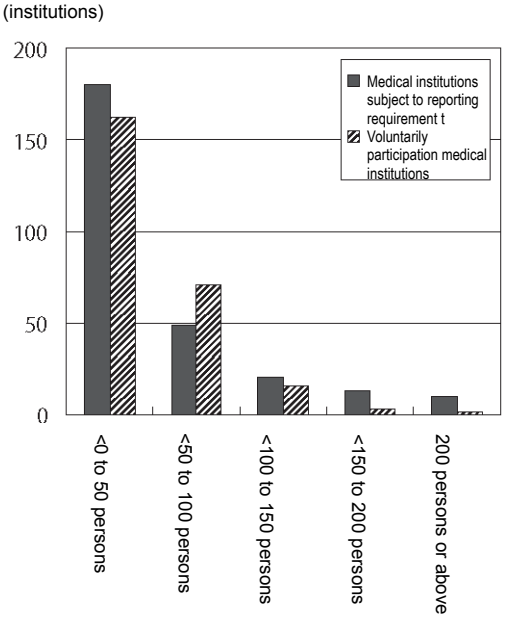


Fig. V-1-6 Number of facilities classified by number of clerical staff members

No. of clerical staff members)	Medical institutions subject to reporting requirement	Voluntarily participation medical institutions	Total
<0 to 50 persons	180	162	342
<50 to 100 persons	49	71	120
<100 to 150 persons	20	16	36
<150 to 200 persons	13	3	16
200 persons or above	10	1	11
Total	272	253	525



Basic Information Survey – Survey Form

1	Name of medical facility	
2	Founded by	
3	Location	(-)

4	Number of beds for psychiatric patients (as of October 1, 2008)	beds
5	Number of beds for infected patients (as of October 1, 2008)	beds
6	Number of beds for tuberculosis patients (as of October 1, 2008)	beds
7	Number of beds for chronic disease care (as of October 1, 2008)	beds
8	Number of beds for general care (as of October 1, 2008)	beds
9	Total number of beds (as of October 1, 2008)	beds
10	Total number of outpatient visits during September 2008	persons
11	Number of discharged patients during September 2008	persons
12	Number of physicians (on permanent employment basis; as of October 1, 2008)	persons
13	Number of dentists (on permanent employment basis; as of October 1, 2008)	persons
14	Number of pharmacists (on permanent employment basis; as of October 1, 2008)	persons
15	Number of nurses (on permanent employment basis; as of October 1, 2008)	persons
16	Number of clerical staff members (as of October 1, 2008)	persons

*Please enter the data adopted in your hospital report submitted in October 2008.

Please send the filled-in survey form by mail or FAX by November 20, 2008(Sunday).
Your cooperation will be appreciated.

Division of Adverse Event Prevention, Japan Council for Quality Health Care
10F Toyo Building, 1-4-17 Misaki-cho, Chiyoda-ku, Tokyo 101-0061
TEL: 03-5366-6616 (in charge of basic information survey)
FAX: 03-5366-6617 (in charge of basic information survey)

Date of publication: August 25, 2009

2008

Project to Collect Medical Near-miss/ Adverse Event Information
2008 Annual Report

Editing: Division of Medical Adverse Prevention
Japan Council for Quality Health Care

Place of publication: Division of Adverse Event Prevention
Japan Council for Quality Health Care
Toyo building
1-4-17 Misaki-cho, Chiyoda-ku, Tokyo
101-0061 Japan
Tel: 03-5217-0252

Printing: D'slabo Company Limited.

ISBN978-4-902379-19-8