Japan Council for Quality Health Care

Project to Collect Medical Near-Miss/ Adverse Event Information

Medical Safety Information

No.193, December 2022

Wrong Drug Administration Route (1st Follow-up Report)

Events involving the administration of a drug via a different route from that specified in the usage directions on the package insert were highlighted in Medical Safety Information No.101 “Wrong Drug Administration Route” (April 2015). As 15 similar events have subsequently been reported, information about this issue is hereby provided once again (information collection period: from March 1, 2015 to October 31, 2022). This information was compiled on the basis of the content featured in the Details of Events section of the 62nd Quarterly Report.

Cases have again been reported involving the administration of drugs via the wrong administration route, despite the route being specified in the order.

Drug Name	Usage Specified on Package Insert	Administration Method Used	Main Background Factors
Meptin inhalation solution 0.01%	Inhalation using a nebulizer	Intravenous injection	• The physician had ordered all oral medication to be changed to injection drugs, due to the removal of the patient’s enterostomy tube • The nurse had no experience of administering drugs by inhalation, so when the order for inhalation was issued, they assumed the drug was for intravenous injection like the other drugs
Incremin Syrup 5%	Oral administration	Intravenous injection	• On the ward in question, liquid medicine was routinely measured using the syringes used for intravenous injection • Liquid medicine was supposed to be put into a medicine cup before being handed to the patient, but Nurse A left the medicine in the syringe when handing it over to Nurse B with a request to administer it • Nurse B’s understanding was that drug solutions prepared in syringes were to be intravenously injected
Diluted Oxydol Solution	Otorhinolaryngology department: Topical application, drops, diluted for use in irrigation, spray, and gargle	Eye drops	• The physician had issued a continuation order for the ear drops brought in by the patient at hospitalization • The nurse looked at the container and assumed it contained eye drops

◆ Other cases reported included one in which a drug for subcutaneous injection was administered as an intramuscular injection, and another in which a drug for intravenous injection was administered as a subcutaneous injection.

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Case 1

The physician had ordered all oral medication to be changed to injection drugs, as the patient had removed their own enterostomy tube. Primary Nurse A (a second-year nurse) had no experience of administering drugs by inhalation, so when the order for inhalation of Meptin inhalation solution 0.01% was issued, they assumed the drug was for intravenous injection like the other drugs. Nurse A prepared Meptin inhalation solution 0.3 mL in a syringe. Nurse B checked the dosage on the order screen, but did not check the administration route. As inhalants were routinely prepared in syringes, Nurse B did not realize that Nurse A intended to administer the drug intravenously. Nurse A then intravenously injected Meptin inhalation solution.

Case 2

When preparing liquid medicine on the ward in question, the medicine was measured using a syringe and then put into a medicine cup before being handed over to the patient. Nurse A checked the order screen and measured out 5 mL of Incremin Syrup using a syringe. Nurse A left the medicine in the syringe and handed it over to Nurse B along with the patient's tablets, with a request to administer them. Nurse B did not check the order screen, and was of the understanding that drug solutions in syringes were to be intravenously injected. After the patient took their tablets orally, Nurse B intravenously injected the Incremin Syrup that was in the syringe. Immediately after this, the patient developed nausea and vomiting, and the monitor showed that they had become tachycardic.

Preventive measures taken at the medical institutions in which the events occurred

- **Check the administration route specified on the order before preparing or administering drugs.**
- **Use a dropper, medicine cup, catheter tip syringe, or similar item that cannot be connected to an intravenous line when preparing liquid oral medication and inhalants.**

The measures above are examples. Please consider initiatives suitable for your own facility.

* As part of the Project to Collect Medical Near-Miss/Adverse Event Information (a Ministry of Health, Labour and Welfare grant project), this medical safety information was prepared based on the cases collected in the Project as well as on opinions of the "Comprehensive Evaluation Panel" to prevent the occurrence and recurrence of medical adverse events. See the Project website for details.
https://www.med-safe.jp/

* Accuracy of information was ensured at the time of preparation but cannot be guaranteed in the future.

* This information is intended neither to limit the discretion of healthcare providers nor to impose certain obligations or responsibilities on them.

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