



Project to Collect Medical Near-Miss/  
Adverse Event Information

## Medical Safety Information

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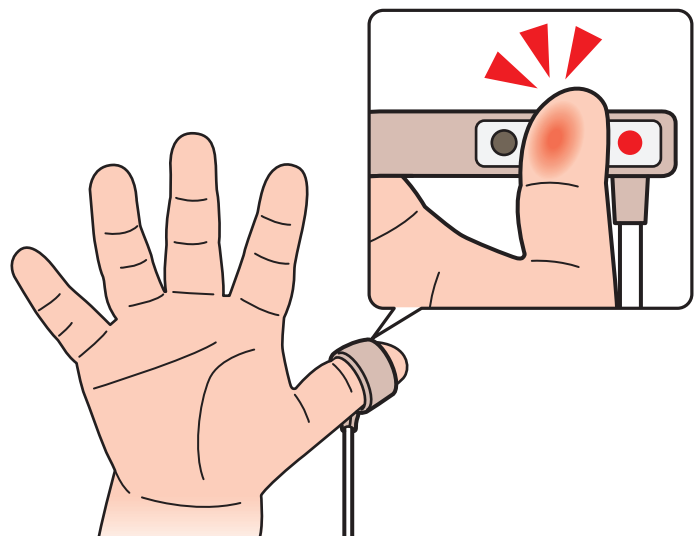
# Burns Caused by a Pulse Oximeter Probe

Seven cases have been reported in which a pulse oximeter probe caused burns (information collection period: from January 1, 2015 to February 29, 2020). This information was compiled on the basis of the content featured in the Details of Events section of the 50th Quarterly Report (p.85).

**Cases have been reported in which patients suffered burns from a pulse oximeter probe.**

Age of Patient	Number of Cases
Under 1 year old	2
1-3 years old	4
80s	1

Image of case



- ◆ A pulse oximeter probe is a sensor connected to a pulse oximeter unit, which is used for continuous measurement of percutaneous arterial oxygen saturation (SpO<sub>2</sub>) and pulse rate.
- ◆ The site to which the probe is fitted must be changed after a certain amount of time for all patients, not only those who are unable to communicate adequately, such as pediatric patients and patients with disturbance of consciousness.

## Burns Caused by a Pulse Oximeter Probe

### Case 1

The SpO<sub>2</sub> of a neonatal patient (1 day old) declined when at rest, so the baby was placed on a monitor. The pulse oximeter probe was put back on at 22:00 after becoming detached. The site where the probe was attached was meant to be changed every three hours, but the nurse was very busy and forgot to do so. When the probe was removed at 09:30 the following day, the skin at the site was found to be abnormal. A dermatologist examined the neonatal patient and diagnosed a low-temperature burn injury.

### Case 2

The patient was bedridden and wore a pulse oximeter probe around the clock. The package insert stated that site where the probe was attached needed to be changed every eight hours and that the patient's skin must be kept under observation, but this was done only when bathing the patient or giving them a bed-bath and was not routinely carried out on each shift. When the probe was removed for the patient's bed-bath, they were found to have a burn.

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

- Check the precautions for wearing listed on the pulse oximeter probe package insert and change the site where it is attached at the interval specified therein.
- When changing the site where the pulse oximeter probe is attached, observe and record the state of the skin at the site where it was attached.

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.

<http://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.

