



Japan Council for Quality Health Care

Project to Collect Medical Near-Miss/
Adverse Event Information

Medical Safety Information

No.7, June 2007

Extravascular leakage in pediatric patients

Regardless of whether or not the risk of extravascular leakage from blood vessel is included in the package insert, 9 cases of solution leakage in pediatric patients during intravenous administration and subsequent treatment required were reported. (information collection period, from October 1, 2004 to February 28, 2007; the information is partly included in "Medical Adverse Event Information to Be Shared" in the 8th Quarterly Report)

Symptoms and findings requiring treatment due to extravascular leakage from blood vessel were reported for pediatric patients such as infants.

Major symptoms / findings

- Skin ulcers
- Skin necrosis
- Chilliness of fingers
- Skin rash
- Fever
- Swelling
- Bulla

◆ All the reported cases were of pediatric patients, such as infants two years old or younger.

Extravascular leakage in pediatric patients

Case 1

During intravenous administration, the site of needle insertion on patient's hand was invisibly covered with opaque tapes and furthermore the patient was largely covered with a blanket to keep warm. The nurse noticed skin rash and swelling between the opaque tapes attached to the site of insertion, and immediately removed the indwelling needle. However, the entire thumb turned to be dark purple, and severe skin rash and swelling developed in both the right dorsal hand and palm were noted. A relaxation incision was required for treatment.

Case 2

Continuous infusion was provided to a pediatric patient by infusion pump. Right after night shift began, the nurse checked the inserted needle, confirmed that there was no leakage from a blood vessel, and apply the bandage and the splint again to fix the insertion. At a later regular visit and observation, intravenous drip was confirmed normal, however, observation on the insertion site was not carried out as the infusion pump alarm did not sound. The following morning, swelling of the entire left upper arm and skin ulcers surrounding the insertion site were observed.

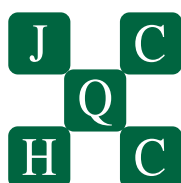
Preventive measures taken at the medical institutions in which the events occurred.

- During intravenous administration in pediatric patients, cover the insertion needle with transparent tape, and observe the insertion site regularly.
- Notify all the staffs that pressure alarm of infusion pump will not sound in cases of extravascular leakage from a blood vessel.

* 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 "Comprehensive Evaluation Panel" to prevent occurrence and recurrence of medical adverse events. See quarterly reports and annual reports posted on the Japan Council for Quality Health Care website for details of the Project. <http://www.med-safe.jp/>

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

* This information is neither for limiting the discretion of healthcare providers nor for imposing certain obligations or responsibilities on them.



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