Japan Council for Quality Health Care

Project to Collect Medical Near-Miss/ Adverse Event Information

Medical Safety Information

No.89, April 2014

Syringe Pump Mix-up

Four cases have been reported involving the mix-up of syringe pumps and operation of the wrong one due to a failure to check the drug name when using multiple syringe pumps (information collection period: from January 1, 2011 to February 28, 2013; the information is partly included in “Individual Theme Review” (p.82) in the 7th Quarterly Report).

Cases have been reported involving the mix-up of syringe pumps and operation of the wrong one due to a failure to check the drug name when using multiple syringe pumps.

Intended Operation (Syringe Pump 1)	Actual Operation (Syringe Pump 2)	Background to the Error
Fast feed of 10mL of a preparation of Novolin R	Fast feed of 10mL of PReDOPA Inj.	Operated pump without checking the drug name
Fast feed of 2mL of a preparation of morphine hydrochloride	Fast feed of 2mL of a preparation of Novo-Heparin for Injection	
Change to 5mL/h of a preparation of Nitorol	Change to 5mL/h of Kakodin Injection	
Fast feed of 0.5mL of a preparation of Heparin	Fast feed of 5mL of a preparation of Precedex	

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Case 1

0.9mL/h of a preparation of Novo-Heparin for Injection and 2mL/h of a preparation of morphine hydrochloride were being administered to the patient using 2 syringe pumps. When administering a fast feed of 2mL of the morphine hydrochloride preparation, because the patient's pain had increased, the nurse did not check the name of the drug on the syringe and operated the syringe pump for the preparation of Novo-Heparin for Injection instead. The nurse noticed the mix-up between the pumps when carrying out a check after administering the fast feed.

Case 2

0.5mL/h of a preparation of Nitorol and 0.5mL/h of Kakodin Injection were being administered to the patient using 2 syringe pumps. When changing the flow rate of the Nitorol preparation from 0.5mL/h to 5mL/h, the nurse did not check the name of the drug on the order sheet and the syringe, and operated the syringe pump for the Kakodin Injection instead. The nurse noticed the mix-up between the pumps because the patient's heart rate and blood pressure rose.

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

- **Staff will use the following methods to check details such as the name of the drug when operating syringe pumps.**
  - ○ **Staff members will check the drug name on the syringe against the order.**
  - ○ **Staff members will ensure that more than one person carries out a check when changing settings.**

* 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 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 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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