Japan Council for Quality Health Care

Project to Collect Medical Near-Miss/ Adverse Event Information

Medical Safety Information

Drug Mix-up Due to Similar Appearance

No.118, September 2016

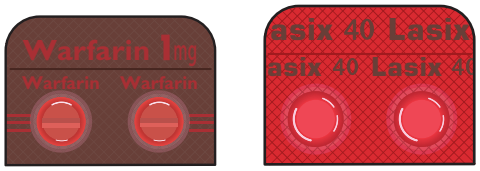
Four cases have been reported involving the erroneous administration of a drug to a patient, in which the similar color of the ampoules or packaging was a causal factor in the drug mix-up (information collection period: from January 1, 2012 to July 31, 2016). The information is compiled based on “Individual Theme Review” (p.135) in the 45th Quarterly Report.

Cases in which the similar color of the ampoules or packaging was cited as a background or causal factor in drug mix-up have been reported. In all cases, the medical staff involved failed to check the name of the drug.

Type	Format	Color	Drug Meant to Be Administered	Drug Mixed Up
Injection drug	Ampoule	Brown	Serenace 5mg	Silece 2mg
			Lasix 20mg	Primperan Injection 10mg
			Primperan Injection 10mg	Perdipine Injection 2mg
Oral medication	Press Through Package (PTP) Sheets	Red	Warfarin tablets 1mg	Lasix tablets 40mg

Injection drug involved in Case 1 (Image)

Oral medication involved in Case 2 (Image)



◆ Color photographs of the drugs can be found on p.141 of the 45th Quarterly Report (published in June 2016). (http://www.med-safe.jp/pdf/report_2016_1_T002.pdf)

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Case 1

During surgery, the patient complained of nausea and discomfort. When the surgeon, Physician A, issued a verbal order for "Primperan iv," the nurse was carrying out another procedure, so Physician B, who was aware that Primperan came in a brown ampoule, picked up the drug, prepared it alone, and then administered it. The patient's blood pressure subsequently fell into the 60-80mmHg range, so ephedrine was administered. After the operation was completed, when the nurse checked the ampoules of drugs used during surgery, s/he noticed that there were no empty Primperan ampoules, but there was an empty ampoule of Perdipine, which should not have been used. When the nurse checked with Physician B, s/he discovered that the physician had mixed up the drugs and administered Perdipine.

Case 2

The patient was seen as an outpatient, received oral medication at a health insurance pharmacy, and then went home. After the consultation, the patient began to suffer loss of appetite, severe fatigue, and difficulty walking. Two days later, the patient was seen again as an outpatient, because his/her condition had not improved, and was admitted to hospital with dehydration. After admission, when the patient's current medications were checked, a drug bag marked "Warfarin 1mg 3 tablets once daily, after dinner" was found to contain Lasix tablets 40mg. When the hospital pharmacist checked with the pharmacy, it was discovered that, when dispensing the prescription, the pharmacist had seen red PTP on the same shelf and assumed it to be Warfarin; this error was not noticed during the accuracy check, so the drug was handed over to the patient.

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

- **When picking up a drug, medical staff will check the drug name written on the ampoule or packaging.**

Complementary comment by the Comprehensive Evaluation Panel

- **Be aware that there are drugs whose ampoules or packaging are a similar color.**
- **Do not identify ampoules or packaging by color; decide on a procedure for checking the drug name when picking up a drug and comply with this procedure without fail.**

* 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.

Department of Adverse Event Prevention
Japan Council for Quality Health Care
1-4-17 Misakicho, Chiyoda-ku, Tokyo 101-0061 JAPAN
Direct Tel: +81-3-5217-0252 Direct Fax: +81-3-5217-0253
http://www.jcqhc.or.jp/