



MEMORANDUM

To: Clinic Manager
From: Lisle Mukai, QI Coordinator
Subject: **FDA Alert: New USP Standards for Heparin Products**
Date: October 5, 2009

***FDA Alert:
New USP Standards for Heparin Products***

The Network is required to distribute information regarding recalls that potentially affect ESRD facilities and/or patients. The information below was posted on October 1, 2009.

FDA notified healthcare professionals and patients of a change to heparin, effective October 1, 2009, which will include a new reference standard and test method used to determine the potency of the drug and able to detect impurities that may be present in heparin. The change, which will also harmonize the USP unit dose with the WHO International Standard unit dose, will result in approximately a 10% reduction in the potency of the heparin marketed in the United States.

This may have clinical significance in some situations, such as when heparin is administered as a bolus intravenous dose and an immediate anticoagulant effect is clinically important. Healthcare providers should be aware of the decrease in heparin potency as they monitor the anticoagulant effect of the drug; more heparin may be required to achieve and maintain the desired level of anticoagulation in some patients.

There will be simultaneous availability of heparin manufactured to meet the “old” and “new” USP monograph, with potential differences in potency. Products using the new “USP unit” potency definition are anticipated to be available on or after October 8. FDA is working with the manufacturers of heparin to ensure that an appropriate identifier is placed on heparin made under the new USP monograph. Most manufacturers will place an “N” next to the lot number. FDA is also working with the heparin manufacturers to study the impact of this variation in potency and will make the results available when the studies have concluded.

Attached is a flyer from the Kidney Community Emergency Response Coalition (KCER) regarding this recall. Please share this information as applicable within your organizations/practices.

Thank you for your time and attention to this important patient safety issue.

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Mission Statement

To provide leadership and assistance to renal dialysis and transplant facilities in a manner that supports continuous improvement in patient care, outcomes, safety and satisfaction.

October 1, 2009

New USP Standards for Heparin Products Will Result in Decreased Potency Adjustments may be needed to achieve desired anticoagulant effect in some patients

New Heparin to Ship Starting October 8

The U.S. Food and Drug Administration today alerted health care professionals to a change in heparin manufacturing that is expected to decrease the potency of the common blood-clotting drug.

To ensure the quality of heparin and to guard against potential contamination, the United States Pharmacopeia (USP), a nonprofit standards-setting organization, adopted new manufacturing controls for heparin. These changes include a modification of the reference standard for the drug's unit dose.

Manufacturers in the United States label the amount of heparin included in their products based on USP standards. The changes adopted by the USP for the heparin unit dose match the World Health Organization's International Standard (IS) unit dose definition that has been in use in Europe for many years. The revised USP reference standard and unit definition for heparin is about 10 percent less potent than the former USP unit.

A unit is the measure of a drug's activity in the body. For heparin, a unit dose is the measure of the drug's ability to block the blood's natural clotting ability (anticoagulation). Heparin's potency is determined by the dose of the drug required to produce a specific level of anticoagulation.

Manufacturers for the U.S. market have begun to make heparin using the new USP standard. While the USP manufacturing controls take effect Oct. 1 for production, the FDA has asked that they not ship this new product to customers until Oct. 8, 2009, or later. The delay will give health care providers and facilities time to learn about the changes and to make adjustments to their pharmacy procedures and dosing practices, according to John Jenkins, M.D. director of the Office of New Drugs in the FDA's Center for Drug Evaluation and Research.

"Although the FDA-approved labeling for heparin has not changed, including the recommended doses, it is essential that health care professionals be aware of the potential difference in potency between the old and new vials of heparin when administering the drug," said Jenkins.

Four companies market heparin in the United States. APP, the largest manufacturer, markets heparin in vials; Hospira markets heparin in intravenous bags, vials, and syringes; Baxter markets heparin in intravenous bags, and B. Braun markets heparin in intravenous bags. The FDA has asked that all manufacturers identify their new products to help pharmacies and health care professionals differentiate it from the former product.



Prescription and over-the-counter medicines available in the United States must generally meet USP's public standards, when such standards exist. The revised standards for heparin are contained in a new USP monograph.

The monograph was revised, in part, in response to a 2007- 2008 incident of heparin contamination involving a manufacturing step in China. The contaminated heparin was associated with deaths and other adverse events in the United States. The monograph was changed to include a test for the contaminant.

For more information

FDA Alert to Health Care Professionals

<http://www.fda.gov//Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm184502.htm>

USP Heparin Information

<http://www.usp.org/hottopics/heparin.html>

Information for Consumers: What You Should Know about Changes to Heparin

<http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm184504.htm>