Patient Safety Alert

Veterans Health Administration Warning System
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Item: **Baxter - Allergic Reactions to Heparin Sodium**

Specific Incident: The Food and Drug Administration (FDA) announced on February 11, 2008, that since December 2007, Baxter and FDA have received 350 reports of adverse reactions to heparin dispensed from Baxter multi dose vials. On January 17, 2008, Baxter issued a recall of 9 specific heparin lots (see affected lots listed under Action 1 below). The increase in adverse events was reported in patients receiving high bolus doses of heparin. Adverse events reported include: allergic or hypersensitivity-type reactions, with symptoms of oral swelling, nausea, vomiting, sweating, shortness of breath, and cases of severe hypotension requiring treatment. Most events develop within minutes of heparin initiation, although the possibility of a delayed response has not been excluded.

General Information: A possible link to severe allergic reactions has been associated with the use of Baxter multiple dose heparin vials and single dose vials. 40% of the cases are estimated as serious, based on preliminary and ongoing review. The number of reports seen in the past two months is a marked increase from the number of reports associated with heparin use normally received.

Since the January 17, 2008, recall, Baxter has also received similar reports of adverse patient reactions occurring in other lots of 1,000 units/ml, 10 ml and 30 ml multi-dose vials, 5,000 units/ml and 10,000 units/ml multi-dose vials and 5,000 units/ml single-dose vials when single doses were combined to create a larger bolus dose. The increase in reported adverse reactions has primarily occurred when used in the following clinical settings:

- Hemodialysis
- Invasive cardiovascular procedures (cardiac valvular surgery, coronary artery bypass graft (CABG) surgery, carotid endarterectomy and cardiac catheterization);
- Apheresis procedures (photo and plasma)

There have been isolated reports of reactions with other forms of heparin including premixed bags.

Actions: 1. By close of business (COB) February 20, 2008, Pharmacy Chiefs will assure that the following 9 lots of Baxter multi-dose heparin vials are removed from inventory, segregated and returned. Use the following link for information on returning affected product.
Recall Update - Baxter HealthCare - Heparin Inj.doc

Heparin Sodium Injection 1000 units/mL 10 mL vial			
NDC# (on pack)	NDC # (on vial)	Lot #	Expiration Date
0641-2440-45	0641-2440-41	107054	10/2009
0641-2440-45	0641-2440-41	117085	11/2009

Heparin Sodium Injection 1000 units/mL 30 mL vial			
NDC# (on pack)	NDC # (on vial)	Lot #	Expiration Date
0641-2450-45	0641-2450-41	047056	10/2008
0641-2450-45	0641-2450-41	097081	09/2009
0641-2450-45	0641-2450-41	107024	10/2009
0641-2450-45	0641-2450-41	107064	10/2009
0641-2450-45	0641-2450-41	107066	10/2009
0641-2450-45	0641-2450-41	107074	10/2009
0641-2450-45	0641-2450-41	107111	10/2009

2. Baxter has stopped manufacturing multi-dose heparin vials; therefore, use alternative manufacturers of multi-dose heparin when available until further notice.

3. Clinicians should administer heparin with caution regardless of indication or heparin preparation used. If heparin must be used physicians, dialysis center staff, and health care providers are to implement the following actions by COB February 21, 2008:

    a) Closely monitor the patient for adverse events, particularly hypotension and signs and symptoms of hypersensitivity and ensure that resuscitation equipment is available.
    b) Administer the heparin as an infusion (not a bolus) whenever possible. However there are anecdotal reports to infusions as well.
    c) Use the lowest dose necessary at the slowest infusion rate acceptable to obtain the desired clinical effect.
    d) Consider pretreatment with corticosteroids (cortisone type medicines) or antihistamines (drugs that relieve the symptoms of allergic reactions) although it is not known if such pretreatment is effective.
    e) To reduce the use of large bolus unfractionated heparin, clinicians should consider alternative anticoagulation strategies where appropriate; including low molecular weight heparins, factor Xa inhibitor, and direct acting anti-thrombin.
    f) Report all incidences of adverse reactions in the VA Adverse Drug Event Reporting System (ADERS).

Additional Information: Please refer to the following links for additional information:

1. Public Health Advisory
2. Question and Answers
3. FDA News
4. Recall Update - Baxter HealthCare - Heparin Inj.doc

Source: FDA

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