•HEMOPHLIC FACTOR VIII

Class: Antihemophilic Agent; Blood Product Derivative

Indications:

Prevention and treatment of hemorrhagic episodes in patients with hemophilia A (classic hemophilia); perioperative management of hemophilia A; can be of significant therapeutic value in patients with acquired factor VIII inhibitors not exceeding 10 Bethesda units/mL

Available dosage form in the hospital:

-HEMOPHLIC FACTOR VIII 1000MG VIAL

-HEMOPHLIC FACTOR VIII 250MG VIAL

-HEMOPHLIC FACTOR VIII 500MG VIAL

Dosage:**Hemophilia:** I.V.: Individualize dosage based on coagulation studies performed prior to treatment and at regular intervals during treatment. In general, administration of factor VIII 1 unit/kg will increase circulating factor VIII levels by ~ 2 units/dL. (General guidelines presented; consult individual product labeling for specific dosing recommendations.)

-Dosage based on desired factor VIII increase (%):

To calculate dosage needed based on desired factor VIII increase (%):

Body weight (kg) x 0.5 units/kg x desired factor VIII increase (%) = units factor VIII required

**For example:

50 kg x 0.5 units/kg x 30 (% increase) = 750 units factor VIII

-Dosage based on expected factor VIII increase (%):

It is also possible to calculate the **expected** % factor VIII increase:

(# units administered x 2%/units/kg) divided by body weight (kg) = expected % factor VIII increase

**For example:

(1400 units x 2%/units/kg) divided by 70 kg = 40%

-General guidelines:

-*Minor hemorrhage:* 10-20 units/kg as a single dose to achieve FVIII plasma level ~20% to 40% of normal. Mild superficial or early hemorrhages may respond to a single dose; may repeat dose every 12-24 hours for 1-3 days until bleeding is resolved or healing achieved.

-*Moderate hemorrhage/minor surgery:* 15-25 units/kg to achieve FVIII plasma level 30% to 50% of normal. If needed, may continue with a maintenance dose of 10-15 units/kg every 8-12 hours.

-*Major to life-threatening hemorrhage:* Initial dose 40-50 units/kg, followed by a maintenance dose of 20-25 units/kg every 8-12 hours until threat is resolved, to achieve FVIII plasma level 80% to 100% of normal.

-*Major surgery:* 50 units/kg given preoperatively to raise factor VIII level to 100% before surgery begins. May repeat as necessary after 6-12 hours initially and for a total of 10-14 days until healing is complete. Intensity of therapy may depend on type of surgery and postoperative regimen.

-*Bleeding prophylaxis:* May be administered on a regular basis for bleeding prophylaxis. Doses of 24-40 units/kg 3 times/week have been reported in patients with severe hemophilia to prevent joint bleeding.

If bleeding is not controlled with adequate dose, test for presence of inhibitor. It may not be possible or practical to control bleeding if inhibitor titers are >10 Bethesda units/mL.

Geriatric
Refer to adult dosing.

Renal Impairment:
No dosage adjustment provided in manufacturer's labeling.

Hepatic Impairment:
No dosage adjustment provided in manufacturer's labeling.

Common side effect:

<1%: Acute hemolytic anemia, AHF inhibitor development, allergic reactions (rare), anaphylaxis (rare), bleeding tendency increased, blurred vision, chest tightness, chills, fever, headache, hyperfibrinogenemia, jittery feeling, lethargy, nausea, somnolence, stinging at the infusion site, stomach discomfort, tingling, urticaria, vasomotor reactions with rapid infusion, vomiting

Pregnancy Risk Factor: C