Assessment Test
Challenges in Managing Acute Bleeding in Patients with Hemophilia

This activity is located at www.ashpadvantage.com/stopbleeding/ondemand

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1. Hemophilia B accounts for what percentage of all hemophilia cases?
   a. 20%.
   b. 30%.
   c. 50%.
   d. 80%.

2. Which of the following is consistent with a diagnosis of hemophilia in a 10-year-old boy with bleeding after falling off his bicycle?
   a. Normal CBC, abnormal platelet function, and prolonged PT/INR and aPTT.
   b. Low platelet count and prolonged PT/INR and aPTT.
   c. Normal CBC, platelet function, and PT/INR but prolonged aPTT.
   d. Normal CBC and platelet function but prolonged PT/INR and aPTT.

3. Which of the following statements best describes hemarthrosis in patients with hemophilia?
   a. Primarily involves the ankle, knee, and elbow joints and causes few restrictions in activities.
   b. Primarily involves the knee, elbow, and hip joints and causes substantial restrictions in activities.
   c. Primarily involves ankle, knee, and hip joints and rarely occurs before four years of age.
   d. Primarily involves the ankle, knee, and elbow joints and commonly occurs at least once before four years of age.

4. A poor response to treatment with recombinant factor VIII (i.e., increased bleeding) in an 3-year-old boy with congenital hemophilia A is most likely the result of
   a. Misdiagnosis.
   b. Inhibitor development.
   c. Infection.
   d. Overdosing error.

5. Acquired hemophilia might be suspected in a 39-year-old woman with excessive postpartum bleeding and
   a. A family history of the disorder.
   b. Clinical signs of hemarthrosis.
   c. An autoimmune disorder.
   d. Excessive bleeding after childhood immunizations.
6. A 60-year-old man presents with severe gastrointestinal bleeding, and it is determined that he has acquired hemophilia. Which of the following would be an appropriate approach for managing the acute bleeding in this patient?

a. Stop the bleeding by administering prothrombin complex concentrates and then eradicate inhibitor with immunosuppression (steroids).

b. Stop the bleeding by administering factor IX and then eradicate inhibitor with plasma exchange.

c. Stop the bleeding by administering cyclophosphamide and then eradicate inhibitor with factor VIII.

d. Eradicate inhibitor with immunosuppression (steroids), then follow up with recombinant factor VIIa three days later if bleeding continues.

7. In 1955, a man with congenital hemophilia developed acute bleeding after falling. Which of the following interventions was available at the time to managing his bleeding?

a. Supportive care alone.

b. Supportive care, fresh plasma, and whole blood.

c. Supportive care, fresh plasma, whole blood, and cryoprecipitate.

d. Supportive care, fresh plasma, whole blood, cryoprecipitate, and plasma-derived concentrated factor VIII and factor IX.

8. A man with congenital hemophilia develops acute bleeding in his right ankle after playing basketball. Which of the following are potential disadvantages of using recombinant factor VIII instead of plasma-derived factor VIII to manage bleeding in this patient?

a. Higher risk of transmission of viral infection and higher risk of inhibitor (i.e., antibody) formation.

b. Higher risk of transmission of viral infection and lack of safety and efficacy data in hemophilic population.

c. Higher risk of inhibitor formation and higher cost.

d. Lack of safety and efficacy data in hemophilic population and higher cost.

9. You are evaluating several first-, second-, and third-generation recombinant factor VIII products for inclusion in the formulary at your health system. For which of the following factors is documentation available demonstrating a difference among the three generations of products that should be taken into consideration in making formulary decisions?

a. Immunogenicity.

b. Hemostatic efficacy.

c. Infusion volume.

d. Half-life.

10. PW is a 20-year-old man with hemophilia A, spontaneous bleeding into his left knee, and an inhibitor titer of 6 BU/mL. Which of the following interventions should be used to manage his bleeding?

a. Fresh frozen plasma.

b. Cryoprecipitate.

c. Recombinant factor VIIa.

d. Recombinant factor IX.

11. Which of the following should be an important consideration when making formulary decisions related to the selection of clotting factors?

a. Choose among recombinant products based on safety and purity considerations.

b. Ensure that the formulary includes one representative product from each type of clotting factor.

c. Stock at least one dose of every clotting factor product so that home therapy can be continued unchanged during hospitalization.

d. Consider adequate shelf storage space in areas where the products are used.
12. A 35-year-old man with hemophilia is scheduled to have surgery in two weeks. Which of the following actions can be taken to minimize complications from the surgery?

   a. Consider the most minimally invasive procedure.
   b. Schedule the procedure for late in the week so that he has the weekend to recover.
   c. Recommend using an epidural or spinal block rather than general anesthesia, if possible.
   d. Check with the laboratory upon patient admission about the availability of assays that will be needed to monitor therapy.

13. Which of the following options best describes the primary reason for measuring factor concentrations when a factor product is administered as a continuous infusion?

   a. Quantify amount of inhibitors present.
   b. Assess bleeding severity.
   c. Determine whether dosing regimen is maintaining factor concentration in target range.
   d. Required for Medicare reimbursement of the factor product.

14. A postoperative patient with hemophilia is being treated with a hemostatic agent in your hospital. Which of the following indicators would be the most appropriate to monitor to assess the potential severity of internal bleeding?

   a. Hemoglobin.
   b. Serum potassium.
   c. Respiratory rate.
   d. Prothrombin time.

15. When monitoring patients with hemophilia who are receiving hemostatic agents for acute bleeding, how does Dr. Dager suggest timing changes in the rate or dosing interval of the selected factor product so that the effect of these changes on bleeding can be assessed?

   a. Just prior to physician assessment.
   b. Immediately after physician assessment.
   c. Without regard to physician assessment.

16. Key considerations for pharmacists related to managing hemostatic agents include all of the following EXCEPT

   a. Check with the prescribing physician about any planned changes in clotting factor concentrate infusions.
   b. Check that the correct billing is done.
   c. Check to see if an alternative agent is needed should therapy continue and dosing is escalated.
   d. Let the purchasing department handle decisions related to purchasing factor concentrates.