

Unit 12: Objectives: Adverse Effects of Blood Transfusion

1. Contrast immediate adverse effects with delayed adverse effects of transfusion.
2. List the signs and symptoms which should be looked for by the transfusionist which may be indicative of a hemolytic transfusion reaction.
3. State the five actions which must be performed by the transfusionist whenever adverse effects of transfusion occur.
4. State the three actions which comprise the laboratory evaluation of the suspected hemolytic transfusion reaction (HTR).
5. Describe the steps and testing which must be performed when clinical events suggest the possibility of an HTR.
6. Describe the tests which must be performed on the pretransfusion and post-transfusion samples when the DAT is positive and/or hemolysis is present in the immediate post-transfusion specimen.
7. List seven possible causes of nonimmune hemolysis.
8. Describe the recommended testing to perform to monitor the patient's clinical condition when hemolysis has been proven.
9. List seven additional tests which may be performed when routine tests are uninformative and immune hemolysis is still strongly suspected.
10. State the most common cause of life threatening hemolytic transfusion reactions.
11. Describe the clinical signs and symptoms often observed during an acute HTR.
12. Describe the goal of treatment of the acute hemolytic transfusion reaction.
13. Explain why total prevention of hemolytic transfusion reactions is impossible.
14. Define "febrile non-hemolytic reactions" and the product of choice for these patients.
15. Describe the symptoms which may occur, the appearance of the unit and laboratory investigation when bacterial contamination is suspected.
16. Describe the features which distinguish an anaphylactic reaction from other immediate adverse reactions.
17. State the constituent of plasma which may be responsible for anaphylactic reactions and the products of choice for transfusing these individuals.
18. Describe the cutaneous hypersensitivity reaction, including the most likely cause and treatment.
19. State the only immediate adverse effect in which the transfusion may continue.
20. Describe the signs and symptoms associated with circulatory overload.
21. State the recommended transfusion protocol to follow when patients are susceptible to circulatory overload.
22. Describe the signs, symptoms and mechanisms involved in non-cardiogenic pulmonary reactions.
23. Differentiate the delayed hemolytic transfusion reaction due to a primary immune with that due to a secondary immune response, including the time frame, antibody class involved, degree of hemolysis and results of serological tests.
24. Describe how the blood bank may be the department which may accidentally diagnose a DHTR.
25. State the reason for requiring blood samples for compatibility testing to be less than 72 hours old.
26. Explain why elution and identification of the antibody is critical when the DAT becomes positive in a recently transfused patient.
27. List nine diseases which may be transmitted through blood transfusion.
28. Describe the methods utilized by donor centers to eliminate possibly infected donors.
29. Describe the protocol which must be followed by blood bank personnel when a patient is diagnosed with post-transfusion hepatitis.
30. List the types of patients who may be eligible to receive CMV negative blood and components.
31. Describe the four point program blood providers follow to prevent transfusion transmitted AIDS.

32. List the three recommendations to reduce the potential spread of AIDS through blood transfusion.
33. Describe the signs/symptoms, cause and the transfusion practice to prevent Graft-vs-Host Disease (GVHD).
34. Describe the clinical symptoms of post-transfusion purpura.
35. State the specificity of the antibody commonly implicated in post transfusion purpura.
36. Describe the cause, dangers and treatment of transfusion hemosiderosis.
37. State the agencies which must be notified of transfusion complications, especially death.