

## Unit 9: Other Blood Group Systems

1. Define "high-incidence" or "public" and "low-incidence or "private" antigens.
2. Describe the importance of knowing the serologic behavior and characteristics of the major blood group antibodies.
3. For each of the following blood group state the following: *antigens*, most common *antibody class produced*, *ability to cause HDN and HTR phase of reactivity*, and *clinical significance*  
I/I, Lutheran, Lewis, Kell, P, Duffy, MN, Kidd, S,s and U
4. Describe the development of the i and I antigens and state the source of cells with the most i antigen.
5. List the diseases associated with anti-I and anti-i.
6. Describe the serological testing utilized to confirm the specificity of I/i antibodies.
7. Describe the development of the Lewis antigens on to the red blood cells.
8. Describe Lewis antigen and antibody activity during pregnancy.
9. State the principle of the Lewis neutralization test.
10. Explain how a person's secretor status influences their Lewis phenotype, give the Lewis phenotype of a secretor and nonsecretor and state what percentage of the population are secretors.
11. State the antibody class, reactivity and clinical significance of Lewis antibodies.
12. Describe the current transfusion practice as it relates to Lewis antibodies.
13. State the antibody class, reactivity and clinical significance of P antibodies.
14. State two substances used to inhibit anti-P1.
15. State the principle of the P1 neutralization/inhibition test.
16. State the antibody class, reactivity and clinical significance of M and N antibodies.
17. Describe how acidifying the serum affects antibodies to M.
18. Define "dosage affect" as it relates to antigen/antibody reactions.
19. Name the anti-N lectin.
20. State the antibody class, reactivity and clinical significance of S, s and U antibodies.
21. Name the high incidence antigen which black individuals of the S-s- phenotype may also be negative for.
22. Explain why anti-Lu<sup>a</sup> does not cause HDN.
23. Describe the characteristic agglutination reaction demonstrated by Lutheran antibodies.
24. State the antibody class and immunogenicity of anti-Lu<sup>a</sup> and anti-Lu<sup>b</sup>.
25. Describe the immunogenicity of the Kell antigen.
26. Describe the relationship of Kp<sup>a</sup>, Kp<sup>b</sup>, Js<sup>a</sup> and Js<sup>b</sup> with the Kell blood group system.
27. Describe the method utilized to detect other alloantibodies when a Duffy antibody is present.
28. State the disease from which people of the Fy (a-b-) phenotype are resistant to.
29. State the reason fresh serum may be the specimen of choice when Kidd antibodies are suspected.
30. Describe the dangers involved during transfusion if a Kidd antibody goes undetected.
31. List four additional blood group systems may cause production of unexpected antibodies and why these antibodies are infrequently encountered.
32. Name the only sex linked blood group.
33. Describe the difficulty of working up an antibody and finding blood for individuals with antibodies to high incidence antigens.
34. Describe what is meant by HTLA antibodies and the types of problems they cause in serological testing.
35. Describe the classic type agglutination reaction seen with Sd<sup>a</sup> antibodies.
36. State the principle of the procedure used to neutralize Sd<sup>a</sup> antibodies.
37. Explain why antibodies to low incidence antigens do not cause much of a problem .
38. Describe the Bg antigens and the problems the antibodies cause in serological testing.