Rh Discussion Questions

1. **What are the 5 main Rh antigens and their frequency in the general population?**

2. **Fill in the missing nomenclatures:**

Rosenfield	Wiener	Fisher-Race
	R1r	
	R2R2	
		dce/dce
		DcE/dce
		DCe/DCe
	R1R2	
		dCe/dce
	r″r	

3. **Name two genes are involved in Rh genetics and what does each code for?**

4. **Describe the mechanism by which most people of European ethnicity inherit the Rh negative phenotype.**

5. **Describe the mechanism by which most people of African descent inherit the Rh negative phenotype.**

6. **Describe the mechanism by which most people of Asian descent inherit the Rh negative phenotype.**

7. **What is the significance of the Rh-associated Glycoprotein (RhAG)?**

8. **What function to the Rh antigens provide for the red cell?**

9. **How do you test for the D antigen on red cells?**

10. **What are the 4 mechanisms which will allow a weak D antigen to occur?**

11. **What is meant when it is said that C is inherited *trans* to D?**

12. **Describe the difference between weak D and partial D.**

13. **Which weak D phenotype can make anti-D? Why?**

14. **If a patient has a weak D, should they be transfused Rh negative or Rh positive blood?**

15. **If a patient has a partial D, should they be transfused Rh negative or Rh positive blood?**

16. **List three situations where a weak D test may be performed and why it would need to be performed in that situation.**

17. **Which Rh antigen is the most immunogenic?**

18. **Which Rh antigen is the least immunogenic?**

19. **Is Rh reactivity increased or decreased by enzymes?**

20. **What immunoglobulin class are Rh antibodies?**

21. **Do Rh antibodies cause HDFN and TRXNs?**

22. **Do the Rh antigens bind complement?**

23. **How is HDFN from anti-D prevent in Rh negative mothers?**

24. **What does it mean when an individual inherits the Rh null phenotype?**

25. **What is the mechanism by which the regular type Rh null phenotype is formed?**

26. **What is the mechanism by which the amorphic type Rh null phenotype is formed?**

27. **What symptoms will a patient have that inherits the Rh null phenotype?**

28. **What is the mechanism by which the Rh_{mod} phenotype is formed?**

29. **What symptoms will a patient have that inherits the Rh_{mod} phenotype?**

30. **What is the frequency of the C^w antigen?**

31. **How does a person express the f antigen?**

32. **If a person with an anti-f needs a transfusion, what type of red cells should they be given?**

33. **When does a person express the G antigen?**

34. **If a person with an anti-G needs a transfusion, what type of red cells should they be given?**

35. **Why is it important to distinguish anti-D and C from anti-G during pregnancy?**

36. **What is the frequency of V and VS in Caucasians vs. African Americans?**

37. **What are the characteristics of the Deletion Phenotype?**

38. **How can you tell the difference between anti-LW and anti-D?**