

## HDN ABID CASE #2

1. The outside laboratory identified anti-D + -C. Note that the anti-C titer is greater than the anti-D titer. Is there any other possibility other than anti-D plus anti-C? What testing would prove this?

1. What is the specificity of the antibody?

*Anti-D, passively acquired from administration of RhIG.*

2. Is any further workup needed to prove it?

*Typically identification of an antibody requires 3 reactive antigen positive cells and 3 non-reactive antigen negative cells. In addition, the standard list of clinically significant antibodies should be ruled out. In this case the latter criterion is met, but the first is not. Given the history of RhIG administration we would not demand that another antigen positive, reactive cell be found.*

3. Why aren't all of the antigen-positive cells reacting? (Hint: What cells have the strongest expression of the antigen?)

*Note that the two R2R2 cells are reactive, but the R1R1 screening cell is not. R2R2 cells have the strongest expression of the D(Rh) antigen, and therefore are the most sensitive in detecting weak forms of anti-D.*

4. When she delivers, is this patient a candidate for RhIG? If so, what other testing should be done?

*In this case, since the anti-D is passively acquired, it is not a contraindication to RhIG. The newborn's cord blood RBCs should be tested for the R antigen. If the newborn is Rh positive, the patient is an RhIG candidate. In addition, a post-partum maternal specimen should also be screened for excess fetal maternal hemorrhage to determine if the patient needs more than one dose.*