AIHA CASE #5

1. What is the specificity of this antibody? Is this allo- or auto-antibody? Would an adsorption procedure help determine this?

The antibody shows anti-D+C+E-like specificity in gel which is less distinct in the PEG enhanced IAT. It is most likely autoantibody, but the fact that it is recoverable in the eluate does not prove this fact because the patient is transfusion dependant. An alloantibody in a *chronically transfused patient could also be on the RBCs and in the serum. The gel and PEG techniques are very sensitive to warm autoantibodies. Moreover, the fact that the antibody does not react in a LISS enhanced IAT suggests that it is not a clinically significant alloantibody.*

2. Is the extended Rh phenotype valid? What does it show? How could you determine a true Rh phenotype for the patient?

The phenotype is not valid since the patient has recently been transfused. All the tests indicate is that the patient has been transfused. A phenotype performed on a subsequent sample after a 4 month transfusion hiatus showed him to be D pos, C neg, c pos, E pos, e pos. The phenotype could be performed by DNA testing of the patient's white cells.

3. How would you provide safe RBC transfusion for this patient?

Based on the negative LISS screen our laboratory would use RBCs that were compatible by our standard saline crossmatch.