AIHA CASE #10

1. Do you agree with this diagnosis? Are you comfortable stopping there?

No! The technologist has demonstrated that there is a cold autoantibody, but that does not prove that the reactions seen in gel are DUE to the cold autoantibody.

2. Why might there be a discrepancy between the initial and repeat DAT results? (Hint: check procedure #215 or the manufacturer's package insert.) (Hint #2: it was a busy morning.) Why was the evening shift supervisor prompted to repeat this test?

The anti-IgG component of the AHG may react best if read immediately, so the tube should be mixed, spun, and read right away. This is demonstrated in the repeat DAT in which the agglutination disappeared after 5 minute's incubation. the incubation is performed in order to increase the sensitivity of the anti-complement component of the AHG. The evening shift supervisor repeated the test because he did not think that demonstration of a cold autoantibody explained the gel reactions and perceived a discrepancy between the panel and DAT results.

3. What antibody(ies) is(are) present? What assumption made by the initial technologist led to the erroneous result?

The technologist who initially worked on the problem made the assumption that the gel reactions were explained by the cold autoantibody she demonstrated. This could have been the case as the gel technique is relatively sensitive to cold autoantibodies. However, it is also sensitive to warm auto-antibodies, and in order to ascribe the positive reactions in gel to a cold autoantibody, there should have been explicit demonstration that the reactions were eliminated by REST or cold auto-adsorption. They were not, in fact, but were decreased by warm autoadsorption. The latter eliminated the positive reactions with LISS and PEG enhancement media, and there was not sufficient sample to take the workup further.