Autoimmune Hemolytic Anemias- Overview  
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I. Categories and Diagnostic Algorithm
A. Hallmark of AIHA: DAT (direct Coomb’s test) positive
B. Categories
   o Warm IgG AIHA, (WAIHA)
   o Cold IgM AIHA, (aka Cold Agglutinin Syndrome, or CAS)
   o Mixed cold and warm AIHA
   o Paroxysmal Cold Hemoglobinemia
   o Drug-induced hemolytic anemia
C. Diagnostic Algorithm

![Diagram: Diagnostic Algorithm for Immune-Mediated Hemolysis]

II. General Transfusion-Related Concerns
A. Decision to transfusion: Is it safe?
   o May be time consuming to work-up the patient and to find appropriate RBC units. The blood bank should begin the serological work-up as soon as possible, and maintain communications with the clinicians.
   o Clinical decision to transfusion should be based on the severity of anemia, progressiveness of the anemia, and clinical findings. Patient should be monitored closely because hemolysis can occur briskly in AIHAs.
Transfusion thresholds should only be at slightly lower Hgb level than for other patients. Do not withhold transfusion because fully compatible units can not be found. In warm AIHA, it may not even be possible to have crossmatch compatible units. The appropriately selected unit should not be hemolyzed any faster than the patient’s own RBCs despite incompatible test results.

B. Serological investigation

- ABO Rh typing can be done without difficulty in most patients with WAIHA. However in patients with cold agglutinin, use proper control (especially with Rh), special techniques (prewarming, REST adsorption) to ensure that spontaneous agglutination does not occur due to patient’s own autoantibody.

- If autoantibody is weak and does not show up in a specific crossmatch method/technique (e.g. saline crossmatch, or cross match in gel, as opposed to solid phase or tube crossmatch, or after after prewarming the sample in the case of cold AIHA), can consider performing crossmatch in the “less sensitive “method. This is based on the assumption that most clinically significant alloantibody should be detected by any of these methods.

- Goal is to select RBCs that will survive as long as the patient’s own cells. The “least incompatible unit” (some blood bankers prefer the term “most compatible”) is selected if patient’s serum is reactive with all units.