DAT NEGATIVE HEMOLYTIC ANEMIA EVALUATION

BloodCenter of Wisconsin's AABB-Accredited Immunohematology Reference Laboratory provides expert testing for evaluation of immune hemolytic anemias.

SYNONYMS:
Immune Hemolytic Anemia Evaluation; Micro Coombs; Super Coombs.

BACKGROUND:
A negative Direct Antiglobulin Test (DAT) is seen in approximately 1% of patients presenting with signs and symptoms of immune hemolysis. A well-performed standard DAT detects approximately 100-500 molecules of bound IgG per red cell. Our laboratory performs a more sensitive DAT ("super Coombs") in order to confirm a diagnosis of autoimmune hemolytic anemia in patients whose samples have tested negative in a standard DAT for any of the following reasons:

- Patient RBCs are sensitized with small numbers of IgG molecules, below the level of detection of the standard DAT.
- Low-affinity IgG autoantibodies are eluted from RBCs during routine washing of the RBCs prior to the detection phase of the standard DAT.
- IgA autoantibodies not detected by a standard DAT that is performed using monoclonal AHG.2,3

METHOD:
Serological
Typically includes:
- ABO and Rh
- Direct Antiglobulin Tests, including IgA Detection
- Elutions (routine and enhanced)
- Antibody Detection Tests (routine and enhanced)

*Additional tests as necessary based upon results determined by Immunohematology Reference Laboratory

LIMITATIONS:
Negative results do not completely rule out the presence of immune-mediated hemolytic anemia. Positive test results are not absolutely diagnostic of immune hemolytic anemia and must be used in combination with clinical information to make a diagnosis.

REASONS FOR REFERRAL:
Evaluation of patients developing hemolysis in the absence of serologic evidence to support a diagnosis of immune-mediated hemolytic anemia. Results may allow diagnosis of autoimmune hemolytic anemia, thereby assisting the physician in management of the patient.
SPECIMEN REQUIREMENTS:
Three 7 ml clot tubes (red top) and two 5 ml EDTA (lavender top) whole blood

SHIPPING REQUIREMENTS:
Place the specimen and the test requisition form in plastic bags, seal, and surround with cold packs in a Styrofoam container. Seal the container and place in a sturdy cardboard box and tape securely. Ship the package in compliance with your overnight carrier guidelines. Label with the following address:

Client Services/Immunohematology Reference Laboratory
BloodCenter of Wisconsin
638 N. 18th St.
Milwaukee, WI 53233
800-245-3117 x6205

CPT CODES: 86880 x 8, 86860, 86850 x 5, 86900, 86901, 86870

TURNAROUND TIME: 2 days

REFERENCES:
1. Fueger JT, Gottschall JL, Curtis BR, Johnson ST. DAT-negative immune hemolytic anemia – the role of enhanced techniques. Transfusion 2003;43(suppl.):103A.

GENERAL REFERENCES FOR IMMUNE HEMOLYTIC ANEMIA: