



*Danbury Hospital*  
Department of Pathology & Laboratory Medicine  
**Technically Speaking**

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*C. S. Guidess, Editor*

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**DANBURY HOSPITAL LABORATORY AWARDED CAP ACCREDITATION  
WITH COMMENDATION!!**

**THANK YOU ALL FOR YOUR SUPPORT!**

**Criteria for Ordering "Special" Blood Products**

Abby Sweeney, BS MT (ASCP)

Special blood products are often requested for patients in certain situations.

Leukoreduced and irradiated products as well as those tested to be serologically negative for cytomegalovirus (CMV) are commonly requested.

**Leukoreduced**

It has been believed that donor white blood cells in blood transfusions are responsible for febrile, nonhemolytic(FNH) transfusion reactions and transfusion-related acute lung injury (TRALI). Even more recently, there have been concerns about infectious agents such as CMV, EBV, HTLV-1, as well as transfusion-associated graft-vs-host disease (TA-GVHD). Patient populations such as the multiple-transfused, leukemic, immunosuppressed, immunodeficient, and those with aplastic anemia are all potential candidates for leukoreduced products. Leukoreduction has not been indicated as a measure to prevent graft-vs-host disease (GVHD).

**Irradiated Products**

Use of irradiated blood and platelets has risen dramatically in the past few years. Irradiation prevents proliferation of T-lymphocytes which is the immediate cause of graft-vs-host disease. Irradiated products are indicated for use in those patient populations who are at risk for GVHD. These groups include: fetal recipients of intrauterine transfusion, immunocompromised patients (ie. congenital immunodeficiency syndrome), recipients of cellular components from a blood relative, recipients who have undergone marrow or stem-cell transplantation, and transplantation whose donor is selected for HLA-compatibility.

**CMV Negative Products**

CMV-negative blood products are selected by performing additional testing for antibodies to the cytomegalovirus. This testing is not necessary on plasma or plasma containing components. It is indicated for CMV-seronegative individuals who are at high risk for severe CMV infections. Those at risk include pregnant women and their fetuses, low birthweight infants, marrow transplant recipients, severely immunosuppressed patients, and HIV-positive patients. Effectively, leukoreduced

components are considered equivalent to serologically screened components by many experts, although this is controversial.

Units that are leukoreduced, CMV Negative and/or irradiated are costly. Requests for each of these special attributes incurs additional charges per unit. Therefore, it is essential that proper guidelines are followed. Please contact Blood Bank at x7205 with additional questions.

**References:**

*AABB Technical Manual, 14<sup>th</sup> Edition, 2003*

*Harmening DM. Modern Blood Banking and Transfusion Practices, 4<sup>th</sup> edition, 1999.*

*Circular of Information for the use of Human Blood and Blood Components, American Red Cross, July 2002.*

**New ADA Guidelines for Fasting Glucose and Impaired Fasting Glucose**

S. F. Sena, Ph.D., Associate Medical Director, Clinical Chemistry

The American Diabetes Association's Expert Committee on the Diagnosis and Classification of Diabetes Mellitus recently published a "Follow-up Report on the Diagnosis of Diabetes Mellitus" in the November 2003 issue of *Diabetes Care* (vol. 26, no. 11, pp. 3160-67). This article details the results of the committee's review of all published papers related to the diagnosis of diabetes since the publication of the ADA recommendations in 1997.

The sole diagnostic change recommended by the committee was to lower the cut point for diagnosis of impaired fasting glucose (IFG) by fasting blood glucose testing from  $\geq 110$  to  $\geq 100$  mg/dL. IFG (and therefore pre-diabetes) would be redefined as a fasting glucose of 100-125 mg/dL. This recommendation was made after analysis of population studies by their ability to predict diabetes showed that a cut point of 110 mg/dL was inappropriately high. Decreasing the cut point from 110 to 100 mg/dL will increase the sensitivity of fasting blood glucose testing and reduce false negative results.

The cut point for diagnosis of diabetes from fasting glucose testing remains at  $\geq 126$  mg/dL. Likewise, the diagnostic criteria for impaired glucose tolerance (IGT) and diabetes in the 2-hour post-glucose (2-h PG) sample from the 2-hour oral glucose tolerance test both remain the same, i.e. a 2-h PG of 140-199 is consistent with IGT and a 2-h PG of  $\geq 200$  mg/dL is consistent with diabetes.

Accordingly, the Danbury Hospital Laboratory will be changing the reference values for fasting glucose and impaired fasting glucose that appear on our patient reports to reflect the above modifications in the ADA recommendations.

[The full report of the ADA Expert Committee can be viewed at <http://care.diabetesjournals.org/cgi/content/full/26/11/3160>.]

**STAT HIV Testing for Exposure Patients**

As a replacement for the SUDS (single use device system) assay, OraQuick Rapid HIV-1 antibody test is now available for STAT HIV testing for exposure patients. *Specimen requirements have changed:* whole blood EDTA specimen is required (lavender stoppered tube.). Questions may be called to Immunology at (203)797-7390.

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