

# TURNAROUND TIMES

Department of Pathology and Laboratory Medicine  
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The University of Kansas Medical Center  
3901 Rainbow Blvd, Kansas City, Kansas 66160

## Surgical Pathology Update

Ossama Tawfik, MD, PhD

As of April 24th, Surgical Pathology moved across the hall to 1426 KU Hospital. The facility sports new equipment and better space to accommodate the growing surgical specimen load expected from the new Operating Rooms. In addition, ventilation in the grossing area and histology is much improved. Pathology offices are now being renovated and should be ready by the end of July. You can find us spread all over the first floor of the hospital currently. Don't hesitate to page if you can't find us.

You also should have noticed an improvement in the format of the Surgical Pathology reports on SMS-Net. You will see that the demographics have been wrapped into 5 lines followed immediately by the final diagnosis. It's no longer necessary to page through 8 pages of gross and microscopic description to find the diagnosis. Finally, we have begun to email final Surgical Pathology reports to attendings, rather than sending them by hard copy. You should get your results in minutes of verification in your Inbox. If you prefer, we can email them to your administrative assistant – just let us know. The reports are now in .tif format. By the end of summer we will upgrade our CoPath software and the reports will be in .pdf format.

## Blood Bank Update

Lowell Tilzer MD, PhD and Jigar S Patel MD

Beginning July 1, 2006, Community Blood Center of Kansas City, our blood supplier, will be providing only Prestorage Leukocyte Reduced (LR) Red Blood Cells. This is because they can no longer juggle two inventories of Red Cell components, LR and Non-LR RBCs. At the same time, Cytomegalovirus (CMV) seronegative Red Blood Cells will no longer be available. The leukoreduction step done at the Blood Center not only removes the White Blood Cells, but also the CMV within those WBCs. Thus, the new LR Red Cells will also be "CMV safe." These changes are in line with the majority of other blood centers across the USA. This change will cost the hospital an extra \$100,000 each year, but it should be worth it. Recent literature shows LR Red

Cells decrease febrile nonhemolytic transfusion reactions, CMV transmission, HLA alloimmunization (platelet refractoriness), and post operative infections. It is hoped that the LR Red Cell use will help reduce Length of Stay for our patients while improving their overall experience with transfusions.

## Therapeutic Apheresis Consultation

Jigar S Patel MD and Lowell Tilzer MD, PhD

Transfusion Medicine is available for therapeutic apheresis consultation at the University of Kansas Medical Center. Therapeutic apheresis patients require special attention and coordination of services that are unique and best served by consultation with Transfusion Medicine physicians. Over the last several months we have participated in the care of many patients with the approval of clinical faculty. Coordination of staff, from the Community Blood Center of Kansas City, and clinical services by Transfusion Medicine are making the care of these challenging patients more effective and timely. In an effort to provide the best medical care we strongly encourage the use of these services and expertise provided by Transfusion Medicine Consultation.

Currently the American Society for Apheresis (ASFA) and the AABB (The Association formerly known as the American Association of Blood Banks) regularly review the medical literature regarding Apheresis technologies and efficacy. They then synthesize and publish Category Indications based on medical evidence supporting or refuting the utility of these various therapeutic maneuvers. Many disease processes have category I status where apheresis has become a mainstay of therapy. The most current ASFA Category Indication list is reproduced here for reference.

The most common therapeutic procedure performed is Plasmapheresis or Therapeutic Plasma Exchange (TPE). The following information is important to consider when ordering Apheresis Services:

Type of procedure

Volume to be exchanged

Plasma volume will be based on height, weight, and hematocrit (e.g. 1.0 volume)

Number of procedures

Schedule of procedures  
Replacement Fluid

Most cases use 25% of the replacement to be 0.9% NaCl and 75% of the replacement to be 5% solution of albumin in 0.9% NaCl, TTP patients should use entirely FFP

Calcium replacement

Required to be given concurrently with procedure (by KU nursing)

Laboratories

Fibrinogen, Ionized calcium, PT, PTT, INR, and CBC should be ordered as a baseline, after the second or third procedure then daily or every other day based on values and patient condition.

Please call the Blood Bank, at 1760, to request consultation services.

**American Society for Apheresis (AFSA) Categories Indications for Therapeutic Maneuvers in Transfusion Medicine**

- Category I A standard acceptable therapy
- Category II Sufficient evidence to suggest efficacy usually as adjunctive therapy
- Category III inconclusive evidence of efficacy or uncertain risk/benefit ratio
- Category IV lack of efficacy in clinical trials

Disease	Procedure	
<b>Renal and Metabolic Diseases</b>		
Anti-glomerular basement membrane antibody disease	Plasma exchange	I
Rapidly progressive glomerulonephritis	Plasma exchange	II
Hemolytic uremic syndrome	Plasma exchange	III
Renal transplantation		
Rejection	Plasma exchange	IV
Presensitization	Plasma exchange	III
Recurrent focal glomerulosclerosis	Plasma exchange	III
Heart transplant rejection	Plasma exchange	III
	Photopheresis	III
Acute hepatic failure	Plasma exchange	III
Familial hypercholesterolemia	Selective adsorption	I
	Plasma exchange	II
Overdose poisoning	Plasma exchange	III
Phytanic acid storage disease	Plasma exchange	I
<b>Autoimmune and Rheumatic Diseases</b>		
Cryoglobulinemia	Plasma exchange	II
Idiopathic thrombocytopenic purpura	Immunoadsorption	II
Raynaud's phenomenon	Plasma exchange	III
Vasculitis	Plasma exchange	III
Autoimmune hemolytic anemia	Plasma exchange	III
Rheumatoid arthritis	Immunoadsorption	II
	Lymphoplasma-pheresis	II
	Plasma exchange	IV
Scleroderma/progressive systemic sclerosis	Plasma exchange	III
Systemic lupus erythematosus	Plasma exchange	III
<b>Hematological Diseases</b>		
ABO incompatible marrow transplant	Red cell removal (marrow)	I
	Plasma exchange (recipient)	II
Erythrocytosis/polycythemia vera	Phlebotomy	I
	Erythrocytapheresis	II
Leukocytosis and thrombocytosis	Cytapheresis	I
Thrombotic thrombocytopenia purpura	Plasma exchange	I
Post-transfusion purpura	Plasma exchange	I
Sickle cell diseases	Red cell exchange	I
Myeloma/paraproteins/hyperviscosity	Plasma exchange	II
Myeloma/acute renal failure	Plasma exchange	II

Disease	Procedure	
Coagulation factor inhibitors	Plasma exchange	II
Aplastic anemia/pure red cell aplasia	Plasma exchange	III
Cutaneous T-cell lymphoma	Photopheresis	I
	Leukapheresis	III
Hemolytic disease of the newborn	Plasma exchange	III
Platelet alloimmunization and refractoriness	Plasma exchange	III
	Immunoadsorption	III
Malaria/babesiosis	Red cell exchange	III
<b>Neurological Disorders</b>		
Chronic inflammatory demyelinating polyradiculoneuropathy	Plasma exchange	I
Acute inflammatory demyelinating polyradiculoneuropathy	Plasma exchange	I
Lambert-Eaton myasthenic syndrome	Plasma exchange	II
Multiple sclerosis		
Relapsing	Plasma exchange	III
Progressive	Plasma exchange	III
	Lymphocytapheresis	III
Myasthenia gravis	Plasma exchange	I
Acute central nervous system inflammatory demyelinating disease	Plasma exchange	II
Paraneoplastic neurologic syndromes	Plasma exchange	III
	Immunoadsorption	III
Demyelinating polyneuropathy with IgG/IgA	Plasma exchange	I
	Immunoadsorption	III
Sydenham's chorea	Plasma exchange	II
Polyneuropathy with IgM (± Waldenstrom's)	Plasma exchange	II
	Immunoadsorption	III
Cryoglobulinemia with polyneuropathy	Plasma exchange	II
Multiple myeloma with polyneuropathy	Plasma exchange	III
POEMS syndrome	Plasma exchange	III
Systemic (AL) amyloidosis	Plasma exchange	IV
Polymyositis or dermatomyositis	Plasma exchange	III
	Leukapheresis	IV
Inclusion-body myositis	Plasma exchange	III
	Leukapheresis	IV
Rasmussen's encephalitis	Plasma exchange	III
Stiff-Man syndrome	Plasma exchange	III
PANDAS	Plasma exchange	II