Protocol for Requesting Therapeutic Apheresis 03/18/2010

Contact Information:
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Blood Bank phone 323-5401

General Information:
Therapeutic apheresis is requested by various clinical services (most often Hematology-Oncology and Neurology) and must be approved by the Blood Bank attending. The Apheresis Service is staffed by two pathologists (three after July 2010) and three apheresis machine operators. Although available 24-7 for true emergencies, after-hours procedures stress these limited resources. The service may sometimes be overwhelmed and temporarily unable to fulfill all requests. Most procedures require placing a central dialysis-suitable catheter which can significantly delay procedures and has inherent risks. To ensure that the procedure is physically available and clinically reasonable, requesting services should confer with the on-call Blood Bank attending before accepting transfers from outside hospitals or placing central lines, especially if apheresis is the only reason for these.

Urgency, Frequency and Duration of Treatment:
Apheresis indications vary in urgency and quality of evidence, as well as in optimal frequency and duration of treatment. Life- or limb-threatening emergencies (e.g., TTP) may require urgent after-hours treatment and daily procedures until controlled. Removal of tissue-bound autoantibodies (e.g., myasthenia gravis, humoral transplant rejection), even when clearly indicated, usually requires several procedures two to three days apart to produce the desired effect most efficiently. Improvement is seldom quick enough to avoid needed ventilator support or dialysis. Thus plasma exchanges for tissue antibody diseases are rarely warranted at night or over weekends.

Request Protocol:
Apheresis requests are most efficiently conducted attending to attending. Residents or fellows on the requesting service may call the pathology resident, but they (and/or the clinical attending) will be asked to speak with the Blood Bank attending as well. Although necessary, ordering the procedure in the computer without contacting Pathology is NOT sufficient notification.

Verbal consultation with the Blood Bank attending is appropriate as soon as apheresis is considered; we can advise on indications, timing, replacement fluids, medications, vascular access, etc., and plan accordingly. Consultation is provided without charge until the procedure is formally agreed on.

A special signed informed consent for apheresis may be obtained by the clinical service or the Blood Bank pathologist, but must be on the chart prior to the procedure. Central line placement, X-ray verification (needed for lines placed near the heart), and computer
orders for replacement fluids and calcium supplements are the responsibility of the clinical service. We request that the responsible clinical service provide appropriate medical coverage during after-hours inpatient procedures, especially if the patient is not in an ICU. (By definition, urgent inpatients are at most risk for complications.) The attending Blood Bank physician will be readily available by pager or phone, but will not necessarily be in-house during an after-hours inpatient procedure.

Further information is available by calling the Apheresis Lab, the on-call Pathology resident, or one of the Blood Bank attendings, or by referring to the accompanying Therapeutic Apheresis Information Sheet.

See attached Appendix for detailed clinical instructions.
Appendix: Summarized Instructions for Ordering and Covering Apheresis – Clinician Version

   Dr. MacIvor’s pager 330-4140    Dr. Boral’s pager 330-0367

2. If you are considering apheresis, please call the Apheresis-Infusion Center, the on-call Pathology Resident or the on-call Blood Bank attending early on. We can help you decide on indications, timing, frequency and duration, medications, etc., and plan our own schedule better. **Ordering apheresis in the computer is necessary but not sufficient for timely notification.**

3. Most therapeutic apheresis patients require central venous access with a dialysis-suitable catheter, typically Udall or Cannon catheters. These can be placed in the Angio Suite or at the bedside by an appropriate service (Pulmonary, Renal, Surgery). IJ and subclavian catheter positions must be verified prior to apheresis. **Catheter placement and verification can significantly delay the procedure.**

4. Apheresis requires replacement fluid: saline, albumin or plasma, and sometimes RBCs, depending on the indication. Please call the Apheresis Service for any questions about the appropriate fluid or amount required for a one-volume exchange, and order the fluid in the computer.

5. Hypocalcemia due to citrate anticoagulant is common during apheresis. This is readily treated with p.o. or IV calcium. Please order ampoules of Calcium Gluconate to the bedside **FOR PRN APHERESIS USE ONLY.** Other p.r.n. medications sometimes needed include Phenergan, Benadryl, and Solu-Medrol.

6. Informed consent must be obtained (this is separate from that for the line placement). Specific apheresis consent forms can be obtained from the Blood Bank, or these can be supplied to your service. The risks of apheresis are detailed on the form. The Blood Bank attending may have obtained consent at the time of initial consultation, but please ensure that a signed consent form is on the chart.

7. Apheresis procedures take between 1 ½ to 6 hours depending on diagnosis and patient factors. The apheresis nurses can handle most problems independently or by phone with the Blood Bank attending. Serious adverse events are rare, and medical intervention is seldom necessary, but a physician who is aware of the procedure must be readily available. **PLEASE ENSURE THAT A PROCEDURE IN PROGRESS IS APPROPRIATELY “HANDED OFF”!**

8. Bedside consultation by Pathology is available after hours for particularly difficult cases, but immediate medical coverage for most after-hours inpatient procedures must be provided or arranged for by the requesting or primary service.