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Subject:	TRANSFUSION SERVICE				
Approved by: Laboratory Executive Director, Ed Hughes (electronic signature)					
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TRANSFUSION SERVICE

CROSSMATCHING OF BLOOD:

Use of "Type & Screen" (T&S) is encouraged. It requires approximately 60 minutes after the sample is received in the Transfusion Services. A T&S blood sample can be used 3 days for crossmatching. Stat crossmatch orders (must be called) are then ready within 10 minutes. Physicians or nursing staff are notified when antibodies are detected which can cause crossmatching delays. Preadmission Type and Screen samples may be used up to 10 days after collection (3 days from admission) if the patient has had no recent stimulating event, transfusion or pregnancy, and the appropriate form is signed.

REQUESTS:

Specify component needed, amount desired for transfusion, and time needed. Try to be as reasonable as possible in number of units ordered (to avoid time delay, cost to patient). In the event of patient's special needs (antigen negative blood or irradiated blood products) allow additional time for component preparation.

INFORMED CONSENT:

Physicians are responsible for explaining and obtaining informed consent prior to transfusion. Nurses are responsible for teaching the risks and alternatives to blood transfusion (handout available) prior to transfusion.

SPECIMEN:

Adequate EDTA or clot sample with proper identification (entire name, hospital number, time and date, initials of collector, and if a computer label is used, the hospital number must be handwritten from the patient's wristband) or tube labeled using patient identification system. All information must be matched with patient identification band prior to collecting the specimen. To assure patient safety, unlabeled or mislabeled specimens will not be accepted.

TIME:

Full crossmatching, including T&S, requires approximately 2 hours after receipt of sample depending on availability of blood, number of units ordered, or antibody problems. STAT samples are tested as top priority, and blood is usually available in 60 minutes.

EMERGENCY:

Blood components may be released uncrossmatched with a special form to be signed (as soon as feasible) by the requesting physician. These special forms state responsibility for any resultant untoward reactions or injury to the patient. In addition, requests for least incompatible blood require a similar form.

ISSUE AND ADMINISTRATION OF BLOOD:

Only one unit at a time is issued (unless emergency or surgery case where special cooler is used or during hemodialysis). Once issued, blood should be infused within four (4) hours. In administration of blood, proper and careful identification of patients is of paramount importance (most hemolytic reactions are due to some type of identification error). Nothing may be added to blood other than normal saline.

RELEASE POLICIES:

All crossmatched blood is held for 3 days from sample collection. Autologous units are available until patient discharge.

REACTION:

Attending physicians are to be notified by nurses about any symptoms of reaction (fever, hives, dyspnea, pain, etc.) Transfusion should be stopped immediately and blood bank notified to initiate investigation. Generally no medications should be given prior to transfusion (or with the blood unit) - this may mask important symptoms. Exception: Antihistamine may be given to prevent or treat urticarial allergic reactions. Transfusion Service will notify the physician promptly if any evidence of incompatibility is noted during investigation. Also, all possible transfusion-related hepatitis, AIDS, or delayed hemolytic reactions must be reported to the Transfusion Service for investigation.

COMPONENTS:

All blood components are supplied by LIFELINE, a non-profit organization dependent solely on volunteer donors and replacement donors. (Please encourage patients' families to replace blood, if possible. Open 11:00-19:00 Monday and Thursday, 08:00–17:30 Tuesday and Friday, closed on Wednesdays. Components not available include whole blood, frozen blood, & leukocyte concentrates.

All cellular blood products provided are leukoreduced (final white blood count $<5 \times 10^6$). Studies have shown leukoreduction avoids immunomodulatory effects which reduce certain postoperative bacterial infections, and certain cancer recurrence rates. It also avoids transmission of certain disease transmission, such as CMV and HTLV- I/II, as well as reduces the number of febrile transfusion reactions.

Available components include:

Leukocyte-Poor RBC's:

Prestorage filtration prevents febrile reactions and immunosuppressive effect.

Neonatal RBC units:

Multiple transfusions can be obtained from one donor unit. Leukocyte-Poor to prevent CMV transmission. Less than 14 days old. Irradiated. Indicate number of cc's to be transfused. Maternal sample desirable.

Apheresis platelets:

Equivalent to 6-8 random donor platelets. Single donor exposure reduces risk of disease transmission. Will be leukopoor; 5-day expiration. ABO type substitution may be necessary.

**Fresh Frozen Plasma,
Jumbo:**

Requires 30 minutes - 1 hour to obtain and thaw, transfuse within 24 hours. Volume 400-450 ml, equivalent to 2 FFP. Pediatric aliquots available.

Cryoprecipitate Reduced Plasma:

Requires 30 minutes to 1 hour to thaw and pool. Used for volume replacement in TPE for TTP patients. If patient is not responding to FFP. Arrange with Blood Bank 4 hours prior to procedure.

Cryoprecipitate:

Requires 30 minutes - 1 hour, pooled just prior to issuing, transfuse within 4 hours (ASAP). Frozen pools of 5 cryoprecipitate may be thawed to fill orders. Requires 15 – 30 minutes.

NOTE:

- Pharmacy stocks albumin, tissue sealants, coagulation factor concentrates (fibrinogen no longer available).

AUTOLOGOUS/DIRECTED DONATION:

Autologous and directed donations are both available and handled in strict compliance with WTRBC's protocol. Orders to transfuse should indicate autologous or directed donation.

Directed donations from blood relatives will be irradiated to prevent GVHD. Autologous units may not be used for any other patient while directed donations may be used for other patients after release by the physician or patient discharge.

ADDITIONAL COMMENTS:

- For obstetrical patients, RhIG is available when needed.
- For newborns, both exchange and replacement transfusions are performed.
- When using blood warmer, always check temperature carefully (to prevent hemolyzing RBC's).
- For specific policies and procedures for Transfusion Service patient protocols, see the Nursing Service Policy and Procedure Manuals.