New Audit Criteria

The Transfusion Committee has spent more than a year reviewing the Audit Criteria. We investigated published best practices and reviewed Audit Criteria of other children’s hospitals. Audit criteria are used to review a sample of transfusions and determine if they were justified. If not, the transfusion is reviewed for clinical justification. These are the criteria, which are also printed on the requisition – and a new one will be coming. The major changes are in the criteria for platelets, FFP, and Cryoprecipitate.

Platelets:
1. Infants ≤ 4 months
   A. Stable Infant ≤ 50,000
   B. Unstable Infant < 100,000
2. Other Infants and Children
   A. ≤ 10,000 in non-bleeding stable patient
   B. ≤ 20,000 in non-bleeding unstable patient (fever, mucositis)
   C. ≤ 50,000 with active bleeding or requiring invasive procedure or at risk for intracranial or organ hemorrhage
3. ECMO with unexplained bleeding
4. Bleeding in patient with qualitative platelet defect
5. Post Cardiopulmonary Bypass
6. Intraoperative with unexplained bleeding

FFP:
1. Specific quantitative factor deficiency ≤ 35% for which a specific factor concentrate is not available
2. Replacement therapy for antithrombin III, Protein C or S deficiencies
3. Markedly prolonged (1.5 times the normal value) PT/PTT in a patient with active bleeding or requiring an invasive procedure including surgery as documented by PT/PTT ≥ 18/43. This is not applicable to infants ≤ 4 months
4. At risk for intra-cranial or other organ hemorrhage
5. Replacement therapy during therapeutic plasma exchange for disorders in which FFP is beneficial
6. Preparation of reconstituted whole blood

Cryoprecipitate:
1. DIC with presence of fibrinogen ≤ 100 mg/dl
2. Bleeding or invasive procedure in a patient with vonWillebrand’s disease for whom DDAVP is not effective or an option
3. Bleeding or invasive procedure in a patient with dysfibrinogenemia or hypofibrinogenemia or post CPB or ECMO
4. Bleeding or invasive procedure in a patient with Factor XIII deficiency when unable to get Factor XIII
5. Fibrinogen level ≤ 150 mg/dl in a patient on fibrinolytic agents
6. Intraoperative with unexplained bleeding

Prospective Audits:
JCAHO recommended that instead of doing retrospective audits, as we have been doing, that we do prospective audits. We will be instituting this in the future. This will require that the requisition be completely filled out, without exception. Unfortunately, in a recent survey 50% were incomplete. The most common omissions were age of patient, location, and date and time when blood was needed. In the future, incomplete requisitions will be returned for completion. If the blood request does not meet audit criteria as reviewed by looking at lab results in the computer, it will be further reviewed for clinical justification. The requesting physician will be contacted to participate in this review. The Emergency Room, OR, and massive blood losses will be exempt from this process. The Transfusion Committee would like input at this time to help us design the best process.
Mislabeled / Unlabeled Specimens - The lab receives approximately 39-42 mislabeled or unlabeled specimens a quarter. To help reduce this number, please remember the following:

- After specimen collection, preferably at the patient’s bedside, label the specimen with the patient’s name and the initials of the employee who collected the specimen, along with the date and time of collection.

- Enter the orders for the lab test into MEDITECH before sending the specimen to the lab. We can’t perform a test unless we have a valid order. We call for orders on ~ 10% of specimens. A specimen can deteriorate when it sets and results are not as good.

Test Ordering:

In MEDITECH Order Entry, there are five categories for laboratory testing:

- Lab – Most of the lab tests are of a generic nature including serology (titers, antibodies)
  - Tests mnemonics for stool, start with “S”
  - Test mnemonics for Spinal fluid start with “C” (CSF)
  - Test mnemonics for urine start with “U”
  - Test mnemonics for body fluids start with “BOF.” Note: Body fluids have their own mnemonics for tests. Please order the body fluid test and NOT the chemistry equivalent. For example, BOFEL = body fluid electrolytes. There are no special mnemonics for blood
  - Serology mnemonics are in the Lab category
  - The Monospot mnemonic is “MONO”
  - The mnemonic for the Epstein-Barr Virus (EBV) titers, serology, and antibodies is “EPB”
- Lab MIC – Microbiology, Parasitology, Mycology, and Virology. Note: Most of the PCR tests are ordered here
  - The mnemonic for the Epstein-Barr Virus Qualitative PCR Screen is “EBV”
- Lab PATH- Pathology services (tissue exam, autopsy, cytology, frozen section, bone marrow aspirate or biopsy)
- Lab BB – Transfusion Services (type, crossmatch)
  - Note: Blood products must be ordered using a paper requisition
- Lab GEN – Genetics Testing (chromosome analysis, molecular genetics)

Reference Lab Testing

- There are 300 mnemonics for reference or send-out laboratory tests. Select an existing mnemonic, if one is available, to obtain special instructions and sample requirements.

- If a test is ordered with the MISC mnemonic, spell the entire test name and do not use abbreviations. If specimen requirements are unknown, call and verify with the lab.

- Try to have send-out specimens in the lab by 1400. If not, call the lab and ask for send-outs, to let them know to expect a send-out test after 1400. This will prevent a delay in testing or having to redraw the specimen. Some send-out testing is not performed over the weekend, or must be immediately sent to the reference lab. The FedEx and Airborne Express couriers come to the lab from 1500 – 1515. Some send out tests cannot be sent on Fridays.

Lab Test Resources

- The MEDITECH Order Entry page has specimen requirements information for each mnemonic.

- Currently, lab test information can be found on the LION server. In the future, this information will be found on a link on the Children’s Mercy Hospital’s Intranet web page.

- Each nursing unit has a laboratory manual that was updated this year.

- Call the lab and ask for assistance.