Indiana University Health	**Original Creation Date:** 10/01/2018	**Publication Date:** 01/30/2023
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	Category: Labs AHC	
	Education: Level 2	
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Pre-Surgery Work-Up Process

Printed copies are for reference only. Please refer to the electronic copy for the latest version.

I. PURPOSE

To detail the process that allows blood bank to perform testing on pre-surgery patient specimens received in the blood bank.

II. SCOPE

This procedure will detail steps on how to process specimens on pre-surgery patients that had recent transfusion and/or recent pregnancy and those that have not been transfused or have not been pregnant within the last 90 days. Testing is limited to team members qualified to perform serological testing.

III. STATEMENTS/REQUIREMENTS

A. **SPECIMEN REQUIREMENTS**

1.

Color	Anticoagulant	Patient Age	Minimum Volume Required
Lavender	EDTA	Less than 4 years	2 x 0.5 mL microtainers
		4-12 years	1 x 6 mL tube preferred 1 x 3 mL tube accepted
		13 years and older	1 x 6 mL tube
Red top or pink top (EDTA) tubes (3 or 6 ml) may also be accepted if they are correctly labeled.			
NOTE: A change in sample volume may be requested depending on the patient's age, the patient's hematocrit, and/or the presence of atypical antibodies.			

2. All specimens must meet identification criteria as outlined in SOP BBT-011 Requisition & Specimen Processing.

B. Pre-surgery patient specimen received in the blood bank will have a type and screen performed regardless of their recent transfusion and/or pregnancy status.

C. Pre-surgery patient specimen can be retained for crossmatching for a period of 30 days from specimen collection date provided they meet qualifications for pre-surgery work-up eligibility process.

D. Pre-Surgery work-up eligibility qualifications:

1. No blood transfusion (red blood cells or platelets) within the past 90 days.
2. No pregnancies within the last 90 days.
3. Pre-surgery questionnaire form completed and sent with patient specimen

E. Form: Pre-Surgery Questionnaire completed and sent with patient specimen or faxed to blood bank.

F. Pre-Surgery work-up eligibility disqualifications:

1. Patients with known clinically significant allo or auto antibodies
2. Patients having current specimen with positive Antibody Screen
3. Patients transfused with red blood cells or platelets within last 90 days
4. Patient pregnant within last 90 days
5. Surgery date > 30 days from specimen collection date

IV. DEFINITIONS

AABB: Association for the Advancement of Blood & Biotherapies

MRN: Medical Record Number

PPI: Patient Product Inquiry

PPID: Positive Patient Identification**;** The process of collecting specimens at the bedside incorporating barcode scanning of the patient armband and specimen label to prevent mislabeled specimens.

SOP: Standard Operating Procedure

V. EQUIPMENT/RESOURCES

None

VI. PROCEDURE

A. Pre-surgery specimen receipt/testing:

1. Type and Screen (T&S) specimen received in blood bank without pre-surgery questionnaire form; see SOP for Procedure: ABO & Rh Determination, Manual Tube and Procedure: Antibody Screen.
2. Type and Screen specimen received in blood bank with pre-surgery questionnaire form:
   a. Specimen arrives with completed pre-surgery questionnaire form.
      i. Call number on form if required information is not complete.
      ii. Also, ensure that there is a phone number and name of staff completing form.
      iii. If pre-surgery questionnaire form was faxed, match the form to specimen upon receipt.
   b. Staple pre-surgery questionnaire form to front of T&S paperwork.
      i. Verify that any component orders received with T&S match the information on pre-surgery questionnaire form.

ii. All component requests must be written on the form.

c. Perform routine testing for ABO/Rh and antibody screen.

i. Observe sample for hemolysis and record on pre-surgery questionnaire form "Yes" or "No", initial and date.

ii. If the patient has no history of ABO/Rh at IU Health or from another hospital per CareWeb, check PPID collection in “Container Inquiry”.

a. If the sample was not PPID collected, enter PPI Blood Bank Comment for “BB Second Sample”.

i. This patient requires a second ABO/Rh before blood can be made available for the patient. Proceed to Section B.

b. If the patient sample was PPID collected, add ABO/Rh retype.

i. Perform and result second ABO/Rh verification using this PPID collected sample.

iii. If antibody screen is positive, refer to Procedure: Antibody Identification . Patient is not eligible and is disqualified for this process. Proceed to Section B.

d. Verify that patient is eligible for pre-surgery work-up.

i. Review pre-surgery questionnaire form for eligibility.

ii. Open Patient Product Inquiry (PPI) application.

iii. In "Alert" section click on Transfusion History icon. There should be no transfusion of RBC or platelets within last 90 days

iv. Enter information into Cerner for patients eligible for pre-surgery work-up:

v. Open PPI application.

i. Type MRN of patient in the required field → Enter.

ii. Open the Comment box:

a. Click on Add.

b. Press "F2" key → Name: **BB** → Find.

c. First line is "BB Pre-surgery", highlight → OK.

d. Highlight "Enter OR Date Here" phrase.

i. If surgery date is listed, enter the date.

ii. If no date is listed, enter Pending → OK.

e. Close the comment box.

B. Patients not eligible for Pre-Surgery work-up or Require a Second ABO/Rh

1. For patients not eligible for Pre-Surgery:

a. Draw a large "X" on the pre-surgery questionnaire form to indicate patient not eligible.

b. Call the number on the pre-surgery questionnaire form.

i. Inform that the patient did not qualify for the pre-surgery work-up eligibility process.

ii. Request new specimen drawn on day of surgery.

iii. Enter Blood Bank comment in PPI using template "BB Not Pre-Surgery": **Not eligible for pre- surgery work-up; OR <Date>__.**

2. For patients who require a Second ABO/Rh:
   a. Document on the pre-surgery questionnaire form Second Sample Needed.
   b. Call the number on the pre-surgery questionnaire form.
      i. Inform that the patient requires a second ABO/Rh testing before provision of blood.
      ii. Request new specimen drawn on day of surgery or before.
      iii. Verify the comment has been added to the PPI using template "BB Second": **Pending Second ABO/RH confirmation. Do NOT issue ANY blood products.**

C. Storage of Eligible Pre-surgery testing specimen and paperwork:

1. Specimen:
   a. Place original tube in designated rack. If a second sample is received, this sample does not need to be maintained.
   b. Patients not eligible can be placed in current day's rack.
2. Paperwork: Place in designated file:
   a. Known surgery date: Place in correct date.
   b. When applicable, Pending surgery dates: Place in "Pending" file alphabetically by letter of last name.

D. Preparation of orders for next day surgery:

1. NOTE: Electronic Crossmatch requires patient has a current type and screen specimen. Oder a type and screen on patient with **"No Charge"** and enter previous results as a work-around.
2. Pull pre-surgery questionnaire forms the day before scheduled surgery date.
3. Move specimens from designated rack to current specimen rack.
4. Department Order Entry (DOE): Enter patient MRN.
   a. Highlight **CORRECT** encounter.
      i. Pre-admit encounter: move cursor, if needed, to verify estimated arrival date matches surgery date.
      ii. If no encounter available: Try one or all of following processes.
         a. Perform a name search in PPI to see if patient has been registered under a different MRN for surgical encounter.
            i. Make sure the MRN field is blank then click on search button.
            ii. Enter patient name in name field (last name, first name) Search.
         b. Wait a while then check to see if encounter becomes available If not available, call registration or:
            i. Fill out "Pre-Surgery Request for Hospital Encounter" form (See form BBT-F006).
            ii. Fax to indicated number.
            iii. Check later for available encounter to complete process.
5. Orderable box: Type in type and screen → Enter.

a. Enter the current time into "Requested Start Date/Time" box. Type "T" to display current time.

b. Click "Order" on task bar; Highlight "**No Charge**".

c. Click "Submit Order" icon generating new accession number.

6. Cerner Application: Label Reprint:

   a. Enter new accession number.

   b. Select Label Printer→Print.

   c. Place large accession label on –pre-surgery testing questionnaire form.

   d. Retrieve previous type and screen results to enter into new accession.

7. Cerner Application: Result Entry.

   a. Enter previous accession number by scanning original label on patient specimen. Results from original testing will populate the resulting fields.

   b. Enter new accession number.

   c. Copy original results.

   d. Before verifying, attach a comment to IAT result that will explain to clinicians why another type and screen was ordered.

   e. Click on Comment icon.

   f. Open Result Comment tab → Add.

   g. Press F2 key → Name: **BB** →.Find.

   h. Highlight BB NO CHG EXM → OK.

   i. Remove the PPI Pre-Surgery Comment from the patient's PPI Blood Bank Comments.

8. Eligible pre-surgery orders will be held and processed anytime after midnight on day of surgery but prior to surgery time.

   a. **NOTE**: For charging purposes, eXM must be ordered using an active encounter on day of surgery. Encounters are not active until day of service.

9. Processing orders for eXM:

   a. Return to DOE.

      i. Click "Accession Add-on" icon.

      ii. Enter current accession number → Enter.

      iii. Orderable: XM; choose XM Computer → Enter.

      iv. Submit order.

10. Cerner Application: Result Entry; complete process to crossmatch number of units requested.

    a. Transfer Pre-Surgery paperwork and blood products when applicable to Blood Bank Satellites (i.e., IUH hospital where patient is scheduled for surgery).

    b. Pre-Surgery Type and Screen only requests: Send or fax requisitions with previous and current Cerner accession numbers to appropriate blood bank satellite.

E. Pre-Surgery Type and Screen with blood products.

1. Cerner function: Transfer Products (If Applicable):
    a. Transfer: Select > Inventory.
    b. To Owner Area: drop down→Indiana University Health.
    c. To Inventory Area: Select appropriate satellite location.
    d. Reason: Patient Transfusion.
    e. Scan products to be sent under Product Number.
    f. Click on "Print" button.
    g. After verifying Transfer sheet has printed > Save.
    i. Send to appropriate satellite:
        i. Transfer sheet→Verify that correct inventory location has been selected.
        ii. Pre-surgery request form.
        iii. If applicable, crossmatched blood for surgery.

F. Procedural Notes:

1. If a newborn (<4 months) qualifies for pre-surgery work-up, NB eligibility testing can be done and the order saved for date of surgery.
    a. Enter NB eligibility in PPI.
    b. Add NNP transfusion requirements.
2. Pre-Surgery samples with questionnaire forms received for surgery within 72 hours will still be processed following this SOP in case surgery is postponed. The original accession number will be used if surgery is the next day, otherwise, a new accession number will be generated if surgery is not for the next day.
3. If applicable, during review of surgery schedule the morning of surgery:
    a. If the patients that had pre-surgery work-up processed the day before are not on the surgery schedule:
        i. Notes will be attached to the pre-surgery questionnaire form indicating not on surgery schedule.
        ii. Date of surgery will be changed to "Pending" on pre-surgery questionnaire form and in comment section of PPI.
        iii. Any crossmatched blood will be released to stock.
        iv. Pre-surgery questionnaire form will be sent University Hospital Blood bank satellite to be filed in pending section of pre-surgery file.
        v. Pre-surgery specimens will be pulled from previous day's rack and returned to the designated pre-surgery rack.
        vi. Pre-surgery questionnaire forms are filed with date of surgery orders.
    b. Patients found on the surgery schedule with surgery "Pending" will be processed according to

this SOP.

i. Remove "Pending" in PPI and enter date of surgery

ii. Pre-surgery questionnaire forms are filed with date of surgery orders

4. "Pre- Surgery" comment will be removed from the Blood Bank comment section the day after surgery.
5. Routinely, the pre-surgery pending file section will be reviewed.
   a. Orders > 1 month will be removed.
   b. Pre-surgery eligibility comments on expired forms will be removed from comment section in PPI.
   c. The pre-surgery specimen rack will have expired specimen pulled and discarded.

VII. CLINICAL SIGNIFICANCE/SPECIAL CONSIDERATIONS

None

VIII. REFERENCES

AABB Standards, current edition

IX. FORMS/APPENDICES

Request for Pre-Admit Hospital Encounter

Form: Pre-Surgery Questionnaire

X. APPROVAL BODY

None

PROCEDURE #:

BBT-094