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Area	Laboratory-Blood Bank
Applicability	Royal Oak

Review of the Surgical Schedule - Royal Oak Blood Bank

Document Type: Procedure

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I. PURPOSE AND OBJECTIVE:

The purpose of this document is to describe the Maximum Surgical Blood Order Schedule (MSBOS) and to define policies and procedures used by the Blood Bank in collaboration with the Anesthesia Pre-Screening Department (APS) and surgical services to anticipate and meet the potential Blood Bank needs to patients scheduled for surgery / procedures.

II. INTRODUCTION:

A. The MSBOS identifies standard blood orders based on the type of surgical procedure being performed. It is approved and is subject to correction and updating by the Department of Surgery.

B. APS uses the MSBOS as a guide when determining whether to arrange for the pre-surgical collection of Blood Bank samples from patients. In addition to the MSBOS, other factors considered by APS when making this determination include the patient's history, directions from the surgeon, antibody history, record of autologous or directed donations, etc.

C. The Blood Bank provides APS and the pre-operative anesthesia areas with a list of all patients on the next-day surgery schedule who have a history of unexpected antibodies. The Blood Bank reviews the surgery schedule each morning to verify that a Blood Bank sample has been collected on all patients who are currently admitted to the hospital and are having a surgery for which the MSBOS indicates the Blood Bank testing is required. The Blood Bank also reviews the surgery schedule each morning for all patients that will be undergoing a lead extraction or an aortic heart procedure (e.g. Aortic valve replacement, aortic root procedure, aortic aneurysm, aortic dissection, etc.).

III. DEFINITIONS / ACRONYMS:

A. **Current Sample**: A sample that was collected no more than 3 days before the date of surgery. For

example, if a sample is drawn on Monday (day 0), then the sample remains "current" all day Mon., Tues., Wed., and Thur.

B. **BH-RO**: Beaumont Health - Royal Oak

C. **V:/ Drive**: Internal department network that all BH-RO employees have access to.

D. **S:/ Drive**: Internal department network that limited BH-RO employees have access to.

E. **OR**: Operating Room

F. **HIS**: Hospital Information System, hospital - wide computer system.

G. **XM**: Crossmatch

H. **T&S**: Type and Screen.

I. **MSBOS**: Maximum Surgical Blood Order Schedule.

IV. POLICIES:

The Blood Bank will perform pre-surgical testing based on the orders placed in the Hospital Information System (HIS) by APS. If additional blood products are needed during the course of surgery, the operating room must notify the Blood Bank by placing an order in the HIS or by sending a manual order to the Blood Bank.

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A. Wristband and Date of Collection for Pre-Surgical Samples

1. If APS determines that a pre-surgical Blood Bank sample should be collected, it will ideally be collected within four days of the surgery and the patient shall be given a wristband at the time of collection. This process allows the Blood Bank to crossmatch units that will be available on the day of surgery.
2. If the sample is collected on a date earlier than within four days of surgery, the Blood Bank will perform a Type and Screen but will not crossmatch units because the patient will not be given a wristband at the time of collection. However, this process does allow the Blood Bank to detect and identify unexpected antibodies, and to antigen test units in advance.

B. Patients with Unexpected Antibodies

1. For samples with a wristband on patients with unexpected antibodies, the Blood Bank will crossmatch twice the number of units specified by the MSBOS, or the number of units ordered by APS, whichever is greater. A technologist will review the next day and current day surgery schedule to assure units are available for all banded surgical patients.
2. If a Type and Screen has not been performed on a patient with unexpected antibodies, units that match the special requirements of the patient may be reserved for the patient as described in the Blood Bank CDM - Placing a Unit on Hold / Searching for Units on Hold. A *Unit Reserved For*: tag should be affixed to any held units to indicate which patient they are reserved for.

C. Blood Bank Review of the Current Day Surgery Schedule

1. Each morning the Blood Bank will review the surgery schedule of the current day, to verify that a Blood Bank sample has been collected on all inpatients, when indicated by the MSBOS. If applicable, the Blood Bank will call the patient's caregivers to request that orders be placed for these inpatients. This process is described in the *Procedure* section of this document.
2. The Blood Bank will also verify that all patients undergoing a lead extraction or an aortic heart procedure (e.g. Aortic valve replacement, aortic root procedure, aortic aneurysm, aortic dissection, etc.) have the appropriate numbers of units crossmatched.

D. Blood Bank Review of the Ab for OR Daily Report

1. Each morning the Blood Bank will review the Antibody for OR Daily Report of the next day to identify patients with a history of unexpected antibodies. This information is referred to as the *Antibody List* throughout this document. This report is generated at approximately 8:00 am.
2. Using the *Antibody List*, a technologist will prepare and email an *Antibody Notification Letter* as early as possible to APS, the Surgery Group, and various Blood Bank employees. The recipients of this email are listed on the V:/ Drive under RO_BloodBank / Ab Letter for Surgery. The *Antibody Notification Letter* is formatted as follows. This process is described in the *Procedure* below.

Patients with Antibodies going to Surgery: Month / Day / Year

Name	MRN	Doctor	Antibody
Doe, Jane	1234567	Dr. Surgeon	Anti-D

This list was updated at approximately 8 am on the date of this email, and may not include patients who are tested later in the day or who were not previously tested by the Blood Bank.
A delay in providing units of red blood cells may be caused by the presence of any antibodies [i.e. Anti-D, Anti-E, Anti-M, TWTI (Too weak to identify and displays nonspecific reactivity), Warm IgG antibody (displays nonspecific reactivity, may be difficult to crossmatch), PRESV (antibody to reagent preservative)].
Patients marked with asterisks(**) may be especially difficult to crossmatch.

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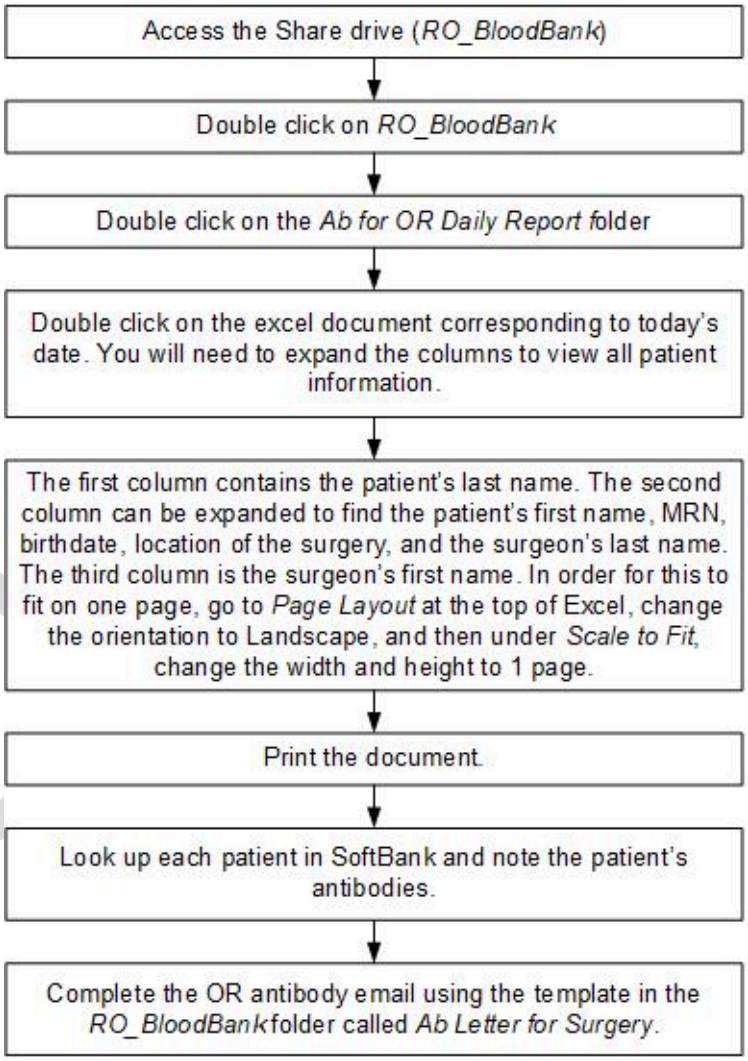
V. PROCEDURE:

A. Printing the Ab for OR Daily Report



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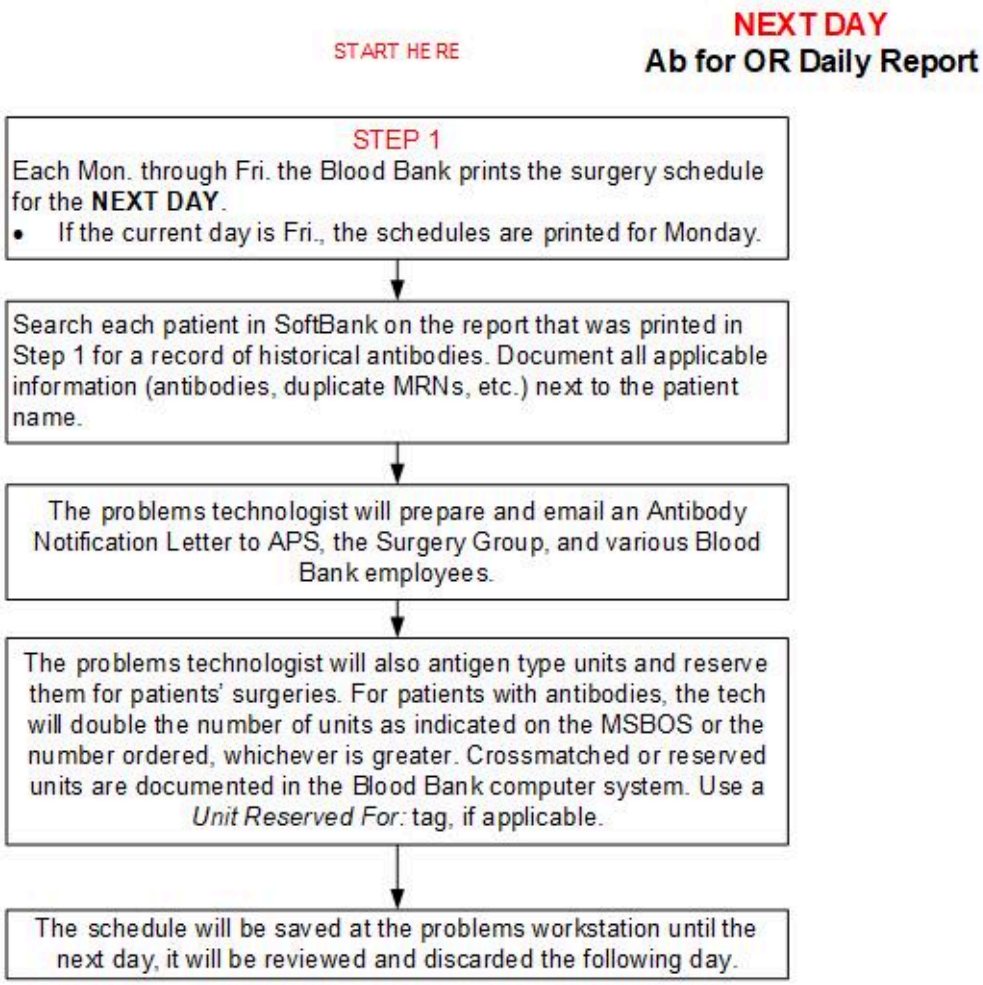
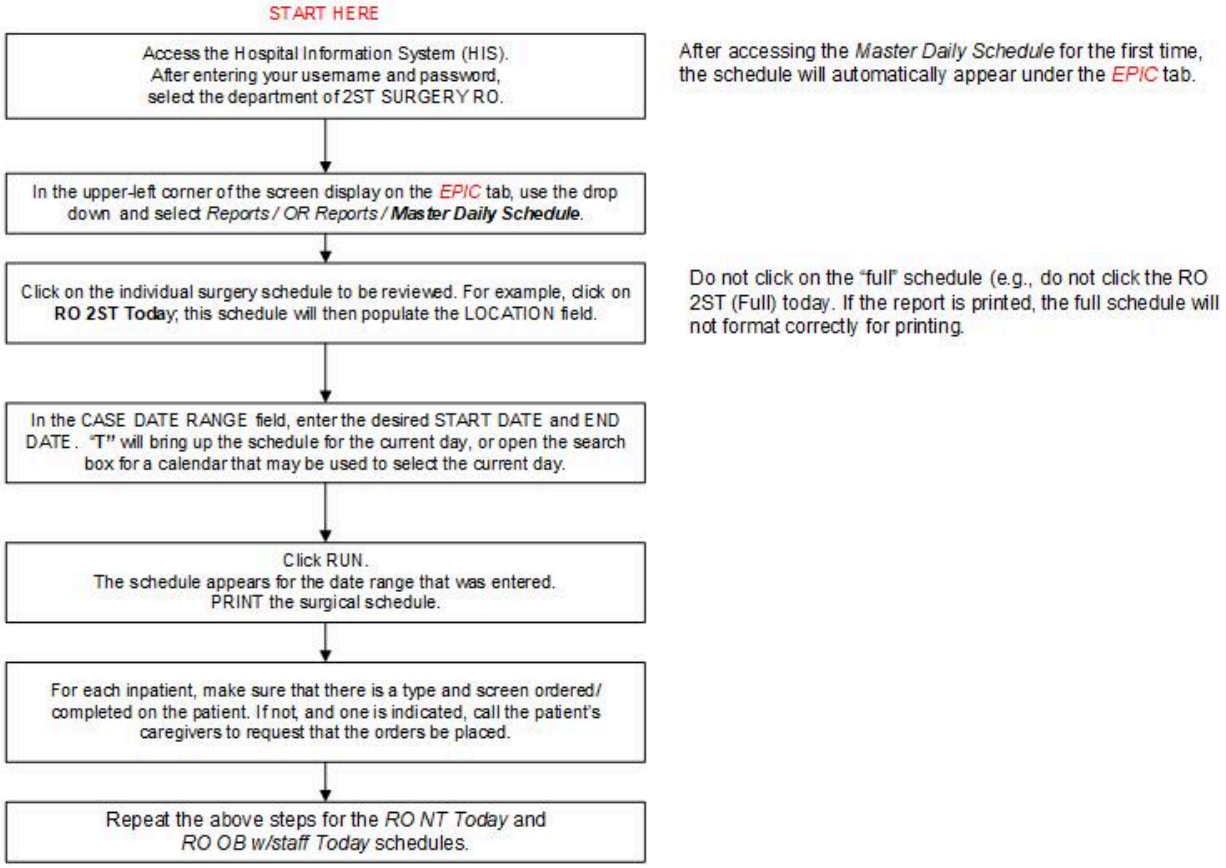
B. Reviewing the Ab for OR Daily Report



C. Printing and Reviewing the Current Day Surgery Schedule

CURRENT DAY SURGERY SCHEDULE

Each day (excluding weekends and holidays) the Blood Bank technologist assigned to the triage float workstation will review each of the 6 listed surgery schedules for the **CURRENT DAY.** This review is performed as early as possible in the morning. The purpose of this review is to ensure that each patient who requires a sample has a current sample (consider the MSBOS, patient's antibody history, etc.)



VI. NOTES:

1. Three copies of the MSBOS are located in the Blood Bank.
    a. One copy at the crossmatch workstation.
    b. One copy at the antibody problem workstation.
    c. One copy in the *Transfusion Medicine Procedure Manual*.
2. A copy of the most recent version of the MSBOS may be located at beaumont.edu / Departments / All Departments / Surgical Services, Royal Oak, MSBOS (Surgical Blood Order Schedule). The link to the MSBOS is located near the bottom of the Surgical Services page.

Approval Signatures

Step Description	Approver	Date
	Ann Marie Blenc: System Med Dir, Hematopath	7/7/2023
	Kristina Davis: Staff Physician	7/6/2023
Policy and Forms Steering Committe (if needed)	Brooke Klapatch: Medical Technologist Lead	3/23/2023
	Kelly Sartor: Mgr Laboratory	3/23/2023
	Brooke Klapatch: Medical Technologist Lead	3/22/2023

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