**Purpose:**

To describe how the HMC Transfusion Service assures that samples and unit segments are managed for storage and retrieval.

**Process:**

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| **Step** | **Action** | **Related Documents**  |
| 1 | **General Statements*** A rack is a place where samples are stored.
* Each rack has a rack number.
* Each slot in the rack has a unique number stored online to facilitate locating samples.
* In Full SMART, CIDs can be assigned to racks.
* SMART Select uses General Laboratory rack codes to assign rack locations.
* Due to storage space limitations, all slots in a rack are filled before creating a new rack.
* Samples requiring serologic crossmatch and/or plasma freezing are not racked on date of testing.
* Patient samples, eluates, and donor unit segments are stored at 2 to 8oC.
* Frozen antibody samples are stored at -18oC or colder.
* Sample aliquots must be labeled with the original sample CID label before storage.
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| **Creating a New Rack** |
| 1 | Open SMART 🡪 Processing 🡪 Rack Assignment.The Rack Assignment dialog box opens. The default SPOT for the PC workstation appears in the SPOT box.Change the default SPOT to HBB using the dropdown arrow. |  |
| 2 | Under Rack Type use the dropdown arrow to select BB. |  |
| 3 | Click New Rack. The message “Print a bar code label?” appears. Click Yes. |  |
| 4 | Select a new empty sample rack and place the printed Rack # label on the front. Slot position 1 in the rack will be marked with permanent marker. Ensure that slot position 1 is in the front left corner of the rack.Note: The slot number that appears after scanning a CID is the next slot to be loaded, not the slot that was just assigned. |  |
| **Step** | **Action** | **Related Documents**  |
| **Reprinting a Rack ID Label** |
| 1 | Open SMART🡪Utilities🡪Reprint Label |  |
| 2 | The Reprint Label window opens. |  |
| 3 | In the Rack ID box, type or scan the rack ID. |  |
| 4 | Click Reprint. The Printer Select dialog box opens. |  |
| 5 | In the Printer name box, notice that the default printer for the PC workstation appears. If you want to select a different printer, select it from the list. |  |
| 6 | Click OK. The rack ID label prints. |  |
| **Adding Samples to an Existing Rack** |
| 1 | Open SMART🡪Processing🡪Rack Assignment |  |
| 2 | The Rack Assignment dialog box opens. The default SPOT for the PC workstation appears in the SPOT box.Change to HBB if different default appears in SPOT |  |
| 3 | In the Rack ID box, type or scan the rack ID. The rack type appears in the Rack Type box. |  |
| 4 | In the CID box, type or scan the CID that you want to assign to the rack. |  |
| 5 | The next available slot for the container in the rack appears in the Load Slot box. The total number of slots appears in the Total Slots box. |  |
| 6 | To save the rack assignment, click Accept. |  |
| 7 | If a CID is scanned that has already been assigned to another rack, an error message will appear: “Container entered is already assigned to a Rack (Rack#,Slot#) and will be re-assigned.”Select OK to re-assign the rack slot.Select CANCEL to return to the rack screen without re-assigning the slot. |  |
| 8 | Continue racking samples with a CID until the 72 slots are full (no limit to number of days in the rack)Samples without CIDs are placed at the end of the rack. |  |
| **Locating Racked Specimens** |  |
| 1 | Open SMART 🡪 Tracking 🡪 Specimen 🡪 Location.  |  |
| 2 | The Specimen Location window opens. Scan or type the CID number in the CID search field. Click Display. |  |
| 3 | Any modifications or SPOT changes made for that particular CID will appear, the most recent at the top. |  |
| 4 | The Rack Slot column will give the location of a racked specimen, beginning with the Rack ID# and followed by the slot number. For example, a specimen located in 0706-2 will be found in rack #0706 in slot #2. |  |
| 5 | An HBB location indicates that the rack is in the TSL refrigerator for storage.  |  |
| 6 | The TRASH spot location indicates that the specimen has been discarded. |  |
| **Trashing Racks** |
| 1 | Samples will be discarded after a minimum 45 days of storage.The rack must first be tracked in Sunquest to indicate that it is no longer available. |  |
| 2 | Multiple days are racked together.Determine discard date by looking at the collection date of the last few samples in the rack. Example: Rack started on 8/3/2014 and ending on 8/5/2014 could be discarded 45 days later on 9/17. |  |
| **Step** | **Action** | **Related Documents**  |
| **Trashing Racks (continued)** |
| 3 | Open SMART🡪Tracking🡪Rack🡪Tracking. |  |
| 4 | The Tracking dialog box opens.  |  |
| 5 | In the Rack ID box, type or scan the rack ID number. |  |
| 6 | In the SPOT box, enter the SPOT as TRASH. |  |
| 7 | In the Tech Code box, enter your tech code. The default is the tech code that was used to log on to SMART. |  |
| 8 | Click Accept. |  |
| 9 | Open Tracking🡪Rack🡪Status. |  |
| 10 | Locate Rack ID# that has just been tracked to the trash:If found, Click on Rack ID#. Click on CID Detail and then Remove.If not found, proceed to next step. |  |
| 11 | Remove the old sticker from the rack. |  |
| 12 | Dump tubes into a biohazard bag for disposal. |  |
| 13 | Return empty rack for reuse. |  |
| **Unit Segments**  |
| 1 | Retention segments are removed from every unit upon receipt from the blood supplier. |  |
| 2 | The retention segments are labeled with the unit number and stored in the plastic bag labeled with the date and day of the week. |  |
| 3 | The segments are retained for 63 days after receipt. Each bag is stored by week, and discarded on the start of the 10th week |  |

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| **Antibody and Serologic Crossmatch Samples** |
| 1 | Patient samples will be kept in the “Serologic Crossmatch Rack” for at least 4 days from collection if they require a serologic crossmatch due to:* Demonstrable antibody(ies)
* Mixed field
* ABO discrepancy
* Non-demonstrable clinically significant antibody(ies)
* LIS requires a serologic crossmatch

Eluates will be stored in the “Serologic Crossmatch Rack” for at least 7 days from preparation. |  |
| 2 | Weekly: Prepare to freeze/rack samples that are at least 4 days old.Discard:* Eluates greater than 7 days from preparation.

Rack samples that have:* Antibodies demonstrating at less than 1+ or are negative
* Less than 1 mL plasma volume

Freeze plasma for samples that have:* Antibodies demonstrating at least 1+ reactivity AND
* have ≥ 1 mL plasma AND
* are 14 days from collection
 |  |
| **Step** | **Action** | **Related Documents**  |
| **Freezing Antibody Plasma** |
| 1 | Centrifuge the original sample tube.Note: Grossly hemolyzed or lipemic plasma should not be frozen. |  |
| 2 | Reprint the CID label from the original sampleAcquire freezer safe tubes with caps.Label the tube with an LIS label, antibody(ies) name and strength |  |
| 3 | Aliquot the plasma from the original sample tube into a freezer safe tube and cap the tube. Rack the original patient sample in that day’s rack. |  |
| 4 | Access the Excel document located in the HMC TSS folder named *Frozen Antibodies*. Locate the first available spot on the spreadsheet and enter the required information. |  |
| 5 | Designated boxes located in a TSL freezer will be used to store the patient antibody samples. The boxes are labeled with letters and numbers that will indicate the slot in which the frozen antibody sample will be placed. |  |
| 6 | Place the antibody sample tube into the appropriate slot indicated by the Excel document entry.Write the slot designation on the tube label. |  |
| **Frozen Plasma Management** |
| 1 | Upon permanently removing an antibody sample tube from a box, remove it from the database. |  |

**References:**

AABB Standards for Blood Banks and Transfusion Services, Current Edition.

Specimen Management, Routing and Tracking User Guide, Misys Laboratory