**Purpose:**

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

**Patient Sample Process:**

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| **Step** | **Action** | **Related Documents** |
| **General Statements** | | |
| **1** | * 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. | * Specimen Management, Routing and Tracking User Guide, Misys Laboratory |
| **Process A: Creating a new rack for each day or when the existing rack is full.** | | |
| **1** | * Open SMART 🡪 Processing 🡪 Rack Assignment. * The Rack Assignment dialog box opens. The default SPOT for the PC workstation appears in the SPOT box. |  |
| **2** | * + In the Rack Type box, enter the type of rack you are creating. |  |
| **3** | * + In the CID box, type or scan the CID that you want to assign to the rack. |  |
| **4** | * + Click New Rack. The message “Print a bar code label?” appears. If you click Yes, the rack ID label prints. In the Rack Assignment dialog box, a rack ID number appears in the Rack ID box. The slot for the container in the rack appears in the Load Slot box. The total number of slots appears in the Total Slots box. * Rack slot number one will be marked with a permanent pen or colored tape. * 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** |
| **5** | * + - * To save the rack assignment, click Accept. |  |
| **Process B: Reprinting a rack ID label** | | |
| **1** | * If the label on a rack is damaged or unreadable, you can reprint it. |  |
| **2** | * On the Utilities menu, click Reprint Label. 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. |  |

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| **Process C: 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):   + Tested samples   + Multiple tubes from a single draw (same CID)   + XPINKs   + Rejected samples * Samples without CIDs are placed at the end of the rack. |  |

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| **Step** | **Action** | **Related Documents** |
| **Process D: 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 TS refrigerator for storage. |  |
| **6** | * The TRASH spot location indicates that the specimen has been discarded. |  |
| **Process E: 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. |  |
| **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. |  |

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| **Step** | **Action** | **Related Documents** |
| **Process F: Unit Segment** | | |
| **1** | * Retention segments are removed from every unit when the type confirmation is performed. |  |
| **2** | * The retention segment is 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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| **Process G: Antibody and Serologic Crossmatch Samples** | | |
| **1** | * Patient samples will be kept in the “Antibody Rack” in the R4 refrigerator for **at least 4 days from collection**:   + Demonstrable antibody(ies)   + Require serologic crossmatch due to:     - Clinically insignificant antibodies     - Mixed field     - ABD discrepancy     - Non-demonstrable antibody(ies)     - Low Frequency Antibodies     - LIS requires a serologic crossmatch * Eluates will be stored in the “Antibody Rack” for **at least 7 days from preparation.** |  |
| **2** | * **Weekly:** Prepare to freeze/rack samples that are at least 4 days old:   + Rack (in that day’s rack) samples that do have:     - Antibody demonstrable less than 1+ or negative     - Less than 1 mL plasma volume   + Discard eluates.   + Remain in the rack samples with demonstrable antibody at least 1+ and ≥ 1 mL plasma for 10 additional days   + Freeze plasmas for demonstrable antibodies at least 1+ greater and ≥ 1 mL plasma 14 days from collection as described below |  |
| **Freezing Antibody Plasmas** | | |
| **3** | * Centrifuge the original sample tube to clarify the plasma from any cryoproteins or clots that may have developed during storage. * Grossly hemolyzed or lipemic plasma should not be frozen. |  |
| **4** | * Reprint the CID label from the original sample label * Acquire freezer safe tubes with caps. * Label the tube with an LIS label, antibody(ies) name and strength |  |
| **5** | * 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. |  |
| **6** | * Access the Excel document located in the HMC TSS Lilith folder named ***Frozen Antibodies***. * Locate the first available spot on the spreadsheet. * Enter required information. |  |

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| **Step** | **Action** | **Related Documents** |

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| **Freezing Antibody Plasmas** (continued) | | |
| **7** | * Designated boxes located in the F2 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. |  |
| **8** | * Place the antibody sample tube into the **alpha numeric slot** indicated by the Excel document entry. * Write the slot designation on the cap and/or tube label. |  |
| **Frozen Plasma Management** | | |
| **9** | * Upon permanently removing an antibody sample tube from a box, remove it from the database:   + Slot is available for future use   + Staff doesn’t waste time searching for samples that have been removed |  |

**References:**

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

Specimen Management, Routing and Tracking User Guide, Misys Laboratory