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| **Cleaning Laboratory Equipment** | | | | | |
| **Purpose** | This procedure provides instructions for CLEANING LABORATORY EQUIPMENT. | | | | |
| **Policy Statements** | Clean equipment helps to ensure a safe environment and minimizes biohazard exposure (Hepatitis B virus, HIV, other infectious agents) to laboratory staff. | | | | |
| **Materials** | **Supplies** | | | | |
|  | Gloves, lab coat, other personal protective equipment (PPE) as necessary  Paper towels  Bleach  Sani-Cloth germicidal wipes  Disinfectant | | | | |
| **Safety Precautions** | Wear gloves and lab coat while cleaning laboratory equipment. Don other PPE (goggles, face shield) during cleaning if splash or spray to face may be generated. | | | | |
| **Procedure** | Follow the activities in the table below for CLEANING LABORATORY EQUIPMENT.   * Clean equipment as often as required per instrument procedure or specific department policy. * Document cleaning as required per specific department policy. | | | | |
|  | **Equipment** | **Action** | | | |
|  | Centrifuges | 1. Use paper towels dampened with water and/or appropriate disinfectant to clean the sample/rotor chamber, cabinet, and accessories. Inspect all surfaces for corrosion; small crevices will eventually deepen and cause failure. 2. Do not use acetone, caustic detergent or detergent containing chlorine ions (saline or bleach). 3. Scrub the rotor’s tube cavities with a stiff test-tube brush that has end bristles and a non-metallic tip. 4. Do not use steel wool, wire brushes, abrasives or sandpaper since they create corrosion sites. 5. Never pour water directly into the sample chamber when cleaning the centrifuge. 6. After cleaning, dry metal accessories with a soft cloth. | | | |
|  | Decontamination is required if tube breakage occurs and infectious or pathogenic material is released into the area.   1. If breakage or spill occurs, do not open centrifuge for 30 minutes to reduce the risk of aerosols. 2. Wear gloves, lab coat, and face protection. 3. Remove debris, e.g. glass splinters, using a mechanical device such as a forceps. 4. Clean and disinfect centrifuge interior, rotors, safety cups or buckets following manufacturer’s instructions. | | | |
|  | Water Baths | 1. Unplug water bath and empty water. 2. Clean with disinfectant and rinse with water. 3. Refill with deionized/distilled water. 4. Plug in unit. 5. Check temperature before using. | | | |
|  | Refrigerators / Freezers | 1. Move contents to another refrigerator/freezer or an insulated box containing dry ice. 2. Unplug the unit and place several thick towels around the base to catch melted ice. A pan of warm, not hot, water will speed the warming process.   Never use a sharp object as this could result in a puncture to the refrigerator/freezer or to staff using the sharp object.   1. Clean interior and exterior with disinfectant. 2. Rinse with water. 3. Plug in unit and wait one hour before checking internal temperature. 4. Once within range, return contents to unit. | | | |
|  | Biological safety cabinet (BSC) | 1. Decontaminate and remove equipment and supplies from inside the BSC. 2. Wipe interior surfaces, including walls and front sash, with an appropriate disinfectant that would kill any microorganisms that could be found in the cabinet. Corrosive chemicals such as bleach should be avoided, but if used, should be followed with a wipe down with sterile water or 70% ethanol. | | | |
|  | Incubators | 1. Remove contents. 2. Remove and dispose air dispersal unit if applicable. 3. Remove shelves and shelf supports. 4. Wash with disinfectant and rinse with water. 5. Wash interior with disinfectant and rinse with water. 6. Replace shelves and shelf supports. 7. Place new air dispersal unit in incubator if applicable. 8. Wait for temperature, CO2 and humidity to return to normal. 9. Return contents. | | | |
|  | POCT devices | 1. Wear gloves. 2. Wipe entire surface with appropriate Sani-Cloth wipes after every patient use. 3. See manufacturer’s instructions for instrument specific internal cleaning. | | | |
|  | Collection Manager devices | 1. Wear gloves. 2. Wipe entire surface with appropriate Sani-Cloth wipes before entering a patient unit, after leaving a patient unit, and anytime the device comes into contact with a patient or anything in a patient’s room. | | | |
|  | Analyzers | 1. See operator’s manual and/or department specific procedures for cleaning analyzers. | | | |
|  | Items sent for sterilization | 1. Deliver items (slides, forceps) to Central Processing and Distribution (CPD) for sterilization   using covered, puncture resistant transport device to minimize the risk for spills and accidental exposure to blood and body fluids. | | | See CPD for documentation of  sterility processes. |
| **References** | 1. CLSI, *Clinical Laboratory Safety; Approved Guideline-3rd Edition*. CLSI document GP17-A3, Clinical and Laboratory Standards Institute, Wayne, PA, 2012. 2. MMWR, *Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories,* CDC; Jan 6, 2012. 3. CLSI. *Laboratory Instrument Implementation, Verification and Maintenance; Approved Guideline.* CLSI document GP31-A. Clinical and Laboratory Standards Institute, Wayne, PA, 2009. 4. OSHA. *Laboratory Safety – Centrifuges;* OSHA QuickFacts, Occupational Safety and Health Administration, August 2011. 5. PDI, *Sani Cloth Product Information Sheet*, Professional Disposables International, Inc., 2017. | | | | |
| **Historical Record** | **Version** | **Written/Revised by:** | **Effective Date:** | **Summary of Revisions** | |
| 1 | Carol Cram | Unknown | Initial Version | |
|  | 2 | Kerstin Halverson | 12/26/2003 |  | |
|  | 3 | Carol Buhl | 07/26/2013 | Reformatted to CMS.  Added instructions for incubators, BSC, POCT and handheld devices.  Updated references. | |
|  | 4 | Carol Buhl and Laboratory Safety Committee | 08/04/2017 | Added cleaning requirement per department and documentation of cleaning requirement.  Removed use of ice scraper or spatula for cleaning freezers.  Added section for analyzer cleaning.  Added section for sending items for sterilization.  Updated PDI reference. | |