# Precautions and Practices for CENTRIFUGATION OF CLINICAL SPECIMENS

## Hazards

### Potential Hazards
- Potential exposure to bloodborne pathogens, or other human pathogens including but not limited to, Hepatitis B, Hepatitis C, and Human Immunodeficiency Virus (HIV). Refer to Universal/Standards Precautions for Handling Human Specimens SOP.
- Routes of exposure: Aerosols, percutaneous (non-intact skin, injections, punctures, lacerations) or splash/splatter to mucous membranes (eyes, nose, mouth).

## Work Practice Controls

### Hazard Controls
- Consider using safety equipment such as biological safety cabinets (BSCs), centrifuge safety cups, and sealed rotors to protect from exposure to aerosols and droplets.
- Refer to the operator’s manual for instructions for use (IFU) and routine maintenance requirements.
- A biohazard symbol (sticker) should be placed on the centrifuge.
- Use centrifuge on a level surface.
- Perform a visual inspection prior to each use (note unusual cracks, missing o-ring on rotors or cups, irregularities or wear). Repair/replace as necessary.
- Must wear Personal Protective Equipment (PPE) during operations.
- Open containers in a BSC, or behind a splash shield, if available.
- Verify proper loading of specimens to maintain balance.
- After starting, listen for unusual noises or vibrations until programmed speed is reached.
- If unusual noises occur, stop centrifuge and wait 15 minutes before opening. Re-balance centrifuge. If there are broken tubes, follow spill procedures.

### Personal Protective Equipment (PPE)
- Lab coat (or gown/tyvek, etc.) and gloves required. Mucous membrane protection (e.g. safety glasses or face shield) must be used if there’s a potential for splash or spray such as when opening tubes and cleaning up spills.
- Remove PPE and wash hands before leaving the work area.
- Use hand sanitizer if sink is not nearby, then proceed to nearest sink to wash hands.

### Cleaning & Disinfection
- Perform routine decontamination of interior surfaces using an appropriate disinfectant. Immediate decontamination is required when visible contamination is noted.
- Refer to the label for dilution and contact time.
- Wear full PPE, including a lab coat, disposable gloves, and full face protection.
- Use mechanical device (forceps/tongs) to pick up sharps. Do not use hands.
- Place sharps/broken tubes in biohazard sharps container/needle box.
- Unless otherwise directed in equipment manual, clean the interior with soap and water to remove organic material. If glass vials were broken, used swabs or forceps to clean, not hands.
- Follow with disinfectant. Contact time for disinfectant according EPA list: https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants.
- Remove PPE and wash hands before leaving the work area.
- Refer to the Emergency Response Guide posted in your work area for more information.

### Spills & Broken Centrifuge Tubes
- Remove contaminated clothing.
- Wash skin exposures with soap and water for 1 minute. For eye exposures, flood eyes with water from eyewash station or sink.
- Obtain medical attention, if necessary.
- Report to EOHW by dialing the BBF Hotline at 919-684-8115.
- Complete the “Report a Work-Related Accident, Injury, or Illness” found at https://hr.duke.edu/wellness/workers-compensation.

## Other

### Exposures
- Complete minimum safety training (e.g. Bloodborne pathogens, Lab Safety, etc.) requirements for your job. Ask OESO and your supervisor if you are unsure.
- Refer to Universal/Standard Precautions for Handling Human Specimens SOP.
- All personnel shall read and fully adhere to this SOP.

### Questions
- Contact OESO - Laboratory Safety Division at 919-684-8822 or labsafety@dm.duke.edu.