



## Equipment Maintenance and Replacement Procedure

Original Date: April 2014

Reviewed: Annually

Last Reviewed: May 2024

- I. Purpose: To ensure equipment compliance with Radford University Policies and standards of operation, maintaining optimal equipment conditions for operations.
- II. Procedure:
  1. Simulation faculty or designee are responsible to follow vendor specific DFU's for cleaning after use to ensure maximum use of simulator lifespan to include but not limited to:
    - a. Cleaning reservoirs
    - b. Cleaning soiled manikins
    - c. Emptying fluid tanks as appropriate
    - d. Victoria simulator positioning: Position the simulator with legs bent at knees and/or head of bed elevated to prevent silicone skin from overstretching and tearing in manikin groin area.
  2. Information Technology Specialist (CSC IT) responsibilities:
    - a. Follow-up and resolution of equipment problems in a timely manner with attention given to issues effecting instruction.
    - b. CSC IT will communicate to staff and/or educators the outcome of the problem and any process changes necessary to maintain operations.
    - c. Disposable parts (arm skins, injection pads etc.) will be replaced on an as needed basis.
    - d. Non-disposable parts will be repaired or troubleshooting performed by CSC IT according to vendors Directions for Use (DFU) and Manuals. If a part is not repairable it will be replaced in shortest possible time to minimize interruption of CSC operations.
    - e. Preventive maintenance on simulators/simulation equipment will be conducted by CSC IT on a biannual basis during academic breaks either independently or in conjunction with vendor during purchased Preventive Maintenance services.
    - f. Preventive maintenance will be conducted on all computers and servers on monthly basis to ensure compliance with Radford University Information Technology guidelines. This maintenance will include but not limited to:
      - i. Updating all systems (OS updates)
      - ii. Running full system anti-virus and anti-malware scans
      - iii. Hardware diagnostics, repair and replacement.



3. IT specialist in collaboration with CSC director will analyze extended warranty criteria annually and determine which simulators need additional warranty purchases.
4. The CSC will utilize the Equipment Trust Fund (ETF) and one-time spending Radford University processes to upgrade equipment, simulators and purchase new equipment/technologies to support strategic plan initiatives. The CSC team will determine items to be requested and the CSC Director will initiate request through approval process.

### III. Laerdal Simulators Care:

1. SimMan 3G:
  - a. At least once a week to flush used tanks (Body fluids and/or blood) with distilled water until purged liquid is colorless. Then charge one or both tanks with 100 ml of 70% isopropyl solution and flush again. This way remaining liquid in the tanks and tubing is mainly alcohol which prevents molding and ensures mannequin's liquids system's functionality.
2. SimMan Essentials:
  - a. Flush urine tank with uncolored distilled water as described above for SimMan 3G until purged liquid is colorless. After that load tank with 100 ml of 70% isopropyl solution and purge all liquid one more time.
3. SimMom:
  - a. Wash/flush tanks with tap water
4. SimBaby:
  - a. Clean all surfaces with 70% isopropyl solution
5. SimJunior:
  - a. Clean all surfaces with 70% isopropyl solution
6. Nursing Kid:
  - a. Clean all surfaces with 70% isopropyl solution
7. Nursing Baby:
  - a. Clean all surfaces with 70% isopropyl solution
8. ResusciAnn and ResusciBaby:
  - a. Clean all surfaces with 70% isopropyl solution after each user. Update and calibrate when updates are available.
9. How often to perform this care:
  - a. Manufacture's recommendation: Perform all of the mentioned procedures every day when liquids were used on either of the simulators. Even if only distilled water was used without any coloring.

### IV. GAUMARD Simulators Care:

1. Victoria/Super Victoria (S2200):



- a. Check for fluid accumulation at the bottom of pelvic area. Make sure entire area is dry. Maintain proper battery handling procedure.
2. SuperTory (S2220):
  - a. Maintain proper battery handling procedure.
  - b. Clean with a cloth dampened with diluted liquid dishwashing soap. If medical adhesives remain on the skin, clean with alcohol wipes.
3. Newborn HAL (S3010)
  - a. Maintain proper battery handling procedure.
  - b. Clean with a cloth dampened with diluted liquid dishwashing soap. If medical adhesives remain on the skin, clean with alcohol wipes.
4. Pediatric HAL (S3004)
  - a. Maintain proper battery handling procedure.
  - b. Clean with a cloth dampened with diluted liquid dishwashing soap. If medical adhesives remain on the skin, clean with alcohol wipes.