# Healthcare Simulation Center Policies and Guidelines



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#### Section 1. Governance

#### 1. Mission Statement

The MUSC Healthcare Simulation Center (MUSC HSC) provides an interprofessional, simulationfocused learning environment to 1) enhance the education of healthcare professionals, and 2) improve the provision of safe, comprehensive healthcare across the MUSC enterprise, and 3) support and encourage valuable innovation and research to advance education, teamwork, and improved clinical outcomes.

Vision: Our employees are committed to providing the highest-level service to all members of the MUSC community. We strive to be recognized, not only for supporting innovative learning strategies but also for creating a welcoming, supportive environment for all faculty, staff, and students.

Value: We adhere to the MUSC core values: compassion, innovation, collaboration, respect, and integrity.

2. Advisory Council

The MUSC HSC Advisory Council members will serve as advisors to the HSC Director and staff in matters related to policies, procedures, simulation-based education (SBE) best practices, simulation center rates, and equipment purchases. The Advisory Council will support the HSC mission. The MUSC HSC Medical Director will invite members who represent the major HSC user groups, including, but not limited to:

- College of Medicine Undergraduate Medical Education (COM UME)
- College of Nursing
- College of Medicine
- College of Pharmacy
- College of Medicine Residency Programs
  - Anesthesia
    - Emergency Medicine
    - o Surgery
    - o OB/Gyn
    - o Pediatrics
- Graduate Medical Education (GME)
- Medical University Hospital Authority
  - Nursing Professional Development
  - Patient Safety and Quality
- External Users
- 3. Simulation Activity Sponsors and Facilitators

Each activity has a department or program sponsor responsible for the development, scheduling and payment for simulation activities held within the MUSC HSC. Sponsors assign facilitators for scheduled sessions and ensure they receive adequate training to effectively lead the assigned

activity. Sponsors are responsible for working with the MUSC HSC staff and assigned facilitators to ensure simulation activities are up-to-date, accurately reflecting the intended activity objectives, current clinical practice, and SBE best practices.

#### Section 2. Operations

1. Hours of Operation

The normal operating hours of the MUSC HSC are 7:30 AM – 4:00 PM, Monday - Friday. MUSC HSC is available before or after regular business hours and on weekends with advanced notice for approved activities.

2. Contact Information

MUSC HSC staff work in a coordinated effort with a focus on customer service, transparency, and efficiency. All personnel can be approached via telephone, email, or in-person to assist with any service-related questions, comments, or concerns. However, depending on the request or inquiry, written documentation may be requested.

Email: <u>simcenter@musc.edu</u> Main phone (843) 792-1459

#### In Room Support

For immediate in-room support during a simulation activity contact a Simulation Specialist through one of the following methods, which are listed in order of preference.

- Calling or texting one of the cell phone numbers posted in each MUSC HSC room.
- Calling the main phone number, (843) 792-1459.
- 3. Sign in/Confidentiality/Consent

All facilitators, participants, and visitors to the MUSC HSC are required to sign in using QR codes posted at assigned room doorways. This sign-in process includes a standard confidentiality statement, consent for videography and photography, and a latex warning to be acknowledged by all participants and observers prior to any activity within the MUSC HSC.

4. Video Recording and Retention

The MUSC HSC has the capability to video record simulation activities within its facility and in situ. Activity sponsors or facilitators must request recording prior to scheduled sessions. The New Activity Request Form includes a section for this purpose. Sponsors and facilitators may also request recording for specific sessions via email to <u>simcenter@musc.edu</u> or in person with MUSC HSC staff.

Recordings will be retained on a dedicated, secure MUSC HSC server for a minimum of 180 days, in accordance with the MUSC standard for digital data. Individuals within specified security groups can download recordings within the 180-day retention period for extended storage on an approved university location.

5. Evaluation

MUSC HSC provides online post surveys after each simulation activity. All facilitators and participants who sign in using the QR codes provided will automatically be sent an evaluation link. Facilitators are responsible for encouraging participants to complete evaluations.

6. Conduct

All MUSC HSC employees, facilitators, participants, and visitors are expected to exhibit professional decorum and sensitivity to participant responses to simulations. MUSC HSC is an educational environment with many different users. Center users are expected to be courteous to all other users, taking care not to disturb other simulation activities.

MUSC HSC users should contact Catherine Tobin, Medical Director, in person or by email at <u>tobinc@musc.edu</u> to report a problem involving HSC personnel. Depending on the severity of the claim, a written description of the problem may be requested to formally investigate the issue. All issues will be addressed and resolved in a timely manner.

Cell phone use is discouraged in the MUSC HSC. Calls should be limited to those that are necessary. Facilitators will determine cell phone use policies for their specific activities.

7. Food and Beverages

There are designated areas of the MUSC HSC where food and beverages are prohibited. Food and beverages should not be consumed near manikins and task trainers. Sponsors planning to offer meals or allow participants to consume food or beverages should check with MUSC HSC staff prior to scheduling an activity.

8. Pets

Pets are not permitted within the MUSC HSC. Sponsors should notify the MUSC HSC staff prior to scheduling an activity if a participant will be accompanied by a service animal.

9. Non-participating observers, children, and other guests

Due to the often realistic nature of simulation, the need to ensure participants' confidentiality, and to limit participants' and staff exposure to COVID and other illnesses, the MUSC HSC does not allow non-participating observers, children, or other guests to attend sessions without prior approval.

10. Use of Facility, Supplies & Equipment

#### <u>Clean up</u>

Simulation Specialists are responsible for setting up and taking down all center equipment and supplies. Facilitators are responsible for placing all trash in trash cans and removing all personal items and class materials. Materials housed at the center must be returned to the designated container.

#### Materials Left in Rooms

Personal items and class materials left in center rooms, including cabinets and drawers, will be removed at the session's end unless arrangements for temporary or permanent in-room storage have been made with the simulation center staff. The items removed from rooms will be disposed of unless claimed within a reasonable length of time.

# Use of Equipment

Only a designated MUSC HSC staff member, trained facilitator, or an authorized participant may operate the MUSC HSC simulators, audiovisual technology, and all other simulation-related

equipment. Facilitators must be adequately trained to use MUSC HSC equipment. See Section 4 for training requirements.

- Do not remove any furniture and equipment from rooms without prior permission.
- Do not use ink around the simulators. Ink will permanently mark the simulators.
- Do not use any adhesives on manikins.
- Do not use make up on any manikin. If you desire moulage, contact MUSC HSC staff to make arrangements for this to be applied prior to the simulation activity.
- Do not attempt to operate simulation equipment unless you have received proper training.
- Treat manikins with care. Do not do anything to a manikin other than that for which it is designed. The placement of clothing, wigs, arm bands, etc., requires prior approval.
- Report any problems with simulators, task trainers, and computer software/hardware immediately to MUSC HSC staff. Please, DO NOT make attempts to fix the problem yourself.

An equipment replacement fee may be assessed for damage to equipment due to improper use. This charge will be estimated at the actual list price for parts and labor with a receipt provided to the sponsor upon request.

# Supplies

As a general rule, sponsors are responsible for providing all disposable supplies and materials needed for simulation activities. The MUSC HSC maintains a limited number of certain supplies. The use of these supplies must be arranged ahead of time with MUSC HSC staff.

Limited storage of course supplies and equipment is available at MUSC HSC. In general, sponsors will be allowed up to one standard-sized storage bin per course. Storage of supplies must be preapproved by MUSC HSC. Sponsors are responsible for maintaining and replenishing the supplies and equipment stored in the bins.

# 11. Billing

The MUSC HSC operates as a cost-recovery service center, with support from the Provost's Office to offset costs for university programs. Fee schedules for University, Hospital, External and Grant-funded activities are determined with guidance from the MUSC Office of Grants and Contracts Accounting. The billing unit is a room/hour charge for the scheduled hours of each simulation session. The calculated fee for each activity includes development, scenario programming, technical support, training, and administrative support with no additional charge.

For information concerning the current fee schedule and billing process should be addressed to the MUSC HSC Administrative/Business Manager at <a href="mailto:simcenter@musc.edu">simcenter@musc.edu</a>.

#### Section 3. Simulation Activity Development

1. Simulators

The center's inventory of simulators includes 30+ mid to high fidelity manikins and over 100 task trainers to support a broad range of simulation-based educational objectives. Simulation center staff work with simulation session sponsors to assign the most appropriate simulators to meet the educational objectives.

Adult high-fidelity manikins include:

- SimMan 3G
- SimMan Essential
- SimMan ALS
- Nursing Anne Simulator
- SimMom (with or without the automatic delivery system or the non-pregnant abdominal insert)

Pediatric high-fidelity manikins include:

- SimJunior
- SimBaby
- SimNewB

All high-fidelity manikins are run using the LLEAP (Laerdal Learning Application) software. Over 90% of high-fidelity simulation sessions use custom scenarios programmed by MUSC HSC staff.

Users interested in arranging a demonstration or receiving additional information about simulators or related equipment and software should contact the center at <a href="mailto:simulater@musc.edu">simulater@musc.edu</a>.

MUSC HSC encourages facilitators and other sponsors to submit requests for simulator and related equipment purchases. While there is no guarantee that requests can be fulfilled immediately, MUSC HSC maintains a "wish list" of simulation equipment. Final selection of simulation equipment is approved by the MUSC HSC Advisory Council.

2. Activity Development Process

The MUSC HSC staff work in conjunction with the activity sponsor to plan, develop, schedule, and support simulation activities. All activities must be approved by the MUSC HSC and the sponsoring unit prior to scheduling.

- 1. Planning
  - Sponsor contacts the MUSC HSC to schedule a planning meeting
  - Sponsor and MUSC HSC staff identify specific learning objectives for the planned activity, identify the most effective simulation modality to meet the learning objectives, and discuss next steps
- 2. Development varies depending on the activity objectives and simulator requirements
  - MUSC HSC staff guide the sponsor in selecting the appropriate simulation resources, guide the sponsor in figuring out the logistics for the sessions, and programs scenarios as needed
  - Sponsor or their designee serves as the subject-matter expert during development
  - General considerations during the development phase include:

- Individual vs. group vs. team
- Summative vs. formative
- Novice vs. expert
- Available facilities
  - In center
  - In situ
- Available equipment
- Available time

- Number of students
- Number of facilitators
- Needed moulage and other enhancements
  - Programming considerations
    - No programming required
    - Single scenario vs. set of scenarios
    - Graded vs. non-graded
- 3. Approval
  - MUSC HSC staff approve the activity and guide the sponsor through the MUSC HSC scheduling process
- 4. Support
  - MUSC HSC staff provide set up, technical, and take down support during scheduled sessions

#### **Section 4. Facilitator Training Requirements**

All persons who facilitate sessions within the MUSC HSC or in situ using center manikins, trainers, or equipment must be adequately trained. Training is essential to ensure high-quality simulation-based education for learners within a safe environment and to prevent damage and undo wear and tear to simulation manikins, trainers, and equipment.

The activity sponsor will notify the simulation center when new facilitators are assigned to lead scheduled simulation sessions. (Facilitator information is included on the scheduling request form.)

Facilitator training consists of three components:

• Clinical or Procedural Content

The session sponsor is responsible for orienting new facilitators to learning objectives for the session, best practices for procedural training, scenario content, and/or other key content topics.

• Facilitator Orientation

New facilitators will automatically be enrolled in a 30-35 minute online orientation module in OurDay. They must complete the online module prior to their first session at the simulation center or first-time use of center manikins, trainers, or scenarios for in situ session.

• Session-specific Technical Training

The simulation center staff is responsible for orienting new facilitators to the center policies and procedures, training new facilitators to appropriately use session-specific manikins, trainers, or other equipment, and running any session-specific scenarios using the Laerdal Learning Application (LLEAP). New facilitators must arrange a time prior to the first session to meet with a simulation specialist to complete this training.

#### Section 5. Simulation Activity Scheduling

MUSC HSC serves the entire MUSC enterprise and approved external parties, with MUSC users receiving priority. For MUSC users, all resources, rooms, equipment, and support personnel, are generally reserved on a first come-first served basis. In cases where equipment is housed at the center but owned by a sponsor, the owner will have priority use. The owners will also have the right to approve the use of their equipment by others.

1. Scheduling Simulation Sessions

The approved activity sponsor or their designee submits the appropriate request form. The submitted form will be used to set up the equipment, room, and peripherals for the scheduled activity. It is *critical that the form be as complete and accurate as possible.* 

Sessions held at MUSC HSC facilities or off site (In situ) with staff support use the following:

a. New Activity Request Form (for approved first time activities)

The sponsor or designee works with Mimi Mills, Administrative Coordinator, to complete the online <u>New Course Request</u> form.

#### b. Subsequent Activity Request Form

The sponsor or designee submits the online <u>Existing Course Request</u> form for each subsequent time the activity will be scheduled. Requestors needing assistance completing the form should contact Mimi Mills at <u>simcenter@musc.edu</u>.

Sessions held off site (In situ) without staff support use the following:

#### c. In-Situ Request form

Sponsor submits the online <u>In-Situ Request</u> form at least 2 business days prior to the event

Mimi Mills schedules session(s) upon receipt of the completed request form and communicates with the sponsor about scheduled details (room, times, training needs, etc.).

#### 2. Changing or Cancelling Scheduled Sessions

After a simulation activity is approved and scheduled, any changes or cancellations must be requested and documented using a <u>Change Request</u> form.

A written cancellation notice is required at least 2 business days before the scheduled simulation date. Consideration is given to emergencies and other unforeseeable circumstances requiring cancellation. Fees will be waived for events rescheduled within 30 days. **MUSC HSC reserves the right to charge sponsors for activities that are not canceled in advance.** 

3. Scheduling for Research Activities

All research activities involving the MUSC HSC must have appropriate Internal Review Board (IRB) approval from the investigator's academic unit, as well as the approval of the MUSC IRB. Research proposals should be forwarded to MUSC HSC at <u>simcenter@musc.edu</u> for confirmation of the ability of MUSC HSC to support the proposal and to determine the appropriate costs.

Research activity sponsors will follow the above listed processes for scheduling, changing, and cancelling activities.

4. Scheduling Tours

The tour sponsor or designee sends an email to <u>simcenter@musc.edu</u> listing details regarding the tour, including:

- Contact Information for tour coordinator
- Date and time
- Description of the participants (e.g., High school students, visiting professor, potential MUSC students or faculty)
- Number of participants (MUSC HSC can accommodate groups up to 20 individuals at a time)
- Specific area of interest (if any)

Tours should be requested at least 2 business days in advance. MUSC HSC will review the information and schedule the tour. If the specific dates and times or other specific requests are not available, MUSC HSC staff will contact the Tour Sponsor to discuss options.

A written cancellation notice is requested at least 2 business days prior to the scheduled tour The Sponsor should email <u>simcenter@musc.edu</u> to cancel a tour.

All questions related to scheduling should be directed to Mimi Mills at <u>simcenter@musc.edu</u>.

#### Section 6. Safety and Security

1. Physical Safety

If a learner is physically injured during a simulation session, the session facilitator should notify a member of the MUSC HSC staff immediately. Learners should seek care at MUSC employee or student health, as needed. Facilitators should follow injury reporting protocols established by their academic or hospital policies.

#### a. Latex Allergy

The MUSC HSC is NOT completely latex free; there is a risk of exposure to latex products. All facilitators and participants must acknowledge the risks during the sign-in process. Facilitators are responsible for notifying each participant of this risk when using supplies or equipment containing Latex.

b. Safe Use of Medical equipment, Medications, and Hazardous Materials

#### Safe Use of Medical Equipment

Unless specifically approved by the MUSC HSC, medical equipment will not be shared across the simulation center and patient care areas of MUSC. Medical equipment housed at the MUSC HSC will be clearly labeled as belonging to the MUSC HSC, and for simulation use only.

Some simulations require the use of a live defibrillator. Always assume that any defibrillator in the center is charged and active. Use caution. When involved in a simulation requiring a shock be administered to the simulated patient follow all standard safety protocols.

#### Safe Use of Medications

Under NO circumstances will simulation center users be allowed to bring medications, expired or otherwise, from the patient care areas of MUSC. Likewise, users may never take medications from MUSC HSC. MUSC HSC staff must follow proper procedures for securing expired medications for use in simulated environments. All simulated medications will be clearly labeled for simulation use only.

#### <u>Sharps</u>

All sharps must be disposed of in containers specifically marked for this purpose.

#### Hazardous materials

All potentially hazardous, hazardous materials, and simulated hazardous materials, including medications, must be properly disposed of in containers specifically marked for this purpose. Users should ask a MUSC HSC staff member if in doubt about the safety of the material or its proper disposal.

#### In Situ Activities

The simulation staff will be responsible for delivery, set up, tear down, and recovery of all simulation equipment outside of the Simulation Center or in situ. All simulation equipment to include simulated medications will be strictly controlled by simulation staff and/or facilitators. Control will consist of simulation equipment and medications to be labeled with "for simulation use only" or "not for patient use", pre and post in situ inventories, positive visual and/or physical accountability of simulation equipment and simulated medications. Space used during in situ is deemed training only during the time of the in situ and no REAL medications are accessible, ie no REAL medication is present or are stored in controlled/locked storage devices requiring additional access. Simulation staff will always be available for all in situs to advise and support, to include technical and safety assistance, both in-person and virtually.

c. Use of Animal Tissue

All use of animal tissue (e.g., chicken breasts, pig feet) must be approved by the MUSC HSC. MUSC HSC allows the use of food-grade products for simulation. No human tissue is allowed. Facilitators are responsible for the safe handling and disposal of any animal tissue used at the center.

2. Psychological Safety

The MUSC HSC is designed as a safe learning environment, not just physically safe, but also emotionally and psychologically safe. All learners and facilitators sign an agreement to maintain strict confidentiality. The center is a place where learners are provided an opportunity to learn from mistakes. No one should feel embarrassed or punished for errors during a simulation. Facilitators are responsible for ensuring a psychologically safe environment for all learners.

3. Facility Security

The MUSC HSC is on the second floor of the Colbert building on the main campus of MUSC. Physical security is maintained and monitored by the MUSC Public Safety Department. The main entrance and entrance to the MUSC HSC space is on a time lock, which is typically unlocked at 7:00 AM and locked at 5:00 PM Monday - Friday.

# Appendix A. MUSC HSC Organizational Chart



Donna Kern, MD Senior Associate Dean for Medical Education Assistant Dean for Patient Safety and Simulation



Catherine Dawson Tobin, MD, FASA Medical Director Professor for Dept of Anesthesia Lewis Blackman Endowed Chair in Patient Simulation and Research

**Advisory Council** 



Jules Kohler Business Manager



Mimi Mills Administrative Coordinator

Susie Maghakian Administrative Assistant



Frances W. Lee, DBA Director of Education Professor



Matthew Weas Simulation Specialist

Andy Novak

**Operations Manager** 

Steven Owen Simulation Specialist



Brian Stephens Information Technology Consultant

### Appendix B. Outline of Sponsor, Facilitator, and Staff Roles and Responsibilities

#### Pre – Activity

MUSC HSC support staff are responsible for:

- Providing facilitator training in pre-briefing, debriefing, and running simulations.
- Programming, updating, or modifying scenarios as required for the activity.

MUSC HSC simulation specialists are responsible for:

- Ensuring all applicable supplies, equipment, and rooms are available as requested.
- Testing all simulators and equipment to ensure it is functioning properly.
- Notifying facilitators or sponsors if there are issues encountered for their sessions (i.e., audiovisual or simulator equipment not functioning).
- Notifying the sponsor of needed supplies.

Sponsors are responsible for:

- Reviewing any programmed scenarios,
- Identifying and scheduling needed facilitators.
- Ensuring that facilitators have contacted MUSC HSC to receive the required simulation training.
- Ensuring facilitators are qualified SMEs.
- Providing disposable supplies as needed.
- Reviewing the most recent room set up to ensure its accuracy.
- Communicating any changes to the simulation activity using the appropriate form.

#### Day of Activity

MUSC HSC simulation specialists are responsible for:

- Ensuring complete simulation set-up and that all set up requests have been met.
- Conducting a final assessment of all equipment to ensure its functionality.
- Loading and testing all programmed scenarios.
- Managing the supplies for the activity.
- Supporting the facilitators and participants, including troubleshooting equipment issues, and providing "just-in-time" training.

Facilitators are responsible for:

- Ensuring all participants comply with sign in requirements.
- Ensuring a psychologically safe learning environment for all learners.
- Ensuring that all participants conduct themselves according to the Guidelines for Use of the MUSC HSC.
- Running programmed scenarios (with support from the Simulation Specialists, as needed).

#### Post Activity

Facilitators are responsible for:

- Disposing of trash in the appropriate receptacles.
- Removing all course materials and personal items from the rooms, cabinets, and drawers.,
- Notifying the Simulation Specialist of any damaged or broken equipment.
- Removing all user-owned supplies or returning them to their pre-assigned storage container.

MUSC HSC Simulation Specialists are responsible for:

- Returning all personal items and course materials that are left in the rooms to the facilitator or placing them in lost and found.
- Appropriately covering all manikins remaining in the rooms and ensuring that all beds remaining in the rooms are neatly made.
- Ensuring that all rooms (including control rooms, drawers, cabinets, and counters) are neat and clear of all materials and personal items.
- Shutting down all computers, manikins, and other equipment.
- Documenting any damaged or broken equipment.
- Returning course "bins" to the storage area.