Clinical Simulation Center: Resources and Operations Part 1

Kinney College of Nursing and Health Professions

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Objectives

- Part 1
  - Review the clinical equipment and accessories available in the Clinical Simulation Center (CSC).
  - Simulation Modalities
    - Task (Skills) Trainers
    - Virtual Reality
    - Standardized/Simulated Patient (SP) Actor
    - Hybrid (mixed modality)
- Part 2
    - Human Patient Simulator (HPS) Manikins
    - SimPad Operations
    - HPS Manikin Operations
    - SP or Task Trainer Operations
    - Control Room Operations

Clinical Equipment and Accessories: Simulation Patient Rooms

Each of the four simulation patient rooms has:

- Workstation (computer) On Wheels- Cart with computer and barcode scanner to simulate bedside charting and medication administration.
    - Charting and medication administration can be simulated using two of the available educational electronic health records, ATI EHR Tutor or EHR Go.
- Headwall- The left side of each headwall has live oxygen, medical air, and functioning suction, and an aneroid blood pressure cuff. The right side of the headwall has simulated oxygen, medical air, and functioning suction.
    - Simulated Rapid Response and Code Blue buttons
- Patient Monitor- Emulates a typical hospital patient monitor via the LLEAP software. Can be used with both HPS manikins and Simulated Patient Actors.
- Personal Protective Equipment
- Wall Mounted SharpSafety- All needles used during simulations or activities should be disposed of in the sharps containers.
    - Only CSC staff are permitted access to the sharps enclosure key to remove full sharps containers.

Clinical Equipment and Accessories: Beds

CENTRELLA SMART + BED

PROGRESSA ICU BED

RESIDENT LTC BED

Clinical Equipment and Accessories: Lifts

Sit-to-Stand Patient Lift

Mobile Patient Lift

Likorall 250 Patient Lift

Clinical Equipment and Accessories: Recliner

Clinical Equipment and Accessories: Stretchers

Transport Stretcher

Trauma Stretcher

Clinical Equipment and Accessories: Nurses Stations

- The CSC has two nurses' stations each equipped with a simulated medication cabinet and accompanying computer, stocked with labeled and barcoded simulated medications.
  - The medication cabinets are labeled “Not for human use Education only”
  - All medications within are for simulation use and labeled “Not for human or animal use”

Clinical Equipment and Accessories: Carts

Food Delivery Cart

Medication Cart

Linen Cart

Clinical Equipment and Accessories: Crash Carts

- There are four equipped crash (code blue) carts in the CSC, three adult and one pediatric
  - Zoll R Series ALS Defibrillator (2)- Both devices are marked with “Not for human use Education only” and students are given a safety brief before each use in simulation.
  - LifePak 20 Defibrillator (2)- Both devices are marked with “Not for human use Education only” and students are given a safety brief before each use in simulation.
- Use of defibrillators requires supervision of CSC staff.

Anatomage Table

- “Anatomage Table features various life-size real human bodies in digital formats that provide an accurate representation and simulation of real 3D anatomy, physiology, and digital pathology.”

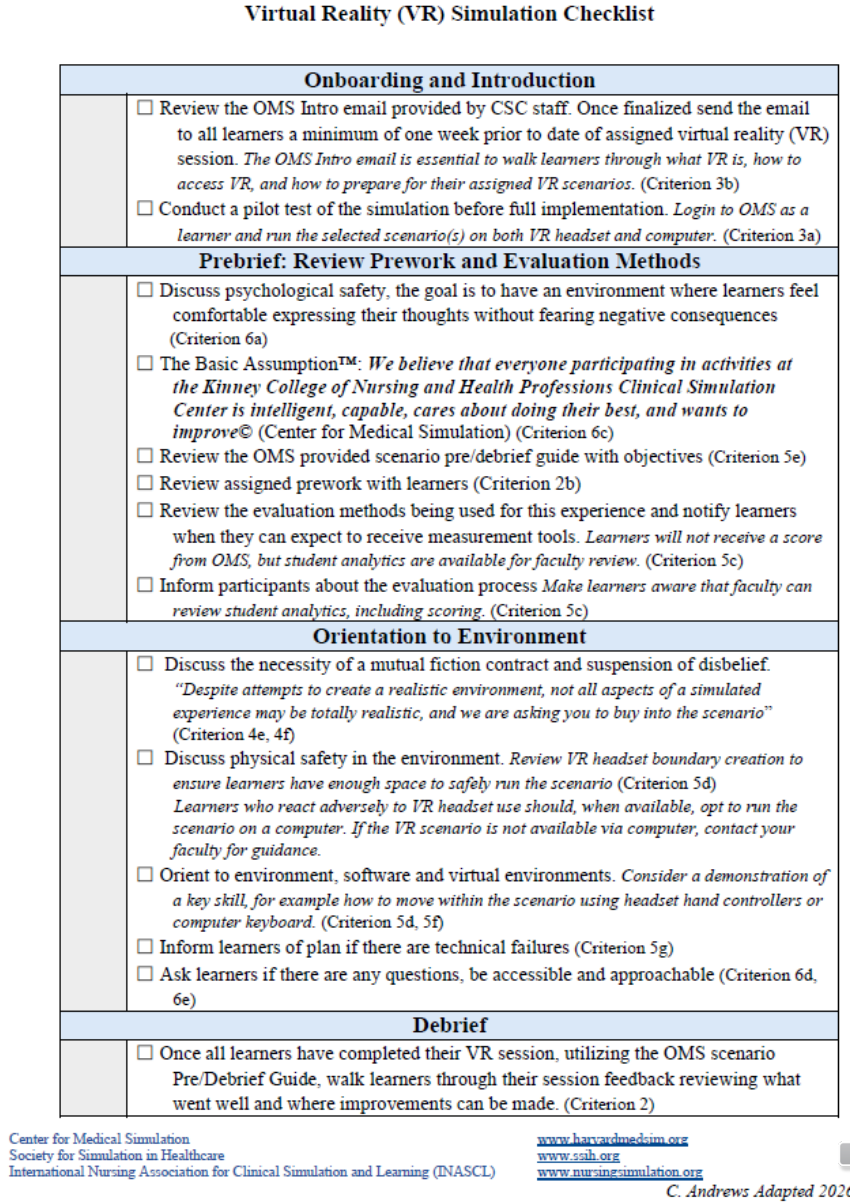
(Anatomage, n.d.)

Simulation Modalities: Task Trainers

- Common task trainers include:
  - Auscultation
  - IV arm trainers
  - Pelvic trainers (pelvic exam and catheterization)
  - Edema trainers
  - Breast Exam trainers
  - Injection trainers (intramuscular and subcutaneous)

Simulation Modalities: Virtual Reality

- The CSC has adopted the virtual reality platform Oxford Medical Simulation (OMS).
  - Case Scenario List
- The CSC Virtual Reality (VR) Room (HPL060) houses 23 Meta Quest 3 headsets pre-installed with the OMS application.
- The lower-level computer lab (HPL043) has the OMS application pre-installed on each computer.
  - Students can use this lab independently or a course instructor can reserve the lab for class use by contacting CSC staff.



Virtual Reality (VR) Simulation Checklist

Onboarding and Introduction	
	☐ Review the OMS Intro email provided by CSC staff. Once finalized send the email to all learners a minimum of one week prior to date of assigned virtual reality (VR) session. *The OMS Intro email is essential to walk learners through what VR is, how to access VR, and how to prepare for their assigned VR scenarios.* (Criterion 3b)
	☐ Conduct a pilot test of the simulation before full implementation. *Login to OMS as a learner and run the selected scenario(s) on both VR headset and computer.* (Criterion 3a)
Prebrief: Review Prework and Evaluation Methods	
	☐ Discuss psychological safety, the goal is to have an environment where learners feel comfortable expressing their thoughts without fearing negative consequences (Criterion 6a)
	☐ The Basic Assumption™: ***We believe that everyone participating in activities at the Kinney College of Nursing and Health Professions Clinical Simulation Center is intelligent, capable, cares about doing their best, and wants to improve©*** (Center for Medical Simulation) (Criterion 6c)
	☐ Review the OMS provided scenario pre/debrief guide with objectives (Criterion 5e)
	☐ Review assigned prework with learners (Criterion 2b)
	☐ Review the evaluation methods being used for this experience and notify learners when they can expect to receive measurement tools. *Learners will not receive a score from OMS, but student analytics are available for faculty review.* (Criterion 5c)
	☐ Inform participants about the evaluation process *Make learners aware that faculty can review student analytics, including scoring.* (Criterion 5c)
Orientation to Environment	
	☐ Discuss the necessity of a mutual fiction contract and suspension of disbelief. *"Despite attempts to create a realistic environment, not all aspects of a simulated experience may be totally realistic, and we are asking you to buy into the scenario"* (Criterion 4e, 4f)
	☐ Discuss physical safety in the environment. *Review VR headset boundary creation to ensure learners have enough space to safely run the scenario* (Criterion 5d) *Learners who react adversely to VR headset use should, when available, opt to run the scenario on a computer. If the VR scenario is not available via computer, contact your faculty for guidance.*
	☐ Orient to environment, software and virtual environments. *Consider a demonstration of a key skill, for example how to move within the scenario using headset hand controllers or computer keyboard.* (Criterion 5d, 5f)
	☐ Inform learners of plan if there are technical failures (Criterion 5g)
	☐ Ask learners if there are any questions, be accessible and approachable (Criterion 6d, 6e)
Debrief	
	☐ Once all learners have completed their VR session, utilizing the OMS scenario Pre/Debrief Guide, walk learners through their session feedback reviewing what went well and where improvements can be made. (Criterion 2)

Center for Medical Simulation — www.harvardmedsim.org
Society for Simulation in Healthcare — www.ssih.org
International Nursing Association for Clinical Simulation and Learning (INASCL) — www.nursingsimulation.org

C. Andrews Adapted 2026.4.29

(Andrews, 2025)

Simulation Modalities: Standardized/Simulated Patient (SP) Actors

- Upon request the CSC can assist in the utilization of an SP for the purpose of simulation.
- INNOV2Learn: Glucometer, pulse oximeter, thermometer, and SpotV.

ASL 5000 Lung Solution

“ASL 5000 Lung Solution is a breathing simulator intended for high-fidelity ventilation management training in respiratory care, critical care, pulmonology, anesthesia, and emergency medicine. It can simulate any respiratory condition you may encounter, on any ventilator in any mode of ventilation.

This solution enables you to integrate advanced ventilation management training with Laerdal’s SimMan simulators, Nursing Anne Simulator, and SimBaby, all controlled with the LLEAP software. ASL 5000 can also be used as a task trainer for ventilator operation, waveform analysis, and equipment onboarding.”

(Laerdal, n.d.)

SimVox

- A conversational AI speaker that gives our HPS manikins a voice.
  - Each simulation patient room has a SimVox
  - There are six pre-made SimVox scenario patients available for immediate use or a custom SimVox scenario can be developed using the Simulation Blueprint.
- Request account access from CSC staff
  - Login via app.PCS.ai

References

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