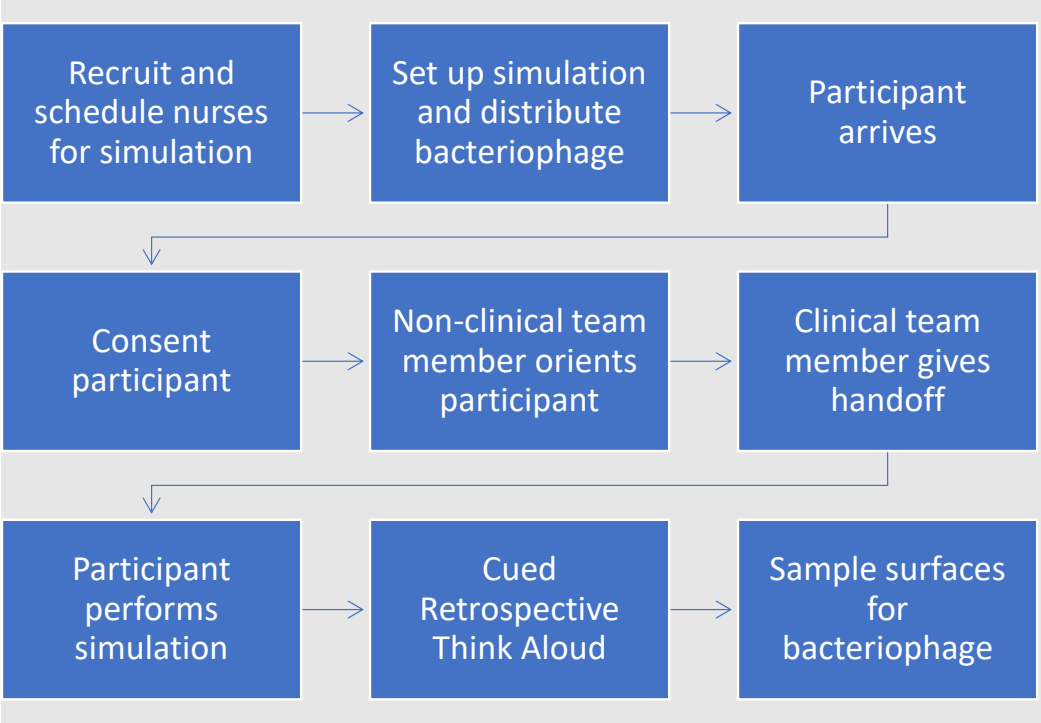
Supplemental Material

Procedure

In addition to the text describing the procedure in the main text, we provide a flow diagram of the procedure as shown in Figure S1.

Figure S1. Flow Diagram of Simulation Procedure



Patient Descriptions

For the simulations, we developed realistic descriptions and medical history for the high-fidelity manikins in the simulation; these descriptions were not based on or represent real patients. Patient 1 was a 67-year-old male and nursing home resident, with a past medical history of stroke. He presented with nausea and concern for ileus. He was allergic to Sulfa drugs. The off-going nurse's assessment indicated he was hemodynamically stable, awake, and alert with some left-sided weakness. The wound care team

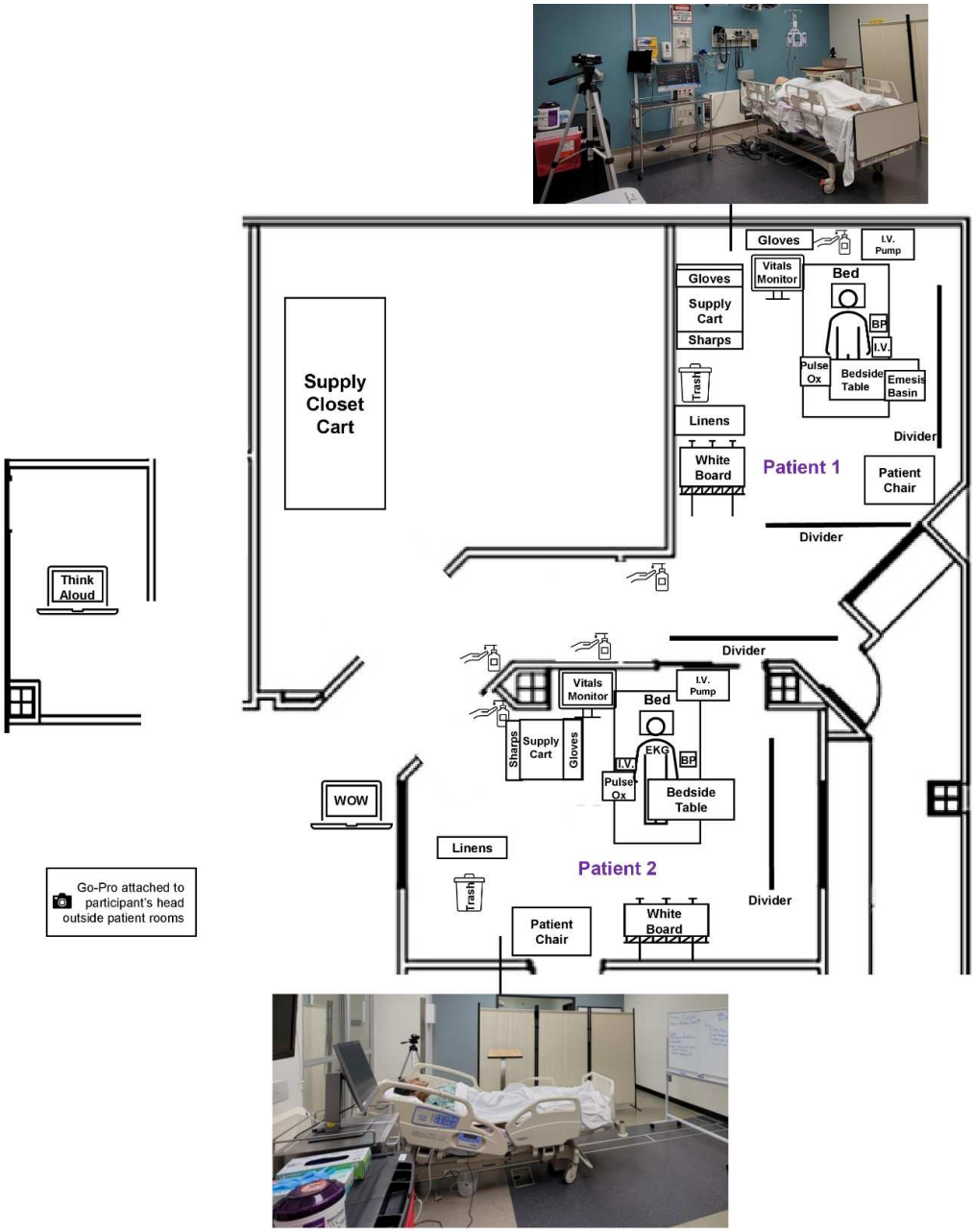
had already seen him, and they left orders for his stage IV sacral decubitus ulcer. He had one peripheral IV with normal saline going, but he needed a second peripheral IV. There was concern for an ileus, prompting the need for a nasogastric tube. The off-going nurse had already put him on a bedpan.

Patient 2 was a 58-year-old male with stage 3 chronic kidney disease and paroxysmal Atrial Fibrillation. He presented with palpitations, lower abdominal pain, and diarrhea. He was allergic to Lisinopril and betadine. He had just come in and was awake and alert but complaining of urine and stool incontinence. He was hooked up to telemetry, which showed Atrial Fibrillation with rates in the 120s to 130s. Cardiology had assessed him and wasn't too concerned. He was late for his dose of Metoprolol 5 mg IV. The off going nurse had just checked his blood pressure, which was 130s/70s, but hadn't done any other assessment. Ceftriaxone was ordered out of concern for a urinary tract infection, which was already hung and had another hour left. He already had one peripheral IV.

Simulation Layout

To illustrate the layout of the simulation space, Figure S2 is provided.

Figure S2. Layout of the Simulation Space.



Interruptions

In the simulation, participants were interrupted twice in each patient room at predetermined, critical moments: (1) when cleaning Patient 1's stage 4 pressure injury, Patient 2's monitor suddenly shows that he is hypotensive (80/60), prompting Patient 2's monitor to alarm and an overhead announcement for the participant to check on Patient 2, (2) after cleaning Patient 1's PIV insertion site with a CHG sponge and before inserting the IV needle, Patient 1 suddenly complains of nausea and asks for a nearby emesis basin and help sitting up, (3) after creating a sterile field and lubricating the Foley catheter to insert in Patient 2, Patient 1's pulse oximeter alarms, prompting an overhead announcement for the participant to check on Patient 1, and (4) when placing a stool specimen from Patient 2 into a specimen cup, Patient 2's monitor suddenly alarms showing a heart rate of 50 beats per minute, although the patient reports feeling fine and this usually happens when their blood pressure drops (reading normal at 134/75) prompting the nurse to recycle the blood pressure on the vitals monitor.

IPC Practices

Verbalizations describing any MCF subcategory were coded in terms of the IPC practice(s) they described. The definition for each IPC practice is shown in Table S1.

53 **Table S1. Infection Prevention and Control Practices**

Practice	Definition
Hand Hygiene	Describing when, if, or how (e.g., method, technique) to perform hand hygiene.
Cleaning Patient, Environment, or Equipment	Outside the context of sterility, thinking about when, if, or how to clean the patient (e.g., wiping patient, changing linens), environment (e.g., cleaning high-touch surfaces), or equipment (e.g., cleaning stethoscope, phone).
Achieving or Maintaining Sterility	Describing how best to maintain or achieve a sterile environment by preparing for a task, the steps to perform a task, detecting a breach of sterility, determining status of sterility, and balancing tradeoffs (e.g., maintaining sterility versus time pressure or need to leave sterile field).
PPE	Outside the context of sterility, describing when or if to use PPE, what PPE to use for a task or patient, or detecting issues with PPE (e.g., visibly soiled, torn, difficult to use).
Disposal/Containment	Describing when, if, or how to dispose of or contain (e.g., in a trash bag, biohazard bag, sharps container) a potentially contaminated item (e.g., bedpan, IV, wound dressing).

Minimizing Contamination from Contact	Outside the context of sterility, describing when, if, or how to avoid spreading contamination by physical touch (e.g., planning order of tasks, minimizing trips between rooms).