Medical Manikin Quick Scenario Set

Scenario Guide







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This Medical Manikin Quick Scenario Set provides 100 different, ready-to-use scenarios for low-fidelity and medium-fidelity medical manikins. Scenarios include the following focus areas: infant, pediatric, adult, geriatric, clinical setting, emergency scenarios, and employability skills. Scenarios include objectives, setting, equipment setup, patient profiles, roles, and pre-brief and debrief questions.

Scenario Guide Components

The scenario guide is composed of the following components. Approximate times are included.

Scenario	Title	Approximate Time
1	Infant Well-Baby Visit	20 minutes
2	Infant Bronchiolitis	20 minutes
3	Infant Failure to Thrive	25 minutes
4	Infant Fever	20 minutes
5	Irritable Child	25 minutes
6	Infant Jaundice	30 minutes
7	Infant Conjunctivitis	25 minutes
8	Infant Rash	20 minutes
9	Infant Croup	25 minutes
10	Infant Reflux	20 minutes
11	Pediatric Reactive Airway Disease	20 minutes
12	Pediatric Foreign Body	20 minutes
13	Pediatric Ear Infection	20 minutes
14	Pediatric Lead Poisoning	25 minutes
15	Toddler's Fracture	20 minutes
16	Pediatric Tonsillitis	20 minutes
17	Pediatric Gastroenteritis	25 minutes
18	Pediatric Head Injury	20 minutes
19	Pediatric Hand, Foot, and Mouth Disease	20 minutes
20	Pediatric Scabies	20 minutes
21	Pediatric Allergic Reaction	20 minutes
22	Pediatric Urinary Tract Infection	20 minutes
23	Adolescent Depression	20 minutes
24	Adolescent Migraine	30 minutes
25	Persistent Asthma	20 minutes
26	Adult new Patient Visit	20 minutes
27	Adult Biliary Colic	20 minutes

28	Adult Rectal Bleeding	20 minutes
29	Adult Suture Removal	20 minutes
30	Adult Inguinal Hernia	20 minutes
31	Adult CT Scan Prep	20 minutes
32	Adult Heat Exhaustion	20 minutes
33	Adult Ocular Toxic Exposure	20 minutes
34	Adult Peptic Ulcer Disease	20 minutes
35	Adult Orthostasis	25 minutes
36	Adult Pre-Op	25 minutes
37	Adult Wound Care	20 minutes
38	Adult Cast Removal	20 minutes
39	Adult Pregnancy	20 minutes
40	Adult Staple Removal	20 minutes
41	Geriatric Memory Issues	20 minutes
42	Geriatric Peri-Care	20 minutes
43	Geriatric Indwelling Catheter Care	25 minutes
44	Geriatric Ostomy Care	25 minutes
45	Geriatric Lift Assist and Transfer	25 minutes
46	Geriatric Walk Assist	25 minutes
47	Geriatric Range of Motion	25 minutes
48	Geriatric Wound Care	25 minutes
49	Geriatric Feeding and Swallow	25 minutes
50	Geriatric Central Line Care	25 minutes
51	Geriatric Oral Care	25 minutes
52	Geriatric CPAP	25 minutes
53	Geriatric Insulin Administration	30 minutes
54	Geriatric Bed Bathing	25 minutes
55	Geriatric Complex Medication Administration	30 minutes
56	Epistaxis	20 minutes
57	Ankle Sprain	20 minutes
58	Abscess	25 minutes
59	TB Test	20 minutes
60	Persistent Cough	20 minutes
61	Constipation	20 minutes
62	Pelvic Pain	20 minutes
63	Ear Infection	20 minutes

64	Chest Pain	20 minutes
65	Fatigue	20 minutes
66	Palpitations	25 minutes
67	Depression/Suicidal Ideation	20 minutes
68	Headache	20 minutes
69	Tobacco Cessation	20 minutes
70	Upper Respiratory Infection	20 minutes
71	Anaphylaxis	20 minutes
72	STEMI	30 minutes
73	COPD Exacerbation	30 minutes
74	Croup / Stridor	25 minutes
75	Arterial Laceration	20 minutes
76	Stroke	20 minutes
77	Cardiac Arrest	20 minutes
78	Sepsis	30 minutes
79	Respiratory Failure / Intubation	25 minutes
80	Small Bowel Obstruction	20 minutes
81	Trauma	20 minutes
82	Supraventricular Tachycardia	20 minutes
83	Septic Arthritis	20 minutes
84	Hypothermia	20 minutes
85	Aortic Dissection	25 minutes
86	Bad News	20 minutes
87	Upset Parent	20 minutes
88	Discharge Against Medical Advice	20 minutes
89	Patient Complaint	20 minutes
90	Patient Expectations	20 minutes
91	Difficult Teammate	20 minutes
92	Medical Error	20 minutes
93	Sensitive Disclosure	20 minutes
94	Difficult Provider	20 minutes
95	Patient Education	20 minutes
96	Multitasking	20 minutes
97	De-escalation	20 minutes
98	Reorientation	20 minutes
99	Documentation	25 minutes

100	Patient Advocacy	20 minutes
	Total	36 hours and 35 minutes

Scenario Structure

Scenario Sections

Each scenario follows the sections described below:

Scenario Focus: The topic of the scenario is identified.

Manikin: The type of manikin needed for the scenario is identified.

Environment: The scenario environment is identified to help participants and instructors better understand the context of the scenario.

Estimated Run Time: This is an estimate of the number of minutes it would take to complete the scenario.

Objectives: Specific scenario outcomes are identified that participants should be able to achieve by participating in role-play.

Equipment Set: A list of equipment and supplies required to complete the scenario.

Patient Profile: Patient information such as name, age, gender, weight, medical history, surgical history, allergies, and medications is provided to enable participants to make realistic decisions based on known patient information.

Roles: Roles for all participants in the scenario are identified so instructors know what needs to be assigned prior to roleplaying the scenario.

Pre-Brief Questions: The pre-brief questions are intended to capture participants' attention and prepare them for the scenario.

At-the-Door Brief: This information will 'set the stage' for beginning the scenario and define what participants would be expected to do based on the information.

Simulation Initial State: Introductory scenario details, vital signs, expected actions, prompts, and cues are provided to enable successful implementation of the scenario.

Simulation Continuation: Additional patient details for the scenario are shared along with expected actions, prompts, and cues to enable participants and instructors to maximize learning during the scenario.

Simulation Conclusion: Final details that wrap up the patient visit are shared, along with expected actions, prompts, and cues to help participants think through the proper way to complete the scenario.

Debrief Questions and Extension Activities: This information can be found in this guide and the accompanying printable workbook. The debrief questions master sheet may be used with all the scenarios. There are a variety of different extension activities to choose from in the printable workbook that can be used with any of the scenarios.

Suggested Scenario Procedures

1. Divide participants into small groups and complete the pre-brief questions in the lesson plan, or discuss as a group prior to the scenario.
2. Review answers to the pre-brief questions.
3. Review Scenario Guidelines and Expectations for the scenario and sign the form if desired.
4. Orient participants to the scenario area.
5. Assign the roles designated in the scenario.
6. Set up the manikin and scenario environment. Instructors should share all the relevant background information for the scenario with participants.
7. Have each group review the scenario on the scenario card.
8. Complete the scenario.
9. Debrief individually or as a group, using the debrief questions in the scenario guide.
10. Have small groups also debrief as a group, reviewing their actions versus the expected actions identified in all three sections of the scenario information provided by the instructor.

Suggested Scenario Lesson Plan

Scenario Description

The purpose of this scenario is to gain empathy for the patient and practice handling the scenario as a healthcare professional.

Scenario Objectives

After completing this scenario, participants will be able to:

- See the individual scenario objectives

Scenario Materials

Activity	Materials	Preparation	Approximate class time
PRE-BRIEF	• *Pre-Brief Questions* • Medical Manikin Scenario Cards • *Scenario Guidelines and Expectations*	1. Print/photocopy *Scenario Guidelines and Expectations (*one per participant) 2. Prepare Medical Manikin Scenario Cards	20 minutes
SCENARIO	• Scenario information • Medical Manikin Scenario Cards • Equipment set identified in the scenario	1. Prepare Medical Manikin Scenario Cards and information 2. Prepare area as stated in Scenario Setup	20 minutes
DEBRIEF	• *Debrief Questions* • Extension activity from printable workbook	1. Optional: Display questions on a projector or print/photocopy the *Debrief Questions*	20 minutes

Pre-Brief

10-20 minutes

Purpose:

To gain empathy for the patient and practice the skills found in the scenario.

Materials:

- *Scenario Guidelines and Expectations*
- *Pre-Brief Questions*
- Medical Manikin Scenario Card for chosen scenario

Facilitation Steps:

1. Share the pre-brief questions in the scenario with the participants prior to the scenario. Divide participants into small groups and complete the pre-brief questions in the scenario, or discuss as a group prior to the scenario.

   As an alternative, the pre-brief questions could be turned into a written exercise.

2. Review answers to the pre-brief questions.
3. Give each participant the *Scenario Guidelines and Expectations* worksheet and have participants sign the form if desired.
4. Orient the participants to the patient profile and scenario. The patient profile information can be found in the first page of the scenario in this guide.

   The scenario may be shared with participants in several ways. Divide participants into five small groups, giving each group a scenario card to review together.

   Alternatively, read over the scenario as a whole group or display the scenario card on a document projector.
5. Assign the roles designated in the scenario.
6. Set up the scenario using the information found in the scenario's description of the environment and the equipment identified.

Scenario Guidelines and Expectations

(Based on the INACSL Standards of Best Practices Professional Integrity)

When you come to the simulation scenario, please be:

- Organized and prepared
- Accountable for your role and responsibilities
- Collaborative, supportive, nonintimidating, and respectful
- Able to share expertise and/or experiences in a safe, nonjudgmental manner
- Calm and compassionate, creating a sense of trust
- Honest, mindful, and sensitive to cultural differences and ethical issues related to the simulation-based experience
- Aware of a safe learning environment

It is important that you follow the standards of practice, principles, and ethics of your profession.

Roles

You will be assigned the role of the patient or the healthcare professional. As the patient, you must gain empathy for those with the condition in the scenario. As the healthcare provider, you must safely assist your patient. This includes correct prompting and education.

Confidentiality Agreement

This simulation requires confidentiality of the performances and scenario content. By signing below, I agree to be a participant in the simulation. I understand the content of the scenario is to be kept confidential to maintain the integrity of the learning experience. I also understand that it is unethical for me to share information in any way regarding participant performance with persons outside this simulation scenario.

Name (printed) _____ Signature _____

Scenario

20–30 minutes

Purpose:

To gain empathy for the patient and practice the skills found in the scenario. To have participants roleplay and walk in the shoes of the patient and the healthcare professional.

Materials:

- Scenario information
- Medical Manikin Scenario Card for chosen scenario
- Equipment set identified in the scenario

Facilitation Steps:

1. Prior to beginning the scenario (but after assigning roles), review the Patient Profile.
2. Give participants time to gather their thoughts before starting. Remind participants not to prompt one another and to stay within their roles. The "patient" is to follow the "healthcare worker's" directions and may discuss what he/she is feeling. The "healthcare worker" is to assist the "patient" appropriately as directed by scenario events.

   Note: The scenario should be paused if any real-life safety issue occurs. Once the issue is addressed, the scenario can continue. Roles can be reversed so that participants can experience each role. Some scenarios require more roles than a patient and healthcare worker. Assign participants to these supporting roles as needed.
3. Scenario Flow:

   At-the-Door Brief: This information will set the stage for beginning the scenario and what participants would be expected to do based on the information.

   Simulation Initial State: Introductory scenario details, vital signs, expected actions, and prompts and cues are provided to enable successful implementation of the scenario.

   Simulation Continuation: Additional patient details for the scenario are shared along with expected actions, prompts, and cues to enable participants and instructors to maximize learning during the scenario.

   Simulation Conclusion: Final details that wrap up the patient visit are shared along with expected actions, prompts, and cues to help participants think through the proper way to complete the scenario.

   The instructor may use the scenario information including expected actions, prompts, and cues to assist participants as needed throughout the scenario.

Sample Scenario:

At-The-Door Brief
You are rooming a new patient, Malakai, for his 2-month well baby visit. He arrives with his mother, Jeannette. You are to greet and settle the patient, collect a weight, length, and set of vital signs. You should elicit any specific concerns Jeannette has about Malakai before reporting to the provider. You should plot the patient's weight and length on his growth chart.

Simulation – Initial State	
Presentation	Jeannette is sitting comfortably in a chair in the exam room with Malakai in her arms. She states that he was exactly 8 lbs at birth, and she wonders how much he's grown. Vital signs: **HR** 156 | **BP** 85/45 | **RR** 40 | **Temp** 37.1ºC (98.7ºF) | **SpO2** 99% on room air The patient continues to rest comfortably in no distress.
Expected Actions	- Obtain the patient's weight using the infant scale and plot it on his growth chart - Obtain the patient's length using the tape measure and plot it on his growth chart - Collect a full set of vital signs with correct technique, including rectal temperature - Report to the provider
Prompts and Cues	- Patient's mother, upon being told his new weight and length: "Is he growing well?" - Patient's mother: "I don't have any specific concerns. Does he need any shots today?"
Simulation – Continuation	
Presentation	After the provider has received the report and examined the patient, they state the following: "Malakai is doing well – he's growing normally, and everything seems to be on track. He's due for a few shots today; at his two-month visit, he should get another dose of his HBV vaccine, a DTaP, Hib, inactivated polio, pneumococcal conjugate, and rotavirus vaccines. Do you mind drawing everything up?"
Expected Actions	- Demonstrate appropriate technique in drawing medication from a vial (participant can draw up a single medication, do not need to repeat for each individual immunization) - Provide appropriate counseling to the patient's mother regarding the immunization schedule - **Optional**: If appropriate trainer is available, demonstrate appropriate intramuscular injection technique

Prompts and Cues	- Patient's mother: "That's a lot of shots – is it safe for him to get so many at once?"
Simulation – Conclusion	
Presentation	The patient's mother thanks you and gets up to leave. On her way out, she stops and asks one additional question. She has a 3-year-old and is wondering if she can put Malakai in his brother's car seat when his brother is at daycare, as it can sometimes be a hassle to keep both in the car.
Expected Actions	- Provide appropriate counseling on the use of rear-facing car seats for infants under 1 year old
Prompts and Cues	- Patient's mother: "They both seem like perfectly fine car seats; the one we bought for Malakai faces him backwards, but his brothers' has him facing the front of the car."

Debrief

20-30 minutes

Purpose:

To reflect on and discuss the scenario experience.

Materials:

- *Debrief Questions* (one per participant or group)
- Extension activity from printable workbook

Facilitation Steps:

1. Review debriefing rules
    - Confidentiality
        - Scenarios are to be kept confidential to maintain the integrity of the learning experience
        - It is unethical to share information in any way regarding participant performance with persons outside the scenario
    - Safe space
        - This is a safe, non-discriminatory learning environment for constructive feedback
2. Work through the debriefing questions on the worksheet as a group.
3. Praise the participants for their efforts.
4. Choose one of the extension activities from the printable workbook and have participants complete it.

Debrief Questions

Group Questions

1. Describe the objectives that you were able to achieve.
2. Which objectives were you unable to achieve (if any)?
3. Which objectives did you do well?
4. If you were able to do this again, how would you handle the situation differently?

Patient Questions

1. How did you feel throughout the simulation experience?
2. What part of the simulation was the most challenging?

Healthcare Professional Questions

1. How did you feel throughout the simulation experience?
2. What part of the simulation was the most challenging?

Ending Questions

1. What are your main take-away points from this simulation?
2. Is there anything else you would like to discuss?

Scenario 1: Infant Well-Baby Visit

Manikin:	Environment:
Low-Fidelity Infant	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize early developmental milestones in an infant patient
- Provide appropriate education and counseling to new parents
- Obtain accurate vital signs in an infant patient
- Understand appropriate, age-specific screening questions in an infant patient

Equipment

- Stethoscope (infant size)
- Blood pressure cuff (infant size)
- Probe thermometer
- Infant scale
- Tape measure
- Pulse oximeter with fingertip sensor
- Syringe with injection needle
- Medication vial
- WHO pediatric growth chart (boys 0-24 months)
- **Optional:** Injection trainer

Patient Profile

Name	Malakai B.
Age	2 months
Gender	Male
Length/Weight	23 in (58.5 cm) / 5.8 kg (12.8 lbs)
Past Medical History	Born at 39w5d by uncomplicated, normal, spontaneous, vaginal delivery; up to date on immunizations
Surgical History	None
Social History	Lives at home with his parents, Jeannette and Troy, and one older brother (3 years old). Mostly breast-fed, supplemented with formula.

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Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Jeannette, the patient's mother** (facilitator)

Pre-Brief Questions:

- How does obtaining pediatric vital signs differ from obtaining adult vital signs?
- How do we know if infants are developing and growing appropriately?
- What is the correct technique for drawing up and administering intramuscular medications?
- What specific safety concerns can be addressed during well-child visits?

At-The-Door Brief

You are rooming a new patient, Malakai, for his 2-month well-baby visit. He arrives with his mother, Jeannette.

Greet and settle the patient, collect a weight, length, and set of vital signs. Elicit any specific concerns Jeannette has about Malakai before giving the report to the provider. Plot the patient's weight and length on his growth chart.

Simulation – Initial State

Presentation	Jeannette is sitting comfortably in a chair in the exam room; Malakai is in her arms. She states that he was exactly 8 lbs at birth, and she wonders how much he's grown. Vital signs: **HR** 156 | **BP** 85/45 | **RR** 40 | **Temp** 37.1ºC (98.7ºF) | **SpO2** 99% on room air The patient continues to rest comfortably in no distress.
Expected Actions	- Obtain the patient's weight using the infant scale and plot it on his growth chart - Obtain the patient's length using the tape measure and plot it on his growth chart - Collect a full set of vital signs with correct technique, including rectal temperature - Give a report to the provider

Prompts and Cues	- Patient's mother, upon being told his new weight and length: "Is he growing well?" - Patient's mother: "I don't have any specific concerns. Does he need any shots today?"
Simulation – Continuation	
Presentation	After the provider has received the report and examined the patient, they state: "Malakai is doing well; he's growing normally, and everything seems to be on track. He's due for a few shots today. At his 2-month visit, he should get another dose of his HBV vaccine, a DTaP, Hib, inactivated polio, pneumococcal conjugate, and rotavirus vaccines. Do you mind drawing everything up?"
Expected Actions	- Demonstrate appropriate technique in drawing medication from a vial (participant can draw up a single medication, do not need to repeat for each individual immunization) - Provide appropriate counseling to the patient's mother regarding the immunization schedule - **Optional**: If appropriate trainer is available, demonstrate appropriate intramuscular injection technique
Prompts and Cues	- Patient's mother: "That's a lot of shots – is it safe for him to get so many at once?"
Simulation – Conclusion	
Presentation	The patient's mother thanks you and gets up to leave. On her way out, she stops and asks one additional question. She has a 3-year-old and is wondering if she can put Malakai in his brother's car seat when his brother is at daycare, as it can sometimes be a hassle to keep both in the car.
Expected Actions	- Provide appropriate counseling on the use of rear-facing car seats for infants under 1 year old
Prompts and Cues	- Patient's mother: "They both seem like perfectly fine car seats; the one we bought for Malakai faces him backwards, but his brothers' has him facing the front of the car."

Scenario 2: Infant Bronchiolitis

Manikin:	Environment:
Low-Fidelity Infant	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of bronchiolitis
- Recognize the signs and symptoms of respiratory distress in an infant
- Demonstrate appropriate nasal suctioning technique

Equipment

- Stethoscope (infant size)
- Blood pressure cuff (infant size)
- Probe thermometer
- Infant scale
- Tape measure
- Pulse oximeter with fingertip sensor
- Bulb suction or nasal aspirator

Patient Profile

Name	Brianna K.
Age	6 months
Gender	Female
Weight	7.5 kg (16.5 lbs)
Past Medical History	No chronic medical conditions, born at 40w1d by C-section after failure to progress during induction of labor
Surgical History	None
Social History	Lives at home with her mother, Ellen, and she is an only child
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Ellen, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- How do we assess respiratory status in infants?
- What is bronchiolitis, and how is it different from other causes of infant respiratory distress (for example, reactive airway disease or croup)?
- How do we help infants clear secretions from their airway?

At-The-Door Brief

Brianna, an otherwise healthy 6-month-old girl, comes in with her mother, Ellen. Ellen called the clinic this morning to request an appointment. Brianna has a runny nose that started 2 days ago. This morning she is completely stuffed up, and Ellen is concerned that it is affecting her breathing.

The patient has otherwise been well, with normal feeding and a normal number of wet diapers so far today. She has not experienced any fevers at home. Aside from being slightly fussy, there have been no changes in her behavior or mental status.

Assess the patient, obtain vital signs, and give a report to the provider.

Simulation – Initial State

Presentation	Ellen is sitting on the exam table; she is holding Brianna in her arms. Brianna is crying intermittently and seems fussy. Ellen explains that Brianna has been so stuffy this morning that her breathing seems noisy. Vital signs: **HR** 167 | **BP** 85/45 | **RR** 57 | **Temp** 37.8ºC (100.1ºF) | **SpO2** 93% on room air
Expected Actions	- Collect a full set of vital signs with correct technique, including rectal temperature - Recognize the patient's abnormal vital signs (tachypnea, borderline low oxygen saturation) - Give a report to the provider

Prompts and Cues	- Patient's mother: "Can you listen to her breathing?" - Facilitator to disclose when participant investigates patient's breathing: Exam is significant for tachypnea with grunting respirations, profound nasal congestion with copious clear secretions. If the participant listened with a stethoscope, they heard bilateral, migratory, coarse rhonchi without wheezing or rales.
Simulation – Continuation	
Presentation	After the provider received the report and examined the patient, they state, "Brianna looks like she has bronchiolitis. Her vital signs are abnormal. If we can't fix them, we'll have to send her to the hospital, but I think we may be able to help her with some nasal suctioning."
Expected Actions	- Demonstrate appropriate nasal suctioning technique. - Educate the patient's mother on appropriate suctioning technique at home.
Prompts and Cues	- Patient's mother: "She looks so much better after that. Is that something I can do at home?"
Simulation – Conclusion	
Presentation	Brianna looks much better after nasal suctioning. Her respiratory rate has improved to 45/minute, and her grunting respirations have resolved. Oxygen saturation is 97% on room air. She appears less fussy. While you prepare to go, the patient's mother asks, "Does this mean Brianna has a problem with her lungs, like asthma?"
Expected Actions	- Provide appropriate counseling on the causes and disease course of bronchiolitis. Counsel the patient's mother that bronchiolitis and asthma are two different disease processes, and that Brianna does not need any inhalers or steroids to treat her condition today.
Prompts and Cues	- Patient's mother: "I have a friend who has to give her child inhalers for breathing problems. Does Brianna need one?"

Scenario 3: Infant Failure to Thrive

Manikin:	Environment:
Low-Fidelity Infant	Pediatrics Clinic

Estimated Run Time: 25 minutes

Objectives:

- Recognize the signs and symptoms of failure to thrive
- Demonstrate appropriate technique weighing and measuring an infant and plotting a growth chart
- Demonstrate appropriate nasal suctioning technique

Equipment

- Stethoscope (infant size)
- Blood pressure cuff (infant size)
- Probe thermometer
- Infant scale
- Tape measure
- Pulse oximeter with fingertip sensor
- Baby bottle, filled with water or juice
- WHO infant growth chart (girls 0-24 months), pre-filled with the following values:
    - Length - Birth: 20 in | 1 months: 21 in | 2 months: 22.5 in | 6 months: 26 in
    - Weight - Birth: 7.0 lbs | 1 months: 8.9 lbs | 2 months: 11.9 lbs| 6 months: 16.3 lbs
- **Optional:** Infant IV start arm

Patient Profile

Name	Ilana G.
Age	9 months
Gender	Female
Length/Weight	66.1 cm (26.4 in) / 7.4 kg (16.4 lbs)
Past Medical History	No chronic medical conditions; born at 39w4d by uncomplicated, normal, spontaneous, vaginal delivery
Surgical History	None
Social History	Lives at home with her mother, Yvette, and father, David

Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Yvette, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- How do we know that pediatric patients are growing appropriately?
- When an infant is not growing well, what are the most common causes?

At-The-Door Brief

Ilana, a healthy 9-month-old girl, arrives at your clinic for her 9-month well-child visit. She is with her mother, Yvette. Yvette says that Ilana is well and has no specific concerns.

Room the patient; obtain a weight, length, and vital signs; and give a report to the provider.

Simulation – Initial State

Presentation	Ilana is in her mother's arms and appears well. Her mother is holding a bottle full of water (or juice). She states that Ilana is formula-fed but seems to enjoy watered-down grape juice, which they give her when she is fussy. Ilana is teething and fussy often. She soothes well with the juice. Vital signs: **HR** 122 | **BP** 92/39 | **RR** 35 | **Temp** 36.9ºC (98.5ºF) | **SpO2** 98% on room air
Expected Actions	- Collect a full set of vital signs with correct technique, including rectal temperature - Plot the patient's length and weight on the pre-prepared growth chart - Give a report to the provider, correctly identifying concern for insufficient growth in the interval since the patient's 6-month visit
Prompts and Cues	- Patient's mother: "Are you sure? Isn't that how much she weighed last time?"

Simulation – Continuation	
Presentation	After the provider received report and examined the patient, they state, "Ilana really fell off her growth curve since her last visit. I'm concerned for failure to thrive. I don't see any concerning signs for an acute illness. Can you see what you can find out about how she's feeding at home?"
Expected Actions	- Elicit a feeding history from Yvette regarding how much, how often, and what Ilana eats - Report findings back to the provider
Prompts and Cues	- Patient's mother, upon inquiry from the participant, says, "She's been drinking a lot of juice recently. It's the only thing that really calms her down when she's fussy. I know there's a lot of sugar in it, so I've been watering it down. Before that started, she used to take 8 ounces of formula every feeding, but now it's more like 4 or 5. She doesn't seem very interested when we try solid food either."
Simulation – Conclusion	
Presentation	Upon hearing the history elicited from Yvette, the provider remarks, "The juice is probably the problem. It might calm Ilana, but it's filling her up and she isn't getting enough formula or solid food. At this age, she should be starting to take some solid foods, and getting 7-9 ounces of formula per feeding. Can you talk to Yvette about our recommendations? I'll set up another appointment in two weeks to make sure she starts gaining weight again."
Expected Actions	- Provide counseling to Yvette regarding appropriate feeding patterns for a 9-month-old and avoidance of filling Ilana up with non-nutritious foods - Provide reassurance to Yvette when distressed
Prompts and Cues	- Patient's mother, after receiving advice: "Thank you, I feel so awful. This is all my fault. Will she ever grow normally now?"

Scenario 4: Infant Fever

Manikin:	Environment:
Low-Fidelity Infant	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize warning signs for dangerous causes of fever in infants
- Appreciate appropriate antipyretic dosing in infants
- Demonstrate proper technique in the ear, nose, and throat examination of an infant

Equipment

- Stethoscope (infant size)
- Blood pressure cuff (infant size)
- Probe thermometer
- Infant scale
- Pulse oximeter with fingertip sensor
- Otoscope
- Tongue depressor
- Viral swabs
- Liquid medicine bottle with measuring cup or syringe

Patient Profile

Name	Joseph L.
Age	9 months
Gender	Male
Weight	8.0 kg (17.6 lbs)
Past Medical History	No chronic medical conditions; born at 38w6d by uncomplicated, normal, spontaneous, vaginal delivery
Surgical History	None
Social History	Lives at home with his mother (Eleanor), father (Joseph Sr), and brother (James)
Allergies	None

Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Eleanor, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the most common causes of fever in an infant?
- What are signs of a febrile infant that suggest a dangerous case of fever?
- How do we assess common sources of infection in infants?

At-The-Door Brief

Joseph, an otherwise healthy 9-month-old male, is brought in by his mother, Eleanor. He has had a fever for the past 2 days. Today, he is fussier than normal, and his fever is higher than yesterday, reaching up to 102ºF at home.

Room the patient, obtain a weight and set of vital signs, and ascertain a more detailed history and exam of the patient before giving a report to the provider.

Simulation – Initial State

Presentation	Joseph appears calm in his mother's arms. His mother reiterates the history of 2 days of fever. She notes that Joseph is feeding well, with no vomiting or diarrhea. He has no rash and a normal number of wet diapers over the past day. Joseph has been fussy but otherwise behaviorally normal. Joseph's parents have been giving him acetaminophen; he has been taking 2 mL of the children's liquid formulation every 8 hours with limited effect. Vital signs: **HR** 155 | **BP** 98/40 | **RR** 37 | **Temp** 38.7ºC (101.7ºF) | **SpO2** 98% on room air
Expected Actions	- Collect a full set of vital signs with correct technique, including weight and rectal temperature - Demonstrate proper technique assessing the patient's throat and ears with the otoscope and tongue depressor - Give a report to the provider

Prompts and Cues	- Patient's mother: "Can you look in his ears? His brother used to get ear infections at this age." - When participant examines the patient, the facilitator notes that Joseph has no tonsillar exudates, no herpangina, no oropharyngeal lesions, and his tympanic membranes are clear without erythema, bulging, or effusions
Simulation – Continuation	
Presentation	The provider issues the following instructions: "I don't see any red flags in Joseph's presentation. He has a fever, but from what you've told me, he seems well hydrated, has reassuring vital signs, and we don't see any evidence of pharyngitis or ear infection. He probably has a virus; we often don't find out which virus is the cause, but we have had a lot of influenza A going around lately. Do you mind collecting a flu swab?"
Expected Actions	- Collect a nasopharyngeal viral swab from the patient
Prompts and Cues	- None
Simulation – Conclusion	
Presentation	After collecting the flu swab, the provider remarks, "We also found out that Joseph's mother is only giving him 2 mL of liquid acetaminophen. That's too small a dose for his weight. The liquid preparation of children's acetaminophen available in the United States has a concentration of 160 mg/5 mL, and the recommended dose is 15 mg/kg. Can you calculate Joseph's maximum dose and give him a dose of acetaminophen before he goes?"
Expected Actions	- Correctly calculate the patient's acetaminophen dose: o Joseph weighs 8.0 kg; his maximum dose by weight is 15 mg/kg * 8.0 kg, or 120 mg o The concentration of the liquid is 160 mg/5 mL; Joseph's *maximum* dose by volume is 120 mg / (160 mg/5 mL), or **3.75 mL** - Correctly measure out and administer the appropriate volume of medication
Prompts and Cues	- Provider, if participant is struggling with volume calculation: "The medicine is a liquid measured in milliliters, so it's most helpful to give parents a volume. You can calculate how many milligrams are in each milliliter of medicine, and then divide Joseph's dose in milligrams by that number."

Scenario 5: Irritable Child

Manikin:	Environment:
Low-Fidelity Infant	Pediatrics Clinic

Estimated Run Time: 25 minutes

Objectives:

- Know the causes of irritability in an infant
- Demonstrate correct technique in swaddling an infant
- Demonstrate correct technique in changing an infant's diaper and providing peri-care

Equipment

- Moulage: Apply simulated diaper rash to infant manikin (can use commercially available product or erasable red marker); the rash should be most dense in the skin folds
- Stethoscope (infant size)
- Blood pressure cuff (infant size)
- Probe thermometer
- Infant scale
- Pulse oximeter with fingertip sensor
- Diaper
- Blanket
- Baby wipes

Patient Profile

Name	Mina T.
Age	3 months
Gender	Female
Weight	5.9 kg (13 lbs)
Past Medical History	No chronic medical conditions, born at 40w1d by planned C-section.
Surgical History	None
Social History	Lives at home with her mother (Gina), father (Louis), and twin sisters (Ella and Emma)

Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Gina, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the most common causes of prolonged crying or irritability in an infant?
- What are the most dangerous causes of prolonged crying or irritability in an infant?
- How do we treat and prevent diaper rash and irritation in an infant?

At-The-Door Brief

Mina is a healthy 3-month-old girl. She arrives with her mother, Gina. Mina has been much more irritable than usual over the past few days, often crying for hours at a time. She is not soothed by feeding or burping, which is unusual. Gina initially thought Mina was just colicky but is worried now that several days have passed without improvement.

Obtain a full set of vitals and assess the patient before providing a report.

Simulation – Initial State

Presentation	Mina is resting comfortably. Gina says that she just stopped crying. She hasn't gone more than a few hours without crying in the past 3-4 days. The patient doesn't appear to be in any pain. Mina has not had a fever or sustained traumatic injuries. She has been feeding normally without vomiting. Except for some loose stools last week, she has not had any change in bowel or bladder habits. Vital signs: **HR** 160 | **BP** 82/50 | **RR** 39 | **Temp** 36.8ºC (98.2ºF) | **SpO2** 97% on room air
Expected Actions	- Collect a full set of vital signs with correct technique, including weight and rectal temperature - Perform a full body check of the patient - Give a report to the provider indicating the finding of diaper rash
Prompts and Cues	- Provider: "Can you give the patient a once-over? In an inconsolable child, we must make sure we don't miss any bruises, rashes, or hair tourniquets."

Simulation – Continuation	
Presentation	After receiving the report, the provider enters the room and notes, "This diaper rash could be what's causing Mina's crying; it looks uncomfortable. We still need to make sure she doesn't have an infection, though. Can you swaddle her so I can look in her ears and mouth?"
Expected Actions	- Demonstrate correct technique in swaddling the infant, with legs and arms gently contained within the blanket
Prompts and Cues	- None
Simulation – Conclusion	
Presentation	After examining the patient, the provider states, "The rest of my exam is normal. I think Mina is irritated from this diaper rash. Can you clean her off, apply some diaper cream, and change her?"
Expected Actions	- Demonstrate correct peri-care technique, gently cleaning the patient's diaper area, applying diaper cream, and replacing the diaper - Provide guidance to the patient's parents regarding techniques for preventing diaper rash
Prompts and Cues	- Patient's mother: "I'm embarrassed I didn't realize the diaper rash was the problem; her siblings never had a problem with it. How can I prevent it from getting worse?"

Scenario 6: Infant Jaundice

Manikin:	Environment:
Low-Fidelity Infant	Pediatrics Clinic

Estimated Run Time: 30 minutes

Objectives:

- Explain the causes of jaundice in a newborn
- Demonstrate the correct technique for heel-stick blood sampling in a newborn

Equipment

- Moulage: Simulate jaundice with washable yellow dye or marker on the skin or sclera of the manikin
- Stethoscope (infant size)
- Blood pressure cuff (infant size)
- Probe thermometer
- Infant scale
- Pulse oximeter with fingertip sensor
- Heel incision device and micro-tube
- Alcohol wipes

Patient Profile

Name	Eldrin T.
Age	2 weeks
Gender	Male
Weight	3.3 kg (7.3 lbs)
Past Medical History	No chronic medical conditions; born at 40w5d by uncomplicated, vaginal delivery after planned induction of labor
Surgical History	None
Social History	Lives at home with his mother (Tamara), father (Lucas), and sister (Bryanna)
Allergies	None
Medications	None

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Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Tamara, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the most common causes of jaundice in an infant?
- What special techniques are available to obtain blood samples that are unique to the infant population?
- What elements of history are important when assessing whether an infant is receiving adequate feeding?

At-The-Door Brief

Eldrin is an otherwise healthy 2-week-old male arriving with his mother, Tamara. She is concerned that his eyes appear to be abnormal in color. Tamara is worried because Eldrin's older sister, Bryanna, had to spend 2 days in the NICU after being diagnosed with jaundice in the newborn nursery. She is worried that the same thing is happening to Eldrin.

Obtain a set of vital signs, settle the patient, and give a report to the provider.

Simulation – Initial State

Presentation	Eldrin is resting comfortably. His mother, Tamara, states that his eyes have become progressively yellow over the past two days. She feels that his skin is yellower than usual too. His older sister had to spend 2 days in the NICU before leaving the hospital for similar symptoms, but she was told that Eldrin did not have the same problem before they left the hospital. Vital signs: **HR** 130 | **BP** 79/50 | **RR** 42 | **Temp** 36.9ºC (98.5ºF) | **SpO2** 96% on room air
Expected Actions	- Collect a full set of vital signs with correct technique, including weight and rectal temperature - Elicit the appropriate birth and feeding history from the patient's mother - Give a report to the provider indicating the patient's finding of new-onset jaundice at two weeks despite normal discharge from the newborn nursery
Prompts and Cues	- Tamara: "Can you look in his eyes? They look like his sister's did when they took her to the NICU."

Simulation – Continuation	
Presentation	After receiving the report, the provider says, "It sounds like Eldrin's sister had newborn jaundice, but his didn't start until he was almost 2 weeks old. Often, this kind of jaundice is caused by issues with breastfeeding. Can you ask Tamara how she's been feeding Eldrin?"
Expected Actions	- Accurately obtain a breastfeeding history from the patient's mother, including how often and for how long the patient feeds, and whether she supplements with formula - Relay these findings to the provider
Prompts and Cues	- Patient's mother: "I've been having some trouble with breastfeeding; Eldrin only feeds for about 5 minutes on each side every few hours. His sister would latch for almost twice that amount of time. I have an appointment set up with a lactation consultant later this week. If it keeps up like this, I'll have to start supplementing with formula."
Simulation – Conclusion	
Presentation	After relaying the feeding history to the provider, they say, "Eldrin probably has breastfeeding jaundice, which is a type of jaundice caused by inadequate breast milk intake. Tamara already has an appointment with a lactation consultant which is an important next step. In the meantime, we'll need to get a blood sample from Eldrin to measure his bilirubin level and make sure he doesn't need to go to the hospital. Can you obtain a sample by heel-stick?"
Expected Actions	- Demonstrate appropriate technique collecting a blood sample by heel-stick
Prompts and Cues	- Provider or facilitator corrects participant on technique if needed

Scenario 7: Infant Conjunctivitis/Corneal Abrasion

Manikin:	Environment:
Low-Fidelity Infant	Pediatrics Clinic

Estimated Run Time: 25 minutes

Objectives:

- Explain the common causes of conjunctivitis in children
- Demonstrate correct technique for the instillation of ophthalmic medications in infants
- Demonstrate correct technique in the operation of a Wood's lamp

Equipment

- Stethoscope (infant size)
- Blood pressure cuff (infant size)
- Probe thermometer
- Infant scale
- Pulse oximeter with fingertip sensor
- Ophthalmic medication dropper bottle
- Tube of ophthalmic ointment (or stand-in petroleum jelly)
- Fluorescein dye strips (or stand-in 4" x 0.25" paper strips)
- Wood's lamp

Patient Profile

Name	Declan P.
Age	8 months
Gender	Male
Weight	10.0 kg (22 lbs)
Past Medical History	No chronic medical conditions
Surgical History	None
Social History	Lives with his mother, Deandra, and father, Thomas

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Allergies	Penicillin
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Thomas, the patient's father** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What can cause redness of the eyes in infants?
- How do we differentiate dangerous from benign causes of conjunctivitis in infants?
- What is the correct technique for administering ophthalmic medications in infants?

At-The-Door Brief

Declan is an otherwise healthy 8-month-old male arriving with his father, Thomas. The patient has redness in his eyes and was sent home from daycare because they were worried that he might have pink eye.

Settle the patient and obtain a full set of vital signs prior to providing the report.

Simulation – Initial State

Presentation	Declan is in a baby carrier. His father tells you that he was sent home from daycare because they were concerned that he might have pink eye, but he isn't sure because only his left eye is red. Declan has been irritable and crying since he was picked up. His eye wasn't red this morning. There is no drainage from it, and he seems to want to keep it closed. Vital signs: **HR** 145 | **BP** 89/52 | **RR** 46 | **Temp** 36.8ºC (98.2ºF) | **SpO2** 98% on room air
Expected Actions	- Collect a full set of vital signs with correct technique, including weight and temperature - Elicit the appropriate history from the patient's father - Give a report to the provider
Prompts and Cues	- None

Simulation – Continuation	
Presentation	After receiving the report, the provider gives the following instructions: "Declan could have viral conjunctivitis, but because it's unilateral, painful, and seems to have started suddenly, we have to evaluate him for an injury to the eye like a corneal abrasion. We'll have to do a fluorescein exam. Please instill one drop of proparacaine into his eye and apply a strip of fluorescein dye."
Expected Actions	- Demonstrate correct technique when instilling ophthalmic medication into the patient's eye - Demonstrate correct technique when applying ophthalmic fluorescein dye
Prompts and Cues	- Provider: "Remember, he only needs one drop. It doesn't need to be delivered directly onto the cornea; as long as it gets under the lid, it will be distributed when he blinks." - Provider: "Make sure not to scratch the eye with the dye strip. You can gently tuck it under the lower lid, just enough to absorb some of the tear film."
Simulation – Conclusion	
Presentation	The provider examines the eye with the Wood's lamp and notes, "It looks like Declan does have a small abrasion in that eye. Corneal abrasions are very painful, but thankfully most of them heal within a day or two. We'll prescribe Declan some antibiotic ointment to prevent it from getting infected. Can you apply a thin strip of erythromycin ophthalmic ointment before he goes home?"
Expected Actions	- Demonstrate correct technique when applying a thin strip of ophthalmic ointment under the patient's eyelid
Prompts and Cues	- Patient's father: "Thank you. This won't affect his vision going forward, will it?"

Scenario 8: Infant Rash

Manikin:	Environment:
Low-Fidelity Infant	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Learn common causes of rash in infants
- Learn the signs of a dangerous cause of rash in infants
- Demonstrate correct technique when applying topical medications

Equipment

- Moulage: Discrete, red/scaly patches on the elbows and knees. Alternatively, present the participants with a textbook photo of infant eczema in lieu of simulated physical exam findings.
- Stethoscope (infant size)
- Blood pressure cuff (infant size)
- Probe thermometer
- Infant scale
- Pulse oximeter with fingertip sensor
- Topical lotion or petroleum jelly

Patient Profile

Name	Emma B.
Age	4 months
Gender	Female
Length/Weight	6.4 kg (14.3 lbs)
Past Medical History	Born at 39w6d by uncomplicated, normal, spontaneous, vaginal delivery
Surgical History	None
Social History	Lives at home with mother, Bella
Allergies	None
Medications	None

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Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Bella, the patient's mother** (facilitator)

Pre-Brief Questions:

- What are the most common causes of pediatric rash?
- What are the characteristics of a dangerous rash in an infant?
- How can we help manage the symptoms of uncomfortable rashes in pediatric patients?

At-The-Door Brief

You are rooming Emma, a 4-month-old female. She was brought to the clinic by her mother, Bella, who has noticed a developing rash for the past 3 weeks that appears to be making Emma uncomfortable.

Room and settle the patient, take a full set of vital signs, and provide a report.

Simulation – Initial State

Presentation	Emma is calm in her baby carrier. Her mother explains that Emma has developed red, scaly patches on her face, elbows, and knees over the past 3 weeks. They appear to be irritating her. Vital signs: **HR** 144 | **BP** 89/42 | **RR** 41 | **Temp** 37.1ºC (98.7ºF) | **SpO2** 99% on room air
Expected Actions	- Obtain the appropriate history and examine the patient - Give a report to the provider
Prompts and Cues	- Patient's mother: "It just seems like they've been getting worse every day." - Patient's mother: "They don't seem like they hurt, exactly, but she seems uncomfortable, like they're itchy or irritated"

Simulation – Continuation

Presentation	The provider notes, "There are a few elements of history that are important with any rash. Can you take a detailed irritant history? We want to know if Emma had any new exposures that might be causing her rash."
Expected Actions	- Take a detailed exposure history, including asking about new clothing, soaps, detergents, medications, pets, insect exposure, and sun exposure

Prompts and Cues	- Patient's mother: "No, we haven't used any new lotions or soaps over the past month." - Patient's mother: "We've barely been outside. I don't think it has anything to do with the sun." - Patient's mother: "No, she doesn't take any medications." - Patient's mother: "We don't have any pets." - Patient's mother: "She hasn't had any major changes in her diet."
Simulation – Conclusion	
Presentation	The provider thanks you for the history. After assessing the patient, she notes, "This looks like eczema to me, particularly the location of the rash, on all of Emma's extensor surfaces. I went over the treatment with Bella. For now, a good start would be applying a non-irritating lotion so Emma can start feeling better."
Expected Actions	- Apply lotion to the indicated areas while the patient's mother helps the participant hold the patient
Prompts and Cues	- None

Scenario 9: Infant Croup

Manikin:	Environment:
Low-Fidelity Infant	Pediatrics Clinic

Estimated Run Time: 25 minutes

Objectives:

- Differentiate the cough of croup from other coughs
- Recognize normal and abnormal respiratory vital signs in infant patients
- Demonstrate appropriate technique when applying supplemental oxygen to an infant

Equipment

- Stethoscope (infant size)
- Blood pressure cuff (infant size)
- Probe thermometer
- Infant scale
- Tape measure
- Pulse oximeter with fingertip sensor
- Supplemental oxygen tubing
- Oral medication and syringe
- **Optional:** Recording of classic barky cough in croup

Patient Profile

Name	Stephen F.
Age	9 months
Gender	Male
Weight	7.4 kg (16.2 lbs)
Past Medical History	No chronic medical conditions; born at 39w5d by uncomplicated, normal, spontaneous, vaginal delivery; fully immunized
Surgical History	None
Social History	Lives at home with his mother, Olivia
Allergies	None
Medications	None

Realityworks Live it. Learn it.

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Olivia, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the classic history elements that suggest croup, rather than another cause of a cough in an infant?
- How can we tell which infants with croup can be sent home and which need to be sent to the hospital?
- What is the correct technique for applying supplemental oxygen to an infant?

At-The-Door Brief
You are rooming Stephen, a 9-month-old male. His mother, Olivia, brought him to the clinic because he is having difficulty breathing. Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State	
Presentation	Stephen appears calm in his baby carrier. Olivia provides the following history: Stephen first developed a cough yesterday and was awake for much of the night coughing. Today, Olivia noticed that Stephen seemed to have trouble breathing; he was making a high-pitched noise and breathing very fast when he was upset. Olivia is a bit embarrassed that she rushed to the clinic, because after being carried outside in the cool air, Stephen seems much better. Vital signs: **HR** 134 | **BP** 91/40 | **RR** 35 | **Temp** 38.8ºC (101.9ºF) | **SpO2** 95% on room air
Expected Actions	- Collect a full set of vital signs with correct technique, including rectal temperature - Obtain a correct history, including the history of cough, high-pitched breathing when agitated, and improvement after being outside in the cool air
Prompts and Cues	- **Optional:** If available, facilitator should play a recording of a classic barky cough when the participants examine the patient

Simulation – Continuation	
Presentation	After examining the patient and providing a report, the patient's pulse oximetry decreases to 92% on room air. The provider enters the room, and prompts, "Stephen's oxygen saturation is a little bit low. Can you put him on a nasal cannula?"
Expected Actions	- Demonstrate correct technique in setting up and applying a nasal cannula to an infant patient
Prompts and Cues	- After applying nasal cannula correctly, the patient's SpO2 improves to 97% on 1-2L
Simulation – Conclusion	
Presentation	After applying supplemental oxygen by nasal cannula, the provider notes, "Because Stephen is hypoxemic, he'll need to be observed in the hospital. He has no stridor at rest, so I don't think he needs racemic epinephrine right now. Let's give him a dose of oral dexamethasone. I'll contact the hospital and let them know he's on the way."
Expected Actions	- Measure out an appropriate dose of oral dexamethasone (0.6 mg/kg of 1 mg/mL oral solution; correct dosing is 4.45 mg, or roughly 4.5 mL of solution) - Demonstrate correct technique in administering oral medication to an infant
Prompts and Cues	- Before you leave the room, the patient's mother asks, "Are you sure he needs to go to the hospital? He looks so much better after being outside."

Scenario 10: Infant Reflux

Manikin:	Environment:
Low-Fidelity Infant	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize normal and abnormal feeding patterns in infants
- Recognize the different types of baby formula
- Demonstrate ability to correctly measure and mix baby formula

Equipment

- Stethoscope (infant size)
- Blood pressure cuff (infant size)
- Probe thermometer
- Infant scale
- Pulse oximeter with fingertip sensor
- Baby bottle
- Baby formula with scoops: 1 package of cow's milk-based formula, 1 package of hydrolyzed formula, and 1 package of soy-based formula

Patient Profile

Name	Terry G.
Age	4 months
Gender	Male
Weight	7.5 kg (16.5 lbs)
Past Medical History	Milk protein allergy; born 38w5d by normal, spontaneous, vaginal delivery
Surgical History	None
Social History	Lives at home with his mother (Marie), father (David), and older brother (Trip)
Allergies	Milk protein
Medications	None

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Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Marie, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the causes of frequent spitting up in infants?
- How much should a normal 4-month-old be feeding?
- In formula-fed infants, what factors determine the correct choice of formula?

At-The-Door Brief

Terry, a 4-month-old infant, arrives at the clinic with his mother, Marie. She is concerned because he spits up frequently.

Room the patient, obtain vital signs and a history, and provide a report. You should take a detailed history, including a history of the patient's feeding habits.

Simulation – Initial State

Presentation	Terry is resting comfortably in his baby carrier. Marie notes that he has been spitting up frequently, multiple times after nearly every feed. He was diagnosed with a milk protein allergy 2 months ago but improved after switching his formula. He has otherwise been healthy. Vital signs: **HR** 122 | **BP** 82/42 | **RR** 36 | **Temp** 37.1ºC (98.7ºF) | **SpO2** 98% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Obtain an accurate history and give a report to the provider
Prompts and Cues	- Patient's mother: "I think he's just spitting up, not really vomiting. It only happens after meals." - Patient's mother: "I've been trying to feed him a lot, his brother was bigger than him at this age." - Patient's mother: "I've been giving him 6-8 ounces every 2-4 hours."

Simulation – Continuation

Presentation	The provider says, "Terry's vital signs are reassuring, and that feeding history makes me concerned that this is a case of overfeeding. Can you mix up a bottle of formula, so we can demonstrate the correct length of time to feed?"

Expected Actions	- Correctly choose the type of formula appropriate for the patient, either soy-based or hydrolyzed formula would be appropriate. Cow's milk would be inappropriate as the patient has a milk protein allergy. - Mix a bottle of formula using the correct ratio.
Prompts and Cues	- Provider, if participant chooses cow's milk-based formula: "Terry has a milk protein allergy; I don't think that would be the appropriate choice of formula for him." - Provider, if participant over- or under-doses the formula: "Remember to read the packaging carefully; feeding an infant chronically under- or overconcentrated formula can be dangerous. It can cause electrolyte abnormalities."
Simulation – Conclusion	
Presentation	After mixing the formula, the participants are asked to explain the usual length and frequency of feeding, as well as why overfeeding might cause Terry's frequent spitting up.
Expected Actions	- Explain the typical feeding pattern for an infant of Terry's age (generally 4-6 ounces per bottle, 4-6 times per day) - Answer Marie's questions accurately
Prompts and Cues	- Patient's mother: "If he takes more than that amount, how do I know he's had enough?" - Patient's mother: "Terry switched to the soy-based formula a few months ago. Do you think the hydrolyzed formula would work better?"

Scenario 11: Pediatric Reactive Airway Disease

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize signs and symptoms of reactive airway
- Recognize normal and abnormal work of breathing in a pediatric patient
- Demonstrate correct technique when administering medications by metered dose inhaler, using a spacer

Equipment

- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Metered-dose inhaler
- Spacer
- **Optional:** Video recording of a pediatric patient age 2-5 with increased work of breathing

Patient Profile

Name	Timothy P.
Age	4 years
Gender	Male
Weight	16.4 kg (36 lbs)
Past Medical History	Eczema
Surgical History	None
Social History	Lives at home with his mother, Tianna
Allergies	Grass, pollen
Medications	Cetirizine

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Tianna, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the classic exam findings that suggest reactive airway disease in a child versus other causes of shortness of breath?
- What are the cornerstone medications in the treatment of reactive airway disease?
- What is the correct technique for administering medications by metered dose inhaler, including the use of a spacer?

At-The-Door Brief

You are asked to room Timothy, a 4-year-old male. His mother brought him as a walk-in. The provider asked that he be roomed immediately as it looked like he was having trouble breathing when he came in.

Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State

Presentation	Timothy is on the exam table, and Tianna, his mother, is in a chair nearby. Tianna says that Timothy has had a stuffy nose since yesterday, but he was breathing well this morning. She got a call from his preschool teacher to come pick him up because it looked like he was getting sick. Tianna picked him up from school and drove him straight to the clinic because it looked like he was having trouble breathing. She says that his breathing is more rapid and shallow than usual, and it looks like the skin is stretching over his ribs when he breathes. Nothing like this has ever happened to him before. Vital signs: **HR** 92 | **BP** 102/63 | **RR** 28 | **Temp** 36.9ºC (98.5ºF) | **SpO2** 95% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Give a report to the provider, correctly identifying that the patient has increased work of breathing, tachypnea, and bilateral wheezes

Realityworks Live it. Learn it.

Prompts and Cues	- **Optional:** If available, facilitator should play a video of a child with increased work of breathing (tracheal tugging and subcostal retractions) to simulate the patient's exam findings. If this is not available, the facilitator should provide a verbal description of increased work of breathing on exam. - When participants listen to the patient's lungs, the facilitator should offer the following exam findings: bilateral expiratory wheezes and prolonged expiratory phase, without rhonchi or rales.
Simulation – Continuation	
Presentation	After hearing the report, the provider states, "This sounds like an issue with lower airway bronchoconstriction, most likely reactive airway disease. Let's give Timothy 4 puffs from an albuterol metered dose inhaler using a spacer."
Expected Actions	- Demonstrate correct technique in administering medication via a metered dose inhaler using a spacer
Prompts and Cues	- Patient's mother: "What does that spacer do?"
Simulation – Conclusion	
Presentation	After administering albuterol, Timothy's work of breathing is significantly improved. His subcostal retractions and tracheal tugging are gone, his respiratory rate is normal, and his lungs are clear to auscultation bilaterally. The provider writes Timothy a prescription for 4 days of prednisolone oral solution and an albuterol rescue inhaler. You are asked to provide teaching regarding reactive airway disease and how to manage it.
Expected Actions	- Describe what reactive airway disease is and how it relates to a formal diagnosis of asthma. Explain that while many children with reactive airway disease end up being diagnosed with asthma, many grow out of it. Asthma is generally not formally diagnosed before age 5. - Teach patient's mother how to recognize signs of increased work of breathing, and when to use the inhaler. This should include the difference between a "rescue" medication only to be used when the patient is symptomatic (such as the albuterol inhaler) and a "maintenance" medication, to be used daily regardless of symptoms (which the patient has not been prescribed).
Prompts and Cues	- Patient's mother: "How often should he be using the inhaler?" - Patient's mother: "Does this mean he has asthma?"

Scenario 12: Pediatric Foreign Body

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of dangerous foreign body ingestion or inhalation in children
- Describe various techniques for the removal of optic, nasal, and oral foreign bodies in children
- Describe the technique for a "comfort hold" when helping children tolerate noxious procedures

Equipment

- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Otoscope with pediatric speculum
- **Optional:** Foreign body extraction equipment, including (if available) ear curettes, a Katz extractor, and miniature alligator forceps
- **Optional:** A mock nasal foreign body, which could be simulated by a small bead fit snugly inside a drinking straw

Patient Profile

Name	Peter T.
Age	4 years
Gender	Male
Weight	17.3 kg (38 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with his father, Gordon, and mother, Eleanor
Allergies	None
Medications	None

Realityworks Live it. Learn it.

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Eleanor, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What categories of foreign objects are considered an emergency when inserted into an orifice or swallowed?
- What are noninvasive techniques for the expulsion of nasal foreign bodies? (e.g., "mother's kiss")
- How can we help children tolerate painful or uncomfortable procedures?

At-The-Door Brief
You are rooming Peter, a 4-year-old male. His mother, Eleanor, brought him to the clinic. She is concerned about a foreign body in his nose. Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State	
Presentation	Peter is seated on the exam table; his mother, Eleanor, is next to him. Eleanor noticed that he started complaining of pain in his nose while doing an arts and crafts project. She was able to see that he had placed a bead in his left nostril, but it was too far back for her to reach. She does not think that he inhaled or swallowed any beads, and he has been breathing normally. Vital signs: **HR** 91 | **BP** 92/61 | **RR** 24 | **Temp** 36.6ºC (97.9ºF) | **SpO2** 99% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Give a report to the provider, correctly identifying that the patient has a nasal foreign body without concern for airway compromise
Prompts and Cues	- None
Simulation – Continuation	
Presentation	Upon hearing the presentation, the provider states: "I'll go gather some equipment and prepare to extract the bead. In the meantime, can you walk Eleanor through the 'mother's kiss' technique? That might be all we need and could save Peter from an uncomfortable procedure."

Expected Actions	- Walk the patient's mother through the "Mother's Kiss" technique, with the following steps: 1. Form an airtight seal with the parent's mouth over the patient's mouth. 2. Occlude the unaffected nostril. 3. Have the parent exhale until they feel resistance. 4. Have the parent deliver a sharp, quick burst of air.
Prompts and Cues	- None
Simulation – Conclusion	
Presentation	Despite performing the "mother's kiss" technique correctly, the foreign body remains in the patient's left nostril. The provider arrives with extraction equipment and requests your aid in holding the patient during the procedure.
Expected Actions	- The participant should either perform or walk the patient's parent through performing a supine comfort hold. - **Optional**: If extraction equipment (curettes, a Katz extractor, or alligator forceps) and a mock foreign body are available, participants can practice the removal during this segment of the simulation as well,
Prompts and Cues	- None

Scenario 13: Pediatric Ear Infection

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of otitis media
- Describe and perform the correct technique for otoscopic visualization of the tympanic membrane

Equipment

- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Otoscope with pediatric speculum

Patient Profile

Name	Kirkland Z.
Age	3 years
Gender	Male
Weight	13.2 kg (29 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with his mother, Tilly
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Tilly, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the typical signs and symptoms of a pediatric ear infection?
- What are the differences between an external ear and middle ear infection?
- What would you expect an otitis media, or middle ear infection, to look like on otoscopy?

At-The-Door Brief

You are rooming Kirkland, a 3-year-old male. His mother, Tilly, brought him to the clinic because of ear pain.

Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State

Presentation	Kirkland is in his mother's arms, resting comfortably. Tilly explains that Kirkland has been complaining of left ear pain since yesterday. Last week, he had a cough and nasal congestion, though those have since resolved. Kirkland also had his first swim lesson two days ago. Vital signs: **HR** 108 | **BP** 94/58 | **RR** 26 | **Temp** 37.3ºC (99.1ºF) | **SpO2** 97% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Give a report to the provider
Prompts and Cues	- None

Simulation – Continuation

Presentation	After receiving the report, the provider expresses concern that Kirkland might have an ear infection. He has risk factors for both otitis media, an infection of the middle ear, and otitis externa, an infection of the outer ear. The provider asks the participants to accompany them to examine the patient and instruct Tilly regarding how to help hold Kirkland to avoid movement during the exam.

Expected Actions	- Demonstrate correct technique in the evaluation of the external and middle ear with an otoscope - Instruct the patient's mother on the correct technique for holding Kirkland still, stabilizing his head against Tilly's chest with the affected ear outward
Prompts and Cues	- Provider: "Let's have Tilly help hold Kirkland to keep him comfortable and avoid movement during the exam. We can have her hold Kirkland's head against her chest, with the left ear pointing out towards us."
Simulation – Conclusion	
Presentation	The provider notes that the exam findings are consistent with otitis media, or an infection of the middle ear. The provider states, "Kirkland has an acute otitis media. I'm going to go write him a prescription for amoxicillin. Do you mind answering his mother's questions while I'm gone?"
Expected Actions	- Answer Tilly's questions regarding the pathophysiology and management of otitis media
Prompts and Cues	- Patient's mother: "Why is Kirkland being prescribed oral antibiotics instead of ear drops?" - Patient's mother: "Does this have anything to do with his swim lessons? Is this what they call 'swimmer's ear'?"

Scenario 14: Pediatric Lead Poisoning

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 25 minutes

Objectives:

- Recognize the signs and symptoms of lead poisoning
- Recognize the risk factors for lead poisoning
- Describe the resources available for poisoned children through state Poison Control

Equipment

- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Sterile lancet
- Capillary blood collection device

Patient Profile

Name	Cole P.
Age	2 years
Gender	Male
Weight	13.2 kg (29 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with his grandmother, Polly
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Polly, the patient's grandmother** (facilitator)
- **Provider** (provider or facilitator)
- **Poison Control CSPI** (facilitator)

Pre-Brief Questions:

- Which children are at risk for lead poisoning?
- What are the signs and symptoms of chronic lead poisoning?
- What are the signs and symptoms of acute lead poisoning?
- If you are concerned that a child is acutely ill because of a toxic exposure, who would you contact?

At-The-Door Brief

You are rooming Cole, a 2-year-old male. He is at the clinic for a follow-up. Cole recently moved in with his grandmother, Polly, who was told that she should have him follow up at the clinic because of some abnormal lab results that came back this week.

Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State

Presentation	Cole is resting comfortably on the exam table. Polly sits in a chair nearby and explains that she recently took Cole to an urgent care center because he was complaining of a headache and stomachache for several weeks. She received a call this morning that the labs they drew at that visit showed Cole was anemic. Polly was instructed to follow up urgently at a clinic. She is worried that Cole is ill. Polly notes that Cole has been otherwise well aside from intermittent stomachaches and headaches which started after they moved to a new home. She had initially attributed this to anxiety about the move but brought him to be evaluated when they didn't go away after a few weeks. Vital signs: **HR** 109 | **BP** 87/61 | **RR** 24 | **Temp** 37.1ºC (98.7ºF) | **SpO2** 96% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Give a report to the provider
Prompts and Cues	- None

Simulation – Continuation	
Presentation	The provider completes an exam and notes, "Cole's abdominal exam and neurologic exam are reassuring. However, his symptoms, which started after moving to a new house, are concerning. I wonder if he has lead poisoning. Do you mind asking Polly some questions about his potential lead exposure and drawing a capillary lead level?"
Expected Actions	- Demonstrate correct technique in the collection of a capillary blood sample - Elicit a complete lead exposure history from the patient's grandmother
Prompts and Cues	- Patient's grandmother: "Lead? I've heard of lead paint before. The house we just moved to is quite old – it was built in the 1930s – and there are some layers of paint peeling off the window frames and moldings."
Simulation – Conclusion	
Presentation	The provider contacts the local department of health and arranges for a home visit to screen for lead and discuss remediation. Later that afternoon, the provider pulls aside the participants and says, "I just got a call from the lab; Cole's capillary lead level is 15 µg/dL, which is quite high. I'll contact Polly and let her know. Can you call the local Poison Control center to discuss the case and figure out if they would recommend chelation therapy?"
Expected Actions	- Discuss the case with the local Poison Control Center
Prompts and Cues	- Poison Control C-SPI should ask about the presentation, vital signs, possible exposure, and lead level - After hearing the story, the Poison Control C-SPI should state: "Cole's lead level is dangerously high, but it's not so high that we would recommend urgent chelation therapy. We would recommend immediate lead remediation of his home, including removing him from the home until this is completed. He should have regular, repeat lead levels in clinic as well. If he develops further symptoms, he may need to be reassessed for treatment."

Scenario 15: Toddler's Fracture

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of traumatic injuries in children
- Demonstrate appropriate technique when applying a pediatric splint

Equipment

- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Image of an x-ray showing a Toddler's Fracture
- Splinting material (plaster or fiberglass)
- Cotton undercast padding
- Compression wrapping

Patient Profile

Name	Greta K.
Age	2 years
Gender	Female
Weight	11.8 kg (26 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with her mother, Elizabeth, and father, Peter
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Peter, the patient's father** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the important aspects of the evaluation of any traumatic musculoskeletal injury in a pediatric patient?
- What is the correct technique for applying of a short-leg splint?
- What are the possible adverse effects of splint application?

At-The-Door Brief
You are rooming Greta, a 2-year-old female. Her father, Peter, brought her in. They were playing at the park when Greta jumped off the wooden edge of a sandbox, landing on her left leg. Since that time, she has been complaining of pain in her left calf. Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State	
Presentation	Greta is held by her father, Peter, who relates that she jumped off the wooden border of a sandbox and seemed to land on her left leg. Since that time, she refuses to walk on it and appears to be uncomfortable when it is manipulated. Vital signs: **HR** 117 | **BP** 89/52 | **RR** 24 | **Temp** 36.7ºC (98.1ºF) | **SpO2** 98% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Demonstrate a neurovascular exam on the patient's affected leg
Prompts and Cues	- None
Simulation – Continuation	
Presentation	The patient is sent for an X-ray. When she returns, the provider shows the X-ray to the participants and explains that this is likely a toddler's fracture, a nondisplaced spiral fracture of the tibia. The participants are asked to place Greta's left leg in a short-leg splint.

Expected Actions	- Demonstrate correct technique when applying a short-leg splint using cotton undercast padding, plaster or fiberglass, and compression wrapping
Prompts and Cues	- Provider/facilitator should explain the technique and correct participants as necessary when applying the splint
Simulation – Conclusion	
Presentation	After placing the splint, the participants are asked to perform a post-splint neurovascular exam and answer Peter's questions about managing a toddler's fractures.
Expected Actions	- Perform a post-splint neurovascular exam - Answer the patient's father's questions, including: o Correctly articulate return precautions for signs and symptoms of neurovascular compromise or compartment syndrome o Correctly identify that Greta can bear weight as tolerated
Prompts and Cues	- Patient's father: "Once it feels better, can she walk on it?" - Patient's father: "Is there anything I should look out for that would mean I need to bring Greta back to the doctor?"

Scenario 16: Pediatric Pharyngitis

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of pharyngitis
- Demonstrate the appropriate technique for the collection of a pharyngeal culture

Equipment

- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Culture swab

Patient Profile

Name	Gina T.
Age	8 years
Gender	Female
Weight	25.5 kg (56 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with her mother, Marie, and father, Paul
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Marie, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the clinical features that suggest a bacterial pharyngitis?
- What is the correct technique for the collection of a pharyngeal culture?

At-The-Door Brief
You are rooming Gina, an 8-year-old female. Her mother, Marie, brought her to the clinic because of a sore throat. Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State	
Presentation	Gina is resting on the exam table. Her mother, Marie, explains that she has been complaining of a sore throat for the past two days. Gina has had no cough or fever. Vital signs: **HR** 98 | **BP** 101/62 | **RR** 22 | **Temp** 36.6ºC (97.8ºF) | **SpO2** 98% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Give a report to the provider
Prompts and Cues	- None
Simulation – Continuation	
Presentation	The provider notes that Gina may have strep throat and asks you to collect a pharyngeal swab.
Expected Actions	- Demonstrate correct technique when collecting a pharyngeal swab
Prompts and Cues	- Provider: "Remember, you can always use a tongue depressor if you don't have a good enough view of the pharynx."

Simulation – Conclusion	
Presentation	The patient's rapid strep antigen returns negative. Counsel the patient's mother regarding appropriate management.
Expected Actions	- Provide anticipatory guidance to the patient's mother, including: o As the rapid strep antigen is negative, there is no need for antibiotics now o The strep culture is pending; if this is positive, Tammy may require antibiotics
Prompts and Cues	- Provider: "Let Marie know that Gina's rapid strep test was negative. We don't need to give her antibiotics now. If the culture is positive, we can call her in a prescription."

Scenario 17: Pediatric Gastroenteritis

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 25 minutes

Objectives:

- Recognize the signs and symptoms of gastroenteritis
- Describe the signs and symptoms of dehydration in a pediatric patient

Equipment

- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- IV fluids
- IV pump
- IV tubing
- **Optional**: Pediatric IV trainer, IV start kit

Patient Profile

Name	Ann B.
Age	7 years
Gender	Female
Weight	26.8 kg (59 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with her mother, Tina, and father, Greg
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Greg, the patient's father** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the signs and symptoms of gastroenteritis in a child?
- What exam findings suggest dehydration in a pediatric patient?

At-The-Door Brief

You are rooming Ann, a 7-year-old female. Her father, Greg, brought her to the clinic because she is vomiting. Ann vomited several times today and has had 3 episodes of diarrhea. She has not been able to keep down any food or liquids since this morning, prompting her father to bring her to the clinic.

Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State

Presentation	Ann is resting on the exam table, accompanied by her father Greg. Greg tells the participants that Ann has not been able to keep down any food or liquid since this morning. She has had several episodes of non-bloody, non-bilious vomiting and multiple episodes of watery diarrhea. Vital signs: **HR** 89 | **BP** 90/58 | **RR** 20 | **Temp** 37.9ºC (100.3ºF) | **SpO2** 99% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Give a report to the provider
Prompts and Cues	- Patient's father: "She doesn't seem to be in pain; she just can't stop throwing up." - Patient's father: "I've heard a few kids at school have the same thing; it must be going around."

Simulation – Continuation	
Presentation	The provider examines the patient and notes, "Ann's abdominal exam is reassuring; I don't think she has a serious intra-abdominal infection. It's most likely a viral gastroenteritis, particularly given that multiple kids at school seem to have the same thing. Let's examine her and make sure she isn't too dehydrated."
Expected Actions	- Demonstrate an exam directed towards determining the patient's hydration status (participants can verbalize relevant findings, which cannot be replicated by the manikin). Participants should check: o Capillary refill o Skin turgor o Mucous membranes
Prompts and Cues	- Patient's father: "Her mouth does seem very dry."
Simulation – Conclusion	
Presentation	After your exam, you and the provider agree that Ann seems dehydrated. You are asked to administer anti-nausea medications (4 mg ondansetron ODT), start an IV, and administer a fluid bolus. Participants should calculate the correct volume of fluid in a pediatric patient.
Expected Actions	- Calculate the correct volume of a fluid bolus in this patient o A pediatric fluid bolus should be 20 mL/kg, or roughly 540 mL in this patient - **Optional:** If pediatric IV trainer is available, participants should start an IV - Spike, prime, and program an IV pump to administer the correct volume of IV fluid
Prompts and Cues	- Provider: "We should provide a bolus of 20 mL/kg of normal saline."

Scenario 18: Pediatric Head Injury

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the red-flag symptoms for serious intracranial injuries in pediatric patients
- Learn and discuss appropriate return-to-activity precautions for concussion in pediatric patients

Equipment

- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Garth V.
Age	9 years
Gender	Male
Weight	28.2 kg (62 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with his mother, Beth, and father, Tommy
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Tommy, the patient's father** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What features of a pediatric patient's history would concern you for a serious intracranial injury?
- What guidance should be given to parents of children with concussions regarding return to school, sports, and activity?

At-The-Door Brief

You are rooming Garth, a 9-year-old male. He was brought to the walk-in clinic by his father, Tommy. Garth was playing basketball in his local rec league when he was knocked over by an opposing player and struck his head on the ground.

Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State

Presentation	Garth is resting on the exam table. Tommy explains that Garth was playing basketball when he ran into another player and was knocked down. He hit his head against the hardwood floor. He did not lose consciousness but was dizzy for a minute or so afterwards. Vital signs: **HR** 78 | **BP** 89/59 | **RR** 20 | **Temp** 37.0ºC (98.6ºF) | **SpO2** 97% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Provide report to the provider
Prompts and Cues	- Patient's father: "His neck doesn't seem to hurt. He doesn't have any numbness, tingling, or weakness anywhere." - Patient's father: "He's not nauseous or vomiting." - Patient's father: "He was a little dizzy afterwards and he still has a mild headache, but he's seemed normal since then. I just want to make sure that he's not hurt."

Simulation – Continuation	
Presentation	The provider examines the patient and notes, "I don't see any signs of a basilar skull fracture, and Garth's neurologic exam is otherwise normal. His GCS is normal as well. We have an evidence-based risk stratification tool for pediatric head injuries; do you mind calculating Garth's risk by PECARN criteria?"
Expected Actions	- Participants should calculate whether Garth would be recommended a CT scan, observation, or discharge home based on PECARN Pediatric Head Injury criteria (they should be allowed to look this up if needed)
Prompts and Cues	- Provider: "Garth is old enough that he should be on the algorithm pathway for children older than 2." - Provider: "His GCS is normal, and I didn't see any signs of basilar skull fracture on exam." - Provider: "I don't think his mechanism is severe. He didn't lose consciousness, isn't vomiting, and only has a mild headache."
Simulation – Conclusion	
Presentation	The participants determine that Garth does not require advanced imaging by PECARN criteria. The provider notes that he does probably still have a concussion and asks the participants to provide Tommy with the appropriate guidance.
Expected Actions	- Appropriately counsel the patient and his father on graded return-to-activity after a concussion, including: o Stepwise return to regular schoolwork followed by light aerobic activity; moderate activity; heavy, non-contact exertion; and finally, full-contact practice o Explain that if Garth experiences a return of symptoms at any point, he should return to the prior level of activity until they resolve
Prompts and Cues	- Provider: "Garth should return to activity slowly, starting with non-exertional activities, followed by light exertion with a slow return to full-contact sports. If he has any symptoms, he should return to his previous level of activity until they resolve."

Scenario 19: Pediatric Hand, Foot, and Mouth Disease

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of hand, foot, and mouth disease

Equipment

- Moulage: Apply punctate, red lesions to the palms and soles of the manikin with erasable marker
- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Selina F.
Age	6 years
Gender	Female
Weight	20.0 kg (44 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with her mother, Olivia
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Olivia, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the signs and symptoms of hand, foot, and mouth disease in a child?
- What exam findings suggest hand, foot, and mouth disease as opposed to a different viral infection in a child?

At-The-Door Brief
You are rooming Selina, a 6-year-old female with a fever and difficulty swallowing. Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State	
Presentation	Selina is in a chair next to the exam bed. Olivia, her mother, tells you that Selina has had a fever since yesterday, and today is refusing to eat because she says that it hurts. Vital signs: **HR** 109 | **BP** 98/61 | **RR** 22 | **Temp** 38.5ºC (101.3ºF) | **SpO2** 98% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Give a report to the provider
Prompts and Cues	- None
Simulation – Continuation	
Presentation	The provider states, "A sore throat and fever could be several things in a child Selina's age. It's interesting that she's refusing to eat or drink. Let's see if the physical exam gives us any more clues."
Expected Actions	- Perform a physical exam with the provider, verbalizing key findings
Prompts and Cues	- Provider: "Look at these markings on Selina's hands." - Provider: "Selina looks like she has some scattered ulcerated lesions in her oropharynx. They look like herpangina to me."

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Simulation – Conclusion	
Presentation	After your physical exam, the provider notes that Selina's symptoms are most consistent with hand, foot, and mouth disease. This can make it very painful for children to swallow, and it is important to control their pain so that they can stay hydrated. The participants are asked to provide Olivia with the maximum acetaminophen dosing for Selina's weight.
Expected Actions	- Calculate the appropriate acetaminophen and ibuprofen dosing for Selina's weight o Acetaminophen dosing is 10-15 mg/kg of 160 mg/5 mL solution. Selina's dose is (10-15 mg/kg * 20 kg) / (160 mg/5 mL) = **6.3 - 9.4 mL per dose**
Prompts and Cues	- Provider: "Selina is 20 kg, and we typically give 10-15 mg/kg of 160 mg/5mL solution per dose." - Provider: "Thanks for calculating that. Let's give Selina 7.5 mL of acetaminophen solution."

Scenario 20: Pediatric Scabies

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of scabies
- Describe the personal protective equipment used for patients on contact precautions

Equipment

- Moulage: Apply punctate, red lesions to the posterior hands near the webs of the fingers, in small linear clusters
- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Nitrile gloves
- Bouffant or surgical cap
- Surgical mask
- Impervious gown

Patient Profile

Name	Otto G.
Age	6 years
Gender	Male
Weight	22.3 kg (49 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with his mother (Hilda), father (Frank), and brothers (Daniel and Scott)
Allergies	None

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Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Hilda, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the signs and symptoms of scabies infection in a child?
- How do we protect ourselves while treating patients with pathogens, which can be transmitted by direct contact with skin or clothes?

At-The-Door Brief

You are rooming Otto, a 6-year-old male with itchy hands and arms.

Room the patient, obtain vital signs and a history, perform a physical exam, and provide a report.

Simulation – Initial State

Presentation	Otto is resting on the exam table. He is frequently scratching the back of his hands. His mother, Hilda, states that he has been very itchy for the past 3-4 days. Over that time, his siblings have also developed similar symptoms. He has had no fever or chills; he has not used any new soaps, lotions, fabrics, or other household products. Vital signs: **HR** 99 | **BP** 100/71 | **RR** 20 | **Temp** 36.9ºC (96.9ºF) | **SpO2** 96% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Perform a physical exam - Give a report to the provider, correctly identifying the skin findings on the patient's hands
Prompts and Cues	- Patient's mother: "Otto has a rash on the back of his hands. Can you take a look at it?"

Simulation – Continuation

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Presentation	After receiving the report, the provider expresses concern that the patient's new onset itching with a rash that includes clustered lesions in a linear pattern, might be a sign of scabies. Because scabies can spread by contact, the provider asks the participants to don appropriate personal protective equipment to maintain contact precautions.
Expected Actions	- Appropriately don gloves, a mask, a bouffant or cap, and a gown
Prompts and Cues	- None
Simulation – Conclusion	
Presentation	After the participants have appropriately donned their protective equipment, they are asked to provide Hilda with guidance and recommendations for treatment.
Expected Actions	- Provide the patient's mother with appropriate guidance, including: o Treatment of all affected family members with topical permethrin cream, which should be applied to the entire body from the neck down and allowed to dry, then wash it off after 8-14 hours and repeat this daily for the next 3 days o Contact precautions, including staying home from school or daycare for all affected children
Prompts and Cues	- Patient's mother: "Can Otto still go to school?"

Scenario 21: Pediatric Allergic Reaction

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of an allergic reaction
- Differentiate minor allergic reactions from anaphylaxis
- Describe the technique for the use of an epinephrine autoinjector

Equipment

- Moulage: Apply a pre-printed photograph of urticaria (hives) to the patient's chest
- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Epinephrine autoinjector trainer **or** 5-mL syringe, needles, and medication vial

Patient Profile

Name	Marley P.
Age	11 years
Gender	Female
Weight	35.0 kg (77 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with her mother, Britt, and father, Douglas
Allergies	Tree nuts
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Britt, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)
- **Emergency Department Provider** (facilitator)

Pre-Brief Questions:

- What is the difference between an anaphylactic reaction and a minor allergic reaction?
- What is the correct technique for the use of an epinephrine autoinjector?

At-The-Door Brief

You are rooming Marley, an 11-year-old female brought to the clinic by her mother, Britt. Marley has a history of severe allergic reactions to tree nuts. They were at a picnic with friends, and Marley accidentally took a bite of a cookie with nuts in it. Britt drove her to the clinic immediately because they left their epinephrine autoinjector at home. Marley has developed an itchy rash across her chest.

Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State

Presentation	Marley is sitting on the exam table. Her mother, Britt, explains that Marley is known to have a tree nut allergy and accidentally ate a cookie with nuts in it 20 minutes ago. They forgot her epinephrine autoinjector at home and came to the clinic. Marley has developed an itchy rash across her chest. She does not have facial swelling, trouble breathing, nausea, vomiting, or diarrhea. Vital signs: **HR** 90 | **BP** 89/70 | **RR** 16 | **Temp** 37.1ºC (98.8 ºF) | **SpO2** 97% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Give a report to the provider
Prompts and Cues	- None

Simulation – Continuation	
Presentation	While giving the report to the provider, Britt calls you back into the room and tells you that Marley is now complaining of trouble breathing. The provider overhears and asks you to administer intramuscular epinephrine out of concern for an anaphylactic reaction.
Expected Actions	- **If an epinephrine autoinjector trainer is available:** Administer the epinephrine autoinjector to the patient - **If a syringe, medication, and needles are available**: Administer 0.3 mg of 1:1,000 epinephrine solution IM
Prompts and Cues	- Provider: "The intramuscular dose of epinephrine for anaphylaxis for a child this size is 0.3 mg of 1:1,000 epinephrine solution. Note that this is different from the cardiac dose of epinephrine, which is typically injected and is the 1:10,000 solution."
Simulation – Conclusion	
Presentation	After administering intramuscular epinephrine, Marley's symptoms improve significantly. She no longer has trouble breathing, and her rash is resolving. The provider notes that any child with anaphylaxis who receives epinephrine should be observed in the Emergency Department, as there is a risk of recurrent or prolonged reaction. You are asked to call a report to the Emergency Department while the provider arranges an ambulance.
Expected Actions	- Call report to the Emergency Department Provider, which includes the patient's presentation, vital signs, what interventions have been performed, and how the patient will be transported.
Prompts and Cues	- Emergency Department Provider: "What are her vital signs?" - Emergency Department Provider: "What interventions have you performed?" - Emergency Department Provider: "Are you sending her by ambulance?"

Scenario 22: Pediatric Urinary Tract Infection

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of a pediatric UTI
- Describe the technique for collecting a urine sample from a pediatric patient

Equipment

- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Urine collection cup

Patient Profile

Name	Pamela H.
Age	12 years
Gender	Female
Weight	40.5 kg (89 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with her mother, Rhea
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)

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- **Primary assistant** (nurse/MA/tech)
- **Rhea, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the signs and symptoms of urinary tract infections in pediatric patients?
- How do we teach children to provide a clean-catch urine sample?

At-The-Door Brief
You are rooming Pamela, a 12-year-old female with painful urination. Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State	
Presentation	Pamela is resting on the exam table. Her mother notes that she has had increasing urinary frequency as well as a burning pain with urination for 3 days. Pamela has not had any fevers, flank pain, nausea, or vomiting. She had a similar episode last year, which was diagnosed as a urinary tract infection and improved after a course of antibiotics. Vital signs: **HR** 92 | **BP** 91/61 | **RR** 20 | **Temp** 37.7ºC (99.8ºF) | **SpO2** 98% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Give a report to the provider
Prompts and Cues	- None
Simulation – Continuation	
Presentation	The provider agrees that this sounds like a urinary tract infection and asks you to collect a sample for urinalysis.
Expected Actions	- Participants should teach the patient how to provide a clean-catch urine sample
Prompts and Cues	- None

Simulation – Conclusion	
Presentation	The patient's urinalysis returns with 2+ leukocyte esterase, positive nitrites, and 10-16 WBCs per HPF. The provider notes that this is consistent with a urinary tract infection. An ascending infection such as pyelonephritis is unlikely because Pamela has no flank pain or tenderness, nausea, or vomiting. The participants are asked to provide guidance to Pamela and her mother regarding antibiotic therapy and the pending urine culture.
Expected Actions	- Provide appropriate guidance and counseling regarding: o The management of an uncomplicated cystitis with antibiotics o Pending urine culture results o Strategies for preventing urinary tract infections and next steps if the problem persists
Prompts and Cues	- Provider: "Let Pamela know that we'll send her a prescription for antibiotics. Her urine culture test is pending; if the results show that we need to change her antibiotic, we'll give her a call. She should focus on maintaining good hygiene practices to prevent UTIs. If she keeps getting them, we may need to obtain imaging and refer her to a urologist to make sure she doesn't have a structural abnormality that puts her at risk for recurrent infection."

Scenario 23: Adolescent Depression

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of depression in an adolescent patient
- Demonstrate the ability to effectively ask sensitive screening questions in at-risk populations

Equipment

- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	William F.
Age	12 years
Gender	Male
Weight	60.5 kg (133 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with his mother, Vera, and father, Tim
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Vera, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the signs and symptoms of depression in adolescents?
- What other social and medical risk factors should be screened for in adolescents?

At-The-Door Brief
You are rooming William, a 12-year-old male. He arrives with his mother, Vera, after several weeks of fatigue, decreased motivation, and decreased appetite. Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State	
Presentation	William is sitting in the exam room with his mother, Vera. Vera tells you that William has been increasingly withdrawn for the past several weeks. William spends most of the day in bed and seems to have no interest in activities that once excited him. He was looking forward to the soccer season but quit his school's team this week. Vera notes that William does not seem to want to talk about it; just shrugs when asked if everything is okay. William has not otherwise been ill and has a negative review of systems. Vital signs: **HR** 86 | **BP** 103/70 | **RR** 18 | **Temp** 36.7ºC (98.1ºF) | **SpO2** 97% on room air
Expected Actions	- Collect a full set of vital signs with correct technique - Give a report to the provider
Prompts and Cues	- Patient's mother: "He just seems like a totally different person. He won't even get out of bed for the things he used to enjoy."

Simulation – Continuation	
Presentation	Because William's presentation is concerning for depression and he is an adolescent, he should be screened for various risk factors. The provider asks you to politely ask his mother to step out so you can ask William screening questions related to suicidal ideation, abuse, sexual activity, and alcohol and drug use.
Expected Actions	- Participants should politely ask the patient's mother to step out of the room. - Participants should screen the patient for: o Suicidal ideation o Physical or emotional abuse o Sexual activity o Alcohol and drug use
Prompts and Cues	- Provider: "Do you mind asking Vera to step out of the room? You can reassure him that we always ask to speak to all adolescents alone for a portion of the exam." - Upon being prompted, William denies suicidal ideation, abuse, sexual activity, or substance use
Simulation – Conclusion	
Presentation	After hearing the responses to the screening questions, the provider states, "It's good that William screens negative. We still must rule out a few underlying medical conditions. We'll order some labs to be drawn, but I suspect William meets criteria for a diagnosis of depression. Can you speak to his mother about next steps? Because it's already been several weeks with no improvement, we should arrange for William to start cognitive behavioral therapy."
Expected Actions	- Participants should counsel William and Vera on managing adolescent depression, including: o Cognitive behavior therapy is the next best step o Medications such as SSRIs can be helpful and need not be permanent if symptoms improve
Prompts and Cues	- Patient's mother: "I've heard bad things about antidepressants. If he starts one, does he have to be on it forever?" - Patient's mother: "I think William's school offers access to a therapist. I'll give them a call and see if we can get him established with one."

Scenario 24: Adolescent Migraine

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 30 minutes

Objectives:

- Recognize the signs and symptoms of migraine as well as what differentiates migraines from worrying causes of secondary headache
- Demonstrate the correct technique for administering medications by IV push

Equipment

- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- **Optional**: Pediatric/adolescent IV trainer

Patient Profile

Name	Helen K.
Age	15 years
Gender	Female
Weight	60.0 kg (132 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with her mother, Gladys
Allergies	None
Medications	Sumatriptan

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Gladys, the patient's mother** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What differentiates migraine headaches from other types of headaches?
- Describe the technique for administering medications by IV push?

At-The-Door Brief

You are rooming Helen, a 15-year-old female presenting with her mother, Gladys, for a headache. She gets these headaches about once per month and usually takes her sumatriptan, which works well. Today, however, her headache has persisted despite medication, prompting her to present to the clinic.

Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State

Presentation	Helen is laying back on the exam table with her eyes closed. The lights in the room are dimmed. Her mother, Gladys, explains that Helen was diagnosed with migraines with aura 3 years ago. Since that time, she has had a migraine about once per month. When Hellen develops an aura, she can usually avoid the headache by taking her sumatriptan and lying down for a nap. Today, she developed her typical visual aura 4 hours ago, but this progressed to a severe headache despite taking sumatriptan and acetaminophen. Helen has not had fevers, chills, neck pain, or other neurologic symptoms. Vital signs: **HR** 78 | **BP** 108/68 | **RR** 18 | **Temp** 36.6ºC (97.9ºF) | **SpO2** 99% on room air
Expected Actions	- Collect a full set of vital signs with the correct technique - Give a report to the provider
Prompts and Cues	- None

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Simulation – Continuation	
Presentation	The provider notes that it sounds like Helen does have one of her typical migraine headaches. Unfortunately, she is likely to require IV medications to achieve relief. The participants are asked to place an IV as well as draw up and administer the following medications: - Prochlorperazine 10 mg IVP - Diphenhydramine 25 mg IVP administered over 1 minute - Ketorolac 15 mg IVP
Expected Actions	- If IV trainer is available, place an IV - Draw up the stated medication doses - Administer the stated medications as per the orders - Explain to the patient what you are giving to her and why
Prompts and Cues	- Provider: "You can explain to Helen that this combination of medications is the common treatment for migraines that are not responsive to home therapies. Ketorolac is a non-steroidal anti-inflammatory pain reliever, prochlorperazine is an anti-emetic, and diphenhydramine is an antihistamine that we give with it to help prevent side effects."
Simulation – Conclusion	
Presentation	30 minutes have passed since you administered the medications, and Helen reports that her pain is significantly improved. She feels ready to return home. As she is leaving, her mother asks, "How can we prevent this from happening again?"
Expected Actions	- Counsel the patient and her mother on strategies for preventing migraines, including: o Keeping a headache diary to help identify what triggers the patient's migraines o Ensuring adequate sleep o Avoiding alcohol, overconsumption of caffeine, or any other stimulant substances
Prompts and Cues	- Provider: "Even if her home medication is usually effective, it seems like Helen still gets headaches at least once a month. A headache diary would be a great next step for her, as it would help her identify what is triggering her migraines and help her avoid it in the future."

Scenario 25: Persistent Asthma

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of persistent asthma, which is not well-controlled
- Describe the strategies for long-term control of asthma
- Describe the correct technique for using a metered dose inhaler and spacer

Equipment

- Stethoscope (pediatric size)
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Metered dose inhaler
- Spacer

Patient Profile

Name	Kevin J.
Age	14 years
Gender	Male
Weight	74.1 kg (163 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with his mother (Wendy), father (Lenny), and sister (Hannah)
Allergies	None
Medications	Albuterol

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Lenny, the patient's father** (facilitator)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the signs that a patient's asthma is poorly controlled?
- What is the correct technique for using a spacer?

At-The-Door Brief

You are rooming Kevin, a 14-year-old male presenting with his father, Lenny. They are at the clinic for a follow-up for Kevin's asthma. Kevin was seen in the Emergency Department last week for an acute asthma exacerbation. This was his third visit to the ED for the same within the past year.

Room the patient, obtain vital signs and a history, and provide a report.

Simulation – Initial State

Presentation	Kevin is resting on the exam table. His father, Lenny, explains that he was seen in the Emergency Department last week for shortness of breath. Kevin was diagnosed with an asthma exacerbation. This is the third time this has happened over the past year. Kevin does use an albuterol rescue inhaler at home but does not own a spacer. He must use his inhaler 4 or 5 times per week and has a night-time cough at least once per week. He currently feels well. Vital signs: **HR** 85 | **BP** 121/78 | **RR** 18 | **Temp** 37.0ºC (98.6ºF) | **SpO2** 98% on room air
Expected Actions	- Collect a full set of vital signs with the correct technique - Give a report to the provider
Prompts and Cues	- None

Simulation – Continuation	
Presentation	The provider notes that there are a few concerning features regarding Kevin's presentation. He has daytime symptoms more than 3 times per week and nighttime symptoms more than 3 times per month, which classify his asthma as persistent. It is also possible that he is not effectively delivering albuterol to himself without using a spacer. The participants are asked to demonstrate the correct use of a spacer with a metered dose inhaler.
Expected Actions	- Demonstrate to the patient and his father how to use a spacer with the patient's inhaler
Prompts and Cues	- Patient's father: "What's the point of using the spacer? Can't he just inhale it directly?"
Simulation – Conclusion	
Presentation	Because Kevin's asthma qualifies as persistent, he would also probably benefit from the addition of a low-dose, daily, inhaled corticosteroid as maintenance therapy. The provider asks the participants to explain to Kevin and his father what the difference between maintenance and rescue therapy is as well as why he should take his new inhaled medication daily. On the other hand, his albuterol should only be taken as needed.
Expected Actions	- Counsel the patient and his father on daily use of an inhaled corticosteroid medication - Counsel the patient and his father on the different roles of daily maintenance medications (the inhaled steroid) and rescue medications (albuterol)
Prompts and Cues	- Patient's father: "So he should take this new inhaler every day, even if he feels perfectly fine?"

Scenario 26: Adult New Patient Visit

Manikin:	Environment:
Low-Fidelity Adult	Adult Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Become familiar with common new patient data-gathering and procedures for routine adult visits to establish care

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Portable blood pressure cuff

Patient Profile

Name	Terry L.
Age	45 years
Gender	Male
Weight	75.9 kg (167 lbs)
Past Medical History	Hypertension, hyperlipidemia, asthma
Surgical History	Tonsillectomy
Social History	Lives with his wife and two daughters, nonsmoker, drinks 1-2 beers twice per week
Allergies	Penicillin
Medications	Amlodipine, atorvastatin, albuterol

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What information is important to know during a patient's first visit to a medical practice?

At-The-Door Brief
You are checking in Terry, a 45-year-old male, to the internal medicine clinic. Terry recently moved to the area and is here to establish care with his new primary care provider. He has no specific complaints. Settle Terry, and take a detailed past medical, surgical, and social history.

Simulation – Initial State	
Presentation	Terry is seated comfortably in the waiting room.
Expected Actions	- Collect a complete past medical, surgical, and social history, including medications and allergies
Prompts and Cues	- Patient, when prompted: "My last doctor told me my blood pressure was too high, and so was my cholesterol; I take pills for both of those. I also used to have asthma, but I haven't needed my inhaler for a few years." - Patient, when prompted: "I had my tonsils out as a kid. I haven't had any other surgery." - Patient, when prompted: "My parents told me I was allergic to penicillin, but I'm not sure what happened when I took it. It was when I was very young." - Patient, when prompted: "I don't smoke. I have a beer or two a couple of times a week, usually on Friday and Saturday night."
Simulation – Continuation	
Presentation	After collecting a complete history from the patient, the participants are asked to room and collect a full set of vitals from him. Vital signs: **HR** 78 | **BP** 130/82 | **RR** 18 | **Temp** 37.0ºC (98.6ºF) | **SpO2** 99% on room air
Expected Actions	- Collect a full set of vitals, including temperature and SpO2
Prompts and Cues	- None

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Simulation – Conclusion	
Presentation	After evaluating the patient, the provider recommends that Terry be discharged with a home blood pressure cuff. You are asked to teach him how to use it.
Expected Actions	- Counsel the patient on the use of his new home blood pressure cuff - Demonstrate how to apply and use the cuff correctly
Prompts and Cues	- Patient: “Does it matter where I hold my arm? Can I use either arm?”

Scenario 27: Adult Biliary Colic

Manikin:	Environment:
Low-Fidelity Adult	Adult Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs of hepatobiliary dysfunction
- Recognize common diagnostic tests used to evaluate the gall bladder

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Donna K.
Age	42 years
Gender	Female
Weight	70.0 kg (154 lbs)
Past Medical History	Hyperlipidemia, GERD, obstructive sleep apnea
Surgical History	Appendectomy
Social History	Lives by herself in an apartment, drinks one glass of wine per night, nonsmoker
Allergies	None
Medications	Famotidine

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the characteristics of biliary colic, and how is this distinguished from cholecystitis, choledocholithiasis, or cholangitis?

At-The-Door Brief
You are settling Donna, a 42-year-old female presenting to your internal medicine clinic with a chief complaint of abdominal pain. Room the patient and obtain a history and full set of vital signs.

Simulation – Initial State	
Presentation	Donna is resting comfortably on the exam table. She relates to the participants that she has been experiencing episodes of abdominal pain for the past 3 months. These episodes occur after meals and are in the right upper quadrant of her abdomen. She occasionally vomits. The symptoms usually subside after 1-2 hours. Vital signs: **HR** 78 | **BP** 135/87 | **RR** 18 | **Temp** 37.3ºC (99.1ºF) | **SpO2** 98% on room air
Expected Actions	- Obtain a pertinent history of present illness - Obtain vital signs with the proper technique
Prompts and Cues	- Patient: "I've had my appendix out, but I think I still have my gall bladder." - Patient: "It seems like it's always worse after a heavy or fatty meal."
Simulation – Continuation	
Presentation	The provider evaluates the patient, and notes, "This seems like biliary colic. I'll order the patient an ultrasound of the right upper quadrant. In the meantime, can you counsel her on what biliary colic is, and how dietary changes might help?
Expected Actions	- Provide appropriate counseling on the nature of gallstones and why they cause pain as well as how avoidance of fatty foods might decrease the frequency and severity of pain.
Prompts and Cues	- Patient: "Why does it always happen after I eat?"

Simulation – Conclusion	
Presentation	Donna leaves the office with a referral to the general surgery clinic, where she plans to schedule an evaluation for elective cholecystectomy. One week later, before she can be seen in clinic, she calls the clinic triage line and the participant answers. She states, "I started having my usual pain this afternoon after lunch, but this time it hasn't gone away. I've been vomiting for the past few hours, and I have a fever as well."
Expected Actions	- Provide the patient with appropriate counseling. The participant should recognize that Donna's symptoms are concerning for acute cholecystitis, and direct her to present to the nearest Emergency Department.
Prompts and Cues	- Patient: "Should I just wait it out and come to the office tomorrow?" - Patient: "Why didn't the pain go away this time?"

Scenario 28: Adult Rectal Bleeding

Manikin:	Environment:
Low-Fidelity Adult	Adult Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the difference between melena and hematochezia
- Recognize the signs of symptomatic anemia

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Fecal occult blood (guaiac) card and developer

Patient Profile

Name	Paul P.
Age	56 years
Gender	Male
Weight	95.5 kg (210 lbs)
Past Medical History	GERD, osteoarthritis
Surgical History	None
Social History	Lives with his wife at home, nonsmoker, does not drink alcohol
Allergies	None
Medications	Omeprazole

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- How do we test for blood in the stool?
- What are the different causes of bloody stool?

At-The-Door Brief
You are rooming Paul, a 56-year-old male presenting to your internal medicine clinic with a chief complaint of rectal bleeding. Room the patient and collect a history as well as a complete set of vital signs.

Simulation – Initial State	
Presentation	Paul is sitting comfortably in the exam room. He relays to you that he has noticed streaks of bright red blood in his stool three times in the past few weeks. These episodes are painless. He notices roughly 1-2 tbsp of blood in the toilet, mixed in with brown stool. He has been otherwise well. Vital signs: **HR** 85 | **BP** 124/90 | **RR** 16 | **Temp** 36.6ºC (97.9ºF) | **SpO2** 96% on room air
Expected Actions	- Collect a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "It doesn't hurt, I just stand up after using the bathroom and see blood in the toilet."
Simulation – Continuation	
Presentation	The provider states, "I have some ideas about what could be going on. Before we say anything for sure, we should examine the patient. I'll perform a rectal exam. Can you bring a fecal occult blood testing card and developer?"
Expected Actions	- Correctly demonstrate the technique for applying a sample to a fecal occult blood card and applying developer
Prompts and Cues	- Provider: "I'll put the sample on the testing strip. You just have to put one or two drops of developer on both the samples and the control area."
Simulation – Conclusion	

Presentation	The provider evaluates the fecal occult blood test, which is positive. They feel that the patient most likely has an internal hemorrhoid. Due to Paul's age, they recommend that he follow up with a gastroenterologist for a colonoscopy. The participant is asked to provide counseling to the patient regarding these findings.
Expected Actions	- Appropriately counsel the patient on benign (e.g., hemorrhoids) and worrisome (e.g., colorectal cancer) causes of rectal bleeding - Provide the patient with appropriate return precautions (e.g., signs of symptomatic anemia, large-volume bleeding)
Prompts and Cues	- Patient: "Do you think I have cancer?" - Patient: "What should I do if a lot more blood comes out?"

Scenario 29: Adult Suture Removal

Manikin:	Environment:
Low-Fidelity Adult	Adult Walk-In Clinic

Estimated Run Time: 20 minutes

Objectives:

- Learn the correct technique for wound evaluation and suture removal

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Suture removal kit
- Mock wound (synthetic skin, or sutures applied to cloth)

Patient Profile

Name	Susan J.
Age	27 years
Gender	Female
Weight	60.5 kg (133 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives in an apartment with one roommate, nonsmoker, drinks 3-4 alcoholic beverages once per week
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- When evaluating a wound, what are the signs of infection or poor healing?
- What is the correct technique for the removal of sutures from a wound?

At-The-Door Brief
You are rooming Susan, a 27-year-old female presenting for a wound-check and suture removal. Room the patient and collect a history as well as a complete set of vital signs.

Simulation – Initial State	
Presentation	Susan is seated on the exam table. She relates that she dropped a knife while cooking last week, and accidentally cut herself on the hand while trying to catch it. She was seen in the Emergency Department that night where her wound was irrigated and sutured. She was instructed to go to the clinic today to have her wound evaluated and sutures removed. Vital signs: **HR** 65 | **BP** 133/78 | **RR** 16 | **Temp** 37.2ºC (98.9ºF) | **SpO2** 95% on room air
Expected Actions	- Obtain a full set of vital signs - Give a report to the provider
Prompts and Cues	- None
Simulation – Continuation	
Presentation	The provider agrees that the timing is correct for suture removal. The participant is asked to make sure there is no concern for wound infection prior to removing the sutures.
Expected Actions	- Obtain a focused history for the evaluation of a wound infection - Verbalize the appropriate physical exam findings that would indicate a wound infection
Prompts and Cues	- Patient: “No, I haven’t had any fevers or chills.” - Patient: “I haven’t seen any redness around the cut, and there is no swelling.” - Patient: “There is nothing draining out of the wound.”

Simulation – Conclusion	
Presentation	The provider agrees that the wound is not infected. The participants are asked to remove the patient's sutures.
Expected Actions	- Remove the patient's sutures with the correct technique using the suture removal kit
Prompts and Cues	- Provider: "Make sure you aren't pulling the knot through the skin when you remove the suture."

Scenario 30: Adult Inguinal Hernia

Manikin:	Environment:
Low-Fidelity Adult	Adult Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of an inguinal hernia
- Recognize the signs and symptoms of hernia incarceration

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Steven J.
Age	33 years
Gender	Male
Weight	80.9 kg (178 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives in an apartment with his significant other, nonsmoker, does not drink alcohol
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the signs and symptoms of an inguinal hernia?
- What are the important elements of a hernia exam?

At-The-Door Brief
You are rooming Steven, a 33-year-old male presenting to your internal medicine clinic because of a bulge in his groin. Room the patient and collect a history as well as a complete set of vital signs.

Simulation – Initial State	
Presentation	Steven is resting on the exam table. He tells you that, after working out at the gym, he noticed a bulge in his left groin two weeks ago. It was initially painful but has since stopped bothering him. Vital signs: **HR** 82| **BP** 125/80 | **RR** 18 | **Temp** 36.7ºC (98.1ºF) | **SpO2** 98% on room air
Expected Actions	- Collect a set of vital signs - Provide report to the provider
Prompts and Cues	- Patient: "I felt like I tore something. When I got home and took a shower, I noticed this bulge that wasn't there before."
Simulation – Continuation	
Presentation	The provider expresses concern that Steven may have a hernia. You are asked to assess whether the hernia is reducible.
Expected Actions	- Describe and demonstrate the elements of a hernia exam
Prompts and Cues	- Provider: "We have to make sure that we can push the hernia contents back in easily. If we can't, Steven is at risk of an incarcerated hernia, which can lead to strangulation and ischemic bowel. This can cause a surgical emergency."

Realityworks Live it. Learn it.

Simulation – Conclusion	
Presentation	You reduce Steven's hernia, and the provider refers him to the general surgery clinic for consultation. You are asked to provide him with return precautions in advance of his surgery appointment.
Expected Actions	- Provide appropriate counseling and return precautions
Prompts and Cues	- Patient: "What should I do if I can't push it in anymore?" - Patient: "What should I look for to make sure the bowel isn't trapped in there?"

Scenario 31: Adult CT Scan Prep

Manikin:	Environment:
Low-Fidelity Adult	Adult Radiology Suite

Estimated Run Time: 20 minutes

Objectives:

- Obtain familiarity with the routes and techniques for administering CT contrast

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Water pitcher
- CT contrast packet
- IV start kit
- **Optional**: Adult IV trainer (if not available, can use a drinking straw)

Patient Profile

Name	Patricia F.
Age	64 years
Gender	Female
Weight	59.5 kg (131 lbs)
Past Medical History	Crohn's disease
Surgical History	Bowel resection with primary anastomosis
Social History	Lives with her significant other at home, nonsmoker, does not drink alcohol
Allergies	None
Medications	Sulfasalazine

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- How do we administer oral contrast for CT?
- How do we administer IV contrast for CT?

At-The-Door Brief
You are greeting Patricia, a 64-year-old female with a history of Crohn's Disease. She is presenting to the radiology suite for a scheduled study, which was ordered by her gastroenterologist. She is scheduled for a CT Abdomen and Pelvis with oral and IV contrast. Room the patient and collect a history as well as a complete set of vital signs.

Simulation – Initial State	
Presentation	Patricia is seated comfortably. She relates to you that she has had an increase in crampy, diffuse abdominal pain and diarrhea over the past week. Her gastroenterologist was concerned that she might have a Crohn's flare and ordered a CT scan to evaluate. Vital signs: **HR** 90 | **BP** 130/70 | **RR** 18 | **Temp** 37.1ºC (98.8ºF) | **SpO2** 97% on room air
Expected Actions	- Collect a full set of vital signs - Notify the provider that the patient has arrived
Prompts and Cues	- None
Simulation – Continuation	
Presentation	The provider says, "Patricia's scan is ordered with both intravenous and oral contrast. Can you place an IV so we can administer contrast?"
Expected Actions	- Place an IV using the IV trainer (can use a drinking straw if not available)
Prompts and Cues	- None

Simulation – Conclusion	
Presentation	After the patient's IV is placed, the patient's contrast arrives from the pharmacy. The participants are asked to mix and administer the oral contrast.
Expected Actions	- Correctly mix the patient's oral contrast into water or polyethylene glycol - Counsel the patient on the importance of finishing the oral contrast
Prompts and Cues	- Patient: "I have to drink all of that?"

Scenario 32: Adult Heat Exhaustion

Manikin:	Environment:
Low-Fidelity Adult	Medical Tent

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of heat exhaustion and heat stroke

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Towels
- Water basin
- Fans

Patient Profile

Name	Cynthia E.
Age	35 years
Gender	Female
Weight	70.5 kg (155 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives in an apartment with her spouse, nonsmoker, does not drink alcohol
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- How do we differentiate between heat exhaustion and heat stroke?
- What techniques exist for noninvasive cooling of patients with environmental heat-induced conditions?

At-The-Door Brief
You greet Cynthia, a 35-year-old female, at the entrance to the medical tent that you are staffing at the local marathon. Cynthia is brought in by another runner, who noticed that Cynthia stumbled and was having trouble holding herself upright on mile 23 of the marathon course. Settle the patient and collect a history as well as a complete set of vital signs.

Simulation – Initial State	
Presentation	Cynthia is seated in a chair. She appears tired and sweaty. She was on mile 23 of the marathon when she became lightheaded and felt as though she was going to pass out. She leaned against a railing on the side of the route and another runner helped her to the medical tent. Vital signs: **HR** 110| **BP** 140/85 | **RR** 18 | **Temp** 37.7ºC (99.9ºF) | **SpO2** 96% on room air
Expected Actions	- Obtain a full set of vital signs - Give a report to the provider
Prompts and Cues	- Patient: "I don't know what happened. I just felt so weak."
Simulation – Continuation	
Presentation	The provider expresses that this presentation is relatively common during endurance events. It is most likely heat exhaustion, but you need to be careful to rule out the more serious heat stroke or other serious medical conditions.
Expected Actions	- Obtain a focused history to differentiate between heat exhaustion and heat stroke

Prompts and Cues	- Patient: "My head feels okay. I know where I am. I just feel weak and a little nauseous." - Patient: "I'm very sweaty." - Patient: "I don't have any chest pain or shortness of breath." - Provider: "The important thing is that the patient's mental status is normal, that they haven't stopped sweating, and that their vital signs are stable. Otherwise, we would be worried about heat stroke."
Simulation – Conclusion	
Presentation	The provider notes that this does seem like a case of heat exhaustion. Luckily, your medical tent is well equipped to handle this. The participants are asked to initiate typical noninvasive cooling measures.
Expected Actions	- Provide the patient with a moist towel around the neck and over the forehead - Seat the patient in front of a fan for airflow - Provide the patient with a cool drink
Prompts and Cues	- Provider: "We have plenty of moist towels, fans, and cool drinks."

Scenario 33: Adult Ocular Toxic Exposure

Manikin:	Environment:
Low-Fidelity Adult	University Health Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize and perform techniques for ocular decontamination after toxic exposure

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Ocular pH strips
- Intraocular irrigation lens (Morgan lens)
- 1-L IV fluid bag

Patient Profile

Name	Duane T.
Age	20 years
Gender	Male
Weight	72.7 kg (160 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives in a dorm with his roommate, nonsmoker, does not drink alcohol
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What is the technique for irrigating an eye that was exposed to a toxic substance?
- How do we test ocular pH, and why does it matter?

At-The-Door Brief

You are rooming Duane, a 20-year-old male presenting to your University Health Clinic. Duane is an undergraduate student who was sent to the clinic after a toxic exposure in his chemistry lab. He was working with a solution of concentrated hydrochloric acid, which accidentally spilled. A small amount splashed into his right eye. He immediately irrigated the eye for 20 minutes at the eye wash station in the lab. He was then brought to the clinic.

Settle the patient and collect a history as well as a complete set of vital signs.

Simulation – Initial State

Presentation	Duane is seated on the exam table. He tells you that he was working with a solution of hydrochloric acid in his chemistry lab. He dropped a vial, causing it to splash into his eye. He irrigated for 20 minutes at the lab's eye wash station before presenting to the clinic. Duane has a burning discomfort in the eye but feels that his vision is intact. He does not wear contact lenses. The provider asks you to measure his ocular pH along with his vital signs. Vital signs: **HR** 85 | **BP** 145/85 | **RR** 18 | **Temp** 37.3ºC (99.2ºF) | **SpO2** 98% on room air
Expected Actions	- Collect a full set of vital signs - Collect an ocular pH using a test strip
Prompts and Cues	- Provider: "It sounds like he's had a toxic exposure to the eye. We should measure his ocular pH." - Provider: "Make sure the measure the pH in the fornix, the space between the inferior lens and cornea."

Simulation – Continuation	
Presentation	The patient's ocular pH is 6.0. The provider notes that this is too low and recommends ocular irrigation with a Morgan lens. The participants are asked to demonstrate placement of a Morgan lens and set up a 1-L bag of IV fluids to run wide open through the lens.
Expected Actions	- Appropriately prime and demonstrate insertion of the Morgan lens
Prompts and Cues	- Provider: "Make sure to prime the lens with fluid before insertion."
Simulation – Conclusion	
Presentation	After 90 minutes of continuous irrigation, the provider asks the participants to re-check the patient's ocular pH.
Expected Actions	- Remove the Morgan lens - Recheck the patient's ocular pH
Prompts and Cues	- Provider: "His pH is 7.0, which is normal. He still needs to follow up with ophthalmology, but this should prevent any more immediate damage to the eye."

Scenario 34: Adult Peptic Ulcer Disease

Manikin:	Environment:
Low-Fidelity Adult	Adult Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of peptic ulcer disease
- Recognize common lifestyle changes and medications used to help manage gastric reflux and gastric ulcers

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Liquid medication bottle

Patient Profile

Name	Malik D.
Age	43 years
Gender	Male
Weight	77.3 kg (170 lbs)
Past Medical History	Hypertension
Surgical History	None
Social History	Lives at home with his wife, smokes 0.5 packs per day, 1-2 alcoholic drinks per week
Allergies	None
Medications	Hydrochlorothiazide

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the signs and symptoms of gastric reflux and gastric ulcers?
- What are common strategies for managing these symptoms?

At-The-Door Brief
You are rooming Malik, a 43-year-old male presenting to your internal medicine clinic for episodic epigastric pain. Settle the patient and collect a history as well as a complete set of vital signs.

Simulation – Initial State	
Presentation	Malik is resting on the exam table. He relates that he has been having episodic pain in his epigastric region, which is burning and often associated with burping. It is worse when he lays down at night and after spicy meals. Vital signs: **HR** 83 | **BP** 130/68 | **RR** 18 | **Temp** 36.9ºC (98.5ºF) | **SpO2** 99% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "It always feels like I have to burp, but it doesn't feel better after I do."
Simulation – Continuation	
Presentation	The provider notes that there are many different causes of symptoms such as this, but the patient's history is most suspicious for peptic ulcer disease. The participants are asked to provide the patient with a dose of sucralfate, to see if it helps his symptoms.
Expected Actions	- Measure and administer a single dose of sucralfate
Prompts and Cues	- Patient: "What kind of medicine is this?"

Simulation – Conclusion	
Presentation	The sucralfate helps the patient's symptoms significantly. The provider notes that the next step is to have his workup seen by a gastroenterologist and potentially be evaluated with an upper endoscopy. The participants are instructed to relay these recommendations to the patient as well as provide counseling on next steps and return precautions.
Expected Actions	- Counsel the patient on the symptoms and natural history of peptic ulcer disease - Provide return precautions regarding signs and symptoms of a perforated ulcer
Prompts and Cues	- Patient: "What should I do next?" - Patient: "Is this dangerous?" - Patient: "What should I watch out for?"

Scenario 35: Adult Orthostasis

Manikin:	Environment:
Low-Fidelity Adult	Adult Internal Medicine Clinic

Estimated Run Time: 25 minutes

Objectives:

- Recognize the signs of orthostatic hypotension
- Recognize the causes of and treatments for orthostatic hypotension
- Learn the correct technique for collecting orthostatic vital signs

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Eliza T.
Age	56 years
Gender	Female
Weight	58.2 kg (128 lbs)
Past Medical History	Osteoarthritis
Surgical History	None
Social History	Lives at home with her husband, nonsmoker, does not drink alcohol
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the signs and symptoms of orthostatic hypotension?
- What is the correct technique for measuring orthostatic vital signs?

At-The-Door Brief
You are rooming Eliza, a 56-year-old female presenting to your internal medicine clinic with a chief complaint of intermittent dizziness and loss of consciousness. Settle the patient and collect a history as well as a complete set of vital signs.

Simulation – Initial State	
Presentation	Eliza is resting comfortably in a chair in the exam room. She relates that she has had frequent episodes of dizziness immediately after standing from a seated position over the past year. She typically grabs the chair, and the sensation passes after a few seconds. However, last week she passed out and fell backwards into the chair. Vital signs: **HR** 85| **BP** 145/85 | **RR** 18 | **Temp** 37.3ºC (99.2ºF) | **SpO2** 98% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "It feels like my vision is closing in, like I'm going to pass out."
Simulation – Continuation	
Presentation	The provider expresses concern that Eliza's symptoms are a sign of orthostatic hypotension. The participants are asked to collect a set of orthostatic vital signs.
Expected Actions	- Demonstrate the correct technique for collecting orthostatic vital signs. The patient's vital signs are as follows: o *Supine*: HR 86, BP 140/82 o *Seated*: HR 95, BP 125/80 o *Standing:* HR: 115, BP 90/45
Prompts and Cues	- Provider: "Remember that you have to give the patient a few minutes between changing positions before measuring the vital signs."

Simulation – Conclusion	
Presentation	The patient's orthostatic vital signs confirm orthostasis. Before leaving, they ask the participants several questions.
Expected Actions	- Appropriately counsel the patient on precautions (e.g., rising slowly), strategies for mitigating orthostasis (e.g., remaining hydrated), and return precautions (e.g., loss of consciousness, chest pain, palpitations)
Prompts and Cues	- Patient: "Is there anything I can do to make the symptoms better?" - Patient: "What should I look out for at home?"

Scenario 36: Adult Pre-Op

Manikin:	Environment:
Low-Fidelity Adult	Outpatient Surgical Center

Estimated Run Time: 25 minutes

Objectives:

- Recognize common tasks involved in preparing a patient for surgery

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Medication vial and syringe
- IV start kit
- Adult IV trainer (use drinking straw if unavailable)

Patient Profile

Name	Maria V.
Age	38 years
Gender	Female
Weight	75.9 kg (167 lbs)
Past Medical History	Biliary colic
Surgical History	None
Social History	Lives at home with her significant other and grandparents, nonsmoker, does not drink alcohol
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What is necessary to prepare a patient for the operating room?

At-The-Door Brief
You are working in an outpatient surgical center, welcoming your first patient of the day. Maria is a 38-year-old female presenting for an elective cholecystectomy. Settle the patient in the pre-op area and collect a set of vital signs.

Simulation – Initial State	
Presentation	Maria is on the stretcher in the pre-op area. She has already changed into a gown. She tells you that she is here to have her gallbladder removed. Her last oral intake was dinner last night, around 12 hours ago. Vital signs: **HR** 70 | **BP** 126/75 | **RR** 18 | **Temp** 36.9ºC (98.4ºF) | **SpO2** 98% on room air
Expected Actions	- Obtain a full set of vital signs - Give a report to the provider
Prompts and Cues	- None
Simulation – Continuation	
Presentation	The anesthesia provider asks you to prepare the patient for the OR. The participants are to place a peripheral IV.
Expected Actions	- Place a peripheral IV using the trainer device or drinking straw with the correct technique
Prompts and Cues	- None
Simulation – Conclusion	
Presentation	After placing the IV, the provider requests that the participants premedicate the patient with 4 mg of ondansetron IVP to help prevent perioperative nausea/vomiting.
Expected Actions	- Draw up and administer medication by IV push with the correct technique

Prompts and Cues	- None

Scenario 37: Adult Wound Care

Manikin:	Environment:
Low-Fidelity Adult	Wound Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize common techniques for wound dressing and wound care
- Recognize signs and symptoms of wound infection

Equipment

- Moulage: Well-circumscribed, 3-cm ulcerative wound on the left anterior shin; can be a pre-printed photo of a wound or drawn on with washable marker
- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Antiseptic solution
- Nonadherent wound pad
- Gauze roll
- Compression dressing

Patient Profile

Name	Darren L.
Age	63 years
Gender	Male
Weight	116.4 kg (256 lbs)
Past Medical History	Type 2 diabetes, peripheral vascular disease, hypertension, hyperlipidemia
Surgical History	None
Social History	Lives at home with his wife, former smoker (quit 20 years ago), drinks 1-2 alcoholic beverages per week
Allergies	None

Realityworks Live it. Learn it.

Medications	Metformin, insulin, simvastatin, lisinopril, furosemide

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the signs and symptoms of a wound infection?
- How do we care for chronic wounds to keep them from becoming infected?

At-The-Door Brief

You are settling Darren, a 63-year-old male presenting to your clinic for routine wound care. Darren has a history of chronic lower extremity wounds due to venous stasis and type 2 diabetes. He is due for a dressing change.

Settle the patient in the pre-op area and collect a set of vital signs.

Simulation – Initial State

Presentation	Darren is resting comfortably on the exam table. He is in the clinic today for routine wound care. He has a wound on his left anterior shin. It is healing slowly because of his underlying diabetes and peripheral vascular disease, requiring regular dressing changes. Vital signs: **HR** 65 | **BP** 140/90 | **RR** 16 | **Temp** 36.9ºC (98.5ºF) | **SpO2** 95% on room air
Expected Actions	- Obtain a full set of vital signs
Prompts and Cues	- None

Simulation – Continuation

Presentation	After obtaining vital signs, the participants are asked to take off the dressing on the patient's wound, gently clean it, and assess for wound infection.
Expected Actions	- Gently clean the wound edges with an antiseptic solution - Verbalize the physical exam findings that would suggest wound infection

Prompts and Cues	- Patient: "I feel fine, no fevers or chills." - Patient: "I haven't seen any more redness or swelling in the area." - Patient: "The wound is pretty dry; there isn't much drainage."
Simulation – Conclusion	
Presentation	After assessing and cleaning the wound, the participants are asked to reapply a nonadherent dressing and overwrap with a compression dressing.
Expected Actions	- Dress the wound using a nonadherent pad with overlying gauze and a compression wrap.
Prompts and Cues	- None

Scenario 38: Adult Cast Removal

Manikin:	Environment:
Low-Fidelity Adult	Adult Orthopedics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize common complications of casts and splints
- Demonstrate correct technique for the removal of a cast

Equipment

- Moulage: Short-arm fiberglass cast applied to manikin
- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Cast saw

Patient Profile

Name	Douglas K.
Age	36 years
Gender	Male
Weight	86.4 kg (190 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with his wife, nonsmoker, no alcohol intake
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the common complications of casts and splints?
- What is the correct technique for removing of a fiberglass cast?

At-The-Door Brief
You are rooming Douglas, a 36-year-old male presenting to your orthopedics clinic for a follow-up visit. Douglas sustained a distal radius fracture while playing basketball 4 weeks ago; he was evaluated in the Emergency Department. His fracture was reduced, and a temporary splint was applied. At his 1-week follow-up visit, the splint was replaced with a fiberglass cast. It is now 3 weeks later. Settle the patient and collect a set of vital signs.

Simulation – Initial State	
Presentation	Douglas appears comfortable in the exam room. He tells you that he broke his wrist playing basketball 4 weeks ago and is here to have his cast removed. He denies any pain, numbness, tingling, or swelling of the area. Vital signs: **HR** 84 | **BP** 120/85 | **RR** 18 | **Temp** 36.7ºC (98.1ºF) | **SpO2** 98% on room air
Expected Actions	- Obtain a set of vital signs - Give a report to the provider
Prompts and Cues	- None
Simulation – Continuation	
Presentation	The provider agrees that it is time for the cast to come off. The participants are asked to remove the cast with a cast saw.
Expected Actions	- Remove the patient's cast with a cast saw, demonstrating the correct technique
Prompts and Cues	- Patient: "Will the saw cut me?"

Simulation – Conclusion	
Presentation	After the cast is removed, the provider asks the participants to perform a neurovascular exam of the wrist and hand to confirm that no injury is present.
Expected Actions	- Demonstrate and verbalize exam maneuvers used to assess range of motion, sensation, circulation, and motor function of the wrist and hand
Prompts and Cues	- Provider: "Make sure that Douglas can feel the entire front and back of his hand." - Provider: "Make sure he has a strong radial pulse and brisk distal capillary refill." - Provider: "After the cast is removed, we should make sure it didn't cause any blisters or ulcers."

Scenario 39: Adult Pregnancy

Manikin:	Environment:
Low-Fidelity Adult	Adult Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of pregnancy
- Recognize important points of prenatal counseling in an otherwise uncomplicated pregnancy

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Urine collection cup
- Urine pregnancy dipstick test

Patient Profile

Name	Imani G.
Age	28 years
Gender	Female
Weight	65.9 kg (145 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with her significant other; nonsmoker; drinks 1-2 alcoholic beverages per week; last menstrual period 6 weeks ago (typically regular, every 4 weeks lasting 4-5 days); sexually active with one male partner, with intermittent use of barrier contraception.
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are common signs of first-trimester pregnancy?
- What prenatal counseling should be provided to all patients suspected or confirmed to be pregnant?

At-The-Door Brief
You are rooming Imani, a 28-year-old otherwise healthy female presenting with 1 week of nausea and vomiting. Settle the patient and collect a set of vital signs.

Simulation – Initial State	
Presentation	Imani appears comfortable in the exam room. She relates to you that she has had 1 week of nausea and vomiting, generally before lunch each day. She has no abdominal pain, fever, or diarrhea. She has no abnormal vaginal bleeding, although her last menstrual period was 6 weeks ago which is unusual as she typically has regular periods every 4 weeks. Imani is sexually active with one male partner, and they use barrier contraception intermittently. Vital signs: **HR** 68 | **BP** 125/77 | **RR** 18 | **Temp** 36.6ºC (97.8ºF) | **SpO2** 97% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- None
Simulation – Continuation	
Presentation	The provider notes that there are many things that cause vomiting, but it is important to assess whether Imani is pregnant. The participants are asked to perform a urine pregnancy test.
Expected Actions	- Evaluate a urine dipstick pregnancy test with the correct technique
Prompts and Cues	- None

Simulation – Conclusion	
Presentation	The urine pregnancy test confirms that Imani is pregnant. The participants are asked to provide her with prenatal counseling.
Expected Actions	- Provide the patient with counseling, covering the following points: The use of prenatal vitamins; avoidance of alcohol, smoking, and drugs; estimated dates of conception; and the need to establish care with a primary obstetric provider
Prompts and Cues	- Patient: “How far along am I?” - Patient: “Should I be taking a vitamin?”

Scenario 40: Adult Staple Removal

Manikin:	Environment:
Low-Fidelity Adult	Adult Trauma Surgery Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms wound dehiscence or infection
- Demonstrate the correct technique for removing tissue staples

Equipment

- Moulage: 5-10 staples applied to mock tissue or fabric
- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Staple removal kit

Patient Profile

Name	Terra V.
Age	42 years
Gender	Female
Weight	68.2 kg (150 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home alone, nonsmoker, drinks 2-3 alcoholic beverages per week
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What is the correct technique for the removal of tissue staples?

At-The-Door Brief
You are rooming Terra, a 42-year-old female presenting to your trauma surgery clinic for a follow-up. Ten days ago, Terra was involved in a motor vehicle accident and sustained an injury to her bowel, requiring an emergent exploratory laparotomy. She had a pinpoint small bowel rupture repaired primarily and was discharged from the hospital on postoperative day 2. Settle the patient and collect a set of vital signs.

Simulation – Initial State	
Presentation	Terra is resting on the exam table. She relates that she has been feeling well since her discharge. She is passing stool normally. Vital signs: **HR** 78 | **BP** 134/80 | **RR** 16 | **Temp** 37.3 ºC (99.2ºF) | **SpO2** 98% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- None
Simulation – Continuation	
Presentation	The provider agrees that, if the wound looks well healed, it is time for Terra's staples to come out. The participants are asked to assess the wound for infection or dehiscence.
Expected Actions	- Verbalize and demonstrate pertinent exam findings for surgical wound infection or dehiscence
Prompts and Cues	- Patient: "I haven't seen any redness, swelling, or drainage." - Provider: "Are the edges well-approximated?"

Simulation – Conclusion	
Presentation	The provider agrees that Terra's wound is well healed. The participants are asked to remove the staples.
Expected Actions	- Remove the tissue staples using a staple remover
Prompts and Cues	- None

Scenario 41: Geriatric Memory Issues

Manikin:	Environment:
Low-Fidelity Geriatric	Adult Geriatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Recognize the signs and symptoms of cognitive impairment in the elderly population
- Become familiar with family counseling for loved ones diagnosed with MCI or dementia

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Staple removal kit
- Mini Mental State Exam (MMSE) sheet

Patient Profile

Name	Jane S.
Age	78 years
Gender	Female
Weight	80.9 kg (178 lbs)
Past Medical History	Hypertension, hyperlipidemia, COPD, chronic kidney disease
Surgical History	Appendectomy, hemicolectomy
Social History	Lives at home with her daughter and son in law; her husband passed away 3 years ago; former smoker, quit 25 years ago; drinks 1-2 alcoholic beverages per week
Allergies	None
Medications	Hydrochlorothiazide, lisinopril, albuterol

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/MA/tech)
- **Provider** (provider or facilitator)
- **Ellen, patient's daughter** (facilitator)

Pre-Brief Questions:

- What are the signs and symptoms of cognitive impairment and dementia in the geriatric population?
- How can we counsel the loved ones of those diagnosed with MCI or dementia, regarding what to expect?

At-The-Door Brief
You are rooming Jane, a 78-year-old female brought to your geriatric clinic by her daughter, Ellen. Jane is to be evaluated for increased forgetfulness and confusion. Settle the patient and collect a set of vital signs.

Simulation – Initial State	
Presentation	Jane appears comfortable in the exam room with her daughter, Ellen. Ellen tells you that Jane has been increasingly forgetful over the past year. At the beginning, she would intermittently forget her keys and purse. However, over the past month she has had several episodes where she seemed to forget that she lives with her daughter. Last week, she got lost on a walk in the neighborhood and Ellen had to pick her up with the family car. Vital signs: **HR** 84 | **BP** 135/75 | **RR** 18 | **Temp** 36.8ºC (98.3ºF) | **SpO2** 98% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient's daughter: "I'm not sure what's causing this. She's not ill in any other way."
Simulation – Continuation	
Presentation	The provider notes that the patient's presentation is suspicious for cognitive impairment or dementia, though other causes need to be ruled out first. The participants are asked to administer a Mini-Mental State Exam.
Expected Actions	- Administer the MMSE to the patient (facilitator can participate in lieu of patient; they should attempt to score 15-20)
Prompts and Cues	- None

Simulation – Conclusion	
Presentation	The patient's MMSE suggests moderate to severe cognitive impairment. The provider orders several other tests but notes that the most likely diagnosis is dementia. The participants are asked to discuss the results with the patient and her daughter as well as answer their questions.
Expected Actions	- Appropriately counsel the patient and her daughter regarding the progression and prognosis of dementia as well as strategies for reorientation and community resources available
Prompts and Cues	- Patient's daughter: "Will she ever get better?" - Patient's daughter: "Does this mean we have to put her in a nursing home?"

Scenario 42: Geriatric Peri-Care

Manikin:	Environment:
Low-Fidelity Geriatric	Skilled Nursing Facility

Estimated Run Time: 20 minutes

Objectives:

- Understand the importance of regular and complete peri-care
- Describe and perform routine peri-care in the geriatric patient

Equipment

- Appropriately sized diaper
- Disposable nitrile gloves
- Basin with warm water
- Soap
- Clean towels
- Bath blanket
- Diaper
- Barrier ointment

Patient Profile

Name	Kenneth L.
Age	85 years
Gender	Male
Weight	75.0 kg (165 lbs)
Past Medical History	Hypertension, hyperlipidemia, congestive heart failure, cognitive impairment
Surgical History	Tonsillectomy, laparoscopic cholecystectomy
Social History	Resident in a skilled nursing facility, son (Gregory) visits 2-3 times per week
Allergies	None
Medications	Amlodipine, lisinopril, simvastatin, furosemide, carvedilol, donepezil

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- Why is it important to perform thorough peri-care, particularly in elderly patients?
- What are the elements of correct peri-care technique?

At-The-Door Brief
You are working in a skilled nursing facility and answering a call light for Kenneth, an 85-year-old male resident. Kenneth is non-ambulatory and bedbound with incontinence of stool and urine at baseline. Answer the patient's call light.

Simulation – Initial State	
Presentation	Kenneth is lying in his hospital bed. He tells you that he has been incontinent of stool and asks for help cleaning up and changing his diaper. Vital signs: **HR** 68 | **BP** 138/85 | **RR** 18 | **Temp** 37.0ºC (98.6ºF) | **SpO2** 96% on room air
Expected Actions	- Assemble a tray of supplies needed to perform peri-care
Prompts and Cues	- Provider/facilitator: "Make sure to bring a clean gown and diaper."
Simulation – Continuation	
Presentation	After assembling the supplies, the participants are ready to begin Kenneth's peri-care.
Expected Actions	- One participant should help roll the patient, while the other performs peri-care - Demonstrate the correct technique in applying peri-care to the patient
Prompts and Cues	- Provider/facilitator: "One of you can help roll Kenneth into a comfortable position, while the other gets him cleaned up."

Simulation – Conclusion	
Presentation	After Kenneth is cleaned, the participants are asked to apply a barrier ointment as well as dress him in a clean diaper and gown.
Expected Actions	- Apply barrier ointment and re-dress the patient
Prompts and Cues	- None

Scenario 43: Geriatric Indwelling Catheter Care

Manikin:	Environment:
Low-Fidelity Geriatric	Acute Care Rehab Facility

Estimated Run Time: 25 minutes

Objectives:

- Understand the importance of appropriate indwelling catheter care
- Describe and perform routine Foley care in a patient

Equipment

- Foley catheter
- Urine collection bag
- 60-mL catheter syringe
- Alcohol pads
- Saline solution
- Gloves
- **Optional:** Foley catheter trainer and insertion kit

Patient Profile

Name	Roger K.
Age	83 years
Gender	Male
Weight	75.0 kg (165 lbs)
Past Medical History	Type 2 diabetes, congestive heart failure, benign prostatic hyperplasia
Surgical History	Trans-urethral resection of the prostate
Social History	Resident in an acute care rehab facility
Allergies	None
Medications	Metformin, insulin, furosemide, tamsulosin

Realityworks Live it. Learn it.

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- Why is appropriate Foley catheter care important?
- What is the technique for sterile insertion of a Foley catheter?
- What is the technique for flushing a Foley catheter?

At-The-Door Brief
You are called to evaluate Roger, an 83-year-old patient in your acute rehab facility. Roger was admitted to your facility after a 7-day hospital admission for an exacerbation of his congestive heart failure. During that admission, he had an indwelling Foley catheter placed due to urinary retention secondary to benign prostatic hyperplasia. Evaluate the patient.

Simulation – Initial State	
Presentation	Roger is resting in his hospital bed. He tells you that he has some discomfort in his suprapubic region, and he thinks his catheter may be clogged as he hasn't seen any drainage for the past few hours, since the last time the bag was emptied. Vital signs: **HR** 84 | **BP** 130/80 | **RR** 18 | **Temp** 36.7ºC (98.1ºF) | **SpO2** 97% on room air
Expected Actions	- Assess the patient and give a report to the provider
Prompts and Cues	- Facilitator notes that the patient's urine collection bag is empty
Simulation – Continuation	
Presentation	After hearing the report, the provider asks the participants to flush the patient's indwelling catheter.
Expected Actions	- Flush the Foley catheter with the appropriate technique
Prompts and Cues	- None

Simulation – Conclusion	
Presentation	After flushing the catheter, the participants get a return of 600 mL of clear, yellow urine. The provider asks them to change out the collection bag.
Expected Actions	- Change the patient's urine collection bag
Prompts and Cues	- None

Scenario 44: Geriatric Ostomy Care

Manikin:	Environment:
Low-Fidelity Geriatric	Skilled Nursing Facility

Estimated Run Time: 25 minutes

Objectives:

- Understand the importance of appropriate ostomy care
- Describe and perform routine ostomy care in a geriatric patient

Equipment

- Moulage**:** Pre-applied ostomy appliance
- Cut-to-fit adhesive barrier
- Ostomy bag
- Barrier ointment
- Clean towels
- Gloves

Patient Profile

Name	Sharon P.
Age	73 years
Gender	Female
Weight	61.4 kg (135 lbs)
Past Medical History	Hypertension, GERD, colorectal cancer
Surgical History	Total colectomy with end ileostomy
Social History	Resident in a skilled nursing facility, her husband and children visit 2-3 times per week, former smoker
Allergies	None
Medications	Famotidine, hydrochlorothiazide, lisinopril

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- Why is appropriate ostomy care important?
- What is the technique for appropriate care and replacement of an ostomy appliance?
- What are common medical issues with ostomies?

At-The-Door Brief
You are asked to evaluate Sharon, a 73-year-old resident of your skilled nursing facility. Sharon was recently discharged to your facility after a prolonged hospital stay, during which she had a total colectomy with end ileostomy for colorectal cancer. Evaluate the patient and obtain a full set of vital signs.

Simulation – Initial State	
Presentation	Sharon is resting in her hospital bed. She activated her call light as she noticed a leak around her ostomy, allowing a small trickle of output to escape from the seal. Vital signs: **HR** 85 | **BP** 130/75 | **RR** 18 | **Temp** 36.9ºC (98.5ºF) | **SpO2** 96% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and evaluate the patient before giving a report to the on-call provider by phone
Prompts and Cues	- Patient: "It doesn't hurt; I think the seal is just leaking."
Simulation – Continuation	
Presentation	The provider asks the participants to ensure the ostomy itself looks intact before addressing the appliance.
Expected Actions	- Verbalize the exam findings of a compromised, ischemic, or nonfunctional ostomy (dusky bowel, bleeding, erythema, purulent drainage, etc.)
Prompts and Cues	- Provider: "We should make sure that the bowel looks well-perfused, and the area doesn't look like it's bleeding or infected."

Simulation – Conclusion	
Presentation	The provider agrees that it doesn't sound like the ostomy itself is compromised. The participants are asked to replace the leaking ostomy appliance.
Expected Actions	- Replace the patient's ostomy appliance with the correct technique
Prompts and Cues	- None

Scenario 45: Geriatric Lift Assist and Transfer

Manikin:	Environment:
Low-Fidelity Geriatric	Long-Term Acute Care Hospital

Estimated Run Time: 25 minutes

Objectives:

- Understand and perform safe and effective lift assist techniques

Equipment

- Stretcher
- Sliding board
- **Optional**: Air-assisted bariatric transfer device
- **Optional**: Hoyer lift

Patient Profile

Name	Larry G.
Age	86 years
Gender	Male
Weight	111.4 kg (245 lbs)
Past Medical History	Hypertension, hyperlipidemia, OSA, PAD, type 2 diabetes, congestive heart failure, ischemic cardiomyopathy
Surgical History	Roux-en-Y gastric bypass, pacemaker implantation
Social History	Resident in a long-term acute care hospital
Allergies	None
Medications	Amlodipine, lisinopril, aspirin, insulin, carvedilol, spironolactone, amiodarone

Roles:

- **Primary nurse** (nurse/EMS/provider)

Realityworks Live it. Learn it.

- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the risks of improper lift assist technique?
- What are the elements of correct lifting technique?

At-The-Door Brief
You are asked to assist with cares for Larry, an 86-year-old patient in your long-term acute care hospital. Larry was transferred to your facility after a prolonged inpatient hospital course following a cardiac arrest. The cardiac arrest was attributed to an unstable arrhythmia precipitated by his ischemic cardiomyopathy, now status post pacemaker implantation. Evaluate the patient.

Simulation – Initial State	
Presentation	Larry is resting on his hospital bed. He is bedbound due to deconditioning. He has an appointment today with the cardiologist to interrogate his new pacemaker and needs help transferring to the stretcher. He is to be brought to the suite with the correct equipment. The participants are first asked to place a sliding board or air-assisted transfer device. Vital signs: **HR** 68| **BP** 150/80 | **RR** 18 | **Temp** 37.0ºC (98.6ºF) | **SpO2** 96% on room air
Expected Actions	- Safely roll the patient and place a sliding board or air-assisted transfer device under him
Prompts and Cues	- Facilitator: "It may take more than one person to accomplish this task safely."
Simulation – Continuation	
Presentation	After placing the sliding board or air-assisted device, the participants are asked to transfer the patient to the stretcher.
Expected Actions	- Transfer the patient to the stretcher using the correct technique
Prompts and Cues	- Facilitator: "Be sure not to lift with your back."
Simulation – Conclusion	

Presentation	After the patient returns from his appointment, the participants are asked to transfer him back to the hospital bed using the same technique.
Expected Actions	- Roll, place a sliding board or air-assisted device, and transfer the patient back to the bed - **Optional**: If a Hoyer lift is available, the patient can be returned from the appointment in a wheelchair; participants can be asked to use the Hoyer lift to transfer him back to the bed
Prompts and Cues	- None

Scenario 46: Geriatric Walk Assist

Manikin:	Environment:
Low-Fidelity Geriatric	Assisted Living

Estimated Run Time: 25 minutes

Objectives:

- Understand and perform the appropriate gait assist techniques for older adults

Equipment

- Gait belt
- Cane
- Pick-up walker

Patient Profile

Name	Frank T.
Age	72 years
Gender	Male
Weight	95.5 kg (210 lbs)
Past Medical History	Hypertension, osteoarthritis
Surgical History	Left knee replacement, right hip replacement, lumbar spinal fusion
Social History	Resident in an assistive living facility, lives with his wife (Rhonda)
Allergies	None
Medications	Aspirin, metoprolol, ibuprofen

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the different assistive devices available to promote safe ambulation?
- How do we decide which assistive device is most appropriate?

At-The-Door Brief
You are asked to help evaluate Frank, a 72-year-old resident of your assisted living facility. Frank has had progressive difficulty walking due to pain from his osteoarthritis. He contacted his primary care office; they suggested that he obtain an assistive device. Evaluate the patient.

Simulation – Initial State	
Presentation	Frank is resting in his recliner. He notes that it has become difficult for him to walk due to pain and stiffness from his arthritis. He is interested in trying out an assistive device. The participants are asked to assess his gait stability. Vital signs: **HR** 91 | **BP** 140/85 | **RR** 16 | **Temp** 36.9ºC (98.5ºF) | **SpO2** 97% on room air
Expected Actions	- Assist the patient with ambulation using a gait belt and the proper technique (facilitator can stand in for the patient during gait exercises)
Prompts and Cues	- Patient: "I feel unsteady."
Simulation – Continuation	
Presentation	The patient does not appear able to ambulate without an assistive device and required significant support with the gait belt. The participants are asked to assist the patient in ambulating with a cane.
Expected Actions	- Assist the patient with ambulation using a cane
Prompts and Cues	- Patient: "This is better, but I still feel like I am going to fall."

Simulation – Conclusion	
Presentation	The patient still appears unsteady with the cane. The participants are asked to provide one final trial with a walker.
Expected Actions	- Assist the patient with ambulation with a gait belt and then independently with a walker
Prompts and Cues	- Patient: “This feels much better, I feel steady enough to walk on my own with the walker.”

Scenario 47: Geriatric Range of Motion

Manikin:	Environment:
Low-Fidelity Geriatric	Skilled Nursing Facility

Estimated Run Time: 25 minutes

Objectives:

- Understand and perform passive range of motion maneuvers
- Understand and apply common orthotics

Equipment

- Hip abduction pillow
- Ankle-foot orthosis

Patient Profile

Name	Carolyn G.
Age	75 years
Gender	Female
Weight	65.9 kg (145 lbs)
Past Medical History	Hyperlipidemia, type 2 diabetes, spinal cord injury
Surgical History	Lumbar spinal fusion
Social History	Resident in a skilled nursing facility
Allergies	None
Medications	Aspirin, metformin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- Why is maintaining passive range of motion important in patients with long-term immobility?
- What orthoses are available to help prevent complications such as contractures?

At-The-Door Brief

You are asked to help evaluate Carolyn, a 75-year-old resident of your skilled nursing facility. Carolyn is paraplegic secondary to a traumatic spinal cord injury 11 years ago. She recently sustained a fragility fracture of the left femoral neck and underwent a left hip arthroplasty for correction prior to being discharged back to your facility.

Evaluate the patient.

Simulation – Initial State

Presentation	Carolyn is resting comfortably on her hospital bed with a hip abduction pillow in place. Participants are asked to remove the hip abduction pillow and perform passive range of motion exercises of the bilateral lower extremities, avoiding internal rotation of the left hip to refrain from displacing the newly repaired joint. Vital signs: **HR** 78 | **BP** 110/70 | **RR** 18 | **Temp** 37.3ºC (99.1ºF) | **SpO2** 97% on room air
Expected Actions	- Perform bilateral lower extremity passive range of motion exercises
Prompts and Cues	- None

Simulation – Continuation

Presentation	The participants are asked to apply bilateral, ankle-foot orthoses to the patient, to help prevent contracture of the joint.
Expected Actions	- Apply bilateral, ankle-foot orthoses
Prompts and Cues	- None

Realityworks Live it. Learn it.

Simulation – Conclusion	
Presentation	After the ankle-foot orthoses are applied, the participants are asked to reposition the patient around the hip abduction pillow.
Expected Actions	- Reapply the hip abduction pillow
Prompts and Cues	- None

Scenario 48: Geriatric Wound Care

Manikin:	Environment:
Low-Fidelity Geriatric	Skilled Nursing Facility

Estimated Run Time: 25 minutes

Objectives:

- Understand the principles of long-term wound care and prevention in geriatric patients

Equipment

- Moulage: Chronic sacral wound, can be pre-printed photograph or applied with washable marker
- Gloves
- Clean towels
- Soap
- Absorbent foam dressing

Patient Profile

Name	Ron F.
Age	89 years
Gender	Male
Weight	70.5 kg (155 lbs)
Past Medical History	Hypertension, hyperlipidemia, CVA, vascular dementia
Surgical History	Appendectomy, cholecystectomy
Social History	Resident in a skilled nursing facility, visited by grandchildren several times per week
Allergies	None
Medications	Atorvastatin, amlodipine, apixaban

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- How do we recognize and stage chronic wounds?
- What is the correct technique for cleaning and dressing a chronic pressure ulcer?

At-The-Door Brief

You are asked to assist with a wound evaluation and dressing change for Ron, an 89-year-old resident of your assisted living facility. Ron is bedbound secondary to motor deficits resulting from a stroke 3 years ago. He is known to have a chronic sacral pressure ulcer.

Evaluate the patient.

Simulation – Initial State

Presentation	Ron is resting in his bed. He has no specific complaints today and notes that it has been some time since his wound dressing was last changed. The participants are asked to assist with a wound check and dressing change. Vital signs: **HR** 68 | **BP** 135/75 | **RR** 18 | **Temp** 37.1ºC (98.7ºF) | **SpO2** 96% on room air
Expected Actions	- One participant should assist with rolling the patient to his side while the other takes down the sacral dressing
Prompts and Cues	- None

Simulation – Continuation

Presentation	The participants are asked whether the patient's wound looks infected, and what stage the ulcer is.
Expected Actions	- Verbalize elements of the physical exam important in assessing wound infection - Verbalize pressure ulcer staging criteria
Prompts and Cues	- Facilitator verbalizes that the participants do not see any erythema, drainage, or edema around the wound - Facilitator verbalizes that the pressure ulcer appears to be stage 3, with full-thickness erosion of the skin and visible subcutaneous fat

Simulation – Conclusion	
Presentation	The participants are asked to clean and apply a new dressing to the patient's pressure ulcer.
Expected Actions	- Gently wash the area surrounding the ulcer with soap and water - Apply an adhesive, absorbent, foam dressing to the wound - Roll the patient back to a comfortable position
Prompts and Cues	- None

Scenario 49: Geriatric Feeding and Swallowing

Manikin:	Environment:
Low-Fidelity Geriatric	Skilled Nursing Facility

Estimated Run Time: 25 minutes

Objectives:

- Understand the dietary and feeding strategies used to prevent aspiration in the geriatric population

Equipment

- Food items and utensils
- Water or another beverage
- Liquid thickener
- Water cup and pitcher
- Printed diet order prescribing coarse chopped solids and nectar-thick liquids

Patient Profile

Name	Wayne R.
Age	91 years
Gender	Male
Weight	70.4 kg (153 lbs)
Past Medical History	Chronic kidney disease, congestive heart failure, Alzheimer's dementia, dysphagia
Surgical History	None
Social History	Resident in a skilled nursing facility, visited by children and grandchildren several times per week
Allergies	None
Medications	Lisinopril, furosemide, donepezil, quetiapine

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the characteristics of different types of solid and liquid diets, including soft, coarse mince, fine-mince, and blended solid diets as well as thin, nectar-thick, honey-thick, and pudding-thick liquid diets?

At-The-Door Brief
You are asked to assist with dinner preparation for Wayne, a 92-year-old resident of your skilled nursing facility. Wayne has dysphagia and was recently discharged to your facility after a hospitalization for aspiration pneumonia. He was evaluated by a speech language pathologist today and received a new diet order. Evaluate the patient.

Simulation – Initial State	
Presentation	Wayne is sitting in his recliner. He was recently prescribed a new diet after being evaluated by a speech-language pathologist today. The participants are asked to ensure his evening meal is prepared according to the prescribed diet. Vital signs: **HR** 82| **BP** 140/85 | **RR** 18 | **Temp** 37.1ºC (98.8ºF) | **SpO2** 97% on room air
Expected Actions	- Evaluate the solid food portion of the meal and determine whether it meets the criteria for 'coarse chopped' diet
Prompts and Cues	- Facilitator: "The solid diet order is for 'coarse chopped' foods."
Simulation – Continuation	
Presentation	After evaluating the solid component of the patient's meal, the participants are asked to thicken the patient's drink to meet the criteria prescribed in the diet order.
Expected Actions	- Mix the drink thickener with the patient's beverage per the product's instructions until it is nectar-thick
Prompts and Cues	- Facilitator: "The liquid diet order is for 'nectar-thick' liquids."

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Simulation – Conclusion	
Presentation	After ensuring the patient's food is within the prescribed criteria, he begins to eat the meal. The participants are asked to perform a bedside evaluation to determine whether the patient is a clear aspiration risk with this diet.
Expected Actions	- Verbalize exam findings that would suggest an immediate concern for aspiration (coughing, choking, spluttering, poorly coordinated swallowing, drooling, etc.)
Prompts and Cues	- None

Scenario 50: Geriatric Central Line Care

Manikin:	Environment:
Low-Fidelity Geriatric	Long-Term Acute Care Hospital

Estimated Run Time: 25 minutes

Objectives:

- Understand the equipment, technique, and principles involved in caring for indwelling vascular access devices

Equipment

- Central venous access device (single- or triple-lumen catheter)
- Chlorhexidine-impregnated adhesive dressing OR regular adhesive dressing with BioPatch device
- Sterile flushes
- Gauze

Patient Profile

Name	Shirley N.
Age	74 years
Gender	Female
Weight	65.9 kg (145 lbs)
Past Medical History	End-stage renal disease, hypertension, hyperlipidemia, atrial fibrillation, CVA, chronic sacral osteomyelitis
Surgical History	None
Social History	Resident in a long-term acute care hospital
Allergies	None
Medications	Carvedilol, clonidine, hydralazine, aspirin, meropenem

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the risks of poor care of a central venous access device?
- What is the correct technique for a routine dressing change of a long-term central venous access device?

At-The-Door Brief
You are asked to help care for Shirley, a 74-year-old female resident of your long-term acute care hospital. Shirley was recently transferred to your facility after a prolonged hospital stay complicated by sacral osteomyelitis. She receives meropenem infusions daily through a long-term central venous catheter. Evaluate the patient.

Simulation – Initial State	
Presentation	Shirley is resting comfortably. The participants are asked to help settle her into the new facility by ensuring her central access is appropriately functional. First, the participants are asked to ensure the access device's ports are all functional. Vital signs: **HR** 73 | **BP** 105/75 | **RR** 16 | **Temp** 36.8ºC (98.2ºF) | **SpO2** 98% on room air
Expected Actions	- Draw and flush from the central line using the appropriate technique (all three ports if a triple-lumen device)
Prompts and Cues	- None
Simulation – Continuation	
Presentation	After confirming that all ports both flush and draw, the participants are asked to remove the existing dressing and assess the insertion site for maceration or infection.
Expected Actions	- Remove the existing dressing - Inspect the insertion site - Verbalize the exam findings of infection

Prompts and Cues	- Facilitator notes that the skin surrounding the insertion site is clean, dry, and intact, without erythema or drainage
Simulation – Conclusion	
Presentation	The participants are asked to apply a new dressing to the site.
Expected Actions	- Correctly apply a sterile central line dressing (either chlorhexidine-impregnated adhesive dressing or regular adhesive dressing over a BioPatch)
Prompts and Cues	- None

Scenario 51: Geriatric Oral Care

Manikin:	Environment:
Low-Fidelity Geriatric	Long-Term Acute Care Hospital

Estimated Run Time: 25 minutes

Objectives:

- Describe and perform routine oral care in a long-term care setting

Equipment

- Toothbrush
- Toothpaste
- Oral chlorhexidine gluconate rinse
- Lip balm

Patient Profile

Name	Nancy W.
Age	79 years
Gender	Female
Weight	50.0 kg (110 lbs)
Past Medical History	Atrial fibrillation, hypertension, hyperlipidemia, CVA, TBI
Surgical History	Thoracic spinal fusion, tracheostomy, gastrojejunostomy
Social History	Resident in a long-term acute care hospital
Allergies	None
Medications	Metoprolol, atorvastatin, aspirin, hyoscyamine

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)

Pre-Brief Questions:

- What are the benefits of proper oral care in a long-term care patient?
- What is the proper oral care technique for a patient in the long-term care setting?

At-The-Door Brief
You are asked to help with routine cares for Nancy, a 79-year-old resident of your long-term acute care hospital. Nancy is a long-term patient in your facility after a traumatic brain injury 8 years ago. She is tracheostomy dependent and requires assistance with all activities of daily living. Evaluate the patient.

Simulation – Initial State	
Presentation	Nancy appears comfortable. The participants are asked to assist with Nancy's routine oral cares, starting with brushing her teeth. Vital signs: **HR** 84 | **BP** 120/75 | **RR** 18 | **Temp** 37.0ºC (98.6ºF) | **SpO2** 97% on room air via tracheostomy mask
Expected Actions	- Demonstrate the correct technique for brushing the teeth of a patient who requires total cares
Prompts and Cues	- None
Simulation – Continuation	
Presentation	After assisting Nancy with brushing her teeth, the participants are asked to apply a chlorhexidine mouth rinse.
Expected Actions	- Demonstrate the correct technique while swabbing the patient's mouth with a mouth rinse
Prompts and Cues	- Facilitator can query the participants regarding why or how reducing oral bacteria burden can be beneficial for patients who require oral cares

Simulation – Conclusion	
Presentation	Once they finish applying the mouth rinse, the participants are asked to apply a barrier lip balm.
Expected Actions	- Apply the barrier lip balm
Prompts and Cues	- None

Scenario 52: Geriatric CPAP

Manikin:	Environment:
Low-Fidelity Geriatric	Skilled Nursing Facility

Estimated Run Time: 25 minutes

Objectives:

- Describe and perform the routine evaluation of a patient for obstructive sleep apnea
- Appropriately fit and operate a CPAP device

Equipment

- Pulse oximeter
- CPAP device with face mask
- STOP-BANG screening sheet

Patient Profile

Name	Albert F.
Age	77 years
Gender	Male
Weight	127.3 kg (280 lbs)
Past Medical History	Hypertension, hyperlipidemia, CAD
Surgical History	Left hip total arthroplasty
Social History	Resident in a skilled nursing facility, visited twice weekly by his wife and daughter
Allergies	None
Medications	Simvastatin, hydrochlorothiazide, amlodipine

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the risks of poorly controlled obstructive sleep apnea?
- How do we screen hospital and nursing facility residents for obstructive sleep apnea?

At-The-Door Brief
You are asked to help settle Albert, a 77-year-old new admission to your skilled nursing facility. Albert was discharged to your facility from the hospital. He was admitted to the hospital for failure-to-thrive secondary to progressive debility due to his osteoarthritis. Evaluate the patient.

Simulation – Initial State	
Presentation	Albert appears comfortable. He is getting settled into your facility. As part of his intake, you are asked to screen him for risk of obstructive sleep apnea. Vital signs: **HR** 85 | **BP** 155/90 | **RR** 18 | **Temp** 36.9ºC (98.5ºF) | **SpO2** 95% on room air
Expected Actions	- Administer a STOP-BANG screening tool to the patient
Prompts and Cues	- Facilitator should respond for the patient, answering yes to questions about loud snoring, daytime fatigue, and high blood pressure
Simulation – Continuation	
Presentation	The patient's STOP-BANG screening score suggests a high risk OSA. The patient is recommended a CPAP device. He declines, stating that he finds the mask uncomfortable.
Expected Actions	- Counsel the patient on the risks of untreated OSA
Prompts and Cues	- Patient: "I've been sleeping without a mask my entire life; what's the problem with it?"
Simulation – Conclusion	

Presentation	The next morning, you are informed that the patient's monitor noted frequent desaturations overnight to the mid-to-high 80s on room air. After further discussion this morning, he did agree to try a CPAP mask.
Expected Actions	- Apply a CPAP mask and assess for air leakage
Prompts and Cues	- None

Scenario 53: Geriatric Insulin Administration

Manikin:	Environment:
Low-Fidelity Geriatric	Acute Rehab Facility

Estimated Run Time: 30 minutes

Objectives:

- Calculate and administer appropriate corrective and sliding-scale insulin doses

Equipment

- Medication vial
- Insulin syringe
- Glucometer
- Order sheet with the following orders:
  - Basal insulin: 40 units insulin glargine once per day in the morning
  - Correction insulin: 1 unit insulin lispro per 10 carbohydrates 30 minutes after meals
  - Capillary blood glucose measurements at bedtime and after meals
  - Sliding-scale insulin per the following table:

Blood Glucose:	Insulin Dose:
60-110	None
111-150	4 units
151-200	8 units
201-250	10 units
251-300	12 units
301-350	14 units
350+	16 units

Patient Profile	
Name	Diane P.
Age	77 years
Gender	Female
Weight	111.4 kg (245 lbs)
Past Medical History	Type 2 diabetes, CAD, CKD
Surgical History	Right knee arthroplasty, coronary artery stent x3
Social History	Resident in an acute rehab facility
Allergies	Penicillin
Medications	Aspirin, clopidogrel, atorvastatin, insulin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the risks of poor blood sugar control in diabetics?

At-The-Door Brief

You are asked to help with routine care for Diane, a 79-year-old resident of your skilled nursing facility. Diane is a type 2 diabetic and needs help with her routine insulin administration.

Evaluate the patient.

Simulation – Initial State	
Presentation	Diane appears comfortable. She just woke up, and the participants are asked to help administer her daily basal insulin dose. Vital signs: **HR** 73 | **BP** 140/85 | **RR** 18 | **Temp** 36.6ºC (97.8ºF) | **SpO2** 96% on room air
Expected Actions	- Correctly interpret the order sheet to determine the patient's basal insulin dose, 40 units of insulin glargine - Draw up and administer 40 units of insulin glargine by subcutaneous injection
Prompts and Cues	- None
Simulation – Continuation	
Presentation	Later that day, the patient has just finished her lunch. She appears to have finished the entire tray. Based on information from nutritional services, the meal contained 20 grams of carbohydrates. The participants are asked to administer insulin based on the patient's carbohydrate correction factor.
Expected Actions	- Correctly calculate the patient's corrective dose (1 unit/g carbohydrates * 20 g carbohydrates = 20 units of short-acting insulin) - Draw up and administer 20 units of insulin lispro by subcutaneous injection
Prompts and Cues	- None
Simulation – Conclusion	
Presentation	One hour later, a routine blood glucose check shows a value of 214. The participants are asked to administer sliding scale insulin based on the order sheet.
Expected Actions	- Correctly match the patient's blood glucose with the dose of sliding scale insulin (10 units) - Draw up and administer 10 units of insulin lispro by subcutaneous injection
Prompts and Cues	- None

Scenario 54: Geriatric Bed Bathing

Manikin:	Environment:
Low-Fidelity Geriatric	Acute Rehab Facility

Estimated Run Time: 25 minutes

Objectives:

- Describe and perform bed bathing

Equipment

- Basin with warm water
- Soap
- Clean washcloths
- Towels
- Clean gown

Patient Profile

Name	Janice C.
Age	91 years
Gender	Female
Weight	54.5 kg (120 lbs)
Past Medical History	Osteoarthritis, hyperlipidemia, coronary artery disease
Surgical History	Coronary artery stent x2
Social History	Resident in an acute rehab facility
Allergies	None
Medications	Aspirin, clopidogrel, ibuprofen, atorvastatin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What is proper bed bathing technique?

At-The-Door Brief
You are asked to assist Janice, a 91-year-old resident of your acute rehab facility. She was recently admitted to your facility for rehabilitation secondary to profound deconditioning after a prolonged hospital stay. She had a myocardial infarction, requiring stent placement. Evaluate the patient.

Simulation – Initial State	
Presentation	Janice is laying in her hospital bed. The participants are asked to help bed bathe the patient. Vital signs: **HR** 68 | **BP** 115/68 | **RR** 16 | **Temp** 36.5ºC (97.7ºF) | **SpO2** 97% on room air
Expected Actions	- Lay out the appropriate bed-bathing supplies on a tray
Prompts and Cues	- Facilitator can remind the participants if they forget a necessary item
Simulation – Continuation	
Presentation	After obtaining supplies, the participants are asked to perform routine bed bathing. One participant must help roll or position the patient while the other performs the bed bath.
Expected Actions	- Perform a bed bath with the correct technique
Prompts and Cues	- None

Simulation – Conclusion	
Presentation	After the bed bath, the participants are asked to ensure the patient has a clean gown and is returned to a comfortable position in bed.
Expected Actions	- Change the patient into a clean gown and return her to a comfortable position
Prompts and Cues	- None

Scenario 55: Geriatric Complex Medication Administration

Manikin:	Environment:
Low-Fidelity Geriatric	Acute Rehab Facility

Estimated Run Time: 30 minutes

Objectives:

- Appropriately plan and administer a complex medication regimen

Equipment

- Medication vials
- Syringes
- Liquid medication bottles
- Pills
- Pill crusher
- Gastrostomy tube (can use a Foley catheter as a mock replacement)
- Medication order sheet noting the following:

0800	2000
30 mg enoxaparin subcutaneous	500 mg (5 mL) levetiracetam solution by g-tube
1 mg bumetanide by g-tube (crushed)	1 mg bumetanide by g-tube (crushed)
500 mg (5 mL) levetiracetam solution by g-tube	25 mg quetiapine suspension by g-tube
81 mg aspirin by g-tube (crushed)	
75 mg clopidogrel by g-tube (crushed)	
4 mg ondansetron ODT PRN every 6 hours	
4 mg oxycodone solution by g-tube PRN every 6 hours	

-

Patient Profile	
Name	Harry V.
Age	80 years
Gender	Female
Weight	75.0 kg (165 lbs)
Past Medical History	Osteoarthritis, seizure disorder, congestive heart failure, dementia
Surgical History	Coronary artery stent x2, right hip total arthroplasty, lumbar spinal fusion
Social History	Resident in a skilled nursing facility
Allergies	None
Medications	Aspirin, clopidogrel, levetiracetam, bumetanide, quetiapine, oxycodone PRN, ondansetron PRN

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What is the correct technique for crushing and mixing medications for administration by gastrostomy tube?

At-The-Door Brief

You are taking care of Harry, an 80-year-old resident of your skilled nursing facility. Harry has a complicated medication regimen, which he receives largely by gastrostomy tube.

Evaluate the patient.

Simulation – Initial State	
Presentation	Harry is resting comfortably in his bed. The participants are provided with the order sheet for his medications, the medications to be administered, syringes, flushes, needles, and a pill crusher. The participants are first asked to administer the patient's 0800 medications. Vital signs: **HR** 87| **BP** 135/90 | **RR** 18 | **Temp** 36.7ºC (98.1ºF) | **SpO2** 97% on room air
Expected Actions	- Draw up and administer 30 mg enoxaparin by subcutaneous injection - Crush 1 mg bumetanide and administer by g-tube - Crush 81 mg aspirin and administer by g-tube - Crush 75 mg clopidogrel and administer by g-tube - Administer 4 mL levetiracetam solution by g-tube
Prompts and Cues	- Facilitator can remind participants of any medication they forget or dose incorrectly
Simulation – Continuation	
Presentation	Later that evening, it is time for the patient's 2000 medications. The participants are again asked to administer the medications.
Expected Actions	- Administer 5 mL levetiracetam solution by g-tube - Administer 25 mg quetiapine solution by g-tube - Crush 1 mg bumetanide and administer by g-tube
Prompts and Cues	- None
Simulation – Conclusion	
Presentation	Before going to bed at 2200, the patient activates his call light and requests a PRN medication for nausea as well as something for pain.
Expected Actions	- Administer 4 mg ondansetron ODT - Administer 4 mL 5 mg/5 mL oxycodone solution by g-tube
Prompts and Cues	- None

Scenario 56: Epistaxis

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Understand the evaluation of and common interventions for epistaxis

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Nasal clamp
- Gauze
- Intranasal medication bottle
- Inflatable anterior nasal pack
- Sterile saline

Patient Profile

Name	Derek P.
Age	54 years
Gender	Male
Weight	65.9 kg (145 lbs)
Past Medical History	Hypertension, hyperlipidemia
Surgical History	None
Social History	Lives at home with his wife and two children, nonsmoker
Allergies	None
Medications	Atorvastatin, lisinopril

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What is the first-line option for managing a bloody nose?
- If first-line measures are unsuccessful, what salvage measures are available?

At-The-Door Brief
You are asked to evaluate Derek, a 54-year-old male who presents to your walk-in clinic with a bloody nose. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Derek is resting on the exam table holding a tissue to his nose. He explains that he developed a bloody nose this morning. He denies any history of trauma to the nose. He is not dizzy, lightheaded, or short of breath. Vital signs: **HR** 90 | **BP** 165/90 | **RR** 18 | **Temp** 36.8ºC (98.2ºF) | **SpO2** 98% on room air
Expected Actions	- Collect a full set of vital signs - Give a report to the provider
Prompts and Cues	- Patient: “It just started out of nowhere; I didn’t fall or get hit.”
Simulation – Continuation	
Presentation	The provider asks to try nasal oxymetazoline and direct pressure as the first-line intervention.
Expected Actions	- Administer intranasal medication with the correct technique, asking the patient to blow his nose and inhale in sync with a squeeze of the medication bottle - Apply a nasal clamp in the correct location
Prompts and Cues	- Provider: “Remember to have him blow his nose before you give the oxymetazoline, so that it can contact the mucous membrane.” - Provider: “He should keep the nasal clamp on for at least 20 minutes.”

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Simulation – Conclusion	
Presentation	After 20 minutes, the nasal clamp is removed, and a slow trickle of blood comes out of the right nostril. The provider notes that the patient will likely require anterior nasal packing and asks the participant to insert the packing.
Expected Actions	- Demonstrate the insertion of an anterior nasal pack
Prompts and Cues	- Provider: "Soak the nasal pack in sterile water prior to inserting." - Provider: "Inflate the nasal pack with air, not saline."

Scenario 57: Ankle Sprain

Manikin:	Environment:
Low-Fidelity Adult	Urgent Care

Estimated Run Time: 20 minutes

Objectives:

- Understand the routine outpatient evaluation of an acute musculoskeletal injury

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Prefabricated ankle splint
- Crutches

Patient Profile

Name	Jessica L.
Age	34 years
Gender	Female
Weight	75.0 kg (165 lbs)
Past Medical History	None
Surgical History	None
Social History	Nonsmoker, 3-4 alcoholic drinks per week
Allergies	None
Medications	Multivitamin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the key elements of an exam for a musculoskeletal injury?
- What assistive devices are available to help patients with pain from musculoskeletal injuries?

At-The-Door Brief
You are asked to evaluate Jessica, a 34-year-old female presenting to your urgent care clinic with ankle pain. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Jessica is resting comfortably on the exam table. She relates that she stepped awkwardly off a curb while getting into her parked car. She inverted her ankle and experienced immediate pain to the lateral area of the ankle. She has no numbness, tingling, or weakness, but it has been painful to walk on the affected ankle. Vital signs: **HR** 85 | **BP** 120/85 | **RR** 18 | **Temp** 37.2ºC (98.9ºF) | **SpO2** 98% on room air
Expected Actions	- Obtain a full set of vital signs - Give a report to the provider
Prompts and Cues	- Patient: "It isn't numb or weak. It just hurts."
Simulation – Continuation	
Presentation	The provider notes that it is reassuring that the patient has no numbness or weakness. The participants are asked to perform a neurovascular exam of the ankle and foot.
Expected Actions	- Demonstrate the correct technique in the evaluation of light touch sensation of the foot - Demonstrate the correct technique in the palpation of the dorsalis pedis and tibialis anterior pulses

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Prompts and Cues	- Provider: "We want to make sure that her pulses and sensation are intact."
Simulation – Conclusion	
Presentation	The provider evaluates the patient and, using Ottawa ankle criteria, notes that the patient has a very low probability of an ankle fracture and only needs assistive devices for comfort.
Expected Actions	- Apply a prefabricated ankle splint with the correct technique - Correctly size and demonstrate the use of a pair of crutches
Prompts and Cues	- Provider: "The top of the crutches should be 1-2 inches below the axilla when the patient is standing straight. The handgrips should be even with the top of the hips."

Scenario 58: Abscess

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 25 minutes

Objectives:

- Understand the principles of source control by incision and drainage of an abscess

Equipment Set

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Chlorhexidine or iodine wipes
- Sterile gauze
- 11-blade scalpel
- Gloves
- Medication vial
- Syringe
- Needle
- **Optional**: Abscess drainage trainer (can substitute with paper or fabric over a foam board)

Patient Profile

Name	Sarah K.
Age	44 years
Gender	Female
Weight	59.1 kg (130 lbs)
Past Medical History	Type 2 diabetes
Surgical History	None
Social History	Smokes 1 pack per day and drinks 4-5 alcoholic beverages per week

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Allergies	None
Medications	Metformin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- How does draining an abscess help treat the infection?
- How does an abscess differ from cellulitis?

At-The-Door Brief

You are asked to evaluate Sarah, a 44-year-old female presenting to your internal medicine clinic with an area of pain and swelling on her upper arm.

Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State

Presentation	Sarah is resting in a chair in the exam room. She relates that she has had an area of redness and pain in her upper arm which has been worsening for one week. It started as a pimple and is now red, firm, and tender. She denies fevers, chills, or drainage from the area at home. Vital signs: **HR** 75 | **BP** 135/90 | **RR** 16 | **Temp** 36.8ºC (98.3ºF) | **SpO2** 96% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: “It’s just so tender now.”

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Simulation – Continuation	
Presentation	The provider examines the patient, and notes that they are concerned for an abscess. They ask the participants to set up for an incision and drainage.
Expected Actions	- Set up the necessary materials for an incision and drainage of an abscess, including: o 11-blade scalpel o Sterile gauze o Chlorhexidine wipes o Vial of local anesthetic with syringe and needle
Prompts and Cues	- Provider: "We'll need an 11-blade, local anesthetic, and chlorhexidine to sterilize the area."
Simulation – Conclusion	
Presentation	The provider asks for assistance with the procedure.
Expected Actions	- Demonstrate the correct technique for either performing or assisting with the incision and drainage procedure as appropriate for role
Prompts and Cues	- None

Scenario 59: TB Test

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Demonstrate the technique for proper treatment and interpretation of a tuberculin skin test

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Alcohol wipes
- Tuberculin syringe
- **Optional**: Injection trainer

Patient Profile

Name	Curtis C.
Age	48 years
Gender	Female
Weight	75.9 kg (167 lbs)
Past Medical History	None
Surgical History	None
Social History	Nonsmoker, drinks 1-2 alcoholic beverages per week
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What is the correct technique for placing a tuberculin skin test?
- What is the correct technique for interpreting a tuberculin skin test?

At-The-Door Brief
You are asked to room Curtis, a 48-year-old male presenting for a TB screen needed for work. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Curtis is resting comfortably in a chair. He tells the participants that he was just hired into a new role at a hospital and needs to obtain a PPD, or tuberculin skin test, as part of his health clearance. Curtis does not have any cough, fever, night sweats, or unintentional weight loss. He has not traveled to areas with endemic tuberculosis. Curtis does not have a history of incarceration or of receiving a BCG vaccine. Vital signs: **HR** 65 | **BP** 130/80 | **RR** 16 | **Temp** 36.9ºC (98.5ºF) | **SpO2** 98% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- None
Simulation – Continuation	
Presentation	The provider tells you that the patient seems appropriate for PPD skin testing and asks you to place the PPD.
Expected Actions	- Demonstrate the correct technique in drawing up and administering a subcutaneous wheal
Prompts and Cues	- None

Simulation – Conclusion	
Presentation	A couple days later, Curtis returns to the clinic for his PPD interpretation. The participants are asked to read the test.
Expected Actions	- Correctly describe the technique for the interpretation of a tuberculin skin test
Prompts and Cues	- Provider: “Remember, we are assessing the diameter of induration, not erythema.”

Scenario 60: Persistent Cough

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Learn to take a comprehensive medication history

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Nicole J.
Age	54 years
Gender	Female
Weight	81.9 kg (180 lbs)
Past Medical History	Hypertension, hyperlipidemia, hypothyroidism, type 2 diabetes, depression
Surgical History	Hernia repair, appendectomy
Social History	Nonsmoker, no alcohol intake
Allergies	None
Medications	Furosemide, lisinopril, levothyroxine, paroxetine, bupropion

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- Why is it important to take a detailed medication history when working up a new complaint?

At-The-Door Brief
You are asked to room Nicole, a 54-year-old female presenting to your internal medicine clinic for a persistent cough. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Nicole appears comfortable. She tells you that she is coming to the clinic to be evaluated for a dry cough that started for 4-5 weeks ago. It has been constant since then. The cough is nonproductive. She denies shortness of breath, orthopnea, fever, chest pain, congestion, or any sick contacts. Vital signs: **HR** 60 | **BP** 145/80 | **RR** 18 | **Temp** 37.0ºC (98.6ºF) | **SpO2** 98% on room air
Expected Actions	- Obtain a full set of vital signs - Give a report to the provider
Prompts and Cues	- Patient: "It hasn't gotten better or worse. It's just always there." - Patient: "I haven't felt sick in any other way; it's just this cough."
Simulation – Continuation	
Presentation	The provider notes that the differential diagnosis for a cough is broad, but that the patient sounds well overall. The participants are asked to take a thorough medication history from the patient.
Expected Actions	- Take a thorough medication history from the patient
Prompts and Cues	- Patient: "I'm on a water pill, something for my thyroid, two different antidepressants, and something for blood pressure. They just put me on that a few months ago because my blood pressure was high in the clinic." - Patient: "I think the blood pressure medication starts with an 'L." - Patient: "Lisinopril is the name. I started on that about a week before the cough began."

Simulation – Conclusion	
Presentation	The provider examines the patient and notes that a dry cough is a common side effect of lisinopril. Because the patient has no other symptoms and a normal exam, and because the cough started after initiation of lisinopril, they feel that this is the most likely explanation. The participants are asked to counsel the patient on the results of the exam.
Expected Actions	- Counsel the patient on the likely cause of her cough and answer her questions
Prompts and Cues	- Patient: “Can a pill really do that?” - Patient: “Will this ever go away?”

Scenario 61: Constipation

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Describe the common causes of and interventions for constipation

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Melissa P.
Age	64 years
Gender	Female
Weight	65.9 kg (145 lbs)
Past Medical History	Hypertension
Surgical History	Total knee replacement
Social History	Nonsmoker, no alcohol intake
Allergies	None
Medications	Amlodipine, oxycodone, acetaminophen

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the common causes of constipation?
- What medications are commonly used to treat constipation?

At-The-Door Brief
You are asked to room Melissa, a 64-year-old female presenting to your internal medicine clinic with a chief complaint of constipation. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Melissa is resting comfortably on the exam table. She tells you that she has been suffering from constipation and bloating for the last 2 weeks. A few weeks ago, she had a total knee replacement at a local hospital. Since her discharge, she has only had 3 or 4 bowel movements, all of which have been very hard and somewhat painful. Vital signs: **HR** 70 | **BP** 150/75 | **RR** 18 | **Temp** 36.6ºC (97.9ºF) | **SpO2** 97% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I'm not nauseous or vomiting. I just feel bloated." - Patient: "I used to have a bowel movement once a day; now it's every 4 or 5 days."
Simulation – Continuation	
Presentation	The provider notes that constipation is common after surgery for several reasons and asks the participants to interrogate the patient's pain medication usage more closely.
Expected Actions	- Obtain a full medication history from the patient, with a focus on her pain regimen

Prompts and Cues	- Patient: "I've been using acetaminophen twice per day, but it doesn't work as well as the oxycodone the surgeon prescribed me. I've been taking one of those about every 6 hours."
Simulation – Conclusion	
Presentation	The provider notes that constipation is a common side effect of opioid pain medications like oxycodone. The patient is not vomiting and still passing gas, which makes a true bowel obstruction unlikely. She would, however, likely benefit from a polyethylene glycol bowel regimen and reducing her opioid usage. The participants are asked to provide this counseling to the patient.
Expected Actions	- Counsel the patient on an appropriate polyethylene glycol bowel regimen - Counsel the patient on reducing opioid use
Prompts and Cues	- Patient: "What else should I do for pain?" - Patient: "Do I have to be on a laxative forever?"

Scenario 62: Pelvic Pain

Manikin:	Environment:
Low-Fidelity Adult	OB/GYN Clinic

Estimated Run Time: 20 minutes

Objectives:

- Describe the common causes of pelvic pain
- Describe the technique and equipment required to perform a pelvic exam

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Speculum
- Procedure light
- Bacterial and wet prep swabs
- Sterile lubricant
- OB/GYN stretcher or chair
- **Optional**: Pelvic exam trainer

Patient Profile

Name	Larissa R.
Age	28 years
Gender	Female
Weight	63.6 kg (140 lbs)
Past Medical History	None
Surgical History	None
Social History	Nonsmoker; drinks 3-4 alcoholic beverages per week; sexually active with one male partner, intermittent use of barrier protection
Allergies	None

Medications	Etonogestrel implant

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- For what indications would a provider need to perform a pelvic exam?
- What equipment is needed to set up and perform a pelvic exam?

At-The-Door Brief

You are asked to room Larissa, a 28-year-old female presenting to your OB/GYN clinic for pelvic pain and vaginal discharge.

Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State

Presentation	Larissa is sitting in the exam room. She tells you that she has had 3 days of bilateral pelvic pain, which is dull and achy in nature. She has also had new, malodorous vaginal discharge. She denies fevers or chills, dysuria, and hematuria. Vital signs: **HR** 82 | **BP** 125/80 | **RR** 18 | **Temp** 36.6ºC (97.8ºF) | **SpO2** 97% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "It's just very uncomfortable. It doesn't feel like a stomach bug, and it's very different from my usual menstrual cramps."

Simulation – Continuation

Presentation	The provider asks the participants to obtain a full social history, including menstrual and sexual history, as these can be very important when evaluating pelvic pain.
Expected Actions	- Obtain a full sexual and menstrual history from the patient

Prompts and Cues	- Patient: "I'm sexually active with one male partner. We use condoms sometimes, but I have the implant, so we don't always." - Patient: "My last menstrual period was 7 days ago. There was nothing abnormal about it. They've been irregular since I got the implant." - Patient: "Do you think this is an STD?"
Simulation – Conclusion	
Presentation	The provider relays to you that the patient's urinalysis did not show any evidence of infection, and her urine pregnancy test was negative. The participants are asked to help set up for a pelvic examination.
Expected Actions	- Set up the appropriate equipment for a pelvic exam, including: o Speculum o Sterile lubricant o A procedure light o Swabs for collection o An OB/GYN bed or chair - If a pelvic exam trainer is available, demonstrate a correctly performed pelvic exam as appropriate for role.
Prompts and Cues	- Provider: "I'll need the patient on the correct exam table, with a speculum, light, lubricant, and swabs."

Scenario 63: Ear Infection

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Become familiar with the examination and management of external ear infections

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Medication dropper
- Ear wick
- Otoscope
- Forceps

Patient Profile

Name	Eric K.
Age	32 years
Gender	Male
Weight	95.5 kg (210 lbs)
Past Medical History	None
Surgical History	None
Social History	Smokes 0.5 packs of cigarettes per day, drinks 3-4 alcoholic beverages per week
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- How can we tell the difference on exam between an external and a middle ear infection?
- What is the technique for inserting an ear wick?

At-The-Door Brief
You are asked to room Eric, a 32-year-old male presenting to your internal medicine clinic for ear pain. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Eric appears comfortable in the exam room. He relates that he has had right ear pain for 3 days, along with muffled hearing. He has not had fevers or chills, or other facial or neck pain. He did go swimming a few days ago and felt that there was water trapped in his ear before his current symptoms started. Vital signs: **HR** 67 | **BP** 135/90 | **RR** 18 | **Temp** 37.1ºC (98.7ºF) | **SpO2** 98% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I felt like I couldn't get the water out of my ear after swimming; a few days later it started to hurt."
Simulation – Continuation	
Presentation	The provider asks the participants to look at the patient's ear with the otoscope.
Expected Actions	- Demonstrate correct technique for examining the external and middle ear with an otoscope - Describe the exam findings, which would indicate an otitis media versus those that would indicate otitis externa

Prompts and Cues	- Provider: “Make sure you get a good view of the tympanic membrane. Be careful not to enter the ear canal too aggressively or you risk perforating the eardrum." - Provider: "A middle ear infection would be characterized by a bulging tympanic membrane, sometimes with an effusion or erythema. Otitis externa would be characterized by a swollen or erythematous external auditory canal, sometimes with drainage.”
Simulation – Conclusion	
Presentation	The patient’s external auditory canal is edematous and erythematous, with overlying purulent drainage. The swelling is bad enough that it is difficult to see the tympanic membrane. The provider asks the participants to insert an ear wick and apply otic antibiotic drops.
Expected Actions	- Demonstrate the correct placement of an ear wick - Demonstrate appropriate technique for applying eardrops
Prompts and Cues	- Provider: “Gently insert the wick with forceps until it is lodged in the external auditory canal, then apply two drops of medication over the inserted ear wick.”

Scenario 64: Chest Pain

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Describe the workup of chest pain

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- ECG machine

Patient Profile

Name	Claire H.
Age	41 years
Gender	Female
Weight	84.1 kg (185 lbs)
Past Medical History	None
Surgical History	None
Social History	Nonsmoker, drinks 1-2 alcoholic beverages per week
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What is the correct technique to apply leads and capture a 12-lead electrocardiogram?

At-The-Door Brief
You are asked to room Claire, a 41-year-old female presenting to your internal medicine clinic for chest pain. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Claire is resting comfortably. She is presenting to your clinic with chest pain, which started earlier today. She has a sharp pain in her right side, which has been intermittent. It is not exertional and does not radiate. She does not have shortness of breath, lightheadedness, or palpitations. Vital signs: **HR** 84 | **BP** 150/90 | **RR** 16 | **Temp** 37.3ºC (99.1ºF) | **SpO2** 97% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "It hurts when I raise my right arm or when I press on it."
Simulation – Continuation	
Presentation	The provider evaluates the patient and notes that while the patient's pain seems musculoskeletal, it is worth obtaining an ECG out of caution. The participants are asked to obtain an ECG.
Expected Actions	- Correctly apply ECG leads and obtain a 12-lead ECG
Prompts and Cues	- None

Simulation – Conclusion	
Presentation	The provider reviews the ECG and tells the participants that it is reassuring, and Claire is relatively young without worrying risk factors. The participants are asked to counsel the patient on the features of worrying chest pain and provide her with return precautions.
Expected Actions	- Reassure and counsel the patient
Prompts and Cues	- Provider: “She should be on the lookout for pain that is worse with exertion or pain that occurs with nausea, shortness of breath, or diaphoresis.”

Scenario 65: Fatigue

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Describe the medical workup for fatigue
- Describe and perform venipuncture with correct technique

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Gloves
- Alcohol wipes
- Butterfly needle
- Phlebotomy kit with vacutainer and needle holder
- **Optional**: Venipuncture trainer

Patient Profile

Name	Victoria C.
Age	60 years
Gender	Female
Weight	61.4 kg (135 lbs)
Past Medical History	Hypertension
Surgical History	Tonsillectomy
Social History	Nonsmoker, drinks 1-2 alcoholic beverages per week
Allergies	Penicillin
Medications	Lisinopril

Roles:

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- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What is the correct technique for the sterile collection of blood for lab work?

At-The-Door Brief
You are asked to room Victoria, a 60-year-old female presenting to your internal medicine clinic for fatigue. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Victoria is resting on the exam table. She tells you that she has been excessively tired for several months. She feels that she is weaker than usual and out of energy frequently. She has been otherwise well, without fevers, weight loss, night sweats, or any other specific symptoms. Vital signs: **HR** 75 | **BP** 110/75 | **RR** 18 | **Temp** 37.2ºC (98.9ºF) | **SpO2** 99% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I just feel tired all the time and have no energy; I'm always weak."
Simulation – Continuation	
Presentation	The provider evaluates the patient and asks the participants to obtain blood for a basic lab work to help work up the patient's fatigue.
Expected Actions	- Demonstrate the correct venipuncture technique for collecting blood for lab work
Prompts and Cues	- Provider: "We'll need a few different vials of blood; collect one of each color."
Simulation – Conclusion	

Presentation	The patient's laboratory work returns, demonstrating a microcytic anemia. The provider notes that this explains her fatigue, and that the patient will require further workup to rule out a slow GI bleed as a cause of her anemia. The participants are asked to counsel the patient and explain why upper and lower endoscopies are important next steps in evaluating her condition.
Expected Actions	- Appropriately counsel the patient
Prompts and Cues	- Patient: "A colonoscopy? I don't have any constipation or diarrhea; why do I need a colonoscopy?"

Scenario 66: Palpitations

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 25 minutes

Objectives:

- Describe the medical workup for palpitations
- Describe and perform the correct technique for applying a wearable cardiac monitor

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Wearable cardiac monitor

Patient Profile

Name	Adam S.
Age	54 years
Gender	Male
Weight	70.5 kg (155 lbs)
Past Medical History	Hypertension, hyperlipidemia
Surgical History	None
Social History	Nonsmoker, does not drink alcohol
Allergies	None
Medications	Hydrochlorothiazide, atorvastatin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What is the correct technique for applying a wearable cardiac monitor?
- What are features of worrisome or dangerous palpitations?

At-The-Door Brief
You are asked to room Adam, a 54-year-old male presenting to your internal medicine clinic for palpitations. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Adam is seated comfortably in the exam room. He tells you that for the past two months, he has been experiencing palpitations. He has an episode every 2-3 days, during which he feels his heart is beating rapidly. These episodes last for a few minutes and resolve without intervention. He feels a general sense of malaise when they occur but does not develop chest pain, lightheadedness, or shortness of breath. He has never lost consciousness. Vital signs: **HR** 155 | **BP** 115/80 | **RR** 16 | **Temp** 37.1ºC (98.7ºF) | **SpO2** 96% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "It comes on suddenly and feels like my heart is beating out of my chest. I feel bad, but I don't pass out."
Simulation – Continuation	
Presentation	The provider evaluates the patient and tells you that the exam was normal, which is common in patients who have intermittent palpitations. The provider asks you to apply a wearable cardiac monitor, which the patient can be discharged with to try to capture an episode of palpitations and establish a diagnosis.
Expected Actions	- Correctly apply a wearable cardiac monitor

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Prompts and Cues	- None
Simulation – Conclusion	
Presentation	After the participants apply the monitor, they are asked to counsel the patient regarding worrying features of palpitations, which should prompt a more urgent evaluation.
Expected Actions	- Counsel the patient regarding the characteristics of dangerous palpitations
Prompts and Cues	- Provider: “If he has palpitations that do not resolve and make him short of breath or give him chest pain, or especially if he passes out or loses consciousness, he should go to the Emergency Department.”

Scenario 67: Depression/Suicidal Ideation

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Describe the workup and evaluation of depression and suicidal ideation

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- A Patient Health Questionnaire (PHQ-9)

Patient Profile

Name	Jeremy P.
Age	49 years
Gender	Male
Weight	70.0 kg (154 lbs)
Past Medical History	Depression
Surgical History	None
Social History	Nonsmoker, drinks 6-8 alcoholic beverages per week
Allergies	None
Medications	Fluoxetine

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What is the screening process for suicidal ideation and the indications for referral to a higher level of care?

At-The-Door Brief
You are asked to room Jeremy, a 49-year-old male presenting to your internal medicine clinic for worsening depression. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Jeremy is resting in the exam room. He is in clinic today to discuss his worsening depression. He was diagnosed with depression last year and placed on fluoxetine, which helped for a time. However, for the past two months his symptoms have been getting worse. Vital signs: **HR** 155 | **BP** 115/80 | **RR** 16 | **Temp** 37.1ºC (98.7ºF) | **SpO2** 96% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I've just been feeling so low. Everything feels pointless, and it's a struggle just to get out of bed."
Simulation – Continuation	
Presentation	The participants are asked to administer a PHQ-9 to the patient.
Expected Actions	- Administer the PHQ-9 to the patient
Prompts and Cues	- The facilitator should answer as the patient and attempt to score a 15-22, significant for moderate-to-severe depression. - The facilitator should answer "Nearly every day" when asked if they experience thoughts of being better off dead or of self-harm.

Simulation – Conclusion	
Presentation	The provider expresses concern at Jeremy's responses to the PHQ-9. The participants are asked to further assess his positive response to the question regarding self-harm. The provider notes that if he has active suicidal ideation, he may need to be referred to the Emergency Department to consider psychiatric hospitalization.
Expected Actions	- Assess the patient's suicidal ideation
Prompts and Cues	- Provider: "You should attempt to differentiate active from passive suicidal ideation. Ask Jeremy if he has a specific plan." - Patient: "I've thought about hurting myself every day. I cross a bridge on the way to work and I often have to fight the urge to drive off it." - Provider (after hearing Jeremy's response): "I think we should refer Jeremy to the Emergency Department; I'm concerned for his safety at home."

Scenario 68: Headache

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Describe the workup and evaluation of a migraine headache

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Samantha G.
Age	48 years
Gender	Female
Weight	80.0 kg (176 lbs)
Past Medical History	Migraine headaches
Surgical History	None
Social History	Nonsmoker, drinks 1-2 alcoholic beverages per week
Allergies	None
Medications	Sumatriptan

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What red-flag symptoms suggest the need to refer a patient with a headache for more advanced diagnostics?

At-The-Door Brief
You are asked to room Samantha, a 48-year-old female presenting to your internal medicine clinic for headaches. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Samantha appears somewhat uncomfortable in the exam room. She is wearing sunglasses and requests that you leave the light off as it hurts her eyes. She is in the clinic to be evaluated for daily headaches. She does have a history of migraine headaches, although these feel different. They are worse in the morning and tend to improve throughout the day. She sometimes vomits after waking up. This morning, the pain woke her up at 3:00 a.m. Vital signs: **HR** 84 | **BP** 140/82 | **RR** 18 | **Temp** 36.4ºC (97.6ºF) | **SpO2** 97% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I used to get migraines a few times a year, but these headaches feel different. They're more severe and more frequent; I don't have an aura like I used to with my migraines."
Simulation – Continuation	
Presentation	The provider expresses concern that Samantha's headaches have some worrying features. The participants are asked to perform a neurologic exam.

Expected Actions	- Perform a neurologic exam, including an assessment of cranial nerves as well as strength and sensation of the extremities - Verbalize what normal and abnormal findings would be for each part of the exam
Prompts and Cues	- Provider/facilitator can guide the participants through the exam if necessary
Simulation – Conclusion	
Presentation	Although the patient's neurologic exam is normal, the provider is concerned enough about Samantha's headaches that she recommends transferring her to the Emergency Department for expedited imaging. The participants are asked to relay this recommendation to the patient and answer her questions.
Expected Actions	- Counsel the patient
Prompts and Cues	- Patient: "Why? Do you think I have a brain tumor?" - Patient: "Can I get this done next week? I had another appointment after this."

Scenario 69: Tobacco Cessation

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Describe the appropriate counseling for a patient seeking aid with tobacco cessation
- Describe products and medications available to help with tobacco cessation

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Dustin E.
Age	52 years
Gender	Male
Weight	106.8 kg (235 lbs)
Past Medical History	Hypertension, hyperlipidemia
Surgical History	None
Social History	Smokes 1 pack per day and drinks 1-2 alcoholic beverages per week
Allergies	None
Medications	Hydrochlorothiazide, atorvastatin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What products are available to aid patients in tobacco cessation?
- How would you counsel a patient who asked for help to quit smoking?

At-The-Door Brief
You are asked to room Dustin, a 52-year-old male presenting to your internal medicine clinic requesting help quitting smoking. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Dustin is resting in a chair in the exam room. He is here because he wants to quit smoking. He has been smoking 1 pack of cigarettes per day for the past 30 years. His uncle was recently diagnosed with lung cancer, prompting him to attempt to quit smoking. He has tried three times unsuccessfully. Vital signs: **HR** 76 | **BP** 155/90 | **RR** 18 | **Temp** 37.1ºC (98.8ºF) | **SpO2** 98% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I really want to quit. What happened with my uncle scared me. But every time I try, I can barely make it a week."
Simulation – Continuation	
Presentation	The provider tells the participants that it is wonderful that Dustin wants to quit smoking. The participants are asked to discuss the available nicotine replacement products with the patient.
Expected Actions	- Counsel the patient on the available nicotine replacement products, including gum, patches, and lozenges
Prompts and Cues	- Provider: "Has he tried nicotine gum, patches, or lozenges? They can often help reduce cravings."

Simulation – Conclusion	
Presentation	The patient says that he has tried both nicotine gum and patches, without success. He is wondering about medication, which helped a friend of his quit.
Expected Actions	- Counsel the patient on the availability of medications for smoking cessation
Prompts and Cues	- Provider: "There are two approved medications for smoking cessation: varenicline and bupropion. We typically start with varenicline in combination with nicotine patches. That would be an option for Dustin if he is interested."

Scenario 70: Upper Respiratory Infection

Manikin:	Environment:
Low-Fidelity Adult	Urgent Care

Estimated Run Time: 20 minutes

Objectives:

- Describe and appropriately counsel patients on the difference between viral and bacterial infections

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Zachary S.
Age	32 years
Gender	Male
Weight	68.2 kg (150 lbs)
Past Medical History	None
Surgical History	None
Social History	Nonsmoker, drinks 3-4 alcoholic beverages per week
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What is the difference between viral and bacterial infections?
- How do you counsel patients on the appropriate use of antibiotics?

At-The-Door Brief
You are asked to room Zachary, a 32-year-old male presenting to your urgent care clinic for nasal congestion and sore throat. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Zachary is seated in the exam room. He is presenting for evaluation of 3 days of nasal congestion and sore throat. His wife and son had similar symptoms last week, though they have since improved. He denies fevers, chills, facial pain, or shortness of breath. Vital signs: **HR** 84 | **BP** 120/85 | **RR** 18 | **Temp** 37.1ºC (98.8ºF) | **SpO2** 97% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I'm so stuffed up. It's been hard to sleep because I have to blow my nose all the time."
Simulation – Continuation	
Presentation	The provider evaluates the patient and tells the participants that Zachary's presentation is most consistent with a viral upper respiratory infection. The participants are asked to counsel the patient on the findings.
Expected Actions	- Counsel the patient

Prompts and Cues	- Patient: “Can you prescribe me something?” - Patient: “Last time I had this, the doctor prescribed me an antibiotic and I got better a few days later.” - Patient: “I know I need antibiotics.”
Simulation – Conclusion	
Presentation	The patient is adamant that he requires an antibiotic. The participants bring his concerns to the provider, who notes that there is no indication for antibiotics in the treatment of a viral infection. The participants are asked to explain this distinction to the patient.
Expected Actions	- Counsel the patient on the difference between viral and bacterial infections
Prompts and Cues	- Patient: “I understand, but if antibiotics don’t help, then why did I get better after taking them last time?”

Scenario 71: Anaphylaxis

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 20 minutes

Objectives:

- Describe and execute the necessary tasks for the emergent management of anaphylaxis

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Syringe and needle
- Medication vial

Patient Profile

Name	Rebecca J.
Age	24 years
Gender	Female
Weight	68.2 kg (150 lbs)
	=
Past Medical History	None
Surgical History	None
Social History	Nonsmoker, drinks 3-4 alcoholic beverages per week
Allergies	Nuts
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What medication is the cornerstone of the emergent management of anaphylaxis?
- What is the difference in dose, concentration, and route of administration between epinephrine for anaphylaxis and epinephrine for cardiac arrest?

At-The-Door Brief
You are asked to evaluate Rebecca, a 24-year-old female presenting to the Emergency Department for a suspected allergic reaction. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Rebecca is upright on the stretcher. She appears mildly uncomfortable. She has a history of severe allergic reactions to nuts. Half an hour ago, she accidentally ate a brownie containing walnuts at a picnic. She typically carries an epinephrine autoinjector but accidentally left it at home today. Rebecca states that she feels itchy all over, is nauseous, and feels a sensation of tightness in her chest as well as fullness in her lips and throat. Vital signs: **HR** 105 | **BP** 100/65 | **RR** 20 | **Temp** 36.9ºC (98.5ºF) | **SpO2** 94% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: “It feels like my throat is closing up.”
Simulation – Continuation	
Presentation	The provider is concerned for anaphylaxis and asks the participants to draw up and administer 0.3 mg of intramuscular epinephrine.

Expected Actions	- Draw up and administer 0.3 mg of 1:1,000 epinephrine solution intramuscularly - Participants should be able to verbalize the difference in concentration between intramuscular epinephrine for anaphylaxis (1:1000) and intravenous epinephrine for cardiac indications (1:10,000)
Prompts and Cues	- Provider: "Remember to use the 1:1,000 solution of epinephrine."
Simulation – Conclusion	
Presentation	Rebecca's symptoms are significantly improved after administering epinephrine. She asks if she can go back to her picnic.
Expected Actions	- Counsel the patient on the need for observation after administering epinephrine for anaphylaxis.
Prompts and Cues	- Provider: "Rebecca should stay here for a few hours. Patients with anaphylaxis can require multiple doses of epinephrine and it would be dangerous if her symptoms were to return after she leaves."

Scenario 72: STEMI

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 30 minutes

Objectives:

- Describe and perform the emergent interventions necessary to treat an ST-Elevation Myocardial Infarction

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- EKG machine
- Portable cardiac monitor/defibrillator
- Oral medication

Patient Profile

Name	Eddie N.
Age	62 years
Gender	Male
Weight	101.8 kg (224 lbs)
	=
Past Medical History	Hypertension, hyperlipidemia, obstructive sleep apnea
Surgical History	Total knee replacement
Social History	Smokes 1.5 packs per day and drinks 3-4 alcoholic beverages per week
Allergies	None
Medications	Amlodipine, atorvastatin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What interventions are important to perform as soon as possible in a patient with a confirmed STEMI?

At-The-Door Brief
You are asked to evaluate Eddie, a 62-year-old male presenting to your Emergency Department for chest pain. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Eddie is supine on the stretcher. He appears diaphoretic and uncomfortable. He relates that he is having crushing substernal chest pain. He feels nauseous and short of breath. It worsens when he attempts to get up and walk around but improves a bit with rest. Vital signs: **HR** 86 | **BP** 145/85 | **RR** 18 | **Temp** 36.7ºC (98.1ºF) | **SpO2** 97% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I feel like my chest is being crushed. Like something heavy is sitting on it."
Simulation – Continuation	
Presentation	The provider is very concerned by Eddie's story. The participants are asked to have Eddie chew and swallow 324 mg of aspirin and obtain a STAT electrocardiogram.
Expected Actions	- Administer the oral medication - Correctly apply ECG leads and obtain an ECG
Prompts and Cues	- None

Simulation – Conclusion	
Presentation	The provider reviews the patient's ECG and tells the participants that he is having an ST-elevation myocardial infarction. The provider asks the participants to set up the portable monitor/defibrillator and apply pads to the patient while the cath lab is activated.
Expected Actions	- Correctly power on the defibrillator, connect the lead cables, and apply the defibrillator pads to the patient
Prompts and Cues	- Provider: "Either anterior/posterior or anterior/lateral pad placement is acceptable. If the patient has a lot of hair, make sure to shave the area first." - Provider, after pads have been placed: "The cath lab is ready to take him now."

Scenario 73: COPD Exacerbation

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 30 minutes

Objectives:

- Describe and perform the emergent interventions necessary in the treatment of a COPD exacerbation

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Supplemental oxygen tubing
- Nebulizer and nebulized medication

Patient Profile

Name	Ashley H.
Age	65 years
Gender	Female
Weight	69.1 kg (152 lbs)
	=
Past Medical History	Hypertension, hyperlipidemia, COPD
Surgical History	Total knee replacement
Social History	Smokes 1 pack per day and drinks 1-2 alcoholic beverages per week
Allergies	None
Medications	Hydrochlorothiazide, lisinopril, simvastatin, albuterol

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the appropriate interventions to treat a patient with a COPD exacerbation?

At-The-Door Brief
You are asked to evaluate Ashley, a 65-year-old female presenting to your Emergency Department for difficulty breathing. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Ashley is seated upright on the stretcher, leaning forward, and breathing rapidly. She can speak in partial sentences but is visibly short of breath. She says that she has been short of breath for the last 24 hours. She has not had fevers, chest pain, lightheadedness, orthopnea, or palpitations. Ashley has experienced similar episodes before, which have been attributed to her COPD. Vital signs: **HR** 95 | **BP** 155/90 | **RR** 22 | **Temp** 36.8ºC (98.2ºF) | **SpO2** 84% on room air
Expected Actions	- Obtain a full set of vital signs - Recognize that the patient is hypoxemic and apply supplemental oxygen - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "It's my COPD, this happens when it gets bad."
Simulation – Continuation	
Presentation	The provider evaluates the patient and remarks that she has poor air movement with bilateral inspiratory and expiratory wheezing, consistent with a COPD exacerbation. The participants are asked to administer a 3-mL dose of nebulized albuterol-ipratropium.
Expected Actions	- Set up and administer the nebulized medication correctly

Prompts and Cues	- Provider/facilitator may correct the participants as necessary
Simulation – Conclusion	
Presentation	After administering the nebulized medication, the patient feels significantly improved but still requires supplemental oxygen, with SpO2 of 85% on room air and 90% on 4L by nasal cannula. She asks if she will be able to discharge home.
Expected Actions	- Counsel the patient on the ongoing need for supplemental oxygen
Prompts and Cues	- Patient: “I feel better; why can’t I go home?”

Scenario 74: Croup/Stridor

Manikin:	Environment:
Low-Fidelity Pediatric	Emergency Department

Estimated Run Time: 25 minutes

Objectives:

- Describe the evaluation of a pediatric patient with croup
- Describe the necessary interventions for a pediatric patient with stridor

Equipment

- Stethoscope
- Blood pressure cuff (pediatric size)
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Supplemental oxygen tubing
- Nebulizer and nebulized medication
- Oral medication

Patient Profile

Name	Taylor O.
Age	6 years
Gender	Female
Weight	25.5 kg (56 lbs)
	=
Past Medical History	None
Surgical History	None
Social History	Lives at home with parents and one older brother
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Gregory, patient's father** (facilitator)

Pre-Brief Questions:

- What features of a patient with croup suggest that they require emergent intervention?
- What interventions are necessary for a pediatric patient with stridor?

At-The-Door Brief
You are asked to evaluate Taylor, a 6-year-old female presenting to your Emergency Department for a barky cough and difficulty breathing. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Taylor is on the stretcher near her father, Gregory. She has had a barky cough for the past 2 days. In the past 3 hours, she has had difficulty breathing. Her breathing is now noisy at rest. Vital signs: **HR** 105 | **BP** 100/71 | **RR** 20 | **Temp** 36.9ºC (98.5ºF) | **SpO2** 96% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient's father: "Her breathing looks odd. It looks like the muscles around her neck are tugging when she breathes in."
Simulation – Continuation	
Presentation	The provider evaluates the patient and identifies the patient's noisy breathing as stridor, likely secondary to croup. The participants are instructed to administer a 0.5-mL dose of nebulized racemic epinephrine.
Expected Actions	- Set up and administer the nebulized medication
Prompts and Cues	- Provider/facilitator may correct as necessary

Simulation – Conclusion	
Presentation	The patient appears improved after the racemic epinephrine. The provider then asks the participants to administer 10 mL of oral dexamethasone.
Expected Actions	- Measure out and administer 10 mL of oral medication
Prompts and Cues	- Provider/facilitator may correct as necessary

Scenario 75: Arterial Laceration

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 20 minutes

Objectives:

- Describe and perform the emergent interventions necessary when treating an arterial bleed

Equipment

- Moulage: Gauze around right forearm, soaked in red dye to emulate blood
- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Tourniquet

Patient Profile

Name	Shane K.
Age	22 years
Gender	Male
Weight	75.0 kg (165 lbs)
	=
Past Medical History	None
Surgical History	None
Social History	Does not smoke, but drinks 3-4 alcoholic beverages per week
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- How can we tell the difference between arterial and venous bleeding?
- What emergent intervention is appropriate for a patient with arterial bleeding?

At-The-Door Brief
You are asked to evaluate Shane, a 22-year-old male presenting to your Emergency Department with an arm laceration. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Shane is resting in the stretcher. He is holding his arm, which is wrapped in bloodstained gauze. He was working as a landscaper when a co-worker dropped an extendable tree-trimmer, striking him on the forearm. He was unable to stop the bleeding, and his coworkers brought him to the ED. Vital signs: **HR** 110 | **BP** 100/65 | **RR** 18 | **Temp** 37.0ºC (98.6ºF) | **SpO2** 96% on room air
Expected Actions	- Obtain a full set of vitals - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I'm a little lightheaded, but I can't tell if that's just because I hate looking at blood."
Simulation – Continuation	
Presentation	The provider notes the patient's vital signs and expresses concern for blood loss. After examining the patient, the provider identifies a pulsatile source of bleeding in the laceration. They can palpate a radial but no ulnar pulse. They are concerned for an arterial laceration. The participants are asked to place a tourniquet.
Expected Actions	- Correctly apply a tourniquet to the upper arm
Prompts and Cues	- Provider: "Remember, a correctly applied tourniquet should be tight enough to occlude both venous and arterial blood flow."

Simulation – Conclusion	
Presentation	After placing the tourniquet, the participants are asked to demonstrate a distal vascular exam used to confirm successful placement.
Expected Actions	- Demonstrate the proper technique for palpating a radial pulse
Prompts and Cues	- Provider: "This patient had no ulnar pulse before, but if the tourniquet is tight enough, he should now have no palpable radial pulse." - Provider, after confirming that the patient has no radial pulse: "Remember, a tourniquet is only a temporary solution; this patient will require an emergent surgical consult."

Scenario 76: Stroke

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 20 minutes

Objectives:

- Describe the initial assessment of a patient with suspected stroke

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- List of tPA contraindications

Patient Profile

Name	Juan P.
Age	64 years
Gender	Male
Weight	84.5 kg (186 lbs)
	=
Past Medical History	Hypertension, peripheral artery disease, chronic kidney disease, atrial fibrillation
Surgical History	None
Social History	Nonsmoker, drinks 3-4 alcoholic beverages per week
Allergies	None
Medications	Amlodipine, aspirin, lisinopril, metoprolol

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the signs and symptoms of acute stroke?
- Why is the timely diagnosis and treatment of stroke so important?

At-The-Door Brief
You are asked to evaluate Juan, a 64-year-old male presenting to your Emergency Department with a facial droop and numbness in his right arm. Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Juan is seated on the stretcher. He was working in his kitchen, 90 minutes ago, when he realized that he was unable to move his right arm. He looked in the mirror and noticed that his face was drooping on the right side. His symptoms persisted for a few minutes, and his wife dropped him off at the Emergency Department. Juan appears to have difficulty finding the correct words during his intake. Vital signs: **HR** 86 | **BP** 145/90 | **RR** 18 | **Temp** 37.1ºC (98.7ºF) | **SpO2** 97% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I'm still having trouble moving my arm. What do you think is going on?"
Simulation – Continuation	
Presentation	The provider is with another patient and will be by momentarily. In the meantime, the participants are asked to screen the patient by performing a Cincinnati Stroke Scale, which can help identify strokes prior to a more comprehensive neurologic evaluation.
Expected Actions	- Perform the Cincinnati Stroke Scale evaluation

Prompts and Cues	- Facilitator should verbalize the results of the Cincinnati Stroke Scale evaluation: o No conjugate gaze deviation o Patient can state his age but cannot find the word for the correct month o Patient can close his left hand but cannot close his right hand o Patient is unable to elevate his right arm for 10 seconds
Simulation – Conclusion	
Presentation	The provider arrives and expresses concern regarding the patient's presentation and the results of his Cincinnati Stroke Scale evaluation, which suggests that Juan has an acute stroke. The provider orders STAT CT angiography of the head and neck. The participants are asked to go through a questionnaire with the patient to determine whether he has any contraindications to thrombolytic therapy.
Expected Actions	- Complete the TPA questionnaire with the patient, making sure to ask about the following: o History of surgery or intracranial hemorrhage o History of a bleeding disorder o History of endocarditis o AV malformation o Cancer o Aneurysm
Prompts and Cues	- Provider: "It looks like Juan has no contraindication to TPA, so that is an option for him. We'll have to discuss the risks and benefits with him after his CT."

Scenario 77: Cardiac Arrest

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 20 minutes

Objectives:

- Describe and perform critical tasks of resuscitating a patient in cardiac arrest

Equipment Set

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Cardiac monitor/defibrillator
- Bag-valve mask

Patient Profile

Name	Antonio J.
Age	58 years
Gender	Male
Weight	80.9 kg (178 lbs)
	=
Past Medical History	Hypertension, hyperlipidemia, coronary artery disease
Surgical History	None
Social History	Smokes 0.5 packs per day, drinks 3-4 alcoholic beverages per week
Allergies	None
Medications	Aspirin, clopidogrel, hydrochlorothiazide, carvedilol

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Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the critical tasks that must be performed when resuscitating a patient in cardiac arrest?

At-The-Door Brief
You are working in the Emergency Department when you are called into the room of Antonio, a 58-year-old male who presented for chest pain. He called his nurse and reported that he felt nauseous before losing consciousness; his nurse found that he had no palpable pulse and activated a Code Blue alert. Assist with the resuscitation of the patient.

Simulation – Initial State	
Presentation	The participants are asked to enter the room of a patient who has just lost pulses. The patient is unresponsive and lying supine on the stretcher. One participant is asked to begin chest compressions while another is asked to start the portable monitor/defibrillator and apply pads to the patient. Vital signs: **HR** 0 | **BP** --/-- | **RR** 0 | **Temp** 36.6ºC (97.8ºF) | **SpO2** uninterpretable due to lack of waveform
Expected Actions	- Perform high-quality CPR (rate of 100-120 bpm, depth of ~2 in, full chest recoil between compressions) - Correctly turn on the defibrillator, attach leads, and apply defibrillator pads
Prompts and Cues	- Provider/facilitator may correct participants as necessary
Simulation – Continuation	
Presentation	After 2 minutes of compressions, the provider calls for a pulse and rhythm check. The participants are asked to switch roles, with the compressor starting bag-valve mask ventilation and the other participant taking over compressions. The patient has no pulse, and the rhythm is PEA; the provider instructs the participants to resume compressions.
Expected Actions	- Perform high-quality CPR (rate of 100-120 bpm, depth of ~2 in, full chest recoil between compressions) - Bag-valve mask ventilate the patient with the correct technique

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Prompts and Cues	- Provider/facilitator may correct participants as necessary.
Simulation – Conclusion	
Presentation	After two more minutes, the provider calls for a pulse and rhythm check. The rhythm is ventricular fibrillation. The provider instructs the participants to charge the defibrillator and deliver a shock at 120J.
Expected Actions	- Correctly charge the defibrillator and deliver a shock after ensuring all participants are clear of the patient
Prompts and Cues	- Provider: “It looks like we got a pulse back after that shock. Thanks for your help; we can take it from here.”

Scenario 78: Sepsis

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 30 minutes

Objectives:

- Recognize vital sign changes characteristic of sepsis
- Learn and facilitate time-sensitive interventions in the septic patient
- Describe and perform aseptic technique for collecting blood cultures
- Describe and perform the correct technique for administering IV fluids and antibiotics

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Oxygen tubing
- IV fluids, 1-liter bag
- IV antibiotics, 100-mL mini-bag
- IV tubing (primary and secondary administration sets)
- IV infusion pump
- **Optional:** IV start kit (if IV start arm available)
- **Optional**: Intermittent catheterization kit or Foley tray (if catheterization trainer available)

Patient Profile

Name	George M.
Age	70 years
Gender	Male
Weight	85.7 kg (189 lbs)
	=
Past Medical History	Hypertension, type 2 diabetes, benign prostatic hypertrophy
Surgical History	Hernia repair, transurethral resection of the prostate
Social History	Nonsmoker, drinks 3-4 alcoholic beverages per week

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Allergies	None
Medications	Metformin, lisinopril, tamsulosin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)
- **Derek, the inpatient nurse** (facilitator)

Pre-Brief Questions:

- What is sepsis?
- What is the difference between a localized infection and sepsis?
- What time-sensitive interventions are important in the management of sepsis?

At-The-Door Brief

You are settling George, a 70-year-old male presenting to your Emergency Department for weakness, fever, and chills.

Evaluate the patient, collect a full set of vital signs, and give a report to the provider.

Simulation – Initial State

Presentation	George is laying calmly on the stretcher. He is alert and conversational. He complains of general weakness, chills, and suprapubic discomfort. He relays that he had a transurethral resection of the prostate 2 weeks ago for urinary retention secondary to his benign prostatic hyperplasia. He was recovering well until 5 days ago, when he noticed a burning sensation during urination. He also feels the need to urinate frequently and saw a streak of blood in his urine yesterday. This morning, George awoke feeling ill. He has shaking chills and is lightheaded, which prompted him to come to the ER. Vital signs: **HR** 121 | **BP** 94/55 | **RR** 18 | **Temp** 38.7ºC (101.7ºF) | **SpO2** 88% on room air
Expected Actions	- Head-to-toe assessment, including pain assessment - Recognition of abnormal vital signs - Initiation of supplemental oxygen by nasal cannula - Give a report that accurately identifies abnormal vital signs to the provider

Prompts and Cues	- Patient: "It's so uncomfortable when I pee." - Patient: "I'm burning up." - Provider or facilitator: "It looks like this patient is hypoxemic. Place him on 2 L supplemental oxygen by nasal cannula." - Provider or facilitator: "These vital signs seem very abnormal."
Simulation – Continuation	
Presentation	After reporting the patient's abnormal vital signs to the supervising provider, the participants receive the following orders: "This patient sounds septic. Please obtain two sets of blood cultures, hang 1 L of 0.9% normal saline, and administer 2 g ceftriaxone IVPB. Also have the patient provide a urine sample."
Expected Actions	- Demonstrate appropriate aseptic technique for collecting blood cultures before administering antibiotics - Spike and hang 1 L 0.9% normal saline using appropriate technique - Spike and piggyback 100-mL mini-bag of antibiotics using appropriate technique - **Optional:** If IV trainer is available, place a peripheral IV - **Optional:** If catheterization trainer is available, perform sterile straight catheterization or insert a Foley catheter, per provider orders
Prompts and Cues	- Provider or facilitator: "Remember to obtain the cultures before starting antibiotics."
Simulation – Conclusion	
Presentation	After obtaining blood and urine cultures as well as administering fluids and antibiotics, the patient is admitted to the hospital. The inpatient nurse calls to ask for report. "Hello, this is Derek. I'll be taking George up on the ward. Can you give a report?"
Expected Actions	- Provide SBAR report to the inpatient team, including that the patient is septic
Prompts and Cues	- Inpatient nurse will prompt for missing elements of the SBAR report: o "What symptoms made him come in?" o "He sounds sick; is he septic?" o "What have you done for him so far?"

Scenario 79: Respiratory Failure/Intubation

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 25 minutes

Objectives:

- Describe and perform critical tasks for endotracheal intubation of a patient in respiratory failure

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Bag-valve mask
- Medication syringes
- Syringe labels
- Wall suction and suction catheter
- Nonrebreather mask
- End-tidal CO2 monitor or color-change calorimeter
- ET Tube with stylet
- 10-mL syringe
- Tape or ET tube holder
- Laryngoscope handle and blade

Patient Profile

Name	Laura H.
Age	56 years
Gender	Female
Weight	68.2 kg (150 lbs)
	=
Past Medical History	Congestive heart failure, hypertension
Surgical History	None
Social History	Nonsmoker (quit 3 years ago), drinks 1-2 alcoholic beverages per week

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Allergies	None
Medications	Amlodipine, furosemide, metoprolol, aspirin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the indications for endotracheal intubations?
- What critical tasks must be completed to set up for an endotracheal intubation?
- What critical tasks must be completed immediately after placing an endotracheal tube?

At-The-Door Brief

You are asked to assist with Laura, a 56-year-old female who presented to the Emergency Department in respiratory failure. Despite initial efforts, the patient's respiratory status has declined, and the provider has made the decision to intubate; you are asked to assist.

Assist with the intubation.

Simulation – Initial State

Presentation	Laura is on the stretcher and appears lethargic, unable to provide history. She contacted EMS because she was short of breath. By the time they reached her, she was somnolent with SpO2 of 65% on room air. They obtained IV access, placed her on 15 L supplemental O2 by nonrebreather and brought her to the Emergency Department. Vital signs: **HR** 115 | **BP** 190/100 | **RR** 28 | **Temp** 37.2ºC (98.9ºF) | **SpO2** 86% on 15 L by nonrebreather
Expected Actions	- Obtain a set of vital signs - Give a report to the provider
Prompts and Cues	- None

Simulation – Continuation	
Presentation	The provider is very concerned about the patient, who has abnormal vital signs, abnormal mental status, and is hypoxemic despite 15 L supplemental O2 by nonrebreather. The provider instructs the participants to set up equipment for rapid sequence intubation and draw up 20 mg of etomidate and 80 mg of rocuronium.
Expected Actions	- Draw up the correct doses of the requested medications, correctly labeling the syringes - Set up intubation equipment, including: o An ET tube with stylet o Laryngoscope handle and blade o Bag-valve mask o Semi-rigid suction catheter attached to wall suction o End-tidal CO2 monitor or color calorimeter
Prompts and Cues	- Provider/facilitator may correct the participant as necessary
Simulation – Conclusion	
Presentation	The provider performs a time-out prior to the procedure, confirming the patient's identification, the procedure about to be performed, the presence of all necessary equipment, and the doses and routes of all medications to be administered. One participant is instructed to push the etomidate, followed by the rocuronium. The other participant is instructed to hand the provider the suction, ET tube, end tidal monitor or color calorimeter, and bag-valve mask in sequence when requested.
Expected Actions	- Correctly administer the medications by IV push - Assist the provider in the intubation procedure
Prompts and Cues	- Provider/facilitator may correct participant as necessary - Provider: "The patient's oxygen saturations are much improved with bag-valve mask ventilation through the endotracheal tube. We'll get her on a mechanical ventilator and start drips for analgesia and sedation."

Scenario 80: Small Bowel Obstruction

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 20 minutes

Objectives:

- Understand the management of acute bowel obstruction
- Demonstrate the correct technique for inserting a nasogastric tube

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- NG tube
- Sterile lubricant
- Nasal spray
- **Optional**: NG tube trainer

Patient Profile

Name	Katherine R.
Age	49 years
Gender	Female
Weight	65.9 kg (145 lbs)
	=
Past Medical History	No chronic medical conditions
Surgical History	Appendectomy, C-section x2
Social History	Nonsmoker, no alcohol intake
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the most common causes of bowel obstruction?
- What intervention is the cornerstone of bowel obstruction management?
- What is the correct technique for placing and confirming a nasogastric tube?

At-The-Door Brief
You are rooming Katherine, a 49-year-old female who presents to the Emergency Department with two days of progressive abdominal pain, distension, and vomiting. Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Katherine appears moderately uncomfortable on the stretcher. She developed abdominal bloating 2 days ago and has become progressively distended with worsening diffuse abdominal pain and non-bloody vomiting since that time. She has not had a bowel movement for 4 days and stopped passing gas yesterday. Vital signs: **HR** 95 | **BP** 150/75 | **RR** 18 | **Temp** 37.0ºC (98.6ºF) | **SpO2** 97% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider -
Prompts and Cues	- Patient: "It feels like I'm too full; every time I eat or drink, I just vomit it right back up."
Simulation – Continuation	
Presentation	The provider says that the patient's presentation is concerning for a bowel obstruction and orders a CT of the abdomen and pelvis. The participants are asked to discuss the patient's surgical history with her, as adhesions from prior surgery are the most common cause of bowel obstructions in adults.
Expected Actions	- Obtain a full surgical history from the patient
Prompts and Cues	- Patient: "I had my appendix out last year. I've also had two C-sections, one for each of my kids."

Simulation – Conclusion	
Presentation	The patient's CT confirms a small bowel obstruction. The participants are asked to place a nasogastric tube for bowel decompression.
Expected Actions	- Demonstrate the placement of an NG tube on a trainer (if available) or demonstrate the setup of the appropriate equipment and verbalize the proper technique
Prompts and Cues	- Provider/facilitator may correct participant as necessary

Scenario 81: Trauma

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 20 minutes

Objectives:

- Understand the principles of spinal precautions in a blunt trauma patient

Equipment Set

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Extra stretcher
- Cervical collar

Patient Profile

Name	Ian B.
Age	27 years
Gender	Male
Weight	86.4 kg (190 lbs)
	=
Past Medical History	No chronic medical conditions
Surgical History	None
Social History	Nonsmoker, 4-6 alcoholic drinks per week
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- Why are spinal precautions necessary in blunt trauma patients?
- What assistive devices are available to help maintain spinal stability in patients with a suspected injury?
- What is the difference between cervical and thoracic/lumbar spinal precautions?

At-The-Door Brief

You are taking care of Ian, a 27-year-old male brought to your Emergency Department by EMS after a motor vehicle accident. Ian was the restrained driver in a vehicle that was struck on the front end at 50 miles per hour. He is alert and oriented but is complaining of pain in his neck and back.

Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State

Presentation	Ian is laying on the stretcher, having just been dropped off by EMS. He was travelling 50 mph down a major road when he was struck on the driver's side by another vehicle that ran a red light. His airbags deployed. He hit his head on the windshield but did not lose consciousness. Ian complains of pain in the back of his neck and upper back as well as tingling in his right arm. Vital signs: **HR** 90 | **BP** 145/75 | **RR** 18 | **Temp** 37.1ºC (98.7ºF) | **SpO2** 99% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "My neck hurts, and my arm feels like it's asleep."

Simulation – Continuation	
Presentation	The provider is concerned about Ian's neck injury, as on their examination he displayed midline cervical spine tenderness. The participants are asked to help risk stratify Ian by applying clinical decision rules to his case: they should decide whether he needs imaging by both Canadian C-Spine Rules and NEXUS Criteria for C-Spine Imaging.
Expected Actions	- Apply the Canadian C-Spine Rules and NEXUS Criteria to the patient's case - The participants should conclude that the patient requires imaging by Canadian criteria as he sustained his injury by a severe mechanism - The participants should conclude that the patient requires imaging by NEXUS criteria as he has midline spinal tenderness
Prompts and Cues	- Provider: "Ian's mechanism qualifies as severe by Canadian criteria." - Provider: "Ian is tender over the midline in his neck, which means he requires imaging by NEXUS criteria."
Simulation – Conclusion	
Presentation	The participants are asked to hold cervical spine stabilization and place the patient in a cervical collar, and then to maintain cervical and thoracic spine precautions while transferring him to a second stretcher for transport to the CT scanner.
Expected Actions	- Demonstrate the correct technique while holding cervical spine stabilization - Demonstrate the correct technique when applying a cervical collar - Demonstrate the correct technique for transferring a patient in cervical and thoracic spine precautions
Prompts and Cues	- Provider: "To hold the cervical spine stable, stand behind the patient and grasp at the base of the neck, using your forearms to support the posterior head so that the neck does not bear any weight." - Provider: "When the patient is in thoracic or lumbar spine precautions, he should be log-roll only while moving or transferring. - Provider: "We should hold Ian's cervical spine in precautions while transferring, even when he has the collar on."

Scenario 82: Supraventricular Tachycardia

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 20 minutes

Objectives:

- Understand the management of supraventricular tachycardia
- Demonstrate competence with a rapid push and flush technique for administering adenosine

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- IV kit
- Cardiac monitor
- Two medication syringes
- Three-way stopcock
- **Optional**: IV trainer

Patient Profile

Name	Gabe A.
Age	23 years
Gender	Male
Weight	68.2 kg (150 lbs)
	=
Past Medical History	No chronic medical conditions
Surgical History	None
Social History	Nonsmoker, 1-2 alcoholic drinks per week
Allergies	None
Medications	None

Roles:

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- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the clinical indications for administering adenosine?
- What warnings should be delivered to patients prior to administration of adenosine?
- What are common reasons that adenosine administration may not work, and why is technique so important when administering this medication?

At-The-Door Brief

You are taking care of Gabe, a 23-year-old male presenting to your Emergency Department with palpitations. He was sent directly back to a room after his pulse was measured at over 190 beats per minute in triage.

Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State

Presentation	Gabe is resting on the stretcher. He appears mildly uncomfortable. He tells you that 15 minutes ago, he experienced a sudden onset of palpitations. He tells you that this happens to him occasionally, and he is usually able to make them stop by bearing down. This time, however, they have been persistent, prompting him to present to the Emergency Department. Vital signs: **HR** 195 | **BP** 110/80 | **RR** 18 | **Temp** 36.7ºC (98.1ºF) | **SpO2** 99% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and correctly identify the patient's rapid heart rate in a report to the provider
Prompts and Cues	- Patient: "It feels like a fluttering in my chest."

Simulation – Continuation	
Presentation	The provider notes that the patient seems stable overall, though he is markedly tachycardic. The participants are asked to obtain IV access and connect the patient to a cardiac monitor.
Expected Actions	- Connect the patient to a cardiac monitor - If IV trainer available, place an IV o If a trainer is unavailable, the participant can verbalize the necessary steps
Prompts and Cues	- None
Simulation – Conclusion	
Presentation	The provider reviews a 12-lead ECG, which was obtained in triage and identifies the patient's rhythm as supraventricular tachycardia. The participants are asked to prepare the patient, draw up and administer 6 mg of adenosine by rapid IV push using a two-syringe stopcock technique.
Expected Actions	- Counsel the patient on what to expect during the administration of adenosine - Draw up the correct amount of medication - Properly set up and administer the medication using a two-syringe stopcock technique
Prompts and Cues	- Provider: "Make sure the patient knows that adenosine can feel very unpleasant, but it will only last a few seconds." - Provider: "Connect the medication syringe and a flush to two ports of a three-way stopcock; connect the third end to the patient's IV. That way, you can push the medication, switch the open port of the stopcock, and immediately administer the flush."

Scenario 83: Septic Arthritis

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 20 minutes

Objectives:

- Understand the management of a septic joint
- Understand the principles behind and important elements of an arthrocentesis

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- 60-mL syringe with 18-g needle
- 10-mL syringe with 22-g needle
- Medication vial
- Luer-lock syringe cap
- Purple-top vial
- Sterile towels
- Chlorhexidine wipes

Patient Profile

Name	Victor F.
Age	56 years
Gender	Male
Weight	76.4 kg (168 lbs)
	=
Past Medical History	Type 2 diabetes
Surgical History	None
Social History	Smokes 0.5 packs per day, 1-2 alcoholic drinks per week
Allergies	None

Medications	Insulin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the signs and symptoms of a septic joint?
- Why is arthrocentesis necessary to definitively diagnose septic arthritis?
- What steps are needed to prepare for an arthrocentesis?

At-The-Door Brief

You are taking care of Victor, a 56-year-old male presenting to your Emergency Department for knee pain and fever.

Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State

Presentation	Victor is resting in the exam room. He presents today with 2 days of painful swelling in the left knee. He has no history of trauma to the knee, but it is red and painful. He had a fever at home yesterday. It is so painful he can no longer stand on that leg, which made him come to the Emergency Department. Vital signs: **HR** 85 | **BP** 135/75 | **RR** 18 | **Temp** 37.3ºC (99.2ºF) | **SpO2** 97% on room air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give report to the provider
Prompts and Cues	- Patient: “Every time I move the knee, it hurts so much.”

Simulation – Continuation	
Presentation	The provider expresses concern that Victor will need an arthrocentesis to establish a definitive diagnosis. The participants are asked to gather and set up the appropriate materials.
Expected Actions	- Assemble a tray with the following materials: o Vial of local anesthetic, 10-mL syringe, and 22-g needle o 60-mL syringe with 18-g needle o Sterile towels o Chlorhexidine or iodine wipes
Prompts and Cues	- Provider: "We'll need materials for local anesthesia as well as a 60-mL syringe and 18-gauge needle. We'll also need sterile towels and something to sterilize the patient's skin."
Simulation – Conclusion	
Presentation	After the conclusion of the procedure, the participants are asked to aliquot a portion of synovial fluid from the syringe into a purple-top collection vial so that the lab can run a cell count.
Expected Actions	- Aliquot the correct amount of fluid into a purple-top vial
Prompts and Cues	- Provider: "I'll order a cell count, crystal analysis, and cultures. Can you put some of the fluid into a purple-top for the cell count? That will make sure it doesn't coagulate before it can get to the lab."

Scenario 84: Hypothermia

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 20 minutes

Objectives:

- Demonstrate an understanding of the principles of managing hypothermia
- Obtain familiarity with the devices and techniques used for rewarming a hypothermic patient

Equipment

- Moulage: Manikin should be dressed in wet clothes
- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Forced-air rewarming device
- Trauma shears
- In-line fluid warmer or pre-warmed fluid from a fluid warmer
- IV tubing
- IV fluid bag

Patient Profile

Name	Kelly D.
Age	56 years
Gender	Female
Weight	75.0 kg (165 lbs)
	=
Past Medical History	None
Surgical History	None
Social History	Nonsmoker, 8-10 alcoholic drinks per week
Allergies	None
Medications	None

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Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the symptoms of hypothermia?
- What techniques are available to rewarm a hypothermic patient?

At-The-Door Brief

You are taking care of Kelly, a 56-year-old female brought to your Emergency Department by EMS after being found unresponsive in a snowbank.

Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State

Presentation	Kelly is lying on the stretcher, largely unresponsive but breathing spontaneously. She was just dropped off by EMS after being found in a snowbank by a passerby. It is unknown how long she was outdoors. Vital signs: **HR** 45 | **BP** 95/50 | **RR** 12 | **Temp** 31.0ºC (87.8ºF) | **SpO2** 94% on room air
Expected Actions	- Obtain a full set of vital signs - Correctly identify the abnormal vital signs in a report to the provider
Prompts and Cues	- None

Simulation – Continuation

Presentation	The provider asks the participants to help get the patient out of her wet clothes and start the warmed IV fluids.
Expected Actions	- Use the trauma shears to get the patient out of the wet clothes - Hang warmed IV fluids or, if available, set up an in-line fluid warmer
Prompts and Cues	- Provider: “The next most important step is getting the patient out of wet clothes. Then we can start more aggressive rewarming measures.”

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Simulation – Conclusion	
Presentation	After the patient is out of the wet clothes and warmed IV fluids are started, the provider asks the participants to set up a forced-air warming blanket.
Expected Actions	- Correctly set up and connect a forced-air warming device
Prompts and Cues	- None

Scenario 85: Aortic Dissection

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 25 minutes

Objectives:

- Obtain familiarity with managing acute aortic dissection
- Demonstrate an understanding of the proper technique for initiating continuous blood pressure monitoring via arterial line
- Demonstrate an understanding of the proper technique for titrating medications administered by continuous infusion

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Cardiac monitor
- IV fluid bag
- Pressure bag device
- Arterial line tubing and transducer
- IV medication bag
- IV tubing
- Infusion pump

Patient Profile

Name	Natalie R.
Age	49 years
Gender	Female
Weight	71.8 kg (158 lbs)
Past Medical History	Hypertension, Marfan syndrome
Surgical History	None

Social History	Nonsmoker, no alcohol intake
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the common causes of aortic dissection?
- Why is blood pressure control so important in managing aortic dissection?
- What is the technique for setting up and calibrating an arterial line transducer?

At-The-Door Brief

You are taking care of Natalie, a 49-year-old female presenting to the Emergency Department with tearing chest pain.

Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State

Presentation	Natalie appears uncomfortable on the stretcher. She developed a sudden onset of tearing chest pain. She also feels somewhat short of breath, and a sensation of weakness in her left arm. Vital signs: **HR** 95 | **BP** 150/95 | **RR** 12 | **Temp** 36.8ºC (98.3ºF) | **SpO2** 97% on room air
Expected Actions	- Obtain a full set of vitals - Obtain a history and provide a report
Prompts and Cues	- Patient: “It feels like something is ripping through my chest.”

Simulation – Continuation	
Presentation	The provider is immediately concerned for an aortic dissection, and the diagnosis is confirmed with STAT CT angiography of the chest. The provider would like to insert an arterial line in the patient's right radial artery and asks the participants to set up an arterial line transducer.
Expected Actions	- Correctly assemble and calibrate arterial line tubing with transducer
Prompts and Cues	- Provider/facilitator may correct the participants as needed
Simulation – Conclusion	
Presentation	After inserting the arterial line, the provider orders an esmolol bolus of 250 mcg/kg followed by a drip starting at 25 mcg/kg/min, with titration by 10 mcg/kg/min every 5 minutes up to a maximum of 200 mcg/kg/min, with a goal heart rate of less than 60.
Expected Actions	- Correctly calculate the appropriate loading dose (250 mcg/kg * 71.8 kg = 17,950 mcg or 17.95 mg), and program the pump appropriately (participants can program in weight and weight-based dosing if this pump function is available) - Correctly calculate the appropriate initial drip rate (25 mcg/kg/min * 71.8 kg = 1,795 mcg/min (participants can program in weight and weight-based dosing if this pump function is available) - Titrate the drip per the order
Prompts and Cues	- Provider/facilitator may correct the participants where necessary - Provider/facilitator should prompt the participants with new heart rate measurements during each titration; the patient should reach the goal heart rate after titration up to 35 mcg/kg/min

Scenario 86: Bad News

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 20 minutes

Objectives:

- Develop comfort delivering distressing information to patients and families

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	John K.
Age	45 years
Gender	Male
Weight	70.5 kg (155 lbs)
Past Medical History	Hypertension, hyperlipidemia
Surgical History	Tonsillectomy
Social History	Nonsmoker, no alcohol intake
Allergies	None
Medications	Atorvastatin, amlodipine

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)
- **Terri, patient's Wife** (facilitator)

Pre-Brief Questions:

- What is the best way to deliver bad news to a patient or loved one?

At-The-Door Brief
You are working in the Emergency Department, where you have just received a patient named John, a 45-year-old male presenting with chest pain. Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	John appears uncomfortable; he is pale and diaphoretic on the stretcher. As the participants finish collecting John's vital signs, they are interrupted by the provider, "John's ECG shows ST elevations in the anterior leads with reciprocal ST depressions." The provider asks the participants to explain the situation to John while they contact the interventional cardiologist and activate the cath lab. Vital signs: **HR** 85 | **BP** 145/95 | **RR** 18 | **Temp** 37.1ºC (98.7ºF) | **SpO2** 96% on room air
Expected Actions	- Obtain a full set of vitals - Explain the situation to John, including the key information that: o He is having a heart attack o He needs an emergent procedure
Prompts and Cues	- Patient: "Wait, what's going on?" - Patient: "What were they talking about? What does 'ST elevation' mean?"

Simulation – Continuation	
Presentation	John is transferred emergently to the cardiac catheterization lab. Shortly afterwards, his wife Terri arrives to the Emergency Department. The participants are asked to greet her and update her on the situation.
Expected Actions	- Inform the patient's wife that he has had a heart attack and is currently undergoing an emergent procedure
Prompts and Cues	- Patient's wife: "Is he going to be okay?"
Simulation – Conclusion	
Presentation	After informing the patient's wife that he is in the cardiac cath lab, the provider calls down with another update: John went into cardiac arrest in the cath lab and required several rounds of CPR; he received two coronary artery stents but remains unresponsive in the cardiac ICU. His prognosis is uncertain, but he is critically ill.
Expected Actions	- Update the patient's wife on his condition and prognosis
Prompts and Cues	- Patient's wife: "What was that? How is he doing?" - Patient's wife: "His heart stopped? Is he dead?"

Scenario 87: Upset Parent

Manikin:	Environment:
Low-Fidelity Pediatric	Pediatrics Clinic

Estimated Run Time: 20 minutes

Objectives:

- Learn to manage individuals who are unsatisfied with the care of themselves or their loved ones

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Ann J.
Age	6 Years
Gender	Female
Weight	24.5 kg (54 lbs)
Past Medical History	None
Surgical History	None
Social History	Lives at home with parents and one older brother
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)
- **Jake, patient's father** (facilitator)

Pre-Brief Questions:

- How would you reassure a patient, parent, or loved one unsatisfied with the care provided to them?

At-The-Door Brief
You are rooming Ann, a 6-year-old female in your pediatrics clinic for a hospital follow-up. Ann was hospitalized for 4 days for an acute asthma exacerbation, including a brief stay in the pediatric ICU. Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Ann is in the exam room with her father, Jake. She appears comfortable. Jake tells you that Ann was hospitalized last week and discharged a few days ago. She feels well today. During the initial encounter, Jake makes several comments indicating that he is unhappy with the care his daughter has received. Vital signs: **HR** 102 | **BP** 95/70 | **RR** 18 | **Temp** 36.9 ºC (98.5ºF) | **SpO2** 97% on room air
Expected Actions	- Obtain a full set of vitals - Obtain a history and give a report to the provider
Prompts and Cues	- Patient's father: "She seems okay now. No thanks to the medication you guys put her on." - Patient's father: "They told us we had to follow up here. To be honest, I'm not sure why we'd keep seeing you."
Simulation – Continuation	
Presentation	The participant gives a report to the provider. The provider asks the participant to ensure that Ann has been taking her maintenance inhaler as prescribed.
Expected Actions	- Obtain a medication adherence history from the patient

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Prompts and Cues	- Patient's father: "Are you saying this is our fault? That we're not giving her the medicine right?" - Patient's father: "We did everything you told us to, and she still ended up in the ICU."
Simulation – Conclusion	
Presentation	The provider evaluates the patient and tells you that the patient's father was similarly upset with them. The participants are asked to explain to him that in children with severe asthma, exacerbations can happen despite maximal maintenance therapy. They should encourage him to keep up with Ann's daily medications.
Expected Actions	- Counsel the patient and her father
Prompts and Cues	- Patient's father: "We're at the doctor's office practically every other week, and you still can't keep her out of the hospital. Why would we keep doing this?" - Patient's father: "It's just so frustrating." - Patient's father (after explanation): "I get it. It's all just very upsetting. We'll keep using the inhalers."

Scenario 88: Discharge Against Medical Advice

Manikin:	Environment:
Low-Fidelity Adult	Inpatient Unit

Estimated Run Time: 20 minutes

Objectives:

- Learn the communication skills necessary to navigate a discharge against medical advice

Equipment Set

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Oxygen tubing

Patient Profile

Name	Justin K.
Age	57 Years
Gender	Male
Weight	70.5 kg (155 lbs)
Past Medical History	Congestive heart failure, COPD, hypertension, hyperlipidemia
Surgical History	None
Social History	1.5 pack per day smoker, 2-3 alcoholic drinks per week
Allergies	None
Medications	Furosemide, albuterol, amlodipine, atorvastatin

Roles:

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- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)
- **Off-going nurse** (facilitator)

Pre-Brief Questions:

- How would you navigate the situation if a patient told you they wanted to leave the hospital before they were medically approved for discharge?

At-The-Door Brief
You are assuming care of Justin, a 57-year-old male admitted to the hospital for hypoxemic respiratory failure in the setting of a congestive heart failure exacerbation. Assess the patient.

Simulation – Initial State	
Presentation	Justin is in his hospital room and appears comfortable but restless. He is on 4L by nasal cannula, with SpO2 93%. The participants are provided with the following report from the off-going nurse: "Justin's been doing well. His vitals are stable, but he still requires supplemental oxygen. He's been getting a little restless, and I think he's frustrated that he's not better yet." Vital signs: **HR** 85 | **BP** 150/75 | **RR** 18 | **Temp** 36.8ºC (98.2ºF) | **SpO2** 93% on 4L NC
Expected Actions	- Assess the patient and acquire a set of vital signs
Prompts and Cues	- Patient, when the participant attempts to measure a blood pressure: "Take that thing off. You just did that a few hours ago."
Simulation – Continuation	
Presentation	After assessing the patient's vital signs, the participants are about to leave the room when the patient states that he wants to leave the hospital tonight.
Expected Actions	- Discuss discharge with the patient and report back to the provider

Prompts and Cues	- Patient: “I’ve got to get out of here. I’ve been in this hospital for days.” - Patient: “I don’t care if I’m not breathing right. I was short of breath before I even got here, and I didn’t die.”
Simulation – Conclusion	
Presentation	The participants inform the provider that the patient wishes to discharge. The provider tells them that they are on their way to talk to the patient. In the meantime, the participants should make sure that the patient understands the risks of discharging against medical advice, especially given that he still requires supplemental oxygen.
Expected Actions	- Discuss the risks of discharge against medical advice with the patient
Prompts and Cues	- Patient: “I know, I know, you all keep telling me I could die. I get it. I’m going home.” - Patient: “I don’t care. What’s the point if I’m just sitting in the hospital all day? Take these monitors off me; I’m getting out of here.”

Scenario 89: Patient Complaint

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Learn the communication skills necessary to navigate a patient unsatisfied with their care

Equipment Set

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Nicholas E.
Age	45 years
Gender	Male
Weight	77.3 kg (170 lbs)
Past Medical History	Cellulitis, type 2 diabetes
Surgical History	None
Social History	Nonsmoker, 1-2 alcohol drinks per week
Allergies	None
Medications	Metformin, amoxicillin-clavulanate

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- How would you navigate a situation in which a patient expressed dissatisfaction with the care that they received?

At-The-Door Brief
You are rooming Nicholas, a 45-year-old male currently in your clinic for a follow-up visit after being diagnosed with cellulitis of his left leg 5 days ago. Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Nicholas is on the exam table. He tells you that he was diagnosed with cellulitis 5 days ago and is here for a follow-up. He was prescribed antibiotics which he has been taking, but he is no better. He has not had fevers or chills, but the area of redness and pain on his right leg has expanded. Vital signs: **HR** 79 | **BP** 140/70 | **RR** 16 | **Temp** 36.5ºC (97.7ºF) | **SpO2** 98% on Room Air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I've tried this antibiotic before, and it didn't work that time either. To be honest, I really don't think the provider I saw last time listened to me."
Simulation – Continuation	
Presentation	The provider evaluates the patient and asks you to get more history regarding the patient's prior experiences with antibiotics.
Expected Actions	- Take a detailed history regarding the patient's prior experiences with antibiotics

Prompts and Cues	- Patient: "I've had cellulitis a few times before, and I get abscesses pretty frequently. They usually put me on a different antibiotic because they said the kind of bacteria I have is resistant to a lot of them." - Patient: "I tried to explain that to the person I saw 5 days ago, but they interrupted me and walked out of the room. I really don't feel like they listened to me. If they'd read my chart, they'd have known to give me a different antibiotic."
Simulation – Conclusion	
Presentation	The provider returns, having reviewed the patient's chart, and tells the participants that his concerns are well-founded. Cultures sent from his last two abscess drainages demonstrated methicillin-resistant staph aureus (MRSA), which would not be expected to respond to the amoxicillin-clavulanate that he was prescribed. The participants are asked to explain this to the patient while the provider writes him a new prescription.
Expected Actions	- Discuss the antibiotic with the patient
Prompts and Cues	- Patient: "I told you!" - Patient (after the explanation): "Thank you for listening to me. I appreciate it."

Scenario 90: Patient Expectations

Manikin:	Environment:
Low-Fidelity Adult	Urgent Care

Estimated Run Time: 20 minutes

Objectives:

- Learn the communication skills necessary to set and manage the expectations of patients

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Amber J.
Age	32 years
Gender	Female
Weight	59.1 kg (130 lbs)
Past Medical History	None
Surgical History	None
Social History	Nonsmoker, 2-3 alcohol drinks per week
Allergies	None
Medications	Ibuprofen

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- How do you help set realistic expectations for patient visits?
- How do you respond when a patient has unrealistic expectations?

At-The-Door Brief
You are rooming Amber, a 32-year-old female in your urgent care clinic for headaches. Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Amber is seated on a chair in the exam room. She explains that she has had intermittent headaches for several years. These headaches occur once or twice a month in the evenings, and are exacerbating by stress, hunger, or when the patient skips her daily coffee. Amber was evaluated by her primary care provider who told her that these were likely tension headaches. She also had an MRI of the brain, which was normal. Her primary care provider recommended NSAIDs and acetaminophen, although she has not tried these interventions as she is skeptical that they will be helpful. The patient asked her primary care provider to refer her to a neurologist who specializes in headaches, though there are no open appointments for several months. Vital signs: **HR** 68 | **BP** 135/75 | **RR** 16 | **Temp** 37.1ºC (98.8ºF) | **SpO2** 99% on Room Air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: “I wanted to be seen by a specialist. I think I need another scan.”

Simulation – Continuation	
Presentation	The provider evaluates the patient and notes that she has a normal neurologic exam and had a recent, normal MRI. The participants are asked to again recommend acetaminophen and NSAIDs as needed to the patient.
Expected Actions	- Counsel the patient
Prompts and Cues	- Patient: “That’s it? I need another MRI.” - Patient: “Everyone keeps telling me to try Tylenol, but I know that won’t work. I know I need a prescription.” - Patient: “This is why I need to see a specialist. Can’t you ask them to get me an appointment this week?”
Simulation – Conclusion	
Presentation	The participants are asked to counsel the patient on reasonable timeline and expectations for further workup.
Expected Actions	- Counsel the patient that there is no indication for emergent imaging or intervention currently
Prompts and Cues	- Patient: “If you won’t take me seriously, I’ll call the neurologist tomorrow.”

Scenario 91: Difficult Teammate

Manikin:	Environment:
Low-Fidelity Adult	Urgent Care

Estimated Run Time: 20 minutes

Objectives:

- Practice the skills necessary to navigate difficult interprofessional situations

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Courtney D.
Age	56 years
Gender	Female
Weight	68.2 kg (150 lbs)
Past Medical History	Type 1 diabetes
Surgical History	None
Social History	Nonsmoker, no alcohol intake
Allergies	None
Medications	Insulin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)
- **Bryan, the technician** (facilitator)

Pre-Brief Questions:

- What strategies would you use to navigate an interprofessional conflict without compromising patient care?

At-The-Door Brief
You are rooming Courtney, a 56-year-old female in your urgent care clinic with pain in her left wrist and arm after a fall. Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Courtney is resting in the Emergency Department. She tells you that she was making lunch in her kitchen, when she suddenly woke up on the floor. She cannot recall falling but notes that her wrist hurts; she is concerned that she fell on it. She has never had anything similar happen before. Vital signs: **HR** 73 | **BP** 140/85 | **RR** 16 | **Temp** 36.4ºC (97.6ºF) | **SpO2** 98% on Room Air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I'm not sure what happened. I was just standing there, and then I woke up on the ground. I feel okay now, except for my wrist, which hurts."
Simulation – Continuation	
Presentation	The provider evaluates the patient, telling the participant that the patient may have a fractured wrist. Moreover, the provider expresses concern about the nature of the fall, which is concerning for a cardiac arrhythmia or seizure. The provider orders an X-ray of the wrist and asks you to contact Bryan, the tech to perform it.
Expected Actions	- Contact the tech to bring the patient to X-ray

Prompts and Cues	- Technician: “A two-view X-ray? Can’t I just do the one?” - Technician: “Why are we always ordering stuff like this? She looks fine.”
Simulation – Conclusion	
Presentation	The participants are informed that the regular EKG tech is out sick, and they need to ask Bryan to perform the EKG as well.
Expected Actions	- Discuss performing an EKG with the tech
Prompts and Cues	- Technician: “Can’t you guys do it yourselves?” - Technician: “Come on! It’s not like she’s having a heart attack. Do I really need to do that?”

Scenario 92: Medical Error

Manikin:	Environment:
Low-Fidelity Adult	PACU

Estimated Run Time: 20 minutes

Objectives:

- Develop the communication skills to navigate the disclosure of a medical error

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Geoff P.
Age	73 years
Gender	Male
Weight	72.7 kg (160 lbs)
Past Medical History	Type 1 diabetes
Surgical History	None
Social History	Nonsmoker, no alcohol intake
Allergies	None
Medications	Insulin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What communication strategies would you use to disclose a medical error to a patient?

At-The-Door Brief
You are receiving Geoff, a 73-year-old male, in the PACU. Geoff just underwent a partial colectomy for recurrent diverticulitis. Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Geoff appears comfortable on his stretcher and is now alert as he is emerging from anesthesia. Vital signs: **HR** 78 | **BP** 130/85 | **RR** 16 | **Temp** 36.5ºC (97.7ºF) | **SpO2** 97% on Room Air
Expected Actions	- Obtain a full set of vital signs and give a report to the provider
Prompts and Cues	- None
Simulation – Continuation	
Presentation	The provider tells you that they are glad Geoff is doing well. Unfortunately, the surgery did not go as planned. While placing the laparoscopic trocars, the surgeon accidentally lacerated the patient's liver. They were ultimately able to control the bleeding and the remainder of the operation went as planned. However, because of the injury to his liver, the patient will need a CT scan and will likely need to stay in the hospital overnight for observation. The provider is on their way to speak to the patient but tells you that it is important to disclose this information as soon as possible and asks you to help tell him.
Expected Actions	- Inform the patient of the surgical complication.
Prompts and Cues	- Patient: "You're saying that the surgeon stabbed me in the liver?" - Patient: "What does this mean? Am I going to be okay?"

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Simulation – Conclusion	
Presentation	The provider arrives and speaks with the patient. Afterwards, the patient is preparing to transfer to the inpatient unit when they flag the participants down to answer some questions.
Expected Actions	- Answer the patient's questions
Prompts and Cues	- Patient: "How did this happen? Don't they do hundreds of these surgeries?" - Patient: "I appreciate you telling me what happened. I'm not happy, but it sounds like I'll be okay."

Scenario 93: Sensitive Disclosure

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Develop the communication skills to handle patient disclosure of sensitive information professionally

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Kyle G.
Age	32 years
Gender	Male
Weight	63.6 kg (140 lbs)
Past Medical History	None
Surgical History	None
Social History	Nonsmoker, no alcohol intake
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- When a patient discloses sensitive information to you, what strategies can you use to remain supportive and maintain a therapeutic relationship?

At-The-Door Brief
You are rooming Kyle, a 32-year-old male in your clinic for fevers. Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Kyle is resting on the exam table. He tells you that he has been having fevers off and on for several months. He has fevers for a few hours at a time, at least 4-5 times per week. He has also lost 15 lbs over the past few months without trying. He has no other symptoms. Vital signs: **HR** 85 | **BP** 125/80 | **RR** 16 | **Temp** 36.7ºC (98.1ºF) | **SpO2** 98% on Room Air
Expected Actions	- Obtain a full set of vitals - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I'm just worried about these fevers. They keep happening. I even took some antibiotics my wife had from a sinus infection, but they didn't help."
Simulation – Continuation	
Presentation	The provider expresses concern regarding Kyle's fevers. They note that while the differential diagnosis is broad, it does include tuberculosis, malignancy, and other infections, such as HIV or endocarditis. The providers are asked to elicit a social history from the patient.
Expected Actions	- Elicit a social history from the patient

Prompts and Cues	- The patient initially denies any alcohol or drug use. He states that he is monogamous with his wife of 4 years. He has never been incarcerated, nor does he have any history of international travel.
Simulation – Conclusion	
Presentation	As the participants are leaving the room, the patient stops them. He apologizes and states that he has not been entirely truthful. He tells the participants that he does have a history of drug use. He started using opioids recreationally several years ago. His use escalated 8 months ago, and he has been injecting heroin intravenously 3-4 days per week since that time. He asks you to keep this confidential, as he states that his wife does not know about his drug use.
Expected Actions	- Discuss the patient's drug use with him, including: o Reassuring the patient that this information is confidential o Offering to connect the patient with resources to achieve and maintain abstinence from opioids o Emphasizing the importance of further testing; intravenous drug use puts the patient at risk of infections, such as endocarditis and infections that can be transmitted by sexual contact, such as HIV and HCV
Prompts and Cues	- Patient: "Please don't tell my wife. I know I'm sick, I'm going to tell her soon." - Patient: "Could this have anything to do with my fevers?" - Provider may prompt participants regarding the content of the counseling if needed.

Scenario 94: Difficult Provider

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Practice the interprofessional communication skills necessary to navigate conflict with a provider

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Mark K.
Age	52 years
Gender	Male
Weight	79.5 kg (170 lbs)
Past Medical History	None
Surgical History	None
Social History	Nonsmoker, no alcohol intake
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What strategies would you use to navigate a situation in which a provider is being difficult or unprofessional?

At-The-Door Brief
You are rooming Mark, a 52-year-old male in your clinic for chest pain. Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Mark is resting on the exam table. He tells you that he woke up this morning with a dull pain in his chest. It is relatively mild but worried him as his father died of a heart attack at around his age. He has no shortness of breath, lightheadedness, or palpitations. Vital signs: **HR** 87 | **BP** 135/80 | **RR** 16 | **Temp** 37.0ºC (98.6ºF) | **SpO2** 98% on Room Air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I don't feel too bad, but this really freaked me out."
Simulation – Continuation	
Presentation	The participants give a report to the provider, who appears upset, and tells the participants that this patient should have already had an EKG. The provider also states, irritably, that the participants should have known to draw labs before providing a report.
Expected Actions	- Discuss the patient's care with the provider

Prompts and Cues	- Provider: "This patient has chest pain, and he hasn't had an EKG yet? Are you trying to kill him?" - Provider: "You didn't draw any labs? How are we supposed to assess his chest pain without labs?"
Simulation – Conclusion	
Presentation	The patient's EKG and labs are reassuring, and he is ready for discharge. The provider asks the participants to discharge the patient.
Expected Actions	- Discuss discharge with the provider
Prompts and Cues	- Provider: "I knew he didn't have anything wrong with him." - Provider: "We could have done that much faster. Don't drag your feet next time."

Scenario 95: Patient Education

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Practice the skills necessary to educate patients on their plans of care

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Insulin syringe
- Medication vial
- Alcohol pads

Patient Profile

Name	Jamie H.
Age	52 years
Gender	Female
Weight	68.2 kg (150 lbs)
Past Medical History	Type 2 diabetes
Surgical History	None
Social History	1 pack per day smoker, no alcohol intake
Allergies	None
Medications	Metformin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- How would you go about educating a patient on a significant change to their plan of care?

At-The-Door Brief

You are rooming Jamie, a 52-year-old female in your clinic for a follow-up visit for diabetes management.

Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State

Presentation	Jamie is a 52-year-old female presenting for a routine diabetes management visit. She tells you that things have been well at home. She was prescribed Metformin when she was first diagnosed last year and has been taking it almost every day. She tells you that sometimes, when her blood sugar is high, she takes two pills instead of one. The patient sometimes skips doses because her pharmacy is inconveniently located, and she often delays picking up prescriptions until she happens to be nearby. Vital signs: **HR** 65 | **BP** 150/90 | **RR** 16 | **Temp** 36.7ºC (98.0ºF) | **SpO2** 98% on Room Air
Expected Actions	- Obtain a full set of vital signs - Obtain a history and give a report to the provider
Prompts and Cues	- Patient: "I check my sugar sometimes, a few times a week. If it's very high, I take two pills that day." - Patient: "My sugar is always 2-300. Sometimes it gets as high as 4- or 500."

Simulation – Continuation	
Presentation	The provider expresses concern regarding Jamie's blood glucose levels. She had a hemoglobin A1C drawn before her appointment, which just returned at 9.8%, indicating her diabetes is poorly controlled. The provider notes that Jamie needs counseling regarding how to take her metformin because she appears to take it inconsistently. In addition, Jamie's blood sugar always appears to be 2-300, even when taking her metformin correctly. Because of this, the provider wants to start Jamie on insulin. The participants should first counsel Jamie on the appropriate use of her metformin.
Expected Actions	- Counsel the patient on consistent and appropriate use of her medication
Prompts and Cues	- Patient: "So taking two pills won't change my blood sugar for that day?"
Simulation – Conclusion	
Presentation	After counseling the patient on the proper use of medication, the provider asks you to educate the patient on the use of insulin. Because Jamie is new to insulin therapy, she will start on a one-time basal insulin dose and move to a more complex basal-bolus regimen if she tolerates it well. The participants should educate the patient on the role of insulin, how to draw up and administer the medication, and the warning signs of hypoglycemia.
Expected Actions	- Educate the patient on the role of insulin and the proper technique for its administration
Prompts and Cues	- Patient: "I have to give myself shots?" - Patient: "How do I know how much to give?"

Scenario 96: Multitasking

Manikin:	Environment:
Low-Fidelity Adult	Inpatient Ward

Estimated Run Time: 20 minutes

Objectives:

- Practice the skills necessary to appropriately triage and attend to multiple tasks at once

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Call light
- Phone
- Blankets
- Oral medication tablet and medication cup
- Computer terminal for documentation

Patient Profile

Name	Kirsten G.
Age	36 years
Gender	Female
Weight	56.8 kg (125 lbs)
Past Medical History	None
Surgical History	Appendectomy
Social History	Nonsmoker, 1-2 alcoholic drinks per week
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)
- **Unit clerk** (facilitator)

Pre-Brief Questions:

- When presented with multiple tasks at once, how do you appropriately prioritize?
- What are some strategies that can help you stay organized and focused when faced with competing priorities?

At-The-Door Brief
You have just received sign-out on the inpatient med-surg unit. Kirsten, a 36-year-old female who is post-op day 1 from a laparoscopic cholecystectomy, is due for pain medication now. Assess the patient and administer the medications. Leave the room and document the assessment and medication administration.

Simulation – Initial State	
Presentation	Kirsten is resting. She endorses 5/10 lower abdominal pain and has an order for 5 mg oxycodone PO, which is due now. Vital signs: **HR** 60 | **BP** 145/90 | **RR** 16 | **Temp** 36.2ºC (97.2ºF) | **SpO2** 98% on Room Air
Expected Actions	- Assess the patient, obtain a set of vital signs, and administer the medication correctly - Leave the room and document the assessment and medication
Prompts and Cues	- None
Simulation – Continuation	
Presentation	Immediately after leaving the room, while the participant is setting up to document, a call light goes off. The unit clerk informs the participant that the patient next door is requesting a warm blanket.
Expected Actions	- Deliver a warm blanket to the next room (can hand directly to facilitator) and return to the documentation
Prompts and Cues	- Unit clerk: “The patient in the next room is asking for a blanket.”

Simulation – Conclusion	
Presentation	While returning from delivering the blanket, the participant receives a phone call from the provider taking care of Kirsten; they ask several questions about her clinical status.
Expected Actions	- Answer the provider's questions - Return to and complete the medication administration documentation
Prompts and Cues	- Provider: "Has Kirsten gotten her evening pain meds yet?" - Provider: "How much pain is she in? Is she vomiting?"

Scenario 97: De-Escalation

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 20 minutes

Objectives:

- Practice the skills necessary to de-escalate an agitated patient

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Vanessa W.
Age	28 years
Gender	Female
Weight	65.9 kg (145 lbs)
Past Medical History	None
Surgical History	None
Social History	Nonsmoker, 4-5 alcoholic drinks per week
Allergies	None
Medications	None

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)
- **Krista, patient's sister** (facilitator)

Pre-Brief Questions:

- What strategies would you employ to de-escalate an agitated patient?

At-The-Door Brief
You are rooming Vanessa, a 28-year-old female brought to the Emergency Department by EMS after being found unconscious outside of a bar. Assess the patient, obtain a full set of vital signs, and give a report to the provider.

Simulation – Initial State	
Presentation	Vanessa is sitting on the stretcher. She appears unhappy and visibly intoxicated. While attempting to obtain vital signs, Vanessa repeatedly yells "Get off of me!" to the participants. Vital signs: **HR** 90 | **BP** 120/75 | **RR** 16 | **Temp** 36.7ºC (98.1ºF) | **SpO2** 98% on Room Air
Expected Actions	- Attempt to obtain a set of vital signs - Give a report to the provider
Prompts and Cues	- Patient: "Get off of me!" - Patient: "I'm fine. I'm fine, I want to go home."
Simulation – Continuation	
Presentation	The provider evaluates the patient and notes that their presentation is consistent with acute alcohol intoxication. However, the patient does not appear steady and has no safe disposition. She should stay in the ED until she has clinically sobered up. After the provider is done talking, the participants hear yelling from inside the patient's room; the patient appears to be upset. Security has been paged and is on the way. In the meantime, the participants should attempt to de-escalate the situation.
Expected Actions	- De-escalate the situation

Prompts and Cues	- Patient: "Where am I? I didn't do anything wrong! I want to go home!" - Patient: "I didn't ask anyone to bring me here! Get me out of here!" - Provider/facilitator can prompt participants with de-escalation strategies, including speaking in a calm voice and ensuring the patient that staff are concerned for their health and safety - Provider/facilitator should note to the patient that, in a real-life de-escalation situation, participants should always exit the room and wait for security or police if they feel unsafe
Simulation – Conclusion	
Presentation	The participants' efforts successfully de-escalate the situation. The patient is sleeping calmly. The remainder of her workup is completed, with no evidence of any acute pathology except for alcohol intoxication. The participants are asked to call the patient's Emergency Contact, her sister Krista, to ensure a safe disposition for the patient.
Expected Actions	- Call the patient's sister to obtain a safe disposition
Prompts and Cues	- Patient's sister: "Vanessa is in the hospital?" - Patient's sister (after explanation): "I see. Okay, I live in town and can come pick her up. Thank you for making sure she's safe."

Scenario 98: Reorientation

Manikin:	Environment:
Low-Fidelity Geriatric	Skilled Nursing Facility

Estimated Run Time: 20 minutes

Objectives:

- Practice the skills necessary to reorient a disoriented or confused patient

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Gerald G.
Age	84 years
Gender	Male
Weight	65.9 kg (145 lbs)
Past Medical History	Alzheimer's dementia, Type 2 diabetes
Surgical History	None
Social History	Nonsmoker, no alcohol intake
Allergies	None
Medications	Donepezil, metformin, lisinopril, quetiapine (PRN)

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What strategies would you employ to reorient a disoriented patient?

At-The-Door Brief
You are assisting with nightly cares for Gerald, an 84-year-old resident of your skilled nursing facility. Assess the patient and obtain a full set of vital signs.

Simulation – Initial State	
Presentation	Gerald is resting in bed, having just received his evening medications. He is in no acute distress. Vital signs: **HR** 76 | **BP** 135/90 | **RR** 16 | **Temp** 36.9ºC (98.4ºF) | **SpO2** 97% on Room Air
Expected Actions	- Obtain a full set of vital signs
Prompts and Cues	- None
Simulation – Continuation	
Presentation	As the participants finish collecting vital signs, Gerald appears suddenly confused. He tells the participants, "I need to go home; I need to get a ride home."
Expected Actions	- Reorient the patient
Prompts and Cues	- Patient: "I need to go home; I have work tomorrow." - Patient: "I'm going to miss work; I don't want to get fired." - Provider/facilitator can prompt participants with reorientation strategies and tips as needed

Simulation – Conclusion	
Presentation	After reorientation, the patient appears somewhat settled, though remains restless. The participants are asked to give a report to the provider to assess if any changes in plan of care are necessary.
Expected Actions	- Call report to the provider
Prompts and Cues	- Provider: "That sounds like disorientation secondary to the patient's underlying dementia. If Gerald is so disoriented that you're worried about his safety, he should get a dose of his PRN quetiapine. If that doesn't work, give me a call back and we can figure out a new strategy."

Scenario 99: Documentation

Manikin:	Environment:
Low-Fidelity Adult	Emergency Department

Estimated Run Time: 25 minutes

Objectives:

- Practice producing concise and effective documentation

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor
- Supplemental oxygen tubing
- 1-L IV fluid bag
- 100-mL mini-bag
- Workstation

Patient Profile

Name	Travis W.
Age	38 years
Gender	Male
Weight	81.8 kg (180 lbs)
Past Medical History	IgA nephropathy, hypertension
Surgical History	Kidney transplant
Social History	Nonsmoker, no alcohol intake
Allergies	None
Medications	Tacrolimus, amlodipine

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- What are the elements of a well-written report?

At-The-Door Brief
You are taking care of Travis, a 38-year-old male presenting to your Emergency Department with a fever. Assess the patient and obtain a full set of vital signs.

Simulation – Initial State	
Presentation	Travis is resting on the stretcher. He tells you that he developed a fever yesterday. He has also developed some new urinary frequency but has no other symptoms besides generalized malaise. He has a history of kidney transplant and spoke to his transplant coordinator. The coordinator asked him to present to the Emergency Department for evaluation. Vital signs: **HR** 83 | **BP** 140/85 | **RR** 18 | **Temp** 38.5ºC (101.5ºF) | **SpO2** 97% on Room Air
Expected Actions	- Obtain a full set of vital signs - Obtain a history of give a report to the provider
Prompts and Cues	- None
Simulation – Continuation	
Presentation	The provider is concerned for an infection in this immunocompromised patient. Fluids, blood cultures, labs, and antibiotics are ordered. The participants are asked to hang 1 L of IV fluids and 2 g of ceftriaxone in a 100-mL mini-bag.
Expected Actions	- Hang the fluids and antibiotics with the correct technique
Prompts and Cues	- None

Simulation – Conclusion	
Presentation	The patient has been admitted to the hospital, and his bed is ready on the med-surg floor. The participants are asked to complete a written SBAR report for communication to the inpatient team.
Expected Actions	- Complete a written SBAR report
Prompts and Cues	- Facilitator can prompt the participants with the elements of an SBAR report as needed

Scenario 100: Patient Advocacy

Manikin:	Environment:
Low-Fidelity Adult	Internal Medicine Clinic

Estimated Run Time: 20 minutes

Objectives:

- Effectively advocate for your patient to ensure they get appropriate care

Equipment

- Stethoscope
- Blood pressure cuff
- Thermometer (oral or temporal)
- Scale
- Pulse oximeter with fingertip sensor

Patient Profile

Name	Scott L.
Age	65 years
Gender	Male
Weight	77.3 kg (170 lbs)
Past Medical History	Hypertension, hyperlipidemia, obstructive sleep apnea
Surgical History	Appendectomy
Social History	0.5 pack per day smoker, no alcohol intake
Allergies	None
Medications	Hydrochlorothiazide, amlodipine, atorvastatin

Roles:

- **Primary nurse** (nurse/EMS/provider)
- **Primary assistant** (nurse/tech/CNA)
- **Provider** (provider or facilitator)
- **Patient voice** (facilitator)

Pre-Brief Questions:

- If you felt that a patient's concerns were not adequately addressed, how would you advocate for them?

At-The-Door Brief
You are taking care of Scott, a 65-year-old male presenting to your clinic for abdominal pain. Assess the patient and obtain a full set of vital signs.

Simulation – Initial State	
Presentation	Scott appears mildly uncomfortable on the exam table. He tells you that he developed abdominal pain overnight last night. It is in the right lower quadrant. He has no fevers or chills. No diarrhea, bloody stools, or vomiting. He has never had similar symptoms before and has no history of abdominal surgery. Vital signs: **HR** 72 | **BP** 145/90 | **RR** 18 | **Temp** 37.1ºC (98.8ºF) | **SpO2** 96% on Room Air
Expected Actions	- Obtain a full set of vital signs - Give a report to the provider
Prompts and Cues	- Patient: "It's just been very sore. It feels like a deep pain."
Simulation – Continuation	
Presentation	The provider evaluates the patient and tells the participants that Scott is appropriate for discharge. The participants are told: "His exam is reassuring to me. I think he probably just has a stomach virus." They are asked to discharge the patient.
Expected Actions	- Begin the process of discharging the patient

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Prompts and Cues	- Patient: "I really don't think this is just a virus. I just feel off, and the pain has been getting worse since I've been here." - Patient: "Can you ask the provider if they're sure I'm okay?"
Simulation – Conclusion	
Presentation	Because of the patient's concerns, the participants are asked to advocate for the patient and ensure the workup he received is adequate.
Expected Actions	- Discuss the patient's care with the provider, acting as an advocate for the patient
Prompts and Cues	- Provider: "I understand. If his pain is getting worse in the right lower quadrant, it does make sense for him to get more of a workup. We should refer him to the Emergency Department, as he'll need a CT scan to rule out appendicitis."

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