Simulation Learning System
Implementation Guide
SIMULATION LEARNING SYSTEM IMPLEMENTATION GUIDE
Copyright © 2019 by Elsevier Inc. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any information storage and retrieval system, without permission in writing from the publisher.

Details on how to seek permission, further information about the Publisher’s permissions policies and arrangements with organizations such as the Copyright Clearance Center and the Copyright Licensing Agency, can be found at our website: www.elsevier.com/permissions.

Knowledge and best practice in this field are constantly changing. As new research and experience broaden our understanding, changes in research methods, professional practices, or medical treatment may become necessary.

Practitioners and researchers must always rely on their own experience and knowledge in evaluating and using any information, methods, compounds, or experiments described herein. In using such information or methods they should be mindful of their own safety and the safety of others, including parties for whom they have a professional responsibility.

To the fullest extent of the law, neither the Publisher nor the authors, contributors, or editors, assume any liability for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions, or ideas contained in the material herein.

Director, Clinical Solutions: Heidi Pohlman
Product Manager: Sharifa Barakat
Product Manager: Danny Witzofsky
Marketing Manager: Chris Frazier

Printed in the United States of America
Last digit is the print number: 9 8 7 6 5 4 3 2 1

Copyright © 2019 by Elsevier Inc. All rights reserved.
<table>
<thead>
<tr>
<th>Brief Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
</tr>
<tr>
<td>The SLS Home Page</td>
</tr>
<tr>
<td>Simulation Learning System Recommended Protocol</td>
</tr>
<tr>
<td>SLS Skills Drills</td>
</tr>
<tr>
<td>SLS Implementation Module</td>
</tr>
<tr>
<td>1. Preparation</td>
</tr>
<tr>
<td>2. Scenario</td>
</tr>
<tr>
<td>3. Debriefing</td>
</tr>
<tr>
<td>4. Resources</td>
</tr>
<tr>
<td>Electronic Health Record</td>
</tr>
<tr>
<td>Using Student, Faculty, and Evolve Resources</td>
</tr>
</tbody>
</table>
# Detailed Contents

Introduction .................................................................................................................. 1

The SLS Home Page ...................................................................................................... 3

Simulation Learning System Recommended Protocol .................................................. 4

SLS Skills Drills .............................................................................................................. 5
  SLS Skills Drills Recommended Protocol .................................................................. 5
  Accessing Skills Drills ................................................................................................. 5
  Skills Drills—Student View ......................................................................................... 6
  Skills Drills—Instructor View ..................................................................................... 7
  Assigning Skills Drills ................................................................................................. 9

SLS Implementation Module .......................................................................................... 10
  Implementation Module Overview ............................................................................. 10
  1. Preparation ............................................................................................................. 11
     Scenario Overview .................................................................................................. 11
     Performance Objectives ......................................................................................... 12
     Patient Data ............................................................................................................ 12
     Preparing Yourself ................................................................................................. 12
     Facilitator’s Packet ................................................................................................. 13
     The Scenario .......................................................................................................... 13
     Staging Instructions ................................................................................................. 13
     Identity Bands ........................................................................................................ 16
     Patient Report ......................................................................................................... 17
     Patient Response Guide ......................................................................................... 17
     Additional Participant Response Guides ............................................................... 18
     Participant Role Badges ......................................................................................... 19
     Observer Evaluation Rubric ..................................................................................... 20
     Scenario Snapshot .................................................................................................. 20
     Algorithm Quick Card ............................................................................................ 20
     Performance Checklist ............................................................................................ 22
     Preparing Your Students ......................................................................................... 22
     Preparing the Setting ............................................................................................... 23
  2. Scenario .................................................................................................................. 23
     Initiating the Simulation Experience ....................................................................... 23
     Scenario Phase I ...................................................................................................... 24
     Scenario Phase II (and any additional phases) ....................................................... 25
     Scenario Phase III (or the last phase) .................................................................... 26
  3. Debriefing ............................................................................................................... 27
     Debriefing Procedure ............................................................................................. 27
     Debriefing/Reflection Guide ................................................................................... 28
     Guided Discussion: Questions ............................................................................... 29
     Guided Discussion: Nursing Diagnosis ................................................................. 29
     Guided Discussion: Patient Teaching .................................................................... 30
     Guided Discussion: Growth and Development ...................................................... 30
     Guided Discussion: Culture and Diversity ............................................................. 30
     Debriefing—Final Notes ......................................................................................... 31
  4. Resources ............................................................................................................... 31
     Student Resources .................................................................................................. 31
     Multimedia Resources ............................................................................................ 32

Electronic Health Record .............................................................................................. 32

Copyright © 2019 by Elsevier Inc. All rights reserved.
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>EHR Phases</td>
<td>33</td>
</tr>
<tr>
<td>EHR Pre-Simulation</td>
<td>34</td>
</tr>
<tr>
<td>Pre-Simulation Manager</td>
<td>35</td>
</tr>
<tr>
<td>Using Student, Faculty, and <em>Evolve</em> Resources</td>
<td>36</td>
</tr>
<tr>
<td>General Resources</td>
<td>36</td>
</tr>
<tr>
<td>Simulation Activities</td>
<td>36</td>
</tr>
<tr>
<td>Assigning Pre- and Post-Simulation Activities</td>
<td>38</td>
</tr>
<tr>
<td>Gradebook</td>
<td>41</td>
</tr>
<tr>
<td>Grading Assignments</td>
<td>43</td>
</tr>
</tbody>
</table>
Introduction

In today’s health care climate, nurse educators are faced with the ever-increasing challenge of providing optimal clinical experiences for their students that truly reflect the realities of increased patient acuity, the nursing shortage, and the changing nature of the clinical unit. As a means of addressing these issues, clinical simulation has become an important component of nursing curricula. Human patient simulators can respond physiologically to disease, trauma, and care—very much like actual human beings would respond. Recent advances in technology have greatly enhanced the capability of human patient simulators to replicate the types of situations that students are likely to encounter in clinical practice.

Clinical simulation provides a controlled environment in which students can practice the nursing process and sharpen their critical thinking and decision-making skills before caring for real patients in the clinical setting. During clinical simulation, nursing students experience a realistic patient problem and use the nursing process to guide their interactions with the human patient simulator. Students collect and analyze assessment data and intervene based on their understanding of the patient situation. The human patient simulator is controlled by the simulation instructor (hereafter referred to as the facilitator) to respond to student interventions, whether they are appropriate or inappropriate. The human patient simulator can subsequently recover from the problem, worsen, or even die from a lack of intervention or as a result of an inappropriate intervention.

When using clinical simulation, instructors may need to remind students to suspend disbelief and immerse themselves in the experience. Students should interact with simulated patients as they would with live patients, asking questions and responding to all participants. They should be encouraged to talk and think “out loud” as they progress through the scenario. Simulation provides a safe environment in which to practice clinical decision-making skills without risking the health of real patients. The clinical simulation environment provides opportunities to practice not only skills related to the nursing process, but also skills of communication, delegation, and patient and family education.

Following the completion of the clinical simulation scenario, debriefing is conducted by the facilitator to provide students with the opportunity for self-reflection and to give students immediate feedback regarding their actions during the scenario. The debriefing phase is integral to the learning process; this structured reflection process helps students find relevance and meaning in the simulation experience.

Clinical simulation provides endless learning opportunities and can be used to reinforce understanding of difficult concepts and to allow students to practice skills and techniques related to communication, teamwork, and delegation. The Simulation Learning System (SLS) is an educationally sound program that provides extensive step-by-step instruction for integrating simulation into the nursing curriculum and features a comprehensive set of resources to assist both nursing educators and students. Developed, reviewed, and tested by nationally recognized simulation and nursing education experts, the SLS protocol emphasizes the teaching and learning possibilities of clinical simulation. By following this process, students and instructors alike can gain the maximum benefits of the simulation experience.
The SLS contains a library of clinical simulation scenarios featuring patients with a variety of conditions. Each scenario is accompanied by a complete electronic health record (EHR). The clinical simulation experience begins with pre-simulation activities that prepare the student to enter the simulation laboratory; progresses to the simulation experience as the student provides care for the patient; and concludes with debriefing and post-simulation activities designed to promote reflection and deeper understanding. The pre- and post-simulation exercises, quizzes, and multimedia resources are designed to enhance learning outcomes and assist the facilitator in student evaluation.

The SLS contains a wide array of resources. As you learn about the vast opportunities of this product, you will find that most of the work of running a simulation has been done for you. Before heading to the simulation lab or selecting a scenario to run with your students, take some time to familiarize yourself with the resources, tools, and guidelines of the SLS. Descriptions of each of these resources can be found in this guide.
The SLS Home Page

All SLS program data can be accessed via the Evolve learning management system (LMS). The Evolve LMS is the gateway to your simulation product. Simply select the SLS for your adopted discipline (or comprehensive product) and you are on your way.

The SLS home page on Evolve contains links to all of the SLS materials. Once you are on the home page for the SLS, don’t let the simplicity of the presentation fool you. Behind each click is an extensive set of resources for running successful simulations.

- If you adopted the SLS for RN 2.0, the Scenario Finder is located at the top of the SLS home page.
- The folder named General Resources contains resources you may want a student to use during simulation as well as Instructor Resources, the Student Handbook (Student Resources), Scenario Index, and more. See page 36 for details.
- The Simulation Scenarios (Implementation) folder contains all the Implementation Modules for the product.
- The Simulation Activities folder contains scenario folders that house links to skills drills recommendations, reading assignments, patient reports, electronic health records (EHR), and multimedia resources. They also contain pre- and post-simulation activities.
- The Skills Drills Library folder contains a library of modules, each focused on the demonstration of a single skill. Each skills drills module includes set-up instructions for the instructor, a mini-scenario challenge with a corresponding EHR, and a performance checklist. Many skills drills also contain a video, animation, or Clinical Skill.

The SLS provides you with comprehensive resources to support your simulation mission, all of which are fully integrated with your adopted textbook. Each simulation scenario has been uniquely tagged to page-specific content within the textbook. Reading assignments are tied to multiple textbooks.

In the next section, we will walk through the SLS step-by-step. Please take the time to understand each step so that when you begin to run a scenario, you will have a complete grasp of the resources available to you.

Let’s get started.
Simulation Learning System Recommended Protocol

The following is the recommended protocol for facilitating a simulation scenario from start to finish using the SLS. This protocol includes a variety of options for instructors to customize the simulation experience to meet the unique needs of their students. Individual steps of the protocol may be modified as desired to maximize the use of the SLS in your academic setting.

1. Instructor selects the appropriate simulation scenario using the *Scenario Index* (or *Scenario Finder* in SLS for RN 2.0) and prepares for simulation using the *Implementation Module*.
2. Instructor schedules students for simulation.
3. Instructor prepares student access to pre-simulation activities as desired: *Reading Assignment*, *Concept Mapping* (located in *General Resources*), *Pre-simulation Exercise*, *Pre-simulation Quiz*, *Skills Drills*, *Patient Report*, and the *Pre-simulation Manager* within the *EHR*.
4. Students access the *Evolve* LMS to complete the assigned pre-simulation activities.
5. Instructor prepares the simulation environment using the *Implementation Module* or *Facilitator’s Packet*.
6. Students arrive at the simulation lab.
7. Instructor orients students to simulation environment.
8. Instructor assigns roles and distributes the *Participant Role Badges*, *Additional Participant Response Guide(s)*, and *Observer Evaluation Rubric*.
9. Instructor or student provides *Patient Report* in written or verbal form to all participants.
10. Instructor signals start of scenario and students engage in simulation.
11. Students reference the *EHR* during the scenario to obtain patient care information, such as orders and patient data.
12. Instructor progresses scenario using the *Algorithm Quick Card*.
13. Instructor uses the *Patient Response Guide* to act as patient.
14. Instructor evaluates student performance using the *Performance Checklist*.
15. Non-participating students evaluate student performance using the *Observer Evaluation Rubric*.
16. Students document care during and after the scenario using the *EHR*.
17. Instructor signals end of scenario.
18. Instructor leads scenario debriefing and guided discussion using the *Debriefing Procedure*, *Debriefing/Reflection Guide*, and *Guided Discussion* material.
19. Instructor prepares student access to post-simulation activities as desired: *Journaling*, *Interdisciplinary Communication*, *Post-simulation Exercise*, and *Post-simulation Quiz*.
20. Students access the *Evolve* LMS to complete the assigned post-simulation activities.
21. Instructor evaluates student work in the *Evolve* LMS gradebook and *SimChart* and communicates feedback to students.
SLS Skills Drills

**SLS Skills Drills** provide an opportunity for students to practice discrete skills outside of the multifaceted context of an SLS scenario. **Skills Drills** are designed so that they can be set up by the instructor or learning laboratory personnel for students to complete with or without supervision. These mini-scenarios focus on the application of a single skill within the context of a patient situation. The patient context for each drill encourages basic critical thinking, rather than the simple memorization of skill steps. In addition, several variations of each skill are provided, facilitating skill procedure discernment.

In addition to helping prepare students for an SLS scenario, **Skills Drills** may be used for:

- Student practice after initial skill instruction
- Student self-testing prior to instructor-mediated skill testing
- Student skill practice prior to a clinical experience
- Student remediation
- Competency testing of student skill performance

The **Skills Drills Library** folder contains an entire library of drills appropriate for the SLS course. Some of the drills are geared specifically to SLS scenarios, while others are meant for general skills practice.

**SLS SKILLS DRILLS RECOMMENDED PROTOCOL**

The following is the recommended protocol for integrating **Skills Drills** into the SLS experience. This protocol provides the steps for implementing **Skills Drills** as preparation for an SLS scenario. Individual steps of the protocol may be modified as desired to maximize the use of **Skills Drills** in your academic setting.

1. Instructor views the **Skills Drills** recommendations from the menu of the selected SLS scenario (within **Simulation Activities**).
2. Instructor reviews the **Skills Drills Library** and assigns any of the recommended **Skills Drills** as preparation for the selected SLS scenario. Additional **Skills Drills** from the library can be assigned as desired.
3. Students access the **Evolve** LMS to view the **Student Challenge**, including reading assignment, **EHR**, and a **Clinical Skill** or animation/video as applicable.
4. Instructor prepares the skills lab environment following the staging instructions within the **Instructor Overview**.
5. Students arrive at the **Skills Drills** lab.
6. Students review the **Student Challenge** and **EHR** and complete the drill challenge.
7. Students reference the **EHR** during the drill to obtain patient care information, such as orders and previous assessments.
8. Students record care provided in the **EHR**.
9. Evaluation observer completes the **Performance Checklist** as desired.
ACCESSING SKILLS DRILLS

As seen in the above set of screen shots (from the SLS for Medical-Surgical Nursing), the Skills Drills Library is accessed from the SLS home page. Inside, the library is organized by core topic areas. Within each of the topic folders is a list of available Skills Drills. A uniform set of resources is available within each drill folder.

SKILLS DRILLS – STUDENT VIEW

For each drill, students have access to a Student Challenge and an EHR. Many skills drills also contain a Clinical Skill or animation/video.

The Student Challenge includes a brief summary of the patient situation, a reading assignment, and a specific skill-related challenge. Each drill revolves around a simulated patient and the patient’s EHR. The current day and time information serves as a grounding point and corresponds to the EHR data. A specific patient situation or order drives each challenge.

The EHR is an integral element of each skills drill. While students can review the record before arrival to the lab, access to the EHR within the lab setting is essential for successful completion of the drill challenge. Most Skills Drills direct students to review the EHR prior to initiating the challenge. Students will need to review vital patient
information, such as prior assessment findings, medication administration history, and provider orders. Students also need **EHR** access in order to document their care. As with the SLS scenarios, all information recorded by the student during the skills drill can be submitted for instructor review.

For most **Skills Drills**, a **Clinical Skill** or animation/video of the related skill is available for student review. These demonstrations are meant to serve as basic visual guides to the related skill. For the step-by-step skill process, students should refer to the textbook reading assignments included in the challenge.

In a **Clinical Skill**, students should click on the **Demo** tab within the **Clinical Skill** to view the video(s).

**SKILLS DRILLS – INSTRUCTOR VIEW**

In addition to the student resources, instructors have access to an **Instructor Overview** and **Performance Checklist** for each skills drill.
The *Instructor Overview* contains the same information as the *Student Challenge*, along with the purpose of the drill, a list of expected student outcomes, and a complete set of staging instructions.

When preparing the lab from the staging instructions, either the simple set-up or complete set-up can be used. The simple set-up includes only the props and equipment needed for the completion of the specific skill challenge. The complete set-up includes all the props and equipment needed to create the full patient situation. The complete setup can be used for a richer simulation experience.

The *Performance Checklist* is comprised of the student outcome list in an easy-to-use evaluation-gearied table. A printed copy of the *Performance Checklist* should be made available for the designated evaluation observer (instructor or peer). The checklist can also be made available for student self-evaluation.
ASSIGNING SKILLS DRILLS

When assigning drills for the preparation of an SLS scenario, the first step is to review the Skills Drills recommendations from within the scenario documents. From the selected scenario folder in Simulation Activities, click on the Skills Drills Recommendations link. This will pull up a list of the Skills Drills recommendations for the scenario. This list can also be accessed through several links within the Implementation Module. A comprehensive list can be accessed within the Skills Drills Library (Scenario Recommendations).

While the recommendations provided for each scenario consist of the skill variations that most closely relate to the specific variation of each skill encountered in the scenario, additional variations from the library can also be assigned as desired. Students automatically have access to every Student Challenge, EHR, and any associated animations/videos or Clinical Skills within the Skills Drills Library, so no action within the Evolve LMS is required when assigning skills drills.
SLS Implementation Module

The SLS is set up identically for each scenario. Once you become familiar with how the materials are organized for one scenario, you’ll easily be able to navigate through the rest. The following sections detail the SLS resources available within each scenario Implementation Module. Implementation Modules are located in the Simulation Scenarios (Implementation) folder.

IMPLEMENTATION MODULE OVERVIEW

Each scenario Implementation Module is organized into four main tabs that house the preparation, scenario, debriefing, and supplemental resources for the scenario. Within these tabs you will find all of the instructions, details, and resources necessary for implementing the scenario.

1. Preparation resources are for pre-simulation planning and preparation.
2. Scenario resources assist during simulation implementation.
3. Debriefing resources facilitate discussion and evaluation post-simulation.
4. Resources are additional items to facilitate student understanding.

In addition to these four main tabs, 4 quick-access icons are displayed in the scenario header of the Implementation Module. These icons offer easy access to frequently used resources.

A. The Facilitator’s Packet is a convenient printable PDF that includes resources needed for preparation and implementation of the scenario. The resources in the Facilitator’s Packet are located in various places within the Implementation Module and compiled here for easy reference. A link to the Facilitator’s Packet is also found under the Preparing Yourself screen of the Preparation tab.

B. The Patient Report summarizes the patient’s condition immediately before the scenario begins. This report is used to initiate the simulation experience. A link to the Patient Report is also found on the Initiating the Simulation Experience screen of the Scenario tab.

C. The Algorithm Quick Card provides the facilitator with a visual progression of the scenario. A link to the Algorithm Quick Card is also found on the Scenario Phase I screen of the Scenario tab.

D. The Performance Checklist may be used for evaluation of student actions during the scenario. A link to the Performance Checklist is also found on the Scenario Phase I screen of the Scenario tab.
1. PREPARATION

Scenario Overview

Title. The scenario title, located just to the left of the quick-access icons, reflects the patient’s medical condition. For students, scenarios are referred to by number and patient name only, so as not to reveal too much about the simulation experience.

Purpose. The scenario purpose reflects the nursing actions that the student will perform during the scenario. This purpose closely mirrors the nursing process in that the student must assess, plan, intervene, and evaluate the effect of the nursing interventions.

Overview. The scenario overview offers a brief sketch of the patient and the events occurring before the scenario start time. A description of the patient upon initial contact is also provided, along with the nursing actions to be performed.

Recommended Scenario and Debriefing Time Limit. Recommended scenario and debriefing time limits are identified on the first screen, with suggested times based on the number of performance objectives for each simulation scenario and the scenario phases. The facilitator must remain flexible, however, because student performance during the simulation scenario is not always predictable. The struggling student may take longer to achieve the performance objectives of a given simulation scenario, whereas the more experienced or confident student may progress more quickly. Therefore, it may be helpful to allow extra time when scheduling. These times are estimated based on SLS field testing.
Performance Objectives

The **Performance Objectives** consist of identifiable actions that the student should perform during the scenario or after in the debriefing discussion. These objectives are based on the nursing process and are organized according to the Quality and Safety Education for Nurses (QSEN) quality and safety competencies. Specific nursing actions are listed in the **Performance Objectives** section to guide the facilitator in choosing the most appropriate simulation scenario for the student’s skill level. The **Performance Objectives** correlate closely with the objectives in the **Performance Checklist** (see page 22). However, the checklist has been organized chronologically for trouble-free student evaluation.

Patient Data

The patient’s name, medical record number, date of birth, sex, admitting health care provider, chief complaint upon admission to the health care facility, and primary and secondary diagnoses are listed here, closely mirroring the health record in the real-world clinical environment.

**Scenario Start Day and Time.** The scenario start day and time reflect the exact time that the student encounters the patient during the simulation scenario. The corresponding **EHR** reflects patient data collected up to the start time of the scenario, again recreating the real-life clinical environment. Students have the opportunity to document in the **EHR** the events that occur during the scenario, beginning with the start day and time.

Preparing Yourself

Preparation is the key to success in clinical simulation and ensures that the simulation scenario runs smoothly for you and your students. Before running an SLS scenario with students, you should review the complete **Implementation Module** of each scenario so that you are familiar with all aspects of the simulation scenario and its related resources. In addition, try to schedule some time with colleagues or a small group of students to do a “practice run” of the scenario before implementation with a large group of students. Familiarization with the essential elements of each scenario will assist in the successful implementation of clinical simulation throughout the curriculum.
Following the review of materials and practice session, determine how the simulation scenario will be scheduled and managed with all students. For example, you may choose to run each scenario with small groups of 4 to 5 students with assigned roles, or you may prefer to run a simulation scenario with a few students while projecting the real-time simulation to a classroom using audio-visual equipment. Some facilitators may choose to run the simulation scenario with their designated clinical groups. However you choose to implement the simulation scenarios, this should be determined and communicated to students before initiating the simulation.

The Facilitator’s Packet is a printable PDF file designed to assist facilitators before and during clinical simulation and includes information needed to prepare the setting, communicate important information to students, and evaluate student performance. The Facilitator’s Packet can be downloaded and printed from the Preparing Yourself screen or accessed by clicking on the quick-access icon in the upper right-hand corner of the Implementation Module screen. The icon appears throughout the Implementation Module next to any specific resources that can be found within the Facilitator’s Packet.

**FACILITATOR’S PACKET**

**The Scenario**
The scenario purpose, overview, and time limit is the same as that found on the Scenario Overview screen under the Preparation tab.

**Staging Instructions**
The physical simulation environment must be conducive to learning. One primary purpose of simulation is to engage students in a challenging, realistic situation, and to allow them to interact with the physical environment, as well as the patient, when managing the situation. Maintaining an organized and well-equipped physical environment will facilitate learning and enhance knowledge transfer to the clinical setting. The Instructor Resources provide a link to Simulation Center Resources, which include many resources that may help you in planning and preparing the physical simulation environment.

Simulation labs may be equipped with human patient simulators created by different manufacturers with varying functionalities. Facilitators should make every effort to orient themselves to the particular human patient simulator used in their own simulation laboratory and gain mastery of its functionalities and technical operations. It can be especially helpful for your nursing program to enlist one or more “champions” of clinical simulation as experts in the implementation of simulation and to coordinate clinical simulation activities with other facilitators.
The **Staging Instructions** provide detailed information regarding the scenario-specific props—including equipment, supplies, and medications—necessary for scenario implementation. Instructions regarding the use and placement of these props for scenario staging are included.

In some scenarios, paper resources or forms will be required as props. Any required resources or forms are included within the *Facilitator’s Packet* and appear as links in the *Preparing the Setting* screen of the *Implementation Module*. Simply click on the link and print the required materials.

In addition to scenario-specific props, the simulation area should be stocked with standard props. These standard props include items commonly found in a patient care setting. Since standard props are not usually listed on the scenario-specific **Staging Instructions**, take time to be sure that all standard props are in place when staging each scenario. It may be helpful to print a copy of the standard props list included here to use as a checklist for each scenario.
### Standard Props and Equipment for All Scenarios

**Supplies:**
- Hand sanitizer or hand washing station
- Universal precaution supplies: clean gloves (all sizes), gowns, masks, face shields, or goggles
- Saline flush syringes (for IV flushes)
- Alcohol wipes
- Cotton balls
- Clean gauze squares
- Bandages
- Tape
- Scissors
- Box of tissues
- Peripads
- Bed pads
- Sterile gloves in all sizes
- Supply cart (optional, for organization of supplies)
- Medication cart with simulated medications (see each scenario list for specific medications)

**Patient care equipment:**
- Functioning bed
- Extra pillows
- Sphygmomanometer
- Stethoscope (or student to provide)
- Thermometer
- Pulse oximeter
- Cardiac monitor
- Oxygen source (wall mount or tank)
- Oxygen flow meter
- Nasal cannula and tubing
- Oxygen face mask
- Bag-valve mask
- Suction equipment (wall mount or portable)

**Additional equipment in or near patient room:**
- Telephone (for provider or interprofessional calls)
- Regular garbage bin
- Biohazard garbage bin
- Linen bag or bin
- Sharps container
- Writing surface
- Pen and note paper
- Calculator
- Chair for visitor
- Laptop or desktop computer with internet connection (for the EHR)

Depending on the type of human patient simulator being used and the type of equipment available in your simulation setting, creative moulage may be necessary. The *Staging Instructions* may specify a particular patient presentation, such as type of wound or bloody discharge. When these specifications cannot be met with standard simulator settings, it may be necessary to improvise in order to create the best possible simulation environment. Suggestions for alternative moulage or equipment work-arounds have been supplied when available. In the SLS for RN 2.0, you have access to the *Moulage Manual* with over 80 recipes. Following the guidelines where possible—and using creativity when the guidelines cannot be followed—will ensure a quality simulation learning environment for your students.

Because the **EHR** is an essential component of patient care, it is necessary to provide internet access for student access to the **EHR** during the scenario. Access to the **EHR** will allow students to review patient data or reference orders during the scenario, as well as to practice documentation during or immediately following the scenario.
Identity Bands

In order to closely mimic the real-life clinical environment, the Facilitator’s Packet provides Identity Bands appropriate to the scenario. Provided bands include Patient Identity, Allergy, and other Risks/Alerts. Correct identification of a patient reduces the risk for errors in the clinical setting. Utilizing these bands during simulation allows students to practice this skill with each scenario in order to promote patient safety. The bands are designed to be cut out and used during the simulation. Facilitators may find it useful to laminate the bands and store them with scenario-specific documents and materials for future use.

Before or after assigning an EHR in SimChart Setup, you can enable barcoding in the EHR, and this produces a patient ID band and medication barcodes to be used in the simulation if desired. See the quick guide Using Barcoding in a Simulation in Instructor Resources for more details.

<table>
<thead>
<tr>
<th>Patient Band</th>
<th>White</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Medical record number</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Date of birth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Age</td>
</tr>
<tr>
<td>Risk/Alert: Allergy</td>
<td>Red</td>
<td>Band indicates that patient has allergy identified</td>
</tr>
<tr>
<td>Risk/Alert: Fall Risk</td>
<td>Yellow</td>
<td>Band indicates that patient has determined fall risk</td>
</tr>
<tr>
<td>Risk/Alert: DNR</td>
<td>Purple</td>
<td>Band indicates that patient has a do not resuscitate order</td>
</tr>
<tr>
<td>Risk/Alert: Restricted Limb</td>
<td>Pink</td>
<td>Band indicates that limb to which band is placed has restricted access</td>
</tr>
<tr>
<td>Risk/Alert: Latex Allergy</td>
<td>Green</td>
<td>Band indicates that patient has a latex allergy</td>
</tr>
</tbody>
</table>
Patient Report

Clear communication of patient information during hand-off or at the change of shift is essential to error prevention in the clinical setting. The Patient Report offers detailed information, in SBAR format, regarding the patient’s situation, background, and assessment findings, as well as recommendations for care.

The Patient Report may be accessed from four locations:

- From the icon on the scenario header bar
- From the link on the Implementing the Simulation Experience screen
- From the scenario-specific Facilitator’s Packet
- From a scenario folder within Simulation Activities

The Patient Report provides students with a current patient status update and sets the stage for the scenario. Facilitators may choose to present the report to their students themselves, or to have a student play the role of the nurse providing the report. The report may be reviewed in written form, read aloud as if in a report room, or communicated at the patient’s bedside. Regardless of the delivery method, this report must be provided to students before the start of the scenario. This simulates an actual patient report given when one nurse accepts patient care from another and leads the learner into the simulation scenario.

Patient Response Guide

The Patient Response Guide offers questions, comments, and responses that the patient might make during the scenario. Some responses are intended to provide the student with information, such as clinical findings or data, while other responses, such as questions about interventions, are intended to challenge or cue the student to interact with the patient. Responses are organized into categories so that the facilitator can quickly locate the appropriate response.

The Patient Response Guide has been scripted to reflect the patient’s clinical condition and anticipated issues. These general responses are provided as a framework, with the understanding that student questions and actions are often unpredictable. The facilitator is encouraged to improvise and add appropriate impromptu responses on behalf of the patient when necessary.
**Additional Participant Response Guide**

Additional participant(s) may be family members, friends, a physician, or another person who is present either physically or by telephone during the simulation. The *Additional Participant Response Guide* provides a script for the person assigned to the particular role. Print out or copy the *Additional Participant Response Guides* and provide them to participants at the time of the scenario.

**Family Member or Friend.** Student participants, faculty or staff members, or volunteers may be assigned the role of family member or friend of the patient. The person playing this role should be given adequate time to review the *Additional Participant Response Guide* and prepare to use the guide to provide appropriate responses and comments during the scenario. Playing the role of a family member may provide the student insight into the feelings of a visitor in a health care environment. The thoughts and emotions of the visitor should be discussed during the debriefing session, and discussions of the importance of therapeutic communication with both the patient and family member or friend should be encouraged.

**Ancillary Personnel.** Student participants in ancillary personnel roles, such as the secondary nurse or nursing assistant, should be instructed to provide care within that provider’s scope of practice. If indicated in the response guide, or to guide the direction of the scenario, the facilitator should prompt the secondary nurse and assistive personnel to enter the room or conduct a certain action depending on the events occurring in the scenario. In most scenarios, no response guide is provided for ancillary personnel unless a specific action is required of that person during the scenario. Students in ancillary personnel roles are expected to take direction from the primary nurse and complete tasks appropriately. It may be challenging for some students to maintain an ancillary role during a scenario when they are accustomed to acting as a nurse; students should be reminded during orientation to limit their interventions to the scope of practice of the ancillary care provider during the simulation. Issues that arise during simulation related to an individual’s scope of practice and responsibilities during patient care may make for rich discussion during the debriefing session.

**Physician or other Health Care Provider.** Students should be informed during orientation that they may need to contact the patient’s physician or other health care provider to provide a status update or to obtain verbal orders during the course of the scenario. Communication may be obtained through a telephone line, paging system, in-person communication, or two-way walkie-talkies, depending on the scenario and your simulation facility’s design and resources.

The role of the health care provider should be played by a facilitator or faculty member using the *Additional Participant Response Guide* for reference. Advance practice nursing students, medical students, or other
similarly prepared students may also play this role; in general, it is not advisable to have nursing students play this role as it is beyond their scope of practice.

**SBAR Communication.** During communication with the physician or health care provider, students should be instructed to provide clear and concise communication regarding the patient condition in the format of situation, background, assessment, and recommendation (SBAR). SBAR communication provides a framework for effectively communicating relevant patient information in an effort to minimize errors in the health care setting and optimize patient safety. When reporting about the situation, students should identify themselves and the environment and provide clear information regarding the events occurring at the present time. Background information includes the events leading up to the current situation, including the patient’s diagnosis, medications, brief summary of hospitalization, recent vital signs, and other relevant clinical information. Assessment includes the student’s analysis of the patient situation. Finally, students should give their recommendation, or what they feel can be done to improve the patient situation (for example, requesting an order for diagnostic tests or medications or demanding the patient be seen immediately).

The following is an example of nurse-to-provider communication in the SBAR format:

**Situation:** “Hello, Dr. Rebecca. I am Sarah Matthews, a nurse on unit 6G at Local Hospital. I’m caring for Ms. Ann Howard, who is experiencing a sudden onset of shortness of breath.”

**Background:** “Ms. Howard is a 67-year-old female who was admitted from the emergency department for an exacerbation of her COPD last evening. She also has a history of hypertension. Following lab tests and a chest x-ray, she was placed on 2 liters of oxygen via nasal cannula and IV steroids. An antibiotic was started for treatment of possible bronchitis.”

**Assessment:** “During my 7 AM assessment, I noted the following vital signs: temperature of 99.3 °F, pulse of 114 bpm, shallow respirations of 26, and blood pressure of 148/86. Her pulse oximeter is reading 92%. She is moderately anxious and speaking in 2- to 3-word sentences. Bilateral breath sounds reveal wheezes throughout all lung fields. I have increased her oxygen flow rate to 4 liters via nasal cannula and am continuously monitoring her oxygen saturation.”

**Recommendation:** “Since there is no order for bronchodilators on her chart, I am requesting an order to administer a fast-acting bronchodilator STAT. I will notify you with an update on her condition following the respiratory treatment.”

**Participant Role Badges**
Role badges are provided for each scenario for participants, including primary nurse, secondary nurse, nursing assistant, health care provider, visitors, friends, and/or family members. Badges may be cut out and provided as identification props for the scenario. Like the armbands, facilitators may find it useful to laminate the role badges(s) and store them with scenario-specific documents and materials for future use.
Observer Evaluation Rubric
Created for the students who are observing the simulation, the Observer Evaluation Rubric helps student observers evaluate how well the primary nurse, secondary nurse, and other participant(s) meet or exceed expectations related to the core nursing competency areas. These areas include:

- Management of Care
- Safety and Infection Control
- Health Promotion and Maintenance
- Psychosocial Integrity
- Basic Care and Comfort
- Pharmacological and Parenteral Therapies
- Reduction of Risk Potential
- Physiological Adaptation

For each of these areas, evaluation criteria and expected activities are detailed. Information regarding the related QSEN competencies and national patient safety goals is also included. For ease of use, the Observer Evaluation Rubric should be printed out and provided to the student to write on during the scenario (this rubric is also available in the General Resources folder). If desired, each student may be assigned only one or two competency areas in order to help narrow the focus of their observation. The facilitator should encourage observers to share the results of their observations during the debriefing session.

Scenario Snapshot
The Scenario Snapshot is a one- or two-page summary of the scenario progression that shows how the various components (physiologic states and EHR phases) overlap over the course of the scenario, indicating when the physiologic (simulator) state and EHR phases should shift based on related student actions.

Algorithm Quick Card
The Algorithm Quick Card is a one-page visual depiction of the scenario designed as an easy reference for the simulation facilitator. The Algorithm Quick Card summarizes the patient progression, the student’s expected actions, required EHR phase shifts, and the main possible scenario outcomes in a succinct, graphic representation. The facilitator should keep the card readily available as the scenario progresses and use it as a guide for transitioning the scenario from one phase to the next.
The Algorithm Quick Card may be accessed from several locations:
- The Facilitator’s Packet for the scenario
- The Scenario Phase I screen
- The Algorithm Quick Card quick-access icon on the scenario header bar to the right of the scenario title

The Algorithm Quick Card is color-coded to provide a quick visual cue to the current simulation phase. Take a look at the example above:

**PHASE I** is the assessment stage. Phase I lists the initial patient settings and the expected student performance.

**PHASE II** is the intervention stage. Any changes in the patient’s state from Phase I are noted here, along with the expected student performance for this phase. The student’s interventions during Phase II will affect which route the patient will take going into Phase III.

**PHASE III** offers various patient outcomes depending on which interventions occurred during the previous phases. Expected student performance statements are provided for when the student performs the appropriate interventions. If the student proceeds down the wrong route, the scenario can proceed directly to the debriefing stage.

The number of phases and branches for any given scenario depends on:
- The complexity of the situation
- The number of appropriate interventions, and
- The number of possible outcomes

Vital sign data and patient presentation details are provided for all phases of the scenario, although it is not expected that students necessarily assess this data during all phases. Vital signs and patient details are provided so that the facilitator is able to program the simulator and provide students with patient presentation details at any time the student chooses to assess the patient during the course of the scenario. Expected frequency of vital sign assessment will be dependent upon the individual scenario.

EHR phase shift icons appear whenever new information needs to appear in the EHR, or when significant time lapses occur. For more information about EHR phase shifts, see the EHR Phases section on page 33.

Although the quick card anticipates the most logical student response during the scenario, it is important that the facilitator remain alert to unanticipated student actions and adjust the simulator as necessary. At any point, the facilitator should be ready to manually change the parameters on the simulator to reflect the consequences of a student’s action. In addition, if the facilitator notes that students are struggling and the scenario progression is compromised, the facilitator may wish to prompt students using verbal clues from the patient. For example, if students have not identified postoperative bleeding after a basic assessment, the patient may hint at the problem by saying, “Oh, I am so light-headed, and I feel like my bed is all wet. Can you check to see if I wet the bed?” In many cases, these clues will be enough to redirect the scenario. If students remain at a total impasse, an alternative is to call a “time out,” in which the facilitator pauses the scenario and talks with students about their perception of
the situation and their plan of care. Following the time out, the facilitator may choose to begin the scenario from the beginning or continue with the scenario from the pause point.

The Algorithm Quick Card can be used as a guide to run a simulation scenario with or without using preprogrammed files. Any scenario can be run entirely on-the-fly (without preprogrammed files) using the Algorithm Quick Card as a reference, or scenarios may be run using preprogrammed files or “frames” corresponding to the initial settings, transition, and various possible outcomes. You can choose the method that works best for you. To create preprogrammed files for use in your simulation center, open the file programming feature in your particular simulator software and enter the data provided in the initial settings, transition, and outcomes boxes on the Algorithm Quick Card. Name the files accordingly and save them in a preprogrammed folder for use during the scenario.

**Performance Checklist**

Designed for the facilitator, the Performance Checklist details the expected student performance objectives specific to the scenario. The Performance Checklist is used for summative student evaluation following the simulation scenario. As the student progresses through the scenario, the facilitator can easily place a checkmark in the appropriate column—Exceeds Expectations, Meets Expectations, or Does Not Meet Expectations—and make comments.

The Performance Checklist is provided in the Facilitator’s Packet and can be referenced in list format from anywhere within the Implementation Module by clicking on the icon on the scenario header bar to the right of the scenario title.

The Performance Checklist should be shared with students during or after the debriefing session in order to facilitate student reflection and maximize learning. If the facilitator chooses, each performance behavior can be assigned a point value, and the checklist can easily be converted into a grading tool. For example, the student may earn a “2” if the performance exceeds expectations and a “1” if it meets expectations. The decision to use these scenarios as a grading tool or for competency testing should be made before the start of the scenario and identified in the course syllabus. Students should be informed of this during the clinical simulation orientation period.

**Preparing Your Students**

An important part of the student simulation experience is preparation. You can help your students maximize their time in simulation by assigning pre-simulation and post-simulation homework using the available scenario-specific resources. The Resources section of the Implementation Module lists all of the pre- and post-simulation learning resources that can be assigned. In addition to the scenario-specific assignments, the Student Handbook should be assigned as reading before the first simulation scenario event and should continue to be accessed by students as a reference document throughout their simulation learning.
To prepare assignments, go to the scenario folder in Simulation Activities, view the pre- and post-simulation assessments within, and edit the settings for each assessment to assign to students. For detailed instructions on preparing these resources, see the Using Student, Faculty, and Evolve Resources section of this guide, page 36.

You may elect to assign students to review the patient’s EHR prior to arriving at the simulation event. For more information about the EHR’s Pre-Simulation Mode, see the EHR Pre-Simulation section on page 34.

Preparing the Setting

The Preparing the Setting section contains a reference copy of the scenario-specific Staging Instructions including equipment, props, medications, and facilitator’s set-up actions. Please see detailed information about Staging Instructions in the Facilitator’s Packet section of this guide on page 13.

2. SCENARIO

Initiating the Simulation Experience

Orientation. When students arrive on the first clinical simulation day, it is important to provide them with an orientation to the human patient simulator and its functionality, the equipment available in the room, and the surrounding environment. This should be individualized based on your setting and your students’ familiarity with the simulation environment—students who are new to the simulator will need more time for orientation than more experienced students. Students should be given a clear idea of the general activities they will perform during any simulation. For example, they should be prepared to assume a role, receive report, review the EHR, and begin to provide care to the patient while following the steps of the nursing process.
Certain ground rules should be established with students before beginning the clinical simulation experience. The facilitator should reinforce that the simulation environment is a safe and positive environment for students to practice their skills. It is essential to make students feel comfortable in simulation and acknowledge the possibility that they may make mistakes. Remind students that it is better to make a mistake in simulation and learn from the experience than to make a mistake with a real patient with the potential of causing harm. Take time to promote an environment that fosters constructive criticism and mature, respectful behavior. To establish an environment conducive to learning, make it clear that students must be respectful to their peers during and after the simulation experience and that there should be no ridiculing or demeaning of a peer who may have made an error. Students should understand that a debriefing session will be conducted following the scenario in which all participants will be given the opportunity to critically reflect on both the strengths and weaknesses of their performance as well as areas in which they can improve.

If written permission to film student performance is required in your simulation lab, permissions should be obtained during orientation.

**Role Assignment.** Following orientation, students should be assigned specific roles to be played during the simulation scenario. The facilitator may choose to assign student roles or allow students to randomly choose badges to determine their role. Each scenario includes the role of the primary nurse and secondary nurse, with some scenarios including additional participants such as a nursing assistant or a patient’s family member or friend. In general, it is recommended that the role of the health care provider should be played by a facilitator or faculty member, as it is beyond a nursing student’s scope of practice. As facilitator, you can include additional participants at your discretion, such as charge nurse, unlicensed assistive personnel, or lab technician. The inclusion of any assistive personnel allows the primary and secondary nurses to practice delegating tasks, while the delegate is given the opportunity to perform appropriate tasks and experience an ancillary role. The inclusion of students in roles such as friends or family members allows them to experience a health care setting from their unique perspective. Be sure to give participants in scripted roles the Additional Participant Response Guide for their role, available in the Facilitator’s Packet.

The primary nurse is expected to act as the team leader during the scenario, with the secondary nurse assisting as needed within the nursing scope of practice. Participants in both nursing roles (primary and secondary) should be encouraged to talk and think out loud as they practice their clinical decision-making skills, while also being cognizant of their communication techniques.

To ensure that all roles are clearly identified during the scenario, have each student participant wear a badge. Printable Participant Role Badges are available in the Facilitator’s Packet. You may also wish to provide costumes including wigs, hats, clothing, or other props for particular roles to enhance realism.

**Report.** To begin the simulation scenario, provide report using the Patient Report. Detailed information about using the Patient Report is found in the Facilitator’s Packet section of this guide on page 17.

**Scenario Phase I**

The Scenario Phase screens provide detailed information about the scenario. This information is most useful if reviewed ahead of time by the simulation facilitator in order to understand the pathways of the scenario. It can be referenced as needed during the actual scenario. These documents provide a high level of detail in contrast to the Algorithm Quick Card which provides a visual overview of the scenario. If the facilitator is both controlling and speaking for the simulator, it is recommended that the Patient Response Guide and Algorithm Quick Card be
Phase I represents the initial contact between student and patient. During this phase, the primary nurse enters the room, identifies the patient, and conducts a focused assessment. With each scenario, the additional events in Phase I are tailored to the specific scenario. The initial **Physiologic State** indicates the specific physiologic parameters that should be programmed into the simulator. The **Situation/Transition** provides a description of the patient environment to be encountered by the student.

The **Expected Student Performance** lists actions to be accomplished during the first phase of the scenario. These expected performance statements correspond with the **Performance Checklist**. The EHR phase icon indicates the associated EHR phase and changes as needed. The corresponding time stamp indicates the length of time allotted for each phase. Note that the time stamps do not reflect the recommended scenario time limits, as additional time has been built into the individual EHR phases to give struggling students extra time. For more information about EHR phase shifts, see the **EHR Phases** section on page 33.

**Scenario Phase II (and any additional phases)**

During Phase II, the student must use the data collected during the assessment process and begin to plan and intervene with the patient. Vital signs are included in each phase in the event that the student assesses vital signs at that time, not implying that students must assess vital signs during each phase. Depending on the assessment findings, the student may need to conduct interventions such as calling the appropriate health care provider and obtaining orders for treatments, administering medications, or performing other nursing interventions. Students will have the opportunity to implement nursing interventions and perform psychomotor skills, including—but not limited to—patient assessment, medication administration, intravenous fluid administration, oxygen initiation and monitoring, catheterization, and blood product administration, depending on the specific scenario. As in Phase I, the **Physiologic State**, **Situation/Transition**, and **Expected Student Performance** are provided, along with the EHR phase indicator.
Scenario Phase III (or the last phase)
During Phase III, the simulator responds to the interventions (or lack thereof), in a positive or negative manner, resulting in the ultimate patient outcome. The student has the opportunity to reassess the patient and evaluate the effectiveness of the interventions. The Physiologic State and Situation/Transition are also provided as in previous phases. Expected Student Performance during Phase III involves evaluation of the interventions and documentation of the events in the EHR. Once the student completes all performance behaviors, or if the student appears to be following an incorrect pathway and the patient situation deteriorates, the facilitator may choose to state “The scenario is over” and proceed to the debriefing portion of the SLS.
3. DEBRIEFING

Debriefing Procedure
A well-conducted debriefing session is integral to the simulation learning experience. The best debriefing experience allows participants to openly reflect on the scenario in a non-threatening and non-judgmental environment. The debriefing session should immediately follow completion of the scenario and should be conducted in a comfortable area with all scenario participants present. The facilitator’s role in debriefing is to provide structure to the discussion as students actively review and discuss details and outcomes of the scenario. Facilitator’s comments and reactions to student performance during the simulation should be kept to a minimum, and student participants should be encouraged to lead the discussion as much as possible. Reinforce the importance of the debriefing session and emphasize how this critical reflective process correlates with enhanced learning outcomes. The debriefing should last as long or longer than the scenario itself.
Debriefing/Reflection Guide

The Debriefing/Reflection Guide is organized into 5 phases to help you provide structure to the debriefing process. The phases include:

1. Student Reaction
2. Student Reflection
3. Responsive Inquiry
4. Integration
5. Closure

The Student Reaction phase allows students to vent their feelings immediately after the scenario. During this phase, the facilitator invites students to share initial thoughts about the case. Students may experience intense emotional responses, especially if the patient suffered a negative outcome.

During the Student Reflection phase, students are encouraged to reflect on their decision making process and on interventions conducted during the scenario. During this phase, all participants should be encouraged to participate in the discussion. Observers should be encouraged to provide feedback using the Observer Evaluation Rubric.

During the Responsive Inquiry phase, the facilitator has several options for stimulating critical thinking and modeling clinical decision making for students. The Performance Checklist could be reviewed, including both positive feedback and honest evaluation of events that occurred during the scenario. If your simulation center has the capacity for recording the scenario, the recording can be reviewed with students at this time, allowing the facilitator to pause and ask critical thinking questions at pivotal points during the scenario.

During the Integration phase, discussion is guided to link theory to practice and facilitate transfer of knowledge to the clinical setting and next patient encounter. The Integration phase is also an optimal time to review any pre-simulation learning exercises that students completed before the simulation experience.

Other important clinical skills and concepts can be discussed during the Responsive Inquiry and Integration phases. The Guided Discussion section of the SLS (described below) provides suggestions for questions specific to the scenario. Other valuable debriefing topics common to all scenarios include therapeutic communication, professional communication, teamwork, patient safety, quality of care considerations, and documentation.
The **Closure** phase concludes the debriefing with the students’ final thoughts on the scenario and positive, honest comments from the facilitator. If the scenario was particularly challenging for the students, the facilitator should be cautious not to offer false praise such as by saying, “Good job.” Instead, the facilitator should offer an honest appraisal such as, “This was a difficult scenario and I appreciate your participation. It seems like this was a good learning experience.”

**Guided Discussion: Questions**
The SLS provides questions that directly relate to the scenario content for guided discussion during the Responsive Inquiry and Integration phases of debriefing. These questions cover topics such as pathophysiology, treatment options, expected patient responses to interventions, quality and safety indicators, and protocols. Suggested answers, rationales from the textbook, reading assignments, and multimedia resources are provided to assist facilitators in leading discussion and initiating remediation. Encourage students to openly share their responses to these questions during the debriefing session. If students are challenged by a question, encourage them to think out loud and collaborate with their peers to problem-solve and arrive at the best answer. Alternatively, if debriefing time is limited, the guided discussion questions may be utilized as a large group discussion in a lecture class shortly after the simulation event, or assigned as homework immediately following simulation.

**Guided Discussion: Nursing Diagnosis**
Corresponding North American Nursing Diagnosis Association (NANDA) International-approved nursing diagnoses and patient goals are provided for each scenario. The facilitator may use these diagnoses as a guide when asking students to identify appropriate scenario-specific nursing diagnoses and to develop related patient goals. Suggested answers are provided to the facilitator to assist in leading the discussion.
Guided Discussion: Patient Teaching
Patient teaching points related to each scenario are included.

Guided Discussion: Growth and Development
Students are encouraged to consider how the patient’s condition may impact social interactions, family dynamics, and role performance. In this section, growth and development considerations, including Erikson’s stages specific to each patient, are presented.

Guided Discussion: Culture and Diversity
Culture and diversity considerations are presented for each scenario.
Debriefing—Final Notes
Students should be reminded that the details of the particular simulation scenario should not be shared with other nursing students—this ensures that all students are given equal opportunity to experience clinical simulation and that no student will have an unfair advantage. In addition, if your institution records the simulation scenarios for student review during the debriefing session, students should sign a permission form indicating that the recording will be used only for educational purposes, will not be shared with individuals who have not been directly involved with the simulation scenario, and will be destroyed following review. You may wish to include specific institutional policies and procedures that guide the process of data recording, management, and storage.

4. RESOURCES

Student Resources
Numerous scenario-specific resources are available for student learning and evaluation before and after simulation. The Student Resources screen summarizes these resources for each scenario. For detailed instructions on preparing and assigning these resources, see the Using Student, Faculty, and Evolve Resources section of this guide, page 36.
Multimedia Resources
The SLS is embedded with numerous multimedia resources that correlate to the scenario or to the type of patient represented to further enhance understanding of the nursing concepts. Animations, skills videos, and audio clips offer review of physiologic processes and nursing procedures and are available to students for reference and review before or following simulation.

Electronic Health Record
The nurse’s effective use of an EHR is directly related to improved patient outcomes in the health care setting. Nursing students must be able to access, retrieve, and interpret health-related information effectively in order to provide safe, optimal care to their patients. When reviewing a patient’s record, nursing students must gather and interpret the pertinent data while sorting through the voluminous amount of information provided.

The SLS provides an opportunity for students to learn these skills through the use of a fully functional EHR for each simulation scenario. The EHR allows students to reference important patient data and document assessment findings and care given during simulation using forms and methods similar to those they will use in both the clinical setting and in practice. The EHR should be accessible in or near the patient’s room during simulation.

To launch the EHR, the student logs into their own Evolve account. Any modifications made to the EHR under a student’s login will be saved only to that student’s account. Student EHR documentation during the scenario can be saved and retrieved later by the student for further charting and electronic submission to the instructor, or documentation can be submitted immediately after the scenario for evaluation. Students should reference the Student Handbook resources for specific instructions about how to use the EHR, how to submit documentation to their instructor, and how to access EHR support if needed.

Although particular aspects of the EHR may or may not be relevant to the scenario, all sections of a basic patient chart are included for each scenario to closely mirror a real patient chart. The facilitator can use any parts of the EHR to reinforce other pertinent clinical concepts in debriefing or individually with students as time allows. As in the real clinical setting, portions of the EHR may have data omissions, giving the student the opportunity to discover the missing data and interpret the consequences of the omissions. Also, within each EHR, there is a Resources page that can be accessed in the Info Panel. Resources include ClinicalKey for Nursing, Clinical Pharmacology, and more.
EHR PHASES

Many scenarios will require shifts in EHR phases in order to make new information available in the EHR during the course of the scenario. These EHR phases shifts, along with the scenario times associated with the respective phases, are indicated within the phase information screens within the Implementation Module, the Scenario Snapshots, and the Algorithm Quick Cards. If students take longer than the time allotted within a given EHR phase, the EHR clock will automatically pause when the 5-minute phase end warning box appears within the EHR.

If students finish a phase early, they should click the “Simulation Information” link to advance the EHR phase. The facilitator should monitor the student as the expected student actions are completed and prompt the student to advance the EHR phase as needed.

At the outset of each EHR phase, the student will be provided with a brief explanation for the phase shift.
The main indications for EHR phase shifts are listed below:

1. New orders: Typically, when verbal orders are received during the course of the scenario, the provider will indicate that he or she will enter the orders in the EHR. Following the EHR phase shift, the new orders will be available within the EHR for student action.
2. New lab results: In some scenarios, additional lab results will be made available to students, particularly in cases in which the student is responsible for obtaining lab specimens.
3. Time lapses: Some scenarios include significant time lapses (anywhere from 30 minutes up to 12 hours). Following these phase shifts, appropriate documentation of the care provided during the time lapse will appear in the EHR.

EHR PRE-SIMULATION

You may elect to assign students to review the patient’s EHR prior to arriving at the simulation event. Once the EHR is made available to students, they should access the Pre-Simulation mode of the EHR. Although the EHR contains built-in warning messages, you may want to stress the importance of not starting the actual simulation ahead of the scheduled simulation time, as once the “Start Simulation” choice is confirmed, the EHR’s running clock will start.

In Pre-Simulation, students can review the EHR before providing patient care, just as might be done during an actual clinical assignment. The EHR contains data leading up to the scenario start time, but, like the other pre-simulation activities, the EHR does not reveal any information about the patient’s condition during the actual patient encounter, so reviewing the EHR should not “give away” the scenario. Additionally, Pre-Simulation mode only includes data up to and including 5 minutes before the scenario start time. Any orders or results documented during the time gap between Pre-Simulation and Simulation will not be visible until the simulation begins.
**PRE-SIMULATION MANAGER**
In Pre-Simulation mode, students can also access the *Pre-Simulation Manager*. Within this section of the chart, students can review the patient’s diagnoses, medications, and laboratory/diagnostic tests. For each of these, students can add relevant information, such as the therapeutic effects of medications and the significance of lab results. They’ll be able to see and add to this charting throughout the simulation.

*Note:* For more detailed instructions on using the SLS *EHR* (including grading student submissions and modifying patient records), review the individual help guides located in the *Instructor Resources* and *Student Handbook (Student Resources)*.
Using Student, Faculty, and Evolve Resources

GENERAL RESOURCES
On the home page of the SLS for the product you adopted, there is a General Resources folder, which contains some resources you may want students to use during a simulation. This folder includes the following resources:

- The Observer Evaluation Rubric helps student observers evaluate how well the participants meet or exceed expectations related to the core nursing competency areas (see page 20 for more information).
- Concept Map Creator
- The Scenario Index lists each scenario that is currently available in the content library.
- The Instructor Resources contain a variety of materials to help you get started with simulation, including help guides, videos, and links to other simulation resources.
- The Student Handbook (Student Resources) houses all of the student-facing SLS help guides.
- The Acknowledgements page contains a list of the fantastic nursing and health care professionals who have worked to develop the SLS.
- The Course Updates page contains communication about updates made to the SLS.

Concept Mapping. Using the Concept Map Creator, students can create a concept map linking the patient’s medical diagnoses, clinical manifestations, collaborative problems, pathophysiology, risk factors, nursing diagnoses, interventions, and expected outcomes. The concept map can be saved as a final draft (in PDF), saved for future modification (in a rich text file), or printed.

SIMULATION ACTIVITIES
While you are preparing the scenario and the environment, students also need preparation in order to maximize their time in simulation. You may elect to have students do all, some, or none of the pre-simulation assignments. Students who complete these assignments independently can submit their responses electronically to the facilitator in the Evolve LMS.

Reading Assignments offer relevant content in your nursing text that will help students prepare for the scenario. These textbook readings correlate specifically with the learning outcomes for each simulation scenario. Before the simulation experience, the facilitator may assign general readings so that students can prepare adequately for the events that may occur in the simulation scenario, without revealing the specific storyline of the scenario. Students who are adequately prepared for the simulation scenarios can use this foundational knowledge and build on it during the scenario, thus honing their critical thinking abilities. The reading assignment may also serve as a guide for students as they complete the pre- and post-simulation exercises and quizzes.
Pre-simulation Exercises are meant to encourage higher level thinking in the nursing student and should be completed before the simulation experience. The exercises reinforce concepts related to the nursing process, pathophysiology, patient education, and other issues that may be pertinent to the elements of the scenario, without revealing the specifics related to the scenario. These exercises can be performed independently or in a group setting led by a facilitator. Once completed, students can submit the answers to the facilitator. These pre-simulation exercises should be discussed during the debriefing session following the simulation.

The Pre-simulation Quiz contains 6 to 10 multiple choice questions that allow students to evaluate their knowledge and understanding of the reading assignment prior to simulation. Once students submit their answers, the quiz is automatically graded and rationales are provided for the correct and incorrect answers.

Students can also be given the opportunity to complete pre-simulation activities in the patient’s EHR. For more information about the EHR’s Pre-Simulation mode, see the EHR Pre-Simulation section on page 34.

Following the debriefing session, the facilitator may wish to assign post-simulation activities. These activities are designed to summarize the important elements of each scenario, reinforce relevant concepts, promote student self-reflection, and encourage retention and understanding of the nursing care related to the scenario. Post-simulation assignments can be performed independently or in a group setting led by a facilitator. Students who complete these assignments online can submit their responses electronically to the facilitator for grading and feedback.

Documentation (EHR). Documenting patient care is a fundamental nursing skill. Before, during, and after the simulation event, the student can practice referencing and documenting care in the EHR. When students document in the EHR under their specific login, the data is saved only to that particular student account. When logged into the EHR, students have the option to save data and return to the patient chart to complete documentation at a later time, or to submit the chart electronically to the facilitator for review and/or grading.

Journaling. After the simulation event, students can be encouraged to practice self-reflection by completing a journaling assignment. If desired, the journal question can be modified by the facilitator to reflect a particular style, such as the journal format used during student clinical rotations. After the student completes the journal entry, it can be submitted electronically to the facilitator for evaluation or grading on the Evolve LMS.

Interdisciplinary Communication. SBAR communication should be expected in all verbal reports during simulation. The SBAR post-simulation Interdisciplinary Communication activity gives students the opportunity to practice SBAR in a written format. In this activity, students are instructed to provide an SBAR change-of-shift report for the nurse assuming care for the simulated patient after the scenario is over. The SBAR report can be submitted electronically to the facilitator for evaluation or grading on the Evolve LMS.

Post-simulation Exercises activities extend the simulation experience beyond the lab, promoting further critical thinking and clinical judgment related to events encountered during the scenario. As with the pre-simulation
exercises, because the exercises are short answer, they are not self-grading. Once completed, the student can submit the answers electronically to the facilitator for grading on the Evolve LMS.

The **Post-simulation Quiz** focuses on key scenario events and can assist the facilitator in identifying students’ areas of understanding and areas needing additional review and practice. Once students submit their answers, the quiz is automatically graded and rationales are provided for the correct and incorrect answers (on the Evolve LMS).

**Assigning Pre- and Post-Simulation Activities**
The SLS pre-simulation and post-simulation student resources described above are designed to enhance understanding and have a positive impact on learning outcomes. All of these resources can be made available or unavailable to students at your discretion. You should review and activate or deactivate the appropriate resources depending on your students’ knowledge base and level of experience with simulation:

1. Navigate to the course folder containing the resource you wish to make available.

   *Scenario 5 – Margaret C. (Respiratory)*

   ![Scenario MED 5 Pre-simulation Quiz](image)

2. Select the **Edit** button located to the right of the resource title and click **Settings**.
3. Under Visible To, you will find 3 options: All Students, Select Teams, and Faculty Only.
   - Selecting All Students will allow any individual enrolled in the course with the access of Student or above to open and view the content. Items viewable to All Students appear in a blue font.
   - Selecting Selected Teams will allow you to choose specific teams to have access. Within the Team settings you can additionally add date and times of access.
   - Selecting Faculty Only will make an item invisible to students. Items that are set to Faculty Only appear in an orange font.

Note: You must have at least one team created in the Roster for the Select Teams option to display.

4. To manage access by team, click Select Teams and choose from the drop-down menu.
5. Additionally, you may restrict access to a resource by assigning a password in **Settings** for the resource. Be sure to communicate this password to students so that they will be able to access the resource.

6. Click **Save** when you are done editing a resource’s settings.
Gradebook
Evaluation of students’ work through the SLS on the Evolve LMS is managed using the gradebook within the LMS. You may access the gradebook by selecting Grades from the Course Tools menu.

To configure the gradebook, start by adding Categories, which are used to group together similar assignments (e.g., Exams). Select Manage Gradebook, then select Add Category, and fill in the required fields. Click Submit once you’ve added the information.
To add an assignment to the gradebook, locate the assignment in the course, click **Edit**, and then click **Settings**. Click the checkbox next to Graded Assignment, and other options will populate underneath, including the ability to select a category. Once you have completed editing the settings, click **Save**. The assignment is linked to the gradebook now.
Grading Assignments

The SLS pre- and post-simulation quizzes are graded automatically by the Evolve LMS. All remaining assignments (e.g., exercises, essay questions, concept mapping, EHR documentation) must be manually evaluated and graded by you. Note: To link submissions to the gradebook, the item must be marked as a Graded Assignment in the settings for the assignment.

1. Locate the activity you wish to grade within the Simulation Activities directory.
2. Select the Submissions button in the top right corner of the assignment.

3. A list of students will appear on the left, and you can click on each name to see any submissions for that activity. You can review the student’s answers, assign points and provide feedback for each item, and calculate a grade or provide a total score.

4. See Evolve Support resources for detailed help guides and videos on organizing and managing your course and gradebook. Locate these resources by clicking Help on Evolve.