

Instructor's Guide

Resource files included in the submission:

Sepsis in a Postpartum Patient - A Simulation Scenario for Inter-Professional Education

Explanation of resource file:

The attached resource file is a facilitator's guide to implementing a simulation for health professional students from multiple specialties. The resource file contains a description of six exercises that comprised a 5-hour workshop related to interprofessional education, teamwork, and communication in healthcare. The workshop concludes with a simulation case that is used to allow the students to put into practice the knowledge and skills discussed earlier in the class as well as reflect on their actions and recognize the roles and responsibilities of each member of the healthcare team.

The purpose of the resource:

The purpose of the attached resource is to provide an outline of a workshop that concludes with a simulation case for an interdisciplinary team of health professional students. The workshop and simulation have mutual objectives, which are listed below.

Learning Objectives

1. Identify roles and responsibilities during a high acuity patient scenario.
2. Collaborate with the interdisciplinary healthcare team using TeamSTEPPSTM tools.
3. Appropriately manage the care of a decompensating patient.
4. Recognize the importance of teamwork and communication in healthcare in improving patient safety.

Conceptual Background:

The workshop and accompanying simulation was developed as an academic-service partnership between a community teaching hospital (with simulation facilities) and the health professional schools that have students on rotation at the medical center. Each health professional school has varying amounts of simulation on their own. However, the students are never afforded the opportunity to work with students from another profession in these siloed simulation facilities. The concept of breaking down the barriers and organizing a workshop for an interdisciplinary audience of students was the driving force behind the development of this program. Demonstrating collaboration among various academic and service entities also improves the relationship between the health professional organizations in the local community.

Practical implementation advice:

The simulation on its own takes minimal setup. A patient simulator, simulator room, video debriefing capability, and the associated equipment for managing the decompensating patient are all that are required. The simulation lasts for approximately 7 minutes with the debriefing lasting for approximately 30 minutes. The workshop is designed as a 5-hour workshop culminating in the simulation scenario described above. The workshop includes a variety of small group and class activities that highlight

teamwork and communication principles and allow for participants to be engaged in the learning process. For example, in exercise 3 each group of participants is asked to read a newspaper article about a medical error. Newspaper articles include stories about the death of Betsy Lehman and the medication administration error that occurred to Dennis Quaid's children.

Implementation:

This scenario was implemented as part of an inter-professional education workshop that included nursing, medical, respiratory therapy, occupational therapy, physical therapy, and physician assistant students. Each class had up to 10 students and the scenario was implemented with one "team" of five students while the other five actively observed. Over the pilot-testing phase of this workshop a total of 25 students participated in this scenario. Both, students that participated and those that observed, felt the case was realistic and challenging.

Because of the potential differential diagnoses, including post partum hemorrhage, the students were challenged to work together to appropriately identify the cause of the presenting signs and symptoms and develop a treatment plan. Often, with subtle prompting from the patient to assess her abdomen, the students identified sepsis as the clinical condition in a timely manner. However, once reaching the appropriate diagnosis, the implementation of care yielded additional opportunities for learning. These included, clinical skills such as the spiking of an IV bag, proper technique to assist ventilation, correct amount of oxygen for the delivery device selected (we recognized that students would routinely attach a non-rebreather to a patient at only 3-4LPM), and the importance of communication between providers as well as between providers and patient. Learners also had to work together to identify and pass off the patient's allergies and determine an appropriate antibiotic treatment. We found that often, the first person in the room (occupational therapy or physical therapy student) who reviewed the chart had this key piece of information and had to advise the medical student who was ordering the antibiotics of the allergies. Throughout the pilot testing the medical student had difficulty in ordering the correct antibiotics after being advised of the patient's allergies. This again provided opportunities for discussion about the utility of drug reference materials (especially portable electronic drug libraries).

Limitations:

One of the limitations of the simulation is that it is best suited for interdisciplinary teams, including physical therapy, respiratory therapy, nursing, and medicine. We were fortunate to have participants available from each discipline, however we recognized that without having the interdisciplinary team, the scenario would not be as effective. The scenario, which begins by sending a physical therapy student into the room to assess the patient provided additional challenges and learning for the participants. The challenges included an additional handoff of information among care providers and clearly identifying each team member and their role. The learning that took place, included the physical therapy student, as well as others recognizing that they had valuable information to convey, that they were part of the team, and that they shouldn't feel like they need to leave the room when a critical incident occurs, since they can assist the team in various

ways, including calling for additional help, looking through the chart, or getting necessary equipment. Without the interdisciplinary team members, the scenario and workshop lose important parts.

However, the faculty were faced with this situation when only one physical therapy student or occupational therapy student were available to participate in the workshop. When this occurred, a simulation staff member began the scenario in the room and called for help from a nursing student. The relevant information that would have been gathered by the physical therapy or occupational therapy student, such as patient allergies and the situation leading to the patient's current condition was relayed to the nurse coming in. In some circumstances, the nursing student may be allowed to review the chart prior to being called in. This allowed the nursing student to gain additional background information on their patient and also reference the chart throughout the scenario. The simulation faculty member playing the role of physical therapy or occupational therapy student may remain in the room awaiting instructions or may leave the room, depending on the flow of the scenario. If not utilized by the nursing student or arriving medical student, the simulation staff member should exit the simulation room. This can become a debriefing point at the conclusion of the scenario by asking the students whether they could have gathered additional information by engaging their other team members, such as the physical therapist. A teaching point can be the importance of asking all team members to remain present throughout the event so that they can provide input and background information as needed.

A second limitation is the amount of time the workshop takes to complete. The author's felt it was important to develop a cohesive program that provides a foundation on which to build that ultimately culminates in an active simulation exercise. The didactic portion of the program comprises two-thirds of the total workshop time while the simulation and debriefing take the remaining one-third. Therefore, the simulation scenario presented in the associated file can be implemented by itself, if the students already have an experience providing them with the background information on teamwork and communication.