

Simulation: Instructions and Guidelines

Are You Ready?

Simulations should be a deliberate part of a Continuous Quality Improvement process to achieve specific goals - it cannot be just a task. For further information, or guidance, please contact your Salus Global facilitator.

Getting Ready:

Depending on your needs the objectives of simulations can be to:

- Improve:
 - education
 - communication
 - teamwork
 - process
 - understanding of patients and their needs
- Identify gaps in process
- Develop insight
- Understand why the care we provide succeeds as often as it does, in order to replicate it and reinforce it
- Stress the system and assess the organization's safety limits

This is meant to be a hands-on practice to simulate real-life events. It is important to make the scenario as realistic to your environment as possible. You should have:

- as many people at the simulation as you would normally have in the actual situation (e.g., nurse(s), primary care provider, pediatrics, anesthesiology, intensivist...) - turn away extra people as the extra staff does not realistically test your systems under normal staffing.
- a facilitator, and
- a second facilitator as an observer and note taker to assess the process

The simulation should be carried out in the Unit, in a room where the scenario will actually happen. Table-top simulations are useful too, where the scenario is reviewed with team members around a table vs in the clinical environment but achieve different objectives. If you are holding the simulation at a workshop (and thus have too many people as compared to 'real life'), consider using the tag- team simulation method (see below).

A tag-team simulation methodology is used when more people are in the room than needed or likely in real life. In this instance, explain to the people in attendance that they will likely each be tagged into the scenario as it unfolds to carry on the management from the last participants. Using this method ensures that

observers are engaged and pay attention to the case. It also allows for increased harmonization of care approaches within your unit. The debriefs are fuller and as a result require more time.

Your objectives determine the methodology. Participants should retrieve equipment/medication/other support people to help as would be done in an actual situation. **Unlike a real situation where the focus is the patient, in a simulation, the focus is the process and the team.** As such, we feel it is important to put the scenario “on pause” to ask questions, test your assumptions, elaborate on a point, discuss a communication method, suggest improvements to your processes, uncover frustrations... Let your participants know this, and place the discussion items on a flip chart to address them fully later.

Time should be made available after the simulation for the team to debrief:

- What went well? Why did it go well, can we learn from this to improve other processes? What would we do differently next time? Can we improve the process, our Communication, our Teamwork?
- What if any, process, equipment, medications, location of storage, etc., needs to be changed?

Guidelines

1. This simulation requires the participation of an interprofessional Unit team. We are improving our processes, everyone - and every profession - has a valuable opinion, everyone needs to be a part of it.
2. Have as many people in the simulation as you would in an actual situation.
3. A facilitator is required, who narrates the evolution of the case.
4. A second facilitator acts as an observer, and note taker, to assess the process. A flipchart is handy to record ideas, thoughts and the debrief details. (Either facilitator role can be played by a Core Team member, or a staff member, or, as you develop skill and confidence in using simulation, a member of your patient council could be considered)
5. A brief scenario introduction is provided to the participants. It is placed next to the simulator (if one is used, or next to the patient 'actor').
6. Whether this simulation is a 'surprise' or a pre-announced activity, it is important to provide a clear briefing and explain the objectives of the simulation. In your own words state:
 - **This is not** a test of individuals,
 - **It is a test** of process, a tool to identify and potentially fix gaps on our unit, in our teamwork, in our communication, and the overall reliability of the care we provide. It is an opportunity to learn and ask questions in a safe environment. (Be sure to underscore the safe environment: this will begin to reconcile the Work as Prescribed with the Work as Done (please review the Patient Safety chapter for a greater understanding of these terms and the issues they describe)).
7. The facilitator gives prompts to guide participants through the simulation and to document the team's responses.
8. Procedures should be demonstrated to assess/discuss proper techniques.

If a gap is identified - e.g.: the confidence or competence in using a device, or rarely used piece of equipment, certainly use the opportunity of placing the scenario on pause and go through the setup of the device with those present. But running this type of simulation to get everyone in the unit confident in its use is simply not efficient. The Core Team should develop a CQI-based process to improve those skills. The solution might take the form of a skills station to bring the whole unit up-to-speed. Resist the temptation to run everyone through a specific simulation. This is not an effective use of the venue, and will likely disengage some of your team. It is important to use the right venue for the right objective. i.e. skill stations for improving technical skill confidence and simulations to improve teamwork, communication and processes.

9. The simulation is concluded with the interprofessional team conducting either the “Take-5” Debriefing exercise, or the (High Reliability Organization) “HRO” Debriefing exercise of their management of the case, to identify what went well and what requires change. Be sure to discuss issues that arose during the simulation. If debriefing is not completed, opportunities for improvement may be missed.
10. From time to time, once the simulation has concluded with individuals playing their usual professional role, consider repeating the simulation using role-playing. For example, a physician assumes the role of the nurse and the nurse assumes the role of the physician. Considering asking your CEO, other leader or other healthcare team members to participate.

Walking a few steps in someone else’s shoes (in a safe environment - for the patient!) will give individuals an appreciation and a better understanding of other team members’ contributions and challenges - thereby opening up new sources of potential solutions to issues identified.

11. This simulation should be adapted to meet local needs and practices.
12. Remember that when you improve a process as a result of a simulation, every patient that runs through the newly improved process, will benefit from the improved care and reliability of care. This is an important fact to understand. Another reason why we say that running every single person through the same simulation is counterproductive.
13. It is critical that recommendations that come out of simulations be prioritized based on a balance of impact and simplicity of adoption. Not implementing recommendations in a timely fashion is a serious mistake. Recommendations must be enacted upon quickly to build and maintain engagement in the process. Simpler and more effective recommendations should be adopted within 2 weeks of being made. These deliberate 'quick-wins' will build engagement in your team.
14. Simulation scenarios often roll out in succeeding levels of responsibility. As such, the actions to be taken by each “role” should stay within the scope of the likely team member (identified above each table). Please alter to meet your reality.
15. Consider occasionally running simulations with a Go-Pro! Have the nurse wear it one time, another time try it on the patient. Perhaps the facilitator, etc. When you debrief the video, the new insight into team dynamics, and individual approaches will be of great value.
16. Simulations are a process, communication and teamwork improvement, and knowledge maintenance approach. Running the same simulation over and over again, can be counter- productive. Change it up!

17. If you feel that response to a scenario may differ from shift to shift (due to staffing variations or whatever), then you must consider running simulations during those other times to not only identify the gaps, but to uncover solutions to those particular issues. This activity will help the care you are proud of providing become more reliable.

Another consideration is running the simulation as if an emergency was going on with another patient down the hall, thereby restricting your access to resources (human, physical...). These scenarios will happen, plan for them. They help you identify your organization's external safety boundaries. Any information you develop here needs to be shared with the organization.

18. Remember to have FUN! While this statement may seem unimportant, the subject matter must be taken seriously, but we are very serious about having fun. It has been well researched, that making such venues fun, will make them more effective in achieving their objectives. Remember, this is not a test of people, but a test of process and teamwork.

A final thought: This is an ideal situation for role-playing. One of the Core Team Members present (the observer or facilitator) could take the role of the patient. Better yet, use a member of your Patient Council in your simulations; their debrief participation will be enlightening.

Simulation:

Obstetric Patient with Suspected COVID-19

COVID-19 has shaken our world and in response, guidance is changing frequently and is different from region to region. This challenge has made the creation of a simulation difficult. As a result, we chose to re-examine the objectives of simulation, and focus on application of analysis and application of knowledge in a specific environment.

As such you will notice that the structure is a storyline that should be paused regularly to allow discussion of the specific issues and steps of YOUR organization's guidance within YOUR context.

In advance of the simulation, read through the document, make sure you have your organization's current guidance (policy, procedure, guideline, recommendation...) at your fingertips and look at what the questions are intended to achieve. If you do not know the answer to a question, try and obtain it before your session, or see if you can have a person who may know the answer present.

The idea is to understand why and how, so that the application of knowledge is more reliable from shift, to shift, to shift.

General Materials

- Facilitator Sheet
- Your organization's guidance (policy, procedure, guideline, recommendation...)

Important Reminder for Facilitators

- This simulation is designed for you to pause the scenario and discuss the issues as the story unfolds.
- Simulation is not a test of people; it is a test of process, application of process and teamwork.
- Disclosure of Interest: Before you begin the Simulation, be certain to announce to all of the participants that you hold no financial conflicts of interest with anything presented within the Simulation.

Goals

1. Recognize signs & symptoms and/or risk factors for COVID-19.
2. Demonstrate appropriate triage, isolation and describe Personal Protective Equipment (PPE) use (donning and doffing if needed) for patients with suspected COVID-19 infection within your environment.
3. Describe and analyze how the current local policy recommendations, with regards to patient assessment and COVID-19 testing, can best be implemented within your context.
4. Describe and analyze how the current local COVID-19 recommendations, with regards to management of labour and vaginal birth, can best be implemented within your context.

Setting

- Patient will be brought to the assessment area

Professions Required

- Representation from all team members and departments who would be involved in caring for this patient.

Materials Required

- For purposes of the simulation and to save valuable PPE resources, use a substitute such as a bandana or cloth in lieu of masks.

Background

Mrs. Manava Hill is a 32-year-old G2T1P0A0L1 (G2P1) at 39+3wks gestation who presents with two days of a fever accompanied by a cough. Her partner works at a long-term care facility and has not shown any signs of being sick.

Facilitator Sheet

Scene 1:

It is Tuesday, 21:00 hrs. Manava and her partner arrive for assessment. She tells the RN that she thinks she is in labor, but also mentions that she has felt ill over the past few days with a fever and this morning she has developed a dry cough.

She reports regular uterine contractions 2 in 10 minutes for the past three hours. She denies any vaginal bleeding but thinks that her water may have broken about an hour ago. Her contractions are now 3 in 10 minutes and getting stronger.

Expected Actions	Discussion Points / Comments
<ul style="list-style-type: none"> ▪ The RN follows the organization’s infection control precautions for the staff, Manava and her partner. 	<ul style="list-style-type: none"> ▪ Where do you assess maternity patients at this time? ▪ What are the infection control precautions the team needs to follow, to protect the team, and other patients in your organization? ▪ Would you use Personal Protective Equipment (PPE) in this situation? If so, what is the appropriate PPE? Demonstrate proper PPE donning and doffing if adequate supplies are available. ▪ How can you humanize the PPE to try and make the experience more positive for the patient and family? ▪ Would you move Manava to a different space? If so, what room would you move her to, based on your organization’s recommendations?

Scene 1 - Continued

Expected Actions	Discussion Points / Comments
	<ul style="list-style-type: none"> ▪ If you do move her, how would you protect your staff and the other patients as you navigate her through your facility? ▪ Are there other team members who need to be notified? When do you need to do so? How do you do so? ▪ In your facility, would her support person be allowed to accompany her for this assessment? What safeguards are in place for supports in your facility? ▪ Is COVID-19 testing necessary/available at this time for this patient? How soon would you get confirmation? ▪ Are there barriers that might prevent the team's ability to follow the recommended precautions? How might you manage them?

Scene 2:

It is Tuesday, 22:10. Manava is in the appropriate room and the nurse performs an initial assessment and determines that she is in active labor. Vaginal exam shows the cervix at 5cm dilation, thin and stretchy with vertex at spines -2, no apparent membranes present.

Maternal temperature is 38.1°c BP 116/72 P 90 R 20. Fetal heart rate is 150 bpm. Fetal surveillance is normal.

Expected Actions	Discussion Points / Comments
<ul style="list-style-type: none"> ▪ The RN notifies her primary obstetric provider, gives a full report and informs other appropriate team members of admission ▪ 1:1 care and labor support are provided using appropriate infection control precautions 	<ul style="list-style-type: none"> ▪ What is the presumptive diagnosis for the fever? How do you know this is not another diagnosis (like chorioamnionitis for instance)? Do you treat for an alternative diagnosis? What would make you change your mind about treating for an alternate diagnosis? ▪ Who are the other team-members that need to be aware of her admission at this point? Is there a process for easily notifying them? ▪ What method of fetal surveillance is appropriate in this situation? Why? ▪ What additional assessments are appropriate given her symptoms? ▪ Does your approach to infection control precautions change at this time? Consider: patient ambulation (ie: is she permitted outside her room), use of labour ball or other labour support equipment, use of tub/shower, need of a 'staff runner' to assist the nurse providing 1:1 care in the patient's room. ▪ What is your approach to extra equipment and supplies in the patient's room (ie: epidural cart, resuscitation cart, etc) ▪ Does your local policy require documentation of all personnel entering and exiting the room? If it does, why is that? How would you do it? ▪ Does your organization's policy limit the number of visitors or labor support (e.g. family, doula, etc.)?

Scene 3:

It is Tuesday, 23:20. As labor progresses Manava is requesting something for pain. She is having 3-4 contractions in 10 minutes, lasting 60 seconds and strong by abdominal palpation. Fetal surveillance continues to be normal.

Manava’s partner asks you about videotaping or livestreaming the birth (for her mother)

Expected Actions	Discussion Points / Comments
<ul style="list-style-type: none"> ▪ Options for pain management are discussed with Manava 	<ul style="list-style-type: none"> ▪ What are the options for pain management on your unit? ▪ If epidurals are available, do you have a plan for alternative options if the anesthetist is occupied elsewhere? ▪ If nitrous oxide is available in your facility, what is your organization’s guidance for use during the COVID-19 pandemic? ▪ How do you approach her partner’s request for videotaping or livestreaming the birth?

Scene 4:

It is Wednesday, 01:30. Manava received IV Fentanyl. She progresses quickly to full dilatation. She has the urge to push and begins active pushing. Fetal surveillance continues to be normal.

Expected Actions	Discussion Points / Comments
<ul style="list-style-type: none"> ▪ The RN and Primary Obstetrical Provider are present supporting Manava. 	<ul style="list-style-type: none"> ▪ Who else do you need to call to attend the birth in this case? ▪ Are there other team members that need to be aware of the pending birth? ▪ In your facility, are there additional PPE precautions needed during the second stage of labor? If so, what are they?

Scene 5:

It is Wednesday, 01:55. A healthy boy is born and immediately cries vigorously. Ten minutes later, the placenta delivers spontaneously.

Maternal vital signs are BP 124/74, HR 88, RR 18 and temp 38. Fundus is firm at the umbilicus with moderate vaginal bleeding.

Expected Actions	Discussion Points / Comments
<ul style="list-style-type: none"> ▪ Active management of the 3rd stage of labor is performed ▪ Routine newborn care is provided by the team ▪ Postpartum care is provided by the team ▪ If appropriate for your centre, you move the patient to a postpartum room 	<ul style="list-style-type: none"> ▪ What would you do differently if the newborn would have needed PPV? ▪ What is your process to clean the delivery room following the delivery? ▪ Do you move the patient to a separate postpartum area? If you do, what are the precautions you take to protect your staff and the other patients as you now move the woman and her newborn to support them in the postpartum phase? ▪ What is your organization’s policy regarding the care of the newborn of mothers with suspected COVID-19? Discuss newborn assessment, skin-to-skin, newborn feeding, COVID-19 testing. ▪ Does your COVID-19 policy require the newborn to have an early bath? If so, what is the rationale? When and where would you do it? How might you mitigate any hypothermia risk to the newborn due to early bathing? ▪ What is your organization’s policy regarding postpartum care for mothers with suspected COVID-19? Discuss maternal assessments, use of PPE/hand-hygiene, skin-to-skin and breastfeeding. ▪ Do you have a policy to limit the number of visitors during the postpartum period?

Scene 6:

Manava and baby stay in hospital for 24 hours after birth. Manava continues to have a low-grade fever (38-38.5 C). She has a mild headache and feels tired. The newborn’s vital signs remain stable and he is breastfeeding every 1-3 hours with a good latch.

Expected Actions	Discussion Points / Comments
<ul style="list-style-type: none"> ▪ Postpartum care is provided to the mother / baby dyad. ▪ Manava’s symptoms do not worsen, and the family is discharged home. 	<ul style="list-style-type: none"> ▪ What is your organization’s policy regarding postpartum care for mother/baby dyad when the mother has suspected COVID-19? Discuss ongoing assessments of mother/newborn, rooming-in, use of PPE/hand-hygiene. ▪ What needs must you consider when planning for discharge? ▪ As you discharge the family, what is your organization’s process for moving the patient out of the facility and home? How do you protect your staff and your other patients as you do so? ▪ What do you do before returning to your unit after accompanying the family to the door of your site? ▪ What is your organization’s process for cleaning the family’s room on discharge? ▪ How would you arrange for newborn genetic screening (blood dot card) if discharged before a full 24 hrs? How would the family know? ▪ What community supports are available to provide appropriate follow-up after discharge from your unit? ▪ What are the recommended steps and arrangements to follow up the patient’s respiratory symptoms and possible diagnosis of COVID-19?

Discussion (all)

In a simulation where the focus is the process and the team, it can be valuable to put the Scene 'on pause' to ask questions, test your assumptions, elaborate on the point, discuss a communication method, suggest improvements to your processes and/or uncover frustrations. We can flip chart the discussion to address issues fully later.

- Consider how the patient arrived at the assessment area.
- Consider how the team might adapt its approach if the woman had shortness of breath as an added presenting symptom.
- Consider how the team might approach a newborn needing more significant resuscitation.

After the Simulation is finished, lead the interprofessional team through a Debriefing exercise using either the “Take-5” Debriefing Tool, or the “HRO” Debriefing Tool. Participants should evaluate their management of the case to determine what went well and what requires improvement. Be sure to review what has been flip-charted along the way.

Remember to focus on systems.

“Take-5” Debriefing Tool

Remember: Debrief is never about “what we should have done” but is always about “how do we make our next performance better”.

The interprofessional team gathers together for a few minutes at the end of the simulation to address the following five questions:

1. **What went well, why did it go well, what can we learn that we might adopt into our processes to make them better?**

2. **What did we learn?**

3. **What would we do differently next time?**

4. **Did we have any system issues, such as equipment, processes or information flow?**

5. **Who is going to follow-up to fix the problems? And by when? How will we communicate our learnings with our team? Who will log the Simulation on the portal, including issues and recommendations which are automatically entered on the quality improvement plan?**

Thank you for spending the time to share what you have learned from this experience.

“HRO” Debriefing Tool

The interprofessional team gathers together at the end of a case or procedure to reflect on team performance according to the six HRO (High Reliability Organization) principles* The purpose of the debriefing discussion is to support the team, celebrate success and share any learning from the case that could improve care and/or prevent harm in future cases. *© American Society for Healthcare Risk Management (ASHRM). Reprinted with permission.

1. Safety is the priority and is everyone’s responsibility. How was the priority of safe care respected?

2. Communication is highly valued.

a. How was the communication amongst the interprofessional team? (Check ✓)

Frequent _____
Timely _____
Accurate _____
Focused on problem-solving _____

b. How was the communication between the interprofessional team and the patient/family?
(e.g., open, ongoing, understandable, respectful of patient/family wishes)?

3. Operations are a team effort.

How well did the team work together? (Check ✓)

Shared goals _____
Shared knowledge _____
Mutual respect _____
Coordinated _____

4. Emergencies are rehearsed.

a. If the case involved an emergency situation, was the team available, prepared, confident, and aware of each others’ roles and responsibilities?

b. Were the necessary equipment, supplies, and medications readily available?

5. Hierarchy disappears in an emergency. Decisions on safety issues can be made at any level of the organization. Were there any issues related to hierarchy? (e.g. delays in treatment related to “chain of command” issues, fear of speaking up)

6. There is multidisciplinary review of events and routines.

a. What did you learn from this case that could be used to reduce risk in the future?

b. Do you recommend a multidisciplinary review of this case?

Yes _____

No _____

Simulation Documentation Sheet

Name of Simulation Topic: Date: Conclusion:	
Issues	Recommendations and Next Steps

Facilitated by:	
Name (Please print names clearly)	Signature

Entered on the portal by:

Attended by:

Name (Please print names clearly)	Signature