



**PRONTO**<sup>SM</sup>  
INTERNATIONAL

# SimPack<sup>TM</sup> 1

**COVID-19 SUSPECTED PATIENT IN EARLY  
LABOUR (NO DELIVERY)**

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# COVID-19 SUSPECTED PATIENT IN EARLY LABOUR



## SIMULATION OVERVIEW

1. Disinfect and clean simulation area for participant safety (15 minutes).
2. Review simulation, objectives, and materials (20 minutes).
3. Set-up the simulation area (30 minutes).
4. Recruit and prepare the patient actress and the labour companion (20 minutes).
5. Assign and orient the providers (5 minutes).
6. Facilitate the Rapid Review (15-30 minutes).
7. Perform the Pre-Brief with patient case review (10 minutes).
8. Conduct the Simulation (15-20 minutes).
9. Facilitate the Debrief (approximately 30 minutes).



## LEARNING OBJECTIVES

### Cognitive:

1. Identify signs and symptoms of COVID-19.
2. List appropriate Personal Protective Equipment (PPE) use for all providers who enter the room.
3. Identify need for a targeted history (including health status of family members, duration of symptoms, etc).
4. State the protocol for testing a patient for COVID-19.
5. Discuss differential diagnoses of fever during pregnancy.
6. Describe management of a patient in labour with COVID-19 symptoms.
7. Identify need to inform team to prepare for suspected COVID-19 patient in labour.
8. Understand policies for labour companions during COVID-19.

### Technical:

1. Demonstrate appropriate isolation or containment protocols of the patient, per facility guidelines (mask use, isolation ward, etc.).
2. Perform appropriate PPE donning and doffing for all providers.
3. Rapidly assess the mother (vital signs, abdominal exam, oxygenation status if available, etc.).
4. Collect COVID-19 test and safely contain specimen for transport.
5. Perform correct and timely foetal heart rate evaluation.
6. Notify team to prepare for admission or referral of a pregnant COVID-19 suspected patient.

### Behavioural:

1. Kind and respectful communication with the mother and the labour companion (if companion allowed in the facility per COVID-19 protocols).
2. Kind and respectful care of the mother.
3. Communication with the team, as relevant:
  - SBAR
  - Check-Back
  - Call-Out
  - Thinking-Out-Loud
  - Two-Challenge Rule
4. Complete and appropriate communication with additional personnel or referral facility, if required.

# OVERVIEW AND SETUP FOR FACILITATOR TEAM



This page is for the facilitator(s) ONLY and should NOT be read to the participants.

## CLINICAL CONTENT:

Suspected COVID-19 in a pregnant patient  
Normal labour care  
Triage

## MINIMUM NUMBER OF PARTICIPANTS:

2 + patient actress

## ANTICIPATED DURATION OF SIMULATION:

15-20 minutes



## GENERAL OVERVIEW

Mary is a 24-year-old, Primigravida at 41 weeks. She just arrived at the facility with complaints of a fever, cough, and mild shortness of breath. She is here with her mother. She is having contractions every 4-5 minutes. Her husband has also been sick for 5 days, but he is at home. When the simulation begins, a screener at the reception has noted her COVID-19 symptoms, given her a mask, and accompanied her to a designated isolation room for assessment. The screener has also confirmed her mother has no COVID-19 symptoms and has also given her a mask to wear. No assessments have been completed as she has just presented for care. There is no delivery in this simulation.

The patient should be instructed to cough throughout the simulation. Spray the simulated germ solution on her hands before the simulation, and then also give her the small spray bottle to hold and spray every time she coughs. She should hold the spray bottle in her dominant hand, and cover her masked mouth with her non-dominant hand, while spraying the bottle behind her hand near her mask. Practice this with her. This is to simulate infectious droplet spread. **If no blacklight is available: Skip the simulated germ spray and all associated steps and preparation in the SimPack, but still instruct the patient to cough in the simulation.**

The simulation begins and the provider should first don all appropriate PPE with the help of the PPE Assistant in the PPE donning area before making contact with the patient. Once the provider is in full PPE, and approaches the bedside, the patient should have her first contraction in the simulation - **THE PPE PROCESS WILL LIKELY TAKE AT LEAST 5 MINUTES - DO NOT RUSH THE FIRST CONTRACTION. To protect ALL participants in simulation, the role of the PPE Assistant is critical (see SIMULATION PARTICIPANT ROLES page for more information).**

After the first contraction subsides, the provider should take a targeted history, assess vital signs and foetal heart rate, complete a vaginal examination (her cervix will be 5 centimetres dilated and membranes are intact), perform an abdominal examination (no tenderness), and then COVID-19 testing. They should also consider and rule-out other causes of fever in pregnancy. The provider should alert the team that there is a suspected COVID-19 patient in labour at the facility.

Depending on facility-level, ability, or protocol, the patient should either be prepared for referral to a COVID-19 facility, or admitted to the labour ward, with appropriate plans made to contain potential exposure to other patients and healthcare providers.

After saying STOP, the provider(s) should enter the PPE doffing area and remove (doff) PPE with the help of the PPE Assistant, before proceeding to the debrief.

## OVERVIEW OF PATIENT SETUP

- Select a patient actress who is willing to simulate a birth and who is NOT currently pregnant.
- Give the patient actress a medical or cloth mask to wear, if not already wearing one.
- Instruct her to remove her clothing, but to keep her undergarments on, and give her waterproof pants and a shirt to put on.
- When changed, help to dress her by putting two diapers around her waist (over the waterproof pants), adhered to her sides with tape.
- Help her into PartoPants™ - **NO blood bag is needed.**
- Once she is wearing the PartoPants™, help her onto the bed. Attach the injection pad to the outside of the PartoPants™, so it is visible to participants. Put the IV arm bands on both arms.
- Put an absorbent pad under her on the bed.
- **Insert the baby and placenta into the PartoPants™, make sure that the baby is high up in the pants so that the head is not visible from the vaginal opening of the PartoPants™.**
- Review the patient history and simulation hand signals with the patient actress AND labour companion (**see INSTRUCTIONS FOR THE PATIENT ACTRESS page**).




**Spray the simulated germ solution on the patient's hands, and then give her the bottle to hold. Try to avoid spraying the floor to prevent participants from slipping. After the simulation is over, turn the lights off and turn on the blacklight to show the spread of fluid droplets in the area (floor, bed, etc.) as a learning point.**



**Give participant(s) time to fully don PPE, before instructing the patient to have a contraction: APPROXIMATELY 5 MINUTES.**


# ROOM SETUP AND SUPPLIES: RETROFITTED STORAGE ROOM FOR COVID-19 SUSPECTED PATIENTS AND PPE DONNING AND DOFFING AREA

 **Only supply the materials that are usually available in the triage area at the facility. Participants should dress as they normally do for patient care. The PPE donning and doffing areas should include all PPE and other materials normally used for donning and doffing at the facility - this will vary by facility, follow local protocols.**

## Materials and Supplies:

PartoPants™ and waterproof pants	
Simulated germ solution*: Spray the solution patient's hands during patient preparation, and then give the patient the small spray bottle to hold and to use when she coughs (*see simulated germ solution guide for details). <b>NOTE: This will work best in a room that can be darkened (able to turn off the lights or close curtains after the simulation, etc.).</b>	
3 - Adult diapers/absorbent pads: Two worn by the patient under the PartoPants™ and one under the patient on the bed	
Baby and placenta	
Injection pad and IV arm bands	
Whiteboard and dry erase pen	
PPE in the donning and doffing areas: Masks, face shields, gloves, gowns, aprons, head cover, boots (whatever is appropriate for setting - but, conserve resources for actual care if PPE is limited). The donning and doffing areas should include all materials used in this facility to don and doff PPE (including alcohol-based hand sanitizer gel/rub, bins for consumables and, etc.). <b>To note: Do NOT use n95 masks for simulation, they should be saved for patient care. Instead, write 'n95' on a sticker or piece of tape and place it on a medical or cloth mask to simulate n95 masks. Any other PPE in short supply can also be simulated (cloth gowns in place of disposable gowns, clean gloves in place of sterile gloves, etc.)</b>	
Examination bed and 2 sheets (one on the bed and one to cover the patient)	
Wall clock with second hand (visible to all participants)	
Sharps/safety box and trash bins	
Blood pressure cuff and stethoscope	
Pinard or foetoscope	
Pulse oximeter (if available in facility)	
Thermometer	
Alcohol swabs	
Sterile gloves and non-sterile gloves (in the PPE donning area AND the patient care area)	
Alcohol-based hand sanitizer gel/rub (in the PPE donning and doffing areas AND the patient care area)	
<b>COVID-19 simulated test kit - this may include, depending on what the COVID-19 tests look like locally:</b> <ul style="list-style-type: none"> <li>• A nasal &amp; pharyngeal swab with tube + liquid medium</li> <li>• A finger stick rapid test with a cartridge</li> <li>• A venipuncture set-up with appropriate lab tube</li> <li>• A plastic tube for saliva collection testing</li> </ul>	
Syringes in assorted sizes (1 - 1 mL, 2 - 3 mL, 2 - 5 mL, 4 - 10 mL, 1 - 20 mL)	
Paracetamol/Acetaminophen tablets	
Sterile urine cup with genital wipes	
Facility's, institution's, or Ministry of Health's latest COVID-19 protocols or guidelines for reference	

# INSTRUCTIONS FOR THE PATIENT ACTRESS

 After dressing the patient, read the below to her, and then give her this page to read on her own. After she has read it, “quiz” her to assure that she understands the simulation. Then, practice the simulation hand signals.

## PATIENT HISTORY

**Name:** Mary

**Age:** 24

**Gestations:** Primigravida

**Gestational age:** 41 weeks

**Attitude:** Ill, exhausted, mildly short of breath, worried about your baby

**Antenatal care:** 6 antenatal care visits

**Labour companion:** Mother **(she should wear a mask)**

**Background:** This is a COVID-19 simulation. For you and your companion's, as well as the provider's protection, we will have you wear a mask for the entire simulation **(make sure the patient actress and companion are wearing masks NOW before proceeding)**. You are 24-years-old and this is your first pregnancy. You have just come to the facility because you have been having contractions every 4-5 minutes for the last few hours, and also have a cough, fever, and mild shortness of breath. You are here with your mother, who is well and wearing a mask. You did not previously come to the facility because you were scared you might have COVID-19, but now that you are in labour, you were worried about your baby.

There will be no birth in this simulation. When the simulation starts, the provider will not be at your bedside, but will be being told that there is a COVID-19 suspected patient in labour. Before having a contraction or calling out, please give them time to don PPE. We do NOT want to rush the providers donning PPE. But please continue to cough.

Cough occasionally throughout the scenario. We will spray a soap solution on your hands that are simulated germs, which will glow under blacklight for an activity after the simulation. Is that ok? I am also going to give you a small spray bottle for you to secretly hold in the simulation. Every time you see the cough hand signal, please hold the spray bottle in your dominant hand, and bring your non-dominant hand to your masked mouth to cover your cough. Keep your fingers spread out slightly so that the spray can pass through them. Press the spray bottle each time you cough. We will practice this in a moment.

When they come to your bedside, you will have your first contraction in the simulation; watch for the hand signal. After your contraction is over, the provider should take a targeted history for COVID-19 symptoms. You can tell them you have been sick for three days, but did not come in previously because you were scared of COVID-19. Now, you are here because you are worried about your baby. If they ask about other family members being sick, please say that your husband has also been sick for approximately 5 days; he is at home. Your mother, who is still with you and is wearing a mask, can say she feels well. **If during the history they do NOT ask about other family members, please tell them about your husband after a few minutes.** They should also do a physical examination of you, including a cervical examination. You will be 5 centimetres dilated. If the provider does not take a foetal heart rate, ask, “How is my baby?” They may simulate taking a COVID-19 test. If they palpate your abdomen or tap on your kidneys, say that you have NO tenderness or pain.

Depending on facility-level, ability, and protocol, they should either make a plan to admit you to the labour ward, or plan for a referral to a COVID-19 facility. The simulation ends when the providers have made a plan for admission to the facility or referral. The more you express your pains, worries, and emotions, the more it will help participants believe this is real. You control the reality of the simulation. Please avoid stepping out of your role, laughing, or giving medical suggestions.

## SIMULATION HAND SIGNALS



Before the simulation, review and practice the simulation and the below hand signals with the patient.



**Contraction**



**Stop, or wait**



**Cough + spray simulated germs** (bring non-dominant hand to masked mouth to cover cough, with fingers slightly spread out. Spray the small spray bottle with dominant hand through fingers.

**Note to facilitator:** Hand signal does not require the facilitator to actually cough - just bring hand to mouth when giving this signal.



After practicing the simulation with the patient, cover the patient with a sheet.



Patient will begin the simulation semi-reclining on a bed.



**Spray the simulated germ solution on the patient's hands, and then give her the bottle to hold. Try to avoid spraying the floor to prevent participants from slipping. If the patient declines the simulated germs, skip this step completely. After the simulation is over, turn the lights off and turn on the blacklight to show the spread of fluid droplets in the area (floor, bed, etc.) as a learning point.**



**There is NO delivery in this simulation. Make sure that the baby's head and placenta are high up in the PartoPants™ so participants do not rush to deliver.**



**If you feel uncomfortable at any time, say “STOP NOW!” and the simulation will stop.**

# SIMULATION PARTICIPANT ROLES

SIMULATION PARTICIPANT ROLES	GIVE THE FOLLOWING INFORMATION ABOUT THE SIMULATION	LOCATION AT THE START OF THE SIMULATION
<b>Labour companion</b> (if allowed by facility protocols, if not - this role can be omitted)	Patient information	With patient
<b>Labour care provider</b> (midwife, nurse, doctor)	Participant information	Outside the patient area, wherever PPE is donned
<b>Personal Protective Equipment (PPE) Assistant*</b>	Participant information	Just outside the patient area, wherever PPE is donned
<b>Consulting doctor in facility OR at referral facility</b> (whatever is appropriate)	None, they should receive an SBAR from the provider if called	Outside of simulation area, they will be called if necessary

Optional participants in gray boxes

**\*The Role of the PPE Assistant:** This role can be played by a PRONTO facilitator or a participant. The person in this role should stand in the PPE donning and doffing areas to help participants with donning and doffing. It is best practice to have a PPE assistant in simulation and in real life, due to the critical importance of reducing the risk of contamination by properly putting on (donning) and taking off (doffing) the PPE. If the facility usually has someone helping with this role as part of their job, they should play this role. The PPE donning and doffing areas should be separated from the simulation area and away from the patient area - as in real life. When the facilitator says START, the first action taken will be for the provider(s) to don PPE before entering the patient care area. To ensure safety of everyone, the assistant should do a final confirmation that the provider's PPE is correctly donned before giving them the go ahead to enter the simulation area.

All materials usually available in the facility's donning and doffing areas should be included: A hand washing station, (which can be simulated if necessary), alcohol-based hand sanitizer rub/gel, gowns (can use cloth gowns for simulation ONLY, which MUST be washed between participants if there are insufficient disposable gowns), gloves, eye and hair protection, a bin for used/soiled materials, masks, and etc. To note: Use medical or cloth masks for simulation. Cloth masks MUST be washed between participants, and medical masks should be reused or discarded per facility protocols. Do NOT use n95 masks for simulation, they should be saved for patient care. Instead, write 'n95' on a sticker or piece of tape and place it on a medical or cloth mask to simulate n95 masks. Set-up the donning and doffing area(s) so that there is a physical distance or divider (like a hanging tarp or plastic sheet) between the donning and doffing area(s) and the simulation area, but set it up in a way that the observers can see both spaces.

When the facilitator says STOP, the participant(s) should leave the simulation area and enter the PPE doffing area. The PPE Assistant should help the provider to correctly doff the PPE without contaminating themselves. Follow facility protocols for donning and doffing procedures. The doffing is the last activity performed in the simulation. Set the donning and doffing areas up in such a way that the observers can see the donning and doffing, as well as the simulation area.



**Before assigning roles for the simulation, discuss with participants how the communication with additional personnel or consultation with the referral facility occurs in this facility.**



**The number of participants in the simulation should reflect the usual number of staff at the facility during a triage. Any observers can be assigned to listen and watch for behaviours or concepts during the simulation.**



# RAPID REVIEW



Before the simulation, facilitate the Rapid Review to ensure that participants are familiar with the simulation learning objectives. The goal is to review the basic clinical management required. Participant learning is improved when they feel successful.





Before we start the simulation, we will review some important management practices.

 <b>QUESTIONS (READ ALOUD TO GROUP)</b>	 <b>FACILITATOR NOTES AND APPROPRIATE ANSWERS</b>
<p><i>In this facility, where can you find the COVID-19 protocols and guidelines you are supposed to follow?</i></p>	<ul style="list-style-type: none"> <li>• Discuss where COVID-19 protocols are stored and updated. Encourage participants to refer to current guidelines rather than word of mouth or prior experience as recommendations often change.</li> <li>• <b>Facilitator Note:</b> To set participants up for success, have the most recent protocols available for review.</li> </ul>
<p><i>In this facility, how are patients screened for COVID-19 upon arrival?</i></p>	<ul style="list-style-type: none"> <li>• Discuss the screening questions and procedures (symptom history, current temperature, sticker to identify who has been screened, etc.).</li> <li>• Identify personnel responsible for conducting this screening protocol.</li> <li>• Confirm if patients are masked if they screen positive, and if visitors are screened as well.</li> <li>• Discuss that masking a person with symptoms is not a 100% guarantee that germs will not be spread. But it can help decrease the spread of germs.</li> </ul>
<p><i>Where are labour patients presenting with COVID-19 symptoms sent for initial assessment and triage?</i></p>	<p>Discuss facility plan. Is there a designated COVID-19 triage area, or are labour patients isolated in the maternity ward for assessment?</p>
<p><i>What are the signs and symptoms of COVID-19?</i></p>	<ul style="list-style-type: none"> <li>• Symptoms include: Fever, tiredness, dry cough, shortness of breath, aches and pains, sore throat and diarrhoea, nausea, or a runny nose (WHO).</li> <li>• Other guidelines also include: Chills, headache, rashes on trunk or toes, and new loss of taste or smell (CDC).</li> </ul>
<p><i>When a labour patient has a fever, what are some of the possible causes, other than COVID-19?</i></p>	<ul style="list-style-type: none"> <li>• Urinary tract infection (UTI): Kidney and/or bladder.</li> <li>• Chorioamnionitis with or without PPRM (ruptured amniotic membranes).</li> <li>• Appendicitis or digestive system problems.</li> <li>• Malaria.</li> <li>• Dengue, food poisoning, influenza, pneumonia, or other possible infections common to the geographic area.</li> <li>• Hyperthyroidism.</li> </ul>
<p><i>What clinical examinations or testing are done to determine the cause of the fever?</i></p>	<ul style="list-style-type: none"> <li>• CBC labs with WBCs and urine analysis.</li> <li>• Point of care malaria test (if endemic in the geography).</li> <li>• Listen to the lungs, abdominal examination, kidney (CVA tenderness) examination, smell amniotic fluid and vaginal discharge if membranes ruptured.</li> <li>• Chest x-ray with abdominal shield (if available), and assess vital signs and oxygenation status.</li> <li>• Examine other body areas that could be the cause (is there a festering wound?).</li> </ul>

Rapid Review continues on the next page 



## RAPID REVIEW

 <b>QUESTIONS (READ ALOUD TO GROUP)</b>	 <b>FACILITATOR NOTES AND APPROPRIATE ANSWERS</b>
<p><i>What criteria must be met in order to test a patient for COVID-19?</i></p>	<p>Discuss facility protocol. Testing requirements may change based on test kit availability and labouratory capacity.</p>
<p><i>How long does it usually take to get COVID-19 test results in this facility?</i></p>	<p>Discuss.</p>
<p><i>What Personal Protective Equipment, commonly called PPE, should providers wear when caring for a suspected or confirmed case of COVID-19?</i></p>	<ul style="list-style-type: none"> <li>• Discuss facility PPE protocols for COVID-19.</li> <li>• Common PPE includes: Eye protection, a gown, hair protection, a surgical mask, 1-2 pairs of gloves, and a face shield and an n95 mask if conducting an aerosolizing procedure (protocols vary by facility - follow facility protocols).</li> </ul>
<p><i>Who can explain how to properly don, or put on, PPE when caring for a confirmed or suspected COVID-19 patient?</i></p>	<ul style="list-style-type: none"> <li>• Talk through the steps briefly without actually performing them.</li> <li>• Encourage participants to refer to their latest donning protocol. Discuss how to post donning checklist near the area where they will don PPE, and/or utilize a donning assistant to minimize mistakes.</li> </ul>
<p><i>Who can explain how to doff, or remove, PPE after caring for a patient with confirmed or suspected COVID-19?</i></p>	<ul style="list-style-type: none"> <li>• Talk through the steps briefly without actually performing them.</li> <li>• Reinforce that doffing is a high-risk time for healthcare worker contamination. Encourage them to take their time and be methodical. There should be no hurry.</li> <li>• Encourage participants to refer to their latest doffing protocol. Discuss how to post a doffing checklist where it is visible during doffing and/or use a doffing assistant to minimize mistakes.</li> </ul>
<p><i>Who can describe how to correctly collect a COVID-19 test? Why is it important to collect the test a certain way?</i></p>	<ul style="list-style-type: none"> <li>• <b>Refer to facility protocol for COVID-19 test collection:</b> <ul style="list-style-type: none"> <li>• Which type of swab is used?</li> <li>• How deep into the nasopharynx does it need to go?</li> <li>• How long should it be left in place and/or rotated?</li> <li>• Is the protocol to swab one nostril or both?</li> <li>• How is the sample bagged for the lab?</li> <li>• Do they use another collection system?</li> </ul> </li> <li>• Collecting the test correctly, even though it may be uncomfortable for the patient, decreases the chance of a false negative result.</li> </ul>
<p><i>What should be done with a patient with these symptoms if no tests are available?</i></p>	<p>Is she stable enough to refer? Where do they refer to in this facility - what are the options?</p>
<p><i>How would you assess a pregnant woman presenting to triage with COVID-19 symptoms?</i></p>	<ul style="list-style-type: none"> <li>• Collect a thorough patient history: What is the reason she came to the facility today? How long has the patient been sick? Is anyone else in the household sick?</li> <li>• Perform a physical examination (maternal vital signs; including pulse oximetry if available, assessment of foetal heart rate, abdominal examination, and cervical examination if appropriate).</li> </ul>
<p><i>In this facility, do patients in labour get to have a companion with them? Is that also allowed for COVID-19 positive mothers?</i></p>	<ul style="list-style-type: none"> <li>• Discuss facility policy, how many (if any) are allowed, and how companions are screened for COVID-19 symptoms. Must they leave if they have symptoms?</li> <li>• Encourage participants to put masks (medical or cloth) on ALL companions.</li> </ul>

# PRE-BRIEF FOR EVERYONE: SIMULATION PARTICIPANTS AND OBSERVERS



**Allow the simulation participants time to look around the simulation and PPE donning and doffing areas to check their materials.**

## PRE-BRIEF - Read the following instructions aloud:



Welcome! Thank you for participating. Before beginning, I will identify the providers in this simulation and their roles (**identify providers**).

If you need to refer the patient, you must pretend to call the referring facility and someone will answer the phone (**point to the provider assigned to this role**).

For those participating in the simulation, please look around the simulation and PPE donning and doffing areas to see if all of the supplies normally available when caring **for a pregnant COVID-19 suspected patient, and for donning and doffing**, are present. For the purposes of simulation, we will use simulated n95 masks - there are medical or cloth masks with 'n95' written on the sticker as part of the supplies. Please let me know if anything is missing (**allow time to look around at supplies**).

Now that you have reviewed your supplies, let's review the Ground Rules of Simulation:

- Performance in simulation does not impact your job or salary.
- Try to make this as real and believable as possible.
- Have an open mind.
- No laughing or side conversations during the simulation.
- Maintain confidentiality.
- Allow mistakes to be made in order to learn from them.
- Be open with and respectful of other participants.
- Work as a team without worrying about personal ego.
- **And remember, all observers should maintain social distancing, with at least 2 metres (6 feet) between everyone. All observers should also wear medical or fabric masks.**

For those observing, I am going to divide you into four groups (**divide them into groups based on where they are**) and assign each group something to watch out for. During the simulation, listen and watch for your assigned concept. You will be asked to discuss it in the debrief.

**Group 1:** Communication with the mother and respectful care

**Group 2:** Check-Back and Call-Out

**Group 3:** SBAR

**Group 4:** Donning and doffing of PPE

Today, we will be practicing COVID-19 management. The patient actress is simulating, or acting, to have COVID-19, she is healthy in real life. The goal is to practice and learn; this is a stressful time and you all may be feeling some anxiety - that is ok.

Part of the practice today is donning and doffing PPE. When the simulation starts, the first step will be for the providers to fully don PPE before approaching the patient.

*This step is important to ensure safety for everyone - please do not rush this step.*

*This will be done in the PPE donning and doffing areas (**show participants the areas**), with the help of the PPE Assistant (**point to who is in this role**). The PPE Assistant should stay outside the patient area during the simulation, where they can safely assist with donning and doffing.*

*Unlike other simulations, after the facilitator says "STOP" at the end of the simulation, there will be one more step. The provider(s) should step into the PPE doffing area and doff PPE with the help of the PPE Assistant. Then, the simulation will be over.*

*As a reminder to the participants:*

- The patient actress wears an injection pad on her leg and two IV bands on each arm (**show the locations, while keeping the patient covered**). To administer medications, draw up the medications and inject them into the injection pad **ONLY** and nowhere else. To fix an IV line, hang the IV and place the tubing under the armbands. Do not use a needle to inject medications into the IV bag.
- The patient actress may cough and spray simulated germs - those are not contagious and are safe for simulation. The patient will wear a mask at all times - please do not remove or lift it. If you would like to take a temperature, please hold the thermometer up to her mask or the side of her face - but please do not insert it into her mouth for safety.
- If vital signs are required, please actually take them. For example for blood pressure, use the blood pressure cuff as is normally done, and the finding will be shown on the whiteboard. **DO NOT** decide vital signs on your own, they are only shown after the clinical step has been taken.
- If a COVID-19 test is required, please simulate collecting the test with the simulated test kit; do not use a real test kit or perform any invasive procedures on the patient actress. For example, do **NOT** actually insert the swab into the patient's nose (but simulate it to the side of the mask), or prick the patient's finger, the patient should not actually spit, etc.
- Remember to treat this mother like you would in real life: Talk to her like you would a real mother, and so forth.
- Any questions?

*I am now going to ask the back-up or referral provider(s) to leave the room. You will be called if needed.*

**Pre-brief continues on the next page** ➔

## PRE-BRIEF FOR INITIAL SIMULATION PARTICIPANTS AND OBSERVERS ONLY



Participants on call should leave before hearing this history and after they have checked the simulation and PPE donning and doffing areas. They should be called for help without knowing anything about the case.



*Case: Mary is a 24-year-old, Primigravida at 41 weeks. She has just arrived at the facility with complaints of a fever, cough, and mild shortness of breath for the past three days. She has been having regular contractions every 4-5 minutes for the past few hours. She is currently sitting on a bed, which is in a supply closet that has been converted to a triage area for suspected COVID-19 patients, with her mother, who reports no COVID-19 symptoms. They are both wearing masks given to them by the screening person at the front door.*

*Brief Medical History:*

- 6 antenatal care visits
- Received folic acid and iron supplementation
- Has had a cough, fever, and mild shortness of breath for 3 days






*The patient has just presented, and no additional information is known at this time. No assessments have been completed.*

**After reviewing the above information, say:** *The main provider(s) and the PPE Assistant, could you please enter the PPE donning area now (point them to the donning area). START!*



During the simulation, the person debriefing should make note of the key learning moments that occur for the debriefing session. If the same person is both debriefing and running the simulation, make very small notes at the bottom of the whiteboard for use in the debrief.

# SIMULATION PROGRESSION

TIME	WHITEBOARD INFORMATION	PATIENT SIMULATION HAND SIGNALS	APPROPRIATE & EXPECTED PROVIDER ACTIONS	REACTIONS TO INAPPROPRIATE ACTIONS FOR PATIENT
0-5 minutes		Coughs + sprays simulated germs 	Dons PPE	
5-10 minutes	<b>FHR:</b> 140 <b>BP:</b> 130/60 <b>Pulse:</b> 120 <b>Respiration Rate:</b> 24 <b>Temperature:</b> 38.5 <sup>c</sup> <b>Cervix:</b> 5 cm <b>Membranes:</b> Intact <b>Abdominal Exam:</b> No tenderness <b>Oxygen Saturation (if available):</b> 95%	Contractions, but do NOT push baby  Coughs + sprays simulated germs 	Introduces self to patient and companion Takes targeted COVID-19 and labour history (including family member's health status) Asks about signs and symptoms of labour Assesses maternal vital signs, oxygenation status (if available) and foetal heart rate Asks about other possible sources of maternal fever (urinary, uterine, malaria, wounds, etc.) Examines for source of infection (abdominal exam for tenderness, kidney tapping for pain, etc.) Performs cervical exam Communicates with the patient	If the provider does not ask about other family members health status, the patient says, "My husband has also had a cough and fever for 5 days."
10-15 minutes	<b>COVID-19 test results:</b> Unknown (must send to laboratory)  <b>Other labs ordered or drawn (per facility protocol) for maternal fever:</b> Unknown (must send to laboratory)	Coughs + sprays simulated germs  Contractions, but do NOT push baby 	Administers COVID-19 test Asks for a urine sample Makes a plan for admission to labour ward or to a higher-level facility for delivery (depending on protocol) Gives paracetamol/acetaminophen for fever Communicates with patient about her and her baby's condition, and her care plan Calls for help from team Gives SBAR <b>AFTER facilitator says STOP:</b> Doffs PPE per facility protocol with help of PPE Assistant	If the provider does not assess the foetal heart rate, the patient asks, "How is my baby doing?"

**AFTER THE SIMULATION IS OVER, BUT WHILE PARTICIPANTS ARE STILL AROUND THE BED:** Ask participants where they think the droplets are likely to be. Then, turn off the lights and use a blacklight to show where the droplets spread (bed, patient's hands, etc.). Participants may need to approach the bed to examine the droplets. When finished, proceed to the debrief.

# DEBRIEFING GUIDE



## THE DEBRIEF

**Take a few moments before the debrief to determine which questions are the most important to discuss based on what happened in the simulation.** Remember, some of the questions may be inapplicable depending on how the simulation progressed; it is the responsibility of the person debriefing to decide what to discuss based on what happened in the simulation BEFORE the debrief.

Gather the participants and observers. **Have everyone sit in a circle so they can see each other, but maintain social distancing. Everyone participating in the debrief, including the facilitator, should wear a mask.** The goal is for participants' shared knowledge to come up with the answers from within the group and not for the facilitator to "teach" participants. There are always errors during simulations that can be learning opportunities, even if they are not learning objectives for the simulation. Never let incorrect clinical actions go unaddressed.

**In this simulation, there is usually a discussion about:** Signs and symptoms of COVID-19, how to properly don and doff personal protective equipment (PPE), how to safely manage a COVID-19 positive patient, and admission protocols for COVID-19 positive patients (whether to admit and deliver, or refer to a higher-level of care).

### CLINICAL SKILLS CHECKLIST:

- ✓ Hand hygiene completed (hand washing or alcohol-based hand rub/gel)
- ✓ Infection Prevention and Control procedures followed (IPC)
- ✓ Provider(s) correctly donned and doffed personal protective equipment (PPE)
- ✓ Targeted history taken
- ✓ Maternal vital signs taken
- ✓ Foetal heart rate assessed
- ✓ Vaginal exam performed
- ✓ Oxygenation status assessed (if available)
- ✓ Differential diagnoses for causes of fever in pregnancy discussed and explored (abdominal examination and laboratory studies drawn per facility protocol)
- ✓ COVID-19 test administered and properly assessed (if bedside rapid test) or properly packaged for transport to laboratory
- ✓ Plan made to either admit to facility or refer to a higher-level of care (depending on protocol)
- ✓ Communicated with mother about her care plan and health status
- ✓ Protocols for suspected COVID-19 patient followed

# DEBRIEFING QUESTIONS (20-30 MINUTES)



**DEBRIEF QUESTIONS  
(READ ALOUD TO GROUP)**



**FACILITATOR NOTES AND  
APPROPRIATE ANSWERS**

## DESCRIPTION PHASE

*For those who participated, how did that simulation feel?*

Allow participants to reflect and answer. They may need to vent frustrations they might be feeling, or anxieties about managing these patients in real life; allow for this.

*Can someone give a BRIEF overview of the simulation?*

COVID-19 suspected patient with fever in early labour.

## ANALYSIS PHASE

*When the simulation first began, what were the first actions taken by the provider?*

- Donned PPE?
- History taken for COVID-19, for labour, AND for other causes of maternal fever?
- Assessed maternal vital signs (pulse, blood pressure, temperature, oxygenation status, etc.)?
- Assessed foetal heart rate?
- Cervical examination performed?
- Abdominal examination performed?

*How was the donning and doffing of the PPE? The providers and the observers can answer this question.*

- Rushed? Nervous? Unsure of the order to put items on and take them off?
- This is an opportunity to discuss posting a checklist and/or using a donning/doffing assistant.

*What was it like working with the PPE Assistant? Is this a role normally available in this facility?*

- Ask the provider(s) and the PPE Assistant.
- Also, direct the question to the larger group as well, about how they feel about instituting this in real life if they do not already do so.

*How was the availability of PPE, did you have everything you needed?*

- PPE may be in short supply or locked up. Allow participants to express their frustration.
- This is a good opportunity to discuss system changes and solutions for PPE in the facility.

*How were the introductions between the provider and the patient and her companion (if a companion was present)?*

- Encourage participants to introduce themselves and ask the patient her name in every patient encounter. This is an opportunity to discuss kind and respectful care.
- Respectful maternity care CAN be practiced in the time of COVID-19; birth can be a very scary experience for women, especially now with the providers in full PPE.

*What made you suspect the patient had COVID-19?*

- She had a cough, fever (38.5), and mild shortness of breath.
- She reported that her husband was also ill at home.

*Other than COVID-19, were you thinking about any other potential differential diagnoses of the patient? If so, which ones and why?*

**Possible reasons for maternal fever:** COVID-19, influenza, chorioamnionitis, kidney or bladder infection (urinary tract infection), malaria or other endemic disease, etc.

*What other investigations were done to confirm COVID-19 or rule-out other causes of fever in pregnancy?*

- Abdominal or CVA examination (no tenderness)?
- Any other laboratory tests?

**Debrief continues on the next page** ➔

## DEBRIEFING QUESTIONS (20-30 MINUTES)



### DEBRIEF QUESTIONS (READ ALOUD TO GROUP)



### FACILITATOR NOTES AND APPROPRIATE ANSWERS

*How was it administering the COVID-19 test?*

- It may cause stress or anxiety for the provider - especially if they have not performed any (or many) previously.
- Was planning for safe transport of the specimen to laboratory challenging?
- Discuss that it can be helpful to have a poster on the wall that lists the steps in order.

**ONLY ASK IF COMPANION NOT ALLOWED IN FACILITY OR HAD TO ASK TO LEAVE PER PROTOCOL:**  
*How did you feel having to ask the patient's companion to leave or to not allow her to stay?*

- Also discuss the reactions of both the companion and patient.
- Was it uncomfortable for the patient?

*How did you decide whether to admit the patient, and where she should go next?*

- Discuss how the provider assessed whether the patient was in active labour, and whether she was severely ill.
- Review facility protocol for admission in an isolated area and/or transfer of COVID-19 suspected patients.

*Did you feel like you had all the guidelines you needed to safely care for a COVID-19 positive patient?*

- This is a good opportunity to discuss how to find facility COVID-19 policies and if there were any gaps.
- Guidelines are frequently changing – where can they find the most up-to-date information? You could also talk about methods to communicate policy changes so that everyone can be kept aware.

*Did you have all the supplies and materials you needed to manage this patient?*

- This is a way to discuss planning ahead to care for COVID-19 positive or suspected patients.
- How will they access supplies that are not in the room if they cannot leave without doffing?

*How does it feel if or when you do not have supplies readily available to you when you need them?*

Give participants some time to vent before encouraging them to come up with solutions.

*What do you do? Who can you turn to?*

- Does this facility practice the idea of a “runner” or someone whose job it is to go and get supplies who is not in the room with the patient?
- How to maintain safety with a runner? (PPE for runner).

*Was there an SBAR given? What was it? If no SBAR was given, what might an SBAR be for this case if you were to call for help?*

- Give the participants a moment to repeat the SBAR given. If it was incomplete, or there was none given, ask a participant to give a complete SBAR.
- **If after a few moments no one can give a complete SBAR, use this example:**
  - **S:** *I am in triage with a 41-week primigravida in labour, who is suspected for COVID-19.*
  - **B:** *She arrived at the facility complaining of a fever, cough, and mild shortness of breath for 3 days. I have collected a test for COVID-19, labs for white bloods cells, and she will give a urine sample. Oxygen saturation is 95%. She is contracting regularly and is 5 centimetres dilated.*
  - **A:** *This patient is in early labour with symptoms of mild COVID-19 illness.*
  - **R:** *We should admit her to the maternity isolation area. Please prepare to receive this patient and don PPE.*

*Observers, can you remember an example of one of the communication concepts?*

- Thinking-Out-Loud? Check-Back? Call-Out?
- Ask the observers to describe what they heard.

Debrief continues on the next page



**DEBRIEF QUESTIONS  
(READ ALOUD TO GROUP)**



**FACILITATOR NOTES AND  
APPROPRIATE ANSWERS**

*How was the communication between the provider and companion? Between the provider and the patient?*

- Discuss without making the providers feel attacked.
- Review any positive communication seen.

*For the patient and companion, how did you feel cared for?  
(Ask this question even if the companion had to be removed, so she can share how they handled her.)*

- Allow the patient and companion time to reflect and discuss their experiences during the simulation.
- Did they feel stigmatized or treated differently because of the mother's suspected COVID-19 diagnosis?

*What was it like to be cared for with the providers covered with PPE?*

- Frightening?
- Confusing - maybe she could not hear them well?
- Made her feel like they were afraid of her, or thought she was a threat to them?
- Anything else?

*How is everyone feeling about all that we have to think about and do to care for COVID-19 patients, in addition to all of our usual work?*

Worried about themselves and their families? Frustrated with hospital administration? Proud to be part of the effort? Allow them the opportunity to vent.

*How can you take care of each other and yourselves during this crisis?*

- Talk to coworkers. Get enough sleep. Eat well. Take breaks. Pray or meditate if spiritual.
- You cannot help others effectively if you are sick or exhausted. Your patients are depending on you to take care of yourself, too!

## APPLICATION PHASE

*Is there anything that we discovered, learned, or saw in the simulation, or discussed in the debrief, that you feel the facility leadership, anyone in this organization, or the Ministry of Health should know about?*

- This is an opportunity to feed anything learned in the simulation and debrief into a quality improvement loop.
- Things are changing rapidly with COVID-19; sharing any discovery about bottlenecks, system issues, a lack of protocol clarity, or supply shortages is incredibly important during this time.

*For the providers in the simulation, please reflect on one thing that you learned during the simulation that you will change the next time you are presented with a similar clinical situation. Let's go around and share.*

- Give the providers time to reflect and make sure everyone shares one thing they will do differently.
- Thank everyone for their participation and give a round of applause (clap).





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