

Normal Delivery with Symptomatic Covid-19 Scenario script

Field	Text
Title	Normal Childbirth with a Symptomatic Covid-19 woman
Subtitle	Infection Prevention and Control During Delivery
Publishing Organization	Laerdal Medical
Overview tab	
Simulation Type	Simulator-based
Simulation time	25 minutes
Debriefing time	40-50 minutes
Level	Intermediate
Patient Type	Pregnant
Target groups	Midwives, providers and nurses assisting in childbirth
Summary	<p>In this scenario a 28-year-old woman in active labor has just arrived at the labor ward. The woman is persistently coughing, feels warm, and is generally showing mild symptoms of Covid-19. She has regular and intensive contractions and birth is imminent. Upon arrival, the woman was triaged and moved with her partner to a birthing suite under isolation. The simulation will start when the woman is about to give birth in the delivery room. She is observed coughing and with a febrile appearance, but no physical assessment has been done.</p> <p>The team should don PPE according to local guidelines for covid-19 before encounter with the birthing woman. They should confirm symptoms of Covid-19 including persistent dry cough, a sore throat and fever.</p> <p>They should assist in the normal birth of a healthy baby while preserving high hygienic standards, respectful care and women's rights during delivery and birth.</p> <p>The team should provide newborn care, keep mother and child together, order test for Covid-19 and educate the woman and partner on personal precautions related to suspected Covid-19 infection.</p>
Learning objectives	<p>After simulation the participants should be able to:</p> <ul style="list-style-type: none"> • Don PPE according to guidelines • Recognize symptoms of Covid-19 • Assist a woman with suspected Covid-19 in the normal delivery of a healthy baby Maintaining high hygiene standard and infection prevention

	<ul style="list-style-type: none"> • Preserve respectful care and women's rights throughout labor and birth • Collect specimen and blood samples for further diagnosis • Escalate contact precautions • Communicate suspected Covid-19 to facility's IPC coordinator
Educational information (in accordion)	<p>This scenario is designed for SimMom Automatic Mode Simulator and SimMom Manual Mode Simulator but can also be run with the use of PROMPT FLEX, MamaNatalie or MamaBirthe.</p> <p>For simulation with a skills trainer with no connectivity, the scenario file can be run via SimPad or a LLEAP tablet without connecting to a simulator. Connection to a Patient Monitor, if present, can be used to show vital signs during simulation. Otherwise, the instructor can provide information on vital signs during simulation.</p>
Further readings (in accordion)	<p><i>Clinical management of severe acute respiratory infection (SARI) when COVID-19 disease is suspected.</i> World Health Organization 13 March, 2020, retrieved at https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-%28ncov%29-infection-is-suspected</p> <p><i>Infection prevention and control during health care when COVID-19 is suspected, Interim Guidance,</i> World Health Organization 19 March, 2020, retrieved at https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125</p> <p><i>Q&A on COVID-19, pregnancy, childbirth and breastfeeding,</i> World Health Organization, 18 March 2020, retrieved at https://www.who.int/news-room/q-a-detail/q-a-on-covid-19-pregnancy-childbirth-and-breastfeeding</p> <p><i>Urgent Call for Governments to Provide Personal Protective Equipment to Midwives.</i> ICM Official Statement, International Confederation of Midwives, April 2020, retrieved from https://www.internationalmidwives.org/assets/files/news-files/2020/03/ppe-statement.pdf</p> <p><i>Women's Rights in Childbirth Must be Upheld During the Coronavirus Pandemic.</i> ICM Official Statement, International Confederation of Midwives, April 2020, retrieved from https://www.internationalmidwives.org/assets/files/news-files/2020/03/icm-statement_upholding-womens-rights-during-covid19-5e83ae2ebfe59.pdf</p>
Scenario image	Added to Scenario folder
Scenario Video	NA

<p>Why use this scenario?</p>	<p>This scenario addresses learning objectives to train health care personnel, assisting in normal childbirth, in preparation and childbirth assistance for birthing women who is symptomatic of Covid-19 while upholding respectful care and preserving the right of women during labor and birth. The scenario is designed to train standard precautions for Infection Prevention and Control (IPC) according to WHO Interim guidelines 2020 on IPC for the 2019-nCoV virus.</p>
<p>Prepare tab</p>	
<p>Location</p>	<p>Birthing suite, in-hospital or birthing clinic</p>
<p>Participants</p>	<ul style="list-style-type: none"> • 1 provider, midwife or nurse-midwife • 1 nursing assistant • 1 scenario assistant acting as the partner <p>Faculty, if running with SimMom</p> <ul style="list-style-type: none"> • 1 operator • 1 facilitator <p>Faculty if running with PROMPT Flex, MamaNatalie or MamaBirthie</p> <ul style="list-style-type: none"> • 1 scenario assistant controlling the labor and birth and acting as the birthing woman • 1 facilitator
<p>Equipment list (Semi-collapsed item)</p>	<p>Medical Supplies</p> <ul style="list-style-type: none"> • Alcohol wipes • Baby blankets • Bed pads • Blood pressure cuff, adult size • Delivery table (per institution) • Drug resource • Epidural catheter • External fetal and/or Doppler and contraction monitor with belly band or straps • Infant warmer • IV pump • IV start supplies (4 x 4 gauze, wound dressing, IV tubing, saline lock, tourniquet) • Manual resuscitation bag and mask • Needles (18, 20, 22, 25 G) • Oxygen delivery devices (adult nasal cannula, simple mask, and non-rebreather) • Oxygen supply source • Personal lubricant (for vaginal exam)

	<ul style="list-style-type: none"> • Personal protective equipment including long-sleeved gown, goggles or face-shield, and non-sterile gloves for all participants including partner • Pulse oximeter • Stethoscope • Syringes (1, 3, 5, 10 mL) • Thermometer <p>Medication and Fluids</p> <ul style="list-style-type: none"> • Broad-spectrum antibiotics for injection • Lactated ringer’s or normal saline 1000 mL for infusion • Uterotonic agent for injection <p>Miscellaneous</p> <ul style="list-style-type: none"> • Artificial amniotic fluid (water) • Artificial blood • Artificial vernix (e.g., cream cheese) • Call light • Chairs for puppeteer/husband and for support person • Headset for LLEAP • Lubrication for fetus • Patient gown • Patient ID and allergy band • Pillows • Step stool • Telephone • Wig (optional)
<p>Preparation and setup</p>	<ul style="list-style-type: none"> • Dress the simulator in an expectancy gown • Place the simulator sitting on an examination bed • Apply a surgical face mask
<p>Role Information (accordion)</p>	<p>Instruction for Scenario Assistant Acting as the Birthing Woman with MamaNatalie or MamaBirthing</p> <p>Patient history You are acting as the 28-years-old woman, Rose Gabe, who has arrived at the labor ward in active labor. From start of simulation, you will be waiting in a birthing suite for the participants to arrive together with your partner after visitation by a receiving provider. You will be wearing a surgical face mask that the nurse provided to you after arrival. This is your first pregnancy and it has been without any complications. You have followed the local maternity program until 3 weeks ago where you cancelled the last consultations as you would not go to hospital and risk being contaminated of the current Covid-19 epidemic. Two days ago, you started feeling tired and developed a sore throat together with a dry cough and you got worried if you had somehow caught</p>

the covid-19 infection though you have been careful not to visit friends and family. You and your partner agreed that it might just be a cold. Your partner has not developed any symptoms.

Today, you are 39 weeks and 2 days pregnant and you have had a strange feeling in the stomach all day. When you got off the couch after a rest, your pants got wet, and you are sure that the water broke. You went to the toilet and the water seemed clear and did not smell of urine. At the same time, you started getting strong and painful contractions every 3 minutes. You and your partner agreed to drive to the hospital without calling first as you were having a hard time keeping up with the contractions and you were both anxious if you would be asked to stay home or to drive to another hospital far away, if they found out that you had symptoms of covid-19.

Before simulation

When you arrived, the receiving nurse asked you about your condition, noticed your dry cough and asked how you felt. You admitted being having a sore throat since yesterday. She gave you and your partner face masks to wear and showed you into a birthing suite.

You may share as much of this information as you feel confident to, depending on the participants' effort to make you feel safe and cared for.

During simulation

You will be having strong and painful contractions every 2 minutes when simulation starts with the duration of around 1 minute. You will be confused, agitated, and out of breath during contractions. You will be getting the urge to push as soon as first examination and vital signs assessment has been completed. You should express the need to change birth position during this phase. You should be coughing every 1-2 minutes during simulation.

Instruction for Partner

You will be acting as the partner to the birthing woman in this scenario. Please, read the instruction above for the birthing woman. You will be anxious to whether you will be allowed to stay at the birth. When calmed, you will be supportive of your partner, until the baby is delivered.

If the participants do not order covid-19 test or take blood sample for diagnostic test, you may ask, whether she should not be tested for her symptoms. If the participants do not provide information on personal precautions and hygiene, you may ask questions as to whether your partner may be together with your baby, if she can breast feed, and if you can have visitors.

Training Devices	SimMom Automatic mode SimMom Manual Mode MamaNatalie MamaBirthe PROMPT Flex
Simulation devices	LLEAP SimPad
Simulation mode	Automatic mode
Additional Simulation Equipment	Patient Monitor SpO ₂ probe
Simulate tab	
Learner Brief	<p>Time: 13:15</p> <p>Report from receiving provider outside birthing suite: Rose Gabe is a 28-year-old woman, G1P1 at 39 weeks' gestation, who has just arrived in active labor. She believes that her membrane ruptured 1 hour ago at home after which her partner drove her directly to the labor ward without calling in beforehand.</p> <p>I received the woman and observed her to be in active labor with 2 minutes between contractions which are strong and 50 seconds long. The woman is persistently coughing after contractions and seems more out of breath than normally expected. On enquiry the woman admitted to not feeling well for the last day with a dry cough and a sore throat. She might be having a slight fever, but she was afraid that we would not receive her if she called in before arrival. I had her put on a face mask. Her partner is asymptomatic. They are now waiting in birthing suite 5 for assessment and examination.</p>
Patient Picture	NA
Patient Data	<ul style="list-style-type: none"> - Name: Rosei Gabe - Gender: female - Age: 28 years - Weight: 71 kg - Height: 153 cm - Race: African - Religion: Christian - Major Support: Her partner - Allergies: None - Immunizations: Influenza
Start vital signs	<p>Copy from Amelia Sung with slight modifications</p> <ul style="list-style-type: none"> - Heart Rhythm: - Heart rate: 95 (bpm) - Blood pressure: 131/28 (mmHg) - Respiration rate: 26 (rpm) - SpO₂: 26 (%) - PetCO₂ (mmHg): NA

	<ul style="list-style-type: none"> - Temperature: 38,4 C - Capillary refill time (sec) NA
Medical history	NA
Clinical Findings	<ul style="list-style-type: none"> • Dry cough • Has a sore throat • Warm
Diagnostics	NA
Provider's orders	Na
Expected interventions	<ul style="list-style-type: none"> • Don PPE • Provide PPE to partner • Confirm symptoms of covid-19 • Communicate suspected Covid-19 to the couple and the IPC Coordinator and establish Isolation status for birthing suite • Ensure the woman that she can still give birth normally • Inform the woman of uterotonic treatment and get consent to procedure • Assess patient • Document procedures according to local guidelines • Identify active labor with full dilation • Talk, comfort and work with the woman and her partner • Allow the woman to change and choose birthing positions • Give supplemental oxygen as needed • Assist normal birth of healthy baby in a position chosen by the woman • Directly place baby on mother's chest with skin-to-skin contact • Stimulate and dry the baby, still on the mother's chest • Follow the protocol for newborn care • Check for second baby • Administer uterotonic agent • Assist delivery of placenta • Check contracted uterus and possible bleeding • Administer broad-spectrum antibiotics • Order swab for Covid-19 • Obtain venous blood sample for other possible diagnosis • Counsel the mother and partner on Covid-19
Assessment Instruments	
Operator Information (accordions)	<p>Running the scenario with SimMom Simulator</p> <p>This scenario is built to be run on both SimMom Automatic Mode and SimMom Manual Mode. When starting the scenario, you should choose the correct simulator pathway in the 1st phase in order to run the simulation with the correct settings.</p> <p>The scenario contains scoring in each essential intervention. It is therefore important to log carefully all events observed during</p>

	<p>simulation. The log file will contain a result of the complete score and comments on all events not logged during session.</p> <p>Running the scenario with PROMT FLEX, MamaNatalie, or MamaBirthie</p> <p>This scenario can be used as a check list for simulation with PROMPT FLEX, MamaNatalie and MamaBirthie. We recommend using SimPad for this. Download the scenario to your SimPad and run it without connecting to a simulator. Check off each event as they are performed by the team and use the log file after session as a support for the debriefing.</p> <p>The scenario contains scoring in each essential intervention. It is therefore important to log carefully all events observed during simulation. The log file will contain a result of the complete score and comments on all events not logged during session.</p>
Scenario Progression Image	NA
Scenario Progression Image Title	NA
Scenario Progression Image Description	NA
Scenario Progression Attachment	NA
Debrief tab	
Guided reflection questions	<p>These guided reflection questions are organized by the gather-analyze-summarize (GAS) method. The questions are presented to suggest topics that may inspire the debriefing conversation.</p> <p>Gather</p> <ul style="list-style-type: none"> • What are your reactions to this simulation? What are your other initial reactions? • Would one of you describe the events from your perspective? • From your perspective, what were the main issues you had to deal with? <p>Analyze</p> <ul style="list-style-type: none"> • Describe the general principles of infection prevention and control (IPC) when caring for a birthing woman with symptomatic covid-19. • How did you apply these principles?

	<ul style="list-style-type: none"> • How did you apply specific IPC measures when caring for the birthing woman? • What did you discuss with the birthing woman on her concerns about treatment and care when she had symptoms of covid-19? • How did you attend to her partner before, during and after birth? • How did you notify the facility about the symptomatic covid-19 and the isolation status? • Which diagnostic samples did you decide to collect for the man? • How was your cooperation within the team and with the woman? • Describe the counselling you performed for this woman. What was your reasoning for this counsel? <p>Summarize</p> <ul style="list-style-type: none"> • What are the key points from this simulation? • What would you like to do differently next time in a similar situation? • What are your main take-home messages?
<p>Guided reflection Attachment</p>	<p>NA</p>
<p>Case considerations</p>	<p>Childbirth is a normal part of life and it does not stop because of a pandemic. PPE, in conjunction with proper hygiene practices, is the best way for midwives and nurses to protect themselves and the health care system from contamination while interacting with mothers and families who may be infected by the virus. All frontline health care workers should be secured safe working conditions and respect for their work while providing essential care for mothers and babies despite the personal risk. Lack of access to adequate PPE, including gowns, masks and face shields, endangers not only health care workers but also the mothers and babies they care for.</p> <p>It is important that the human rights of women, their babies and their health care workers are not being violated by the introduction of inappropriate protocols for management of pregnancy, birth and postnatal care in response to the Covid-19 pandemic. All protocols should be based on current reputable evidence to avoid harmful treatment to women and their babies.</p> <p>While evidence about the clinical care of childbearing women continues to emerge, it is essential that protocols for pregnancy and</p>

	<p>childbirth during the Covid-19 pandemic are evidence-based and uphold the human rights of all women and their newborns:</p> <ul style="list-style-type: none"> • Every woman and her newborn have the right to be treated with compassion, dignity and respect. • Every woman has the right to information, to give consent, to refuse consent and to have her choices and decisions respected and upheld. This includes the right to have a companion of her choice with her during her labor and birth. • A single, asymptomatic birth partner should be permitted to stay with the woman, at a minimum, through pregnancy and birth. Continuous support by a birth partner increases spontaneous vaginal birth, shortens labor and decreases caesarean births and other medical interventions. • Routine medical interventions such as induction of labor, caesarean and forceps births without obstetric indication will increase the likelihood of maternal and newborn complications, increase the length of hospital stay and add to staffing burdens in hospitals, all of which will increase the possibility of exposure to Covid-19 and reduce the positive experience of birth for mothers and their families. • There is currently no evidence to suggest women cannot give birth vaginally or would be safer having a caesarean birth in the instance of suspected or confirmed Covid-19. The woman’s birth choices should be respected and followed as closely as possible, taking account of her clinical needs. • There is no evidence that Covid-19 can be passed to the infant in breastmilk • Breastfeeding women should not be separated from their newborns, as there is no evidence to show that respiratory viruses can be transmitted through breastmilk. The mother can continue breastfeeding as long as the necessary precautions below are applied. • Continuity of care models of midwifery care will reduce the number of caregivers in contact with the woman and her birth partner and decrease the chances of Covid-19 spread in hospitals; continuity of midwifery care should be encouraged and provided. • Midwives and nurses have the right to full access for all personal protective equipment (PPE), sanitation and a safe and respectful working environment <p>The purpose of this simulation is to keep the normal conditions normal while caring for a Covid-19 infected woman. Compassionate and respectful care is key to support the woman when giving birth, even under hard conditions as when wearing PPE.</p> <p>Effective teamwork around the woman and her partner is pivotal, also to keep the number of health care providers around them to a minimum. This will require planning beforehand in how to organize the care in the labor</p>
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	<p>room. Practicing teamwork, flow in care for the woman, her newborn and communication with her partner is essential to uphold a safe environment for both the woman and for the health care provider.</p> <p>Ref: <i>Women's Rights in Childbirth Must be Upheld During the Coronavirus Pandemic. ICM Official Statement</i>, International Confederation of Midwives, April 2020, retrieved from https://www.internationalmidwives.org/assets/files/news-files/2020/03/ppe-statement.pdf https://www.internationalmidwives.org/assets/files/news-files/2020/03/icm-statement_upholding-womens-rights-during-covid19-5e83ae2ebfe59.pdf</p>
Case considerations image	NA
Case considerations image Descriptions	NA
Case considerations Attachment	NA
Files and attachments	
Publication Details	
Version number	1.0
Publication date	
Release note	
Co-developer One	
Co-developer Two	
Legal Notice	
Credits	
Scenario Settings	
Training Disciplines	<input type="checkbox"/> Community Health and Public Safety <input type="checkbox"/> EMS /Prehospital <input checked="" type="checkbox"/> Interdisciplinary <input checked="" type="checkbox"/> Medical <input type="checkbox"/> Military <input checked="" type="checkbox"/> Nursing <input type="checkbox"/> Nursing Aids <input type="checkbox"/> Occupational Therapy <input type="checkbox"/> Phelbotomy <input type="checkbox"/> Pharmacy <input type="checkbox"/> Physician Assistant <input type="checkbox"/> Radiology Technician <input type="checkbox"/> Respiratory Therapy
Education Level	<input checked="" type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Postgraduate
Medical Specialties	<input type="checkbox"/> Allergy and immunology

	<ul style="list-style-type: none"> <input type="checkbox"/> Anesthesiology <input type="checkbox"/> Cardiology <input type="checkbox"/> Critical Care Medicine <input type="checkbox"/> Dermatology <input type="checkbox"/> Emergency Medicine <input type="checkbox"/> Endocrinology <input checked="" type="checkbox"/> Family Medicine <input type="checkbox"/> Gastroenterology <input type="checkbox"/> Geriatrics <input checked="" type="checkbox"/> Hospital Medicine <input type="checkbox"/> Infectious diseases <input type="checkbox"/> Internal medicine <input type="checkbox"/> Nephrology <input type="checkbox"/> Neurology <input type="checkbox"/> Neurosurgery <input checked="" type="checkbox"/> Obstetrics and Gynecology <input type="checkbox"/> Oncology <input type="checkbox"/> Ophthalmology <input type="checkbox"/> Orthopedics <input type="checkbox"/> Otolaryngology <input type="checkbox"/> Palliative care <input type="checkbox"/> Pediatrics <input type="checkbox"/> Pharmacology <input type="checkbox"/> Psychiatry <input type="checkbox"/> Pulmonology <input type="checkbox"/> Radiology <input type="checkbox"/> Rehabilitation Medicine <input type="checkbox"/> Rheumatology <input type="checkbox"/> Surgery <input type="checkbox"/> Vascular surgery
<p>Nursing Specialties</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Ambulatory care nursing <input type="checkbox"/> Advanced practice nursing <input type="checkbox"/> Burn nursing <input type="checkbox"/> Cardiac nursing <input type="checkbox"/> Diabetes nursing <input type="checkbox"/> Medical case management <input type="checkbox"/> Community health nursing <input type="checkbox"/> Critical care nursing <input type="checkbox"/> Emergency nursing <input type="checkbox"/> Gastroenterology nursing <input type="checkbox"/> Geriatric nursing <input type="checkbox"/> Home health nursing <input type="checkbox"/> Hospice and palliative care nursing <input type="checkbox"/> Hyperbaric nursing <input type="checkbox"/> Immunology and allergy nursing

	<ul style="list-style-type: none"> <input type="checkbox"/> Intravenous therapy nursing <input checked="" type="checkbox"/> Infection control nursing <input type="checkbox"/> Infectious disease nursing <input checked="" type="checkbox"/> Maternal-child nursing <input type="checkbox"/> Medical-surgical nursing <input type="checkbox"/> Military and uniformed services nursing <input checked="" type="checkbox"/> Neonatal nursing <input type="checkbox"/> Neurosurgical nursing <input type="checkbox"/> Nephrology nursing <input checked="" type="checkbox"/> Nurse midwifery <input checked="" type="checkbox"/> Obstetrical nursing <input type="checkbox"/> Oncology nursing <input type="checkbox"/> Orthopaedic nursing <input type="checkbox"/> Ostomy nursing <input type="checkbox"/> Pediatric nursing <input type="checkbox"/> Perianesthesia nursing <input type="checkbox"/> Perioperative nursing <input type="checkbox"/> Psychiatric nursing <input type="checkbox"/> Pulmonary nursing <input type="checkbox"/> Radiology nursing <input type="checkbox"/> Rehabilitation nursing <input type="checkbox"/> Renal nursing <input type="checkbox"/> Sub-acute nursing <input type="checkbox"/> Substance abuse nursing <input type="checkbox"/> Surgical nursing <input type="checkbox"/> Urology nursing <input type="checkbox"/> Vascular access <input type="checkbox"/> Wound care
<p>Nursing courses</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Child & adolescent health <input type="checkbox"/> Community and family health nursing <input type="checkbox"/> Fundamentals of nursing <input type="checkbox"/> Gerontology <input type="checkbox"/> Health assessment <input type="checkbox"/> Leadership <input checked="" type="checkbox"/> Maternal-neonatal health <input type="checkbox"/> Medical-surgical nursing <input type="checkbox"/> Pathophysiology <input type="checkbox"/> Pharmacology <input type="checkbox"/> Psychiatric and mental health
<p>Body systems</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Circulatory <input type="checkbox"/> Digestive <input type="checkbox"/> Endocrine <input type="checkbox"/> Hematopoietic <input type="checkbox"/> Immune/lymphatic <input type="checkbox"/> Integumentary

	<input type="checkbox"/> Muscular <input type="checkbox"/> Nervous <input type="checkbox"/> Renal/Urinary <input checked="" type="checkbox"/> Reproductive <input checked="" type="checkbox"/> Respiratory <input type="checkbox"/> Skeletal
Assessment type	<input type="checkbox"/> Summative <input checked="" type="checkbox"/> Formative
Free for public use	Yes