

## Simulation Scenario

**Simulation Case Title:** SCENE

**Patient Name:** Baby Girl

**Patient Age:** newborn

**Chief Complaint:** spontaneous delivery following trauma

<p>Brief narrative description of case <i>Include the presenting patient chief complaint and overall learner goals for this case</i></p>	<p>Pt is delivered on scene on side of a highway following an MVA. Mom is 17 years old, G1 now P1. Mom was late to prenatal care, believes she is about 36-37 weeks. She has other injuries including arm and leg deformities with bruising on her abdomen. She spontaneously delivers upon EMS arrival with what looks like a lot of bleeding. Baby is not crying.</p>
<p>3 Main Learning Objectives <i>What should the learner gain in terms of knowledge and skill from this case?</i></p>	<p><b>1. Perform Safe and Effective Prehospital Neonatal Resuscitation Using the NRP Algorithm</b></p> <p>Learners will be able to rapidly assess a newborn delivered in the field (Term? Tone? Breathing?), initiate appropriate immediate interventions (warm, dry, stimulate), and progress through the 9th-edition NRP steps—including PPV, CPAP/suctioning, airway positioning, MR SOPA troubleshooting, medication administration, and fluid support—based on the neonate’s clinical response.</p> <p><b>2. Recognize and Manage Maternal and Neonatal Trauma in a Prehospital (or Rural Clinical) Setting</b></p> <p>Learners will demonstrate the ability to identify maternal and fetal trauma factors after an MVA, understand their implications for neonatal compromise, and apply prioritization strategies in a complex, dual-patient emergency (e.g., maternal multi-trauma, premature delivery, neonatal depression).</p> <p><b>3. Maintain Neonatal Physiologic Stability Immediately Post-Delivery</b></p> <p>Learners will understand and perform essential tasks to optimize neonatal outcomes, including thermoregulation, glucose monitoring/maintenance, airway management, and ongoing reassessment (HR, respirations, color, tone, SpO<sub>2</sub>), while preparing for safe and timely transport.</p>
<p>Critical Actions</p>	<p>-Delivery of neonate with cord clamping and cutting.</p>

<p><i>List which steps the participants should take to successfully manage the simulated patient. These should be listed as concrete actions that are distinct from the overall learning objectives of the case</i></p>	<ul style="list-style-type: none"> <li>-Determine healthy vs not healthy newborn and need for immediate life-saving intervention.</li> <li>-Use 9<sup>th</sup> edition NRP algorithm</li> <li>-NRP steps (Term? Tone? Breathing?) <ul style="list-style-type: none"> <li>-Warm, dry, stim</li> <li>-PPV</li> <li>-CPAP, suction</li> <li>-Monitor</li> <li>-MR SOPA</li> <li>-Airway management</li> <li>-Epi admin prn</li> <li>-NS prn</li> </ul> </li> <li>-Thermoregulation</li> <li>-Glucose monitor/maintenance</li> <li>-Safe and timely transport to appropriate facility</li> </ul>
<p>Learner Preparation <i>What information should the learners be given prior to initiation of the case</i></p>	

<b>Initial Presentation</b>			
<b>Initial vital signs</b>	HR 80	B/P ?	RR 0 O2sat 60 Temp- 36
<p>Overall appearance <i>What do learners see when they first enter the room?</i></p>	<p>Mom is grunting, pushing occasionally screaming when they arrive on scene.</p>		
<p>HPI <i>Specify what info here and below must be asked vs what is volunteered by patient or caregiver</i></p>	<p>Mom had late prenatal care but has had intermittent PNC since around 20 weeks. She has a history of T1 DM. She has had difficulty keeping glucose under control during this pregnancy.</p>		
<p>Past Medical/Surgical History</p>	Medications	Allergies	Family History
	Insulin	None	DM
<b>Physical Examination</b>			
General	Pale, limp/floppy, no cry		
HEENT	Fontanelle flat and open		
Neck	normal		

Lungs	No spontaneous respirations/breath sounds not present
Cardiovascular	Soft murmur, HR 80s
Abdomen	3 vessel cord present, abdomen soft
Neurological	floppy
Skin	Pale, vernix present
GU	Female genitalia, normal for gestational age
Psychiatric	

**Instructor Notes – Changes and Case Branch Points**

Intervention / Time point	Change in Case	Additional Information
Rapid assessment of need for intervention – Warm/dry/stimulate		15-30 seconds
Delayed Cord clamping/milking		
Apenic, HR <100, need for PPV		Start at PIP 25
Oxygen at 21% if blended O2 available (or self-inflating bag)		Ventilation Rate 30 – 60 bpm
No chest rise/change in HR		MR SOPA
Go through MR SOPA to advanced airway		ETT sizes
Correct ETT or iGel placement with confirmation		iGel is now primary advanced airway
Recognize HR rise and chest rise		HR 100
BG check is 28, give D10 2ml/kg – 6ml		If needing to make D10, discard 40ml out of amp of

		D50 and draw 40ml of saline in vile -OR- take 50ml out of NS bag and add the whole 50ml of D50 into the bag.
Temperature check 35		

<h2>Simulation Scenario</h2>
<b>Simulation Case Title:</b> ER
<b>Patient Name:</b> Baby Girl <b>Patient Age:</b> newborn <b>Chief Complaint:</b> spontaneous delivery following trauma

Brief narrative description of case <i>Include the presenting patient chief complaint and overall learner goals for this case</i>	Pt is arriving to ER via EMS following an MVA. Mom is 17 years old, G1 PO. Mom was late to prenatal care, believes she is about 36-37 weeks. She has other injuries including arm and leg deformities with bruising on her abdomen. She is writing in pain. As she is moving into trauma bed from EMS gurney, she spontaneously delivers with what looks like a lot of bleeding. Baby is not crying.
3 Main Learning Objectives <i>What should the learner gain in terms of knowledge and skill from this case?</i>	<b>1. Perform Safe and Effective Neonatal Resuscitation Using the NRP Algorithm</b>  Learners will be able to rapidly assess a newborn delivered in the ER (Term? Tone? Breathing?), initiate appropriate immediate interventions (warm, dry, stimulate), and progress through the 9th-edition NRP steps—including PPV, CPAP/suctioning, airway positioning, MR SOPA troubleshooting, medication administration, and fluid support—based on the neonate’s clinical response.

	<p><b>2. Recognize and Manage Maternal and Neonatal Trauma in Rural Clinical Setting</b></p> <p>Learners will demonstrate the ability to identify maternal and fetal trauma factors after an MVA, understand their implications for neonatal compromise, and apply prioritization strategies in a complex, dual-patient emergency (e.g., maternal multi-trauma, premature delivery, neonatal depression).</p> <p><b>3. Maintain Neonatal Physiologic Stability Immediately Post-Delivery</b></p> <p>Learners will understand and perform essential tasks to optimize neonatal outcomes, including thermoregulation, glucose monitoring/maintenance, airway management, and ongoing reassessment (HR, respirations, color, tone, SpO<sub>2</sub>)</p>
<p>Critical Actions <i>List which steps the participants should take to successfully manage the simulated patient. These should be listed as concrete actions that are distinct from the overall learning objectives of the case</i></p>	<ul style="list-style-type: none"> <li>-Delivery of neonate with cord clamping and cutting.</li> <li>-Determine healthy vs not healthy newborn and need for immediate life-saving intervention.</li> <li>-Use 9<sup>th</sup> edition NRP algorithm</li> <li>-NRP steps (Term? Tone? Breathing?) <ul style="list-style-type: none"> <li>-Warm, dry, stim</li> <li>-PPV</li> <li>-CPAP, suction</li> <li>-Monitor</li> <li>-MR SOPA</li> <li>-Airway management</li> <li>-Epi admin prn</li> <li>-NS prn</li> </ul> </li> <li>-Thermoregulation</li> <li>-Glucose monitor/maintenance</li> <li>-Transfer to appropriate unit/facility</li> </ul>
<p>Learner Preparation <i>What information should the learners be given prior to initiation of the case</i></p>	

<b>Initial Presentation</b>							
<b>Initial vital signs</b>	HR 80	B/P ?	RR	0	O2sat 60	Temp- 36	

Overall appearance <i>What do learners see when they first enter the room?</i>	Mom is grunting, pushing occasionally screaming when they arrive on scene.		
HPI <i>Specify what info here and below must be asked vs what is volunteered by patient or caregiver</i>	Mom had late prenatal care but has had intermittent PNC since around 20 weeks. She has a history of T1 DM. She has had difficulty keeping glucose under control during this pregnancy.		
Past Medical/Surgical History	Medications	Allergies	Family History
	Insulin	None	DM
<b>Physical Examination</b>			
General	Pale, limp/floppy, no cry		
HEENT	Fontanelle flat and open		
Neck	normal		
Lungs	No spontaneous respirations/breath sounds not present		
Cardiovascular	Soft murmur, HR 80s		
Abdomen	3 vessel cord present, abdomen soft		
Neurological	floppy		
Skin	Pale, vernix present		
GU	Female genitalia, normal for gestational age		
Psychiatric			
<b>Instructor Notes – Changes and Case Branch Points</b>			
Intervention / Time point	Change in Case	Additional Information	
Rapid assessment of need for intervention – Warm/dry/stimulate		15-30 seconds	

Delayed Cord clamping/milking		
Apenic, HR <100, need for PPV		Start at PIP 25
Oxygen at 21% if blended O2 available (or self-inflating bag)		Ventilation Rate 30 – 60 bpm
No chest rise/change in HR		MR SOPA
Go through MR SOPA to advanced airway		ETT sizes
Correct ETT or iGel placement with confirmation		iGel is now primary advanced airway
Recognize HR rise and chest rise		HR 100
BG check is 28, give D10 2ml/kg – 6ml		If needing to make D10, discard 40ml out of amp of D50 and draw 40ml of saline in vial -OR- take 50ml out of NS bag and add the whole 50ml of D50 into the bag.
Temperature check 35		