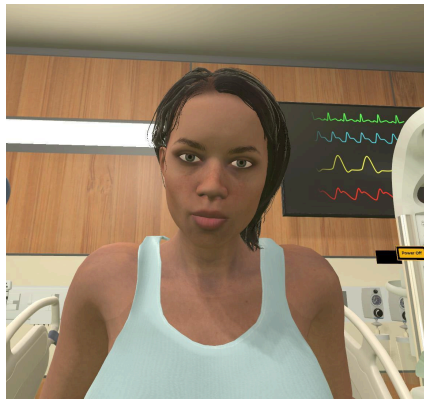
Open RN Virtual Reality Scenario Plan

OB Placental Abruption (Emergent) - LEVEL 4

Open RN Virtual Reality Scenario

Caring for a Client during an Obstetrical Emergency: Placental Abruption-Level Three

Scenario Overview



Carmen Garza-Valdez is a 32-year old female who is 36 weeks 3 days gestation, presenting to the hospital by EMS following a motor vehicle accident. The patient has suffered blunt force trauma from a frontal impact, requiring extrication on scene and has current complaints of severe abdominal pain and a left arm pain. The emergency department has requested that a labor and delivery nurse come to the patient's bedside and complete a maternal and fetal assessment as they rule out any major internal injuries. Students provide emergent obstetrical care throughout all three states of the scenario. A simulated EHR with tabbed chart content is available on the WOW cart to augment the reality of the scenario. The technician or faculty member may role play the client's sister at the bedside to add additional family dynamics to the scenario. An interpreter may also be utilized during this scenario.

State 1: Carmen is displaying severe abdominal pain and emotional stress as the student meets her in the ER.

State 2: Carmen's water breaks in the ER, exhibiting large amounts of vaginal bleeding.

State 3: Carmen undergoes an emergent Cesarean delivery.

Estimated Scenario Time: 60 minutes - Estimated Debriefing Time: 60 minutes

Learning Objectives

1. Maintain a safe, effective health care environment for a client in an emergent obstetrical situation.
2. Provide patient-centered care by utilizing the nursing process for a client undergoing an obstetrical emergency..
3. Relate the client's health status to assessment findings, medications, laboratory and diagnostic results, and medical and nursing interventions.
4. Recognize the signs and symptoms of placental abruption.
5. Plan support of maternal fetal circulation during a placental abruption.
6. Plan assessments and interventions associated with surgical intervention for a client experiencing a placental abruption..
7. Provide patient education to the client and her partner/family.
8. Communicate therapeutically.
9. Report complete, accurate, and pertinent information to the health care team.

Curriculum Alignment

WTCS Nursing Program Outcomes

- Integrate professional nursing identity reflecting integrity, responsibility, and nursing standards
- Communicate comprehensive information using multiple sources in nursing practice
- Integrate theoretical knowledge to support decision making
- Integrate the nursing process into patient care across diverse populations
- Function as a healthcare team member to provide safe and effective care

Nursing Fundamentals Course Competencies

- Maintain a safe, effective care environment for adults of all ages
- Adapt nursing practice to meet the needs of diverse patients in a variety of settings
- Use appropriate communication techniques
- Use the nursing process
- Provide nursing care for patients with comfort alterations

Nursing Pharmacology Course Competencies

- Apply components of the nursing process to the administration of medications

Nursing Skills Course Competencies

- Perform general survey and focused assessments
- Analyze vital signs
- Perform mathematical calculations related to clinical practice

Nursing Health Promotions Course Competencies

- Use principles of teaching/learning when reinforcing teaching plans
- Apply principles of family dynamics to nursing care
- Plan nursing care during uncomplicated labor and delivery

Nursing Complex Health Alterations II

- Evaluate nursing care for patients with alterations in the reproductive system
- Evaluate nursing care for the high-risk perinatal patient

Scenario Setup

Scene

State 1 & 2: Emergency Room

State 3: Operating Room

Patient Information

- 32 year-old female, G3T1P0A1L1
- Patient identification armband present
- Patient Name: Carmen Garza-Valdez
- DOB: 07/18/19XX
- Age: 32
- Height: 168 cm (66 inches)
- Weight: 76.4 kg (168 lbs)
- Allergies: NKDA
- Code Status: Full code
- Primary Language: English (Spanish if interpreter is available)

Initial Sim Manager Settings

See the Acadicus Sim Manager Tutorial for more information. Use default settings plus the following:

- Vitals: BP 110/60, HR 108, RR 20, O2 94% on room air, T 98.6F, Pain: 8/10, Blood glucose: 248
- Animation: Talking; Pained Emotion; Position: Fowler's 45
- General Apparel and Equipment: Patient Gown; Blanket On; Side Rails Raised, Cot Locked, Splint/Cast to Left Lower Arm
- Circulatory: Tachycardic regular rhythm, Heart sounds normal, 2+ pulses, 1+ capillary refill
- Respiratory: Tachypneic, Lung sounds clear
- Digestion and Abdomen: Normal defaults, rigid abdomen
- Skin and Subcutaneous Tissue: Cool, diaphoretic, pale
- Nervous and Musculoskeletal: Normal defaults, fracture left arm
- Cognition: Alert

Assets in VR Room for State 1 & 2

- Crash Cart
- Glucometer
- WOW cart
- Ultrasound
- Vital signs equipment and monitor on
- IV in place, IVF infusing isotonic solution
- Fetal monitor attached with abnormal strip Category 3 monitor strip and contractions every 3 minutes lasting 60 seconds of moderate strength, with absent resting tone.
- Oxygenation devices available (nasal cannula, non-rebreather mask, etc.)

Assets in VR Room for State 3

- Operating Room
- Surgical Assets: Chlorhexidine abdominal prep, indwelling urinary catheter kit, sequential compression devices, abdominal drape, surgical sponges, surgical sponge counter
- Vital signs equipment and monitor on, anesthesia administered
- IV in place, IVF infusing isotonic solution and PRBCs
- Fetal doppler to detect fetal heart tones prior to incision
- White board for time out
- WOW for charting
- Warming table "Panda" for infant
- Neonatal resuscitation equipment: Bulb syringe, warm blankets, neopuff, apgar timer.

Medications in WOW cart

- See MAR

EMR Chart Forms

- Provider Orders - ER
- MAR - ER
- Hospital Lab Results
- Diagnostic Reports
- Prenatal Record
- OB-GYN History

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Caring for a Client during an Obstetrical Emergency: Placental Abruption-Level Three

State 1: Initial Assessment

Carmen is assessed in the Emergency room. Carmen has had an x-ray of her arm with casting/splinting and presents with abdominal pain. An ultrasound has just been completed and the provider is awaiting the results. Carmen is in the emergency room bay with a blood pressure cuff and pulse oximetry attached. Students should perform the appropriate maternal/fetal assessment, maternal vital signs, Leopold's manuever, assess the fetal heart rate and contraction pattern after application of the fetal monitor, stage and phase of labor, vaginal exam, while coaching the client when the labor contractions begin.

Handoff Report: G3P1 with irregular contractions every 4-6 minutes lasting 60-90 seconds of moderate quality upon palpation. Pain scale is at an 8 with the contractions and a 6 between contractions. History: Diabetes Mellitus, Type 2, irregular prenatal care, marijuana use during pregnancy, motor vehicle accident earlier today, blunt force trauma to the abdomen and left radial fracture. Her labs are pending. She is semi fowlers on the emergency room bed and her sister is at the bedside. The orthopedic surgeon was consulted and her left arm has been immobilized and a cast placed. She is to follow up with orthopedics in one week. Her child was also in the vehicle and was taken to the Children's Hospital for further evaluation and treatment. Her partner is with the child. Membranes are intact. She has fentanyl 100 mcg IVP ordered to treat the pain, and cephazolin IVPB ordered prophylactically for infection from the lacerations and fracture sustained in the motor vehicle accident. She has an order to complete an NST and maternal/fetal assessment, an ultrasound was just completed and the provider is awaiting the results. Her last set of vital signs fifteen minutes ago were as follows: T-98.6 F or 37 C, HR-108, BP-110/60, RR-20, O2-94% on room air.

Events	Expected Student Behaviors	Suggested Facilitator Prompts/Questions
State 1 Scenario Settings ● Scenario time: 0820 ● HR 108 ● BP 110/60 ● RR 20 ● Temp 98.6 F or 37 C ● Lung Sounds – clear ● Slightly diaphoretic ● Pain scale 8 during contractions ● Fetal Monitor to be applied **Technician Prompts** Patient is breathing with the abdominal with complaints that it is worse at times. If the student doesn't introduce themselves, ask them who they are. If students begin to assess the patient corresponding responses include: ● "These contractions are getting stronger." ● "The contractions don't seem to stop." ● "Is my daughter okay? What about the baby?" ● "Am I in labor?? Did the accident cause this?" ● "My stomach is so hard."	● Perform hand hygiene ● Introduce themselves to the patient ● **Critical behavior:** Verify patient identity ● Obtain and interpret vital signs ● Communicate therapeutically about client's concerns ● Perform focused maternal/fetal assessment ● Review client chart and prenatal lab work as it relates to client care ● Analyze fetal heart rate and contraction pattern on the fetal monitor ● Students demonstrate non-pharm. Strategies to manage pain ● Leopold's maneuver ● Determine whether or not patient is in labor ● Review, prioritize and appropriately implement provider orders ● Administer medications as indicated ● Notify provider of any abnormal findings using SBAR format	**Suggested Facilitator Questions Based on NCSBN CJMM:** **Recognizing Cues:** -What do you know about this patient? --How does the patient feel now? What is a priority to them? -What significant clinical cues did you recognize that require nurse follow-up? -What do your assessment findings mean in terms of physiological significance? -Is there any additional information you need to collect? Why? **Analyze Cues:** -What problem is most likely? -What problem is most important to manage first? -Is the patient at risk for developing any complications? **Prioritize Hypotheses and Generate Solutions:** -What are the priority nursing problems for this patient at this time? -Should any assessment findings be communicated to the provider? -Are any new provider orders anticipated/desired? -Create a SMART outcome (**s**pecific, **m**easurable, **a**chievable, **r**ealistic, with a **t**imeline) for this patient. -What interventions are indicated to achieve the desired outcomes?

● "I am feeling a little dizzy." ● "What is the antibiotic for?" If students do not use appropriate therapeutic communication, Carmen and/or her sister become increasingly anxious	● If an interpreter is utilized, students demonstrate effective patient communication while utilizing an interpreter, (ie. speaking to the patient and not the interpreter, pausing with their questions or statements to give the interpreter time to relay the information.)	-Prioritize the provider orders. What should be accomplished first for safe and effective care? **Taking Action/Implementing Interventions** -What intervention(s) is/are needed immediately? -What intervention(s) can be safely delegated? (CNA/LPN) -What should be taught to the patient/family to promote health? -What information should be included in an SBAR report to interprofessional team members or during the shift handoff report?

State 2: Obstetrical Emergency

Carmen's cervix is examined and she is 4cm dilated, the ultrasound report comes back and finds that Carmen has suffered a partial placental abruption. As she is being assessed by the nursing students her membranes rupture with a large amount of vaginal bleeding.

Events	Expected Student Behaviors	Suggested Facilitator Prompts/Questions
Carmen's cervix is found to be 4cm dilated. . VS change to: ● HR 120 ● BP 98/66 ● RR 24 Pain scale 9/10 ● FHT's 110 baseline with late decelerations to 70's ● Contractions every 1-2 minutes lasting 60-90 seconds. **Technician Prompts:** ● "These contractions are all the time." ● "I need something for the pain." ● "My pain is 10 out of 10." ● If role playing partner: "Is there something I can do to help?" ● "Am I bleeding?" ● "Is the baby going to be okay?" ● "I am so scared that something is going to happen to my baby." ● "I don't want a cesarean section."	● **Critical behaviors:** Students recognize the obstetrical emergency noting the late decelerations, vaginal bleeding and change in vital signs. Notify healthcare provider of status in SBAR format. Students consider fetal well-being and provide interventions to promote oxygenation, while also providing therapeutic communication to the patient. ● Obtain and interpret vital signs,fetal heart rate pattern , and labor progress ● Communicate therapeutically regarding patient concerns ● Perform focused labor and pain assessments ● Analyze fetal monitor strip ● Provide interventions to promote fetal oxygenation ● Prioritize and appropriately implement provider orders	See suggested facilitator prompts listed under Stage 1.

	• Administer medications as indicated • Notify provider of change in findings using SBAR format • Document assessment findings	

State 3: Cesarean Section

Events	Expected Student Behaviors	Prompts, Questions, Teaching Points
Carmen is moved to the operating room and is prepped for an emergent cesarean section. • HR 112 • BP 88/40 • RR 22 • Uterus is rigid and firm. **Technician Prompts:** • "Is the baby going to be okay?" • "I'm losing a lot of blood." • "How long will it take to get the baby out?" • "Will I be put to sleep for the surgery?"	• Reassess vital signs and fetal heart tones • Prepare for cesarean section under general anesthesia with appropriate equipment for the birth • Prepare abdomen • Place foley catheter • Apply sequential compression devices • Count surgical sponges • Complete time out • Give SBAR Report to NICU nurse	See suggested facilitator prompts listed under Stage 1. **Evaluate:** -Were the desired SMART outcomes achieved? Why or why not? -What findings indicate the interventions were effective (or not effective)? -Did the patient respond as expected? If not, what happened and why? -What is the current nursing priority? -What nursing intervention is needed next? -How did teamwork/ interdisciplinary care help with the patient's status? -What were the critical decision-making points during this scenario? -When situations like this are encountered, you should first…then…then what next…? Sample questions : What support can you provide the patient and family during the obstetrical emergency? What is the nurse's role during the obstetrical emergency and the cesarean section? How is the operating room prepared for delivery?

Suggested Debriefing Questions

1. Encourage students to vent their emotional reactions: "How do you feel this scenario went?"
2. Use group discussion to facilitate the development of clinical judgment:
    a. **Effective Noticing**
        i. **Focused observation:** What did you first notice about the client? What clinically significant cues did you recognize when you initially assess the client?
        ii. **Recognizing deviations:** How was what you noticed different than expected?
        iii. **Seeking appropriate information:** What additional information did you need to know?
    b. **Effective Interpreting**
        i. **Prioritizing data:** What is the significance of the data you collected/noticed? What was this client's most important need? What priority nursing problems did you identify?
        ii. **Making sense of the data:** What issues are beginning to emerge? What evidence did you use to make a decision?
    c. **Effective Responding**
        i. What actions, if any, can be delegated to other health care team members?
        ii. What information should be communicated to the client?
        iii. What information should be communicated to the provider or other team members?
        iv. What nursing interventions should be implemented for this client?
        v. How should the client's response to interventions be monitored?
        vi. What nursing skills did you perform?
    d. **Effective Reflecting**
        i. Analyze your clinical performance. What decisions did you make? Why were those decisions made at that time? Were there alternative actions that should have been taken?
        ii. Were the nursing skills you performed accurate and efficient?
        iii. Identify strengths and weaknesses that occurred personally and among team members during this scenario. How do you plan on eliminating weaknesses to promote quality improvement?
3. Summarize/Identify Take away Points: "In this scenario you care for a patient with atypical chest pain."
    a. **Thinking-In-Action:** What were the critical decision points during this scenario?
    b. **Thinking-On-Action:** What would you do differently if you could repeat this scenario? Name 3 things you learned from this scenario that you will include in your future nursing practice.
    c. **Thinking-Beyond-Action:** How would you respond if Carmen lost consciousness and became pulseless during this scenario? What nursing interventions would receive priority?

Survey

Please share this hyperlink with students or print this page and provide it to them:

Please complete a brief (2-3 minute) survey regarding your experience with this VR simulation. There are two options:

1. Copy and paste the following survey link into your browser: https://forms.gle/fM2HfhzyQ6qma2Mj8
2. Scan the QR code with your smartphone to access the survey

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Suggested Scenario Rubric *(based on Lasater's Clinical Judgment Rubric)*

Adapted from Tanner (2006), Lasater (2007), and Lasater (2011)

Student Name: **Date:**

	4 (Exemplary)	3 (Accomplished)	2 (Developing)	1 (Beginner)
Effective Noticing Performs focused observation Recognizes deviation from expected patterns Seeks appropriate information	Focuses observation appropriately; regularly observes and monitors a wide variety of objective and subjective data to uncover any useful information. Recognizes subtle patterns and deviations from expected patterns in data and uses these to guide the assessment. Assertively seeks information to plan intervention; carefully collects useful subjective data from observing the client and from interacting with the client and family.	Regularly observes/monitors a variety of data, including both subjective and objective; most useful information is noticed but may miss the most subtle signs. Recognizes the most obvious patterns and deviations in data and uses these to continually assess. Actively seeks subjective information about the client's situation from the client and the family to support planning interventions; occasionally does not pursue important leads.	Attempts to monitor a variety of subjective and objective data, but is overwhelmed by the array of data; focuses on the most important data, missing some important information. Identifies obvious patterns and deviations, missing some important information; unsure how to continue the assessment. Makes limited efforts to seek additional information from the client/family; often seems not to know what information to seek and/or pursues unrelated information	Confused by the clinical situation and the amount/type of data; observation is not organized and important data is missed and/or assessment errors are made. Focuses on one thing at a time and misses most patterns/deviations from expectations; misses opportunities to refine the assessment. Is ineffective in seeking information; relies mostly on objective data; has difficulty interacting with the client and family and fails to collect important subjective data.
Effective Interpreting Prioritizes Data Makes Sense of Data	Focuses on the most relevant and important data useful for explaining the client's condition. Even when facing complex, conflicting, or confusing data, is able to (1) note and make sense of patterns in the client's data, (2) compare these with known patterns (from the nursing knowledge base, research, personal experience, and intuition), and 3) develop plans for interventions that can be justified in terms of their likelihood of success.	Generally focuses on the most important data and seeks further relevant information, but also may try to attend to less pertinent data. In most situations, interprets the client's data patterns and compares with known patterns to develop an intervention plan and accompanying rationale; the exceptions are rare or complicated cases where it is appropriate to seek the guidance of a specialist or more experienced nurse.	Makes an effort to prioritize data and focus on the most important, but also attends to less relevant/useful data. In simple or common/familiar situations, is able to compare the client's data patterns with those known and develop/explain intervention plans; has difficulty, however, with even moderately difficult data/situations that are within the expectations for students and inappropriately requires advice or assistance.	Has difficulty focusing and appears to not know which data are most important to the diagnosis; attempts to attend to all available data. Even in simple or familiar/common situations, has difficulty interpreting or making sense of data; has trouble distinguishing among competing explanations and appropriate interventions, requiring assistance both in diagnosing the problem and in developing the intervention.
Effective Responding Demonstrates a calm, confident manner Clearly communicates Performs well-planned interventions with flexibility Being Skillful	Assumes responsibility: delegates team assignments, assesses the client, and reassures them and their families. Communicates effectively; explains interventions; calms/reassures the clients and families; directs and involves team members, explaining and giving directions; checks for understanding. Tailors interventions for the individual client; monitors client progress closely and adjusts treatment as indicated by the client response. Shows mastery of necessary nursing skills.	Generally displays leadership and confidence, and is able to control/calm most situations; may show stress in particularly difficult or complex situations. Generally communicates well; explains carefully to clients, gives clear directions to the team; could be more effective in establishing rapport. Develops interventions based on relevant patient data; monitors progress regularly but does not expect to have to change treatments. Displays proficiency in most nursing skills; could improve speed or accuracy.	Is tentative in the leader role; reassures clients/families in routine and relatively simple situations, but becomes stressed and disorganized easily. Shows some communication ability (e.g., giving directions); communication with clients/families/team members is only partly successful; displays caring but not competence. Develops interventions based on the most obvious data; monitors progress, but is unable to make adjustments based on the patient response. Is hesitant or ineffective in using nursing skills.	Except in simple and routine situations, is stressed and disorganized, lacks control, making clients and families anxious/less able to cooperate. Has difficulty communicating; explanations are confusing, directions are unclear or contradictory, and clients/families are made confused/anxious, not reassured. Focuses on developing a single intervention addressing a likely solution, but it may be vague, confusing, and/or incomplete; some monitoring may occur. Is unable to select and/or perform nursing skills.
Effective Reflecting Evaluation/Self Analysis Commitment to Improvement	Independently evaluates/analyzes personal clinical performance, noting decision points, elaborating alternatives, and accurately evaluating choices against alternatives. Demonstrates commitment to ongoing improvement; reflects on and critically evaluates nursing experiences; accurately identifies strengths/weaknesses and develops specific plans to eliminate weaknesses.	Evaluates/analyzes personal clinical performance with minimal prompting, primarily major events/decisions; key decision points are identified and alternatives are considered. Demonstrates a desire to improve nursing performance; reflects on and evaluates experiences; identifies strengths/weaknesses; could be more systematic in evaluating weaknesses.	Even when prompted, briefly verbalizes the most obvious evaluations; has difficulty imagining alternative choices; is self-protective in evaluating personal choices. Demonstrates awareness of the need for ongoing improvement and makes some effort to learn from experience and improve performance but tends to states the obvious and needs external evaluation.	Even prompted evaluations are brief, cursory, and not used to improve performance; justifies personal decisions/choices without evaluating them. Appears uninterested in improving performance or unable to do so; rarely reflects; is uncritical of themself or overcritical (given level of development); is unable to see flaws or need for improvement.

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