

SIMULATIONS AND DRILLS: EDUCATIONAL TOOL #2: SAMPLE SCENARIO #1: DRILL FOR UTERINE ATONY

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SCENARIO OVERVIEW

Name of Scenario: Post-partum Hemorrhage (Uterine Atony)

Patient description: Renee Harper, 32 yo G2 P1, 38 weeks gestation, admitted for spontaneous labor, OB history remarkable for previous postpartum hemorrhage requiring transfusion. Labor Course: Epidural for pain management, spontaneous vaginal delivery after five-hour labor. No complications for mother or infant during delivery, delivery occurred 30 minutes ago, epidural catheter removed, patient is holding infant.

History:

Medical: Unremarkable, OB history remarkable for previous post-partum hemorrhage

Surgical: Unremarkable

Social: Smoker for 5 years, stopped before first pregnancy

Baseline Lab values: Labs WNL except Hct 24

Learning Objectives

Cognitive:

- States major causes of hemorrhage in pregnancy
- Lists changes in maternal physiology that may mask symptoms of hemorrhage
- Knowledge of policies and procedures for hemorrhage management, placement of tamponade devices and blood transfusion particularly massive transfusion

Technical:

- Provide adequate and continuous uterine massage.
- Administer uterotonic medications in correct dose, route and time
- Application of tamponade device to control bleeding per policy
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Behavioral:

- Communication during hand off is acknowledged by the receiver
- Concerns voiced about the patient or management plan are acknowledged by the team leader
- Team leader assigns roles if not already assigned or key role not filled

Target Trainees Obstetricians, L&D/PP nurses

Anticipated Duration: 10 minutes

SCENARIO SET-UP

Room configuration: LDR bed against right wall, manikin in bed, IV pump with mainline, fetal monitor and patient monitor next to bed, wooden bedside cabinet next to bed

Equipment:

- Manikin, neonatal manikin swaddled
- IV (1000 mL LR with 20 units Pitocin) with IV pump set up with dump bucket
- Monitor for maternal VS (BP cuff, pulse oximeter)
- Red fabric
- Postpartum hemorrhage medication kit
- Tamponade device with stopcock, tubing, fluid for inflation

Manikin/task trainer preparations: Manikin in bed with thin amount of baby powder on face to give appearance of paleness, red cloth in uterus with approximately ½ yard in bed, Uterus boggy, starts to firm with medication administration, firm after tamponade device placed

Presets

Patient monitor: BP 120/90 ⇔ 80-40, P 120 ⇔ 140, RR 32 ⇔ 24, with resolution of bleeding BP SaO₂ 92%⇔ 96%

Pumps: Mainline IV at 125 cc/hr

Initial Presentation: Patient in recovery room with infant, pale and shaky, diaphoretic

Miscellaneous: Medication cabinet for medication kit, second IV with blood tubing available if ordered

Chart Contents: Summary of L&D

Demonstration Items needed in Debriefing Room: Tamponade device with items for placement, pelvis to demonstrate placement

SCENARIO LOGISTICS (Running the Scenario)

Expected interventions:

- Fundal massage, extraction of clots
- Administration of medications (misoprostol, Methergine)

- Order and placement of uterine tamponade device
- Assessment of patient response using clinical exam, VS, laboratory tests

Likely progression:

- Bedside nurse assesses patient, detects hemorrhage, starts uterine massage
Calls for help
- Help arrives, hand off given to leader
- Roles established for other responders
- Medications given as ordered
- Bleeding continues and vital signs not responding
- Uterine tamponade device placed
- Patient improves

Expected endpoint: Tamponade device in place

Distracters (if needed):

- Uncooperative family member

Additional/optional challenges (if needed):

- Delayed response to tamponade device, massive transfusion activated

Videotape Guidelines (Priorities to capture on videotape)

- Maternal vital signs
- Bleeding from pelvis
- Team communication
- Administration of medications
- Placement of tamponade device

Confederate Roles

- Family member (responsible for pushing red cloth out of uterus)

Trainee Roles

- Bedside RN
- Help: OB physician, 2-3 RNs

DEBRIEFING QUESTIONS

Cognitive:

- What could cause this or what is your differential diagnosis at this time?
- How do the changes in maternal physiology affect the signs and symptoms of hemorrhage?
- Based on this assessment, what are your priorities for patient care OR what is your plan for care?
- What prevented you from carrying out the priorities for care or your management plan?

Technical:

- What supported or prevented continuous uterine massage?
- What facilitated or delayed medication administration?
- What uterotonic medications have major contraindications?
- Why would a uterine tamponade device be considered at this time?
- What blood loss management strategies are options for this patient?

Behavioral:

- How was team communication?
- How did communication improve or delay care of the patient?
- How did the communication between the leader and the team member giving report to leader impact patient care?
- What roles are filled and unfilled at this time?
- What strategies can the team use to fill key roles that are currently not filled?

SCENARIO SUPPORT MATERIALS

Reference List

- Unit policies and procedures
- Postpartum Hemorrhage. ACOG Practice Bulletin No. 76. American College of Obstetricians and Gynecologists Obstet Gynecol 2006; 108:1039-1047
- AWHONN Monograph: Obstetric Hemorrhage (2012)

A. Critical Behavior Checklist

B. Metrics List

C. Visual aids/cognitive aids: Manufacturer guidelines from uterine tamponade device used on your unit

SCENARIO SUPPORT MATERIALS
A. Critical Behaviors Checklist

Behavior	Met	Unmet	Comment
Detection of hemorrhage			
Call for help, asks for specific help needed			
Uterine massage begins upon detection of boggy uterus, stopped upon physician order			
Handoff given in SBAR format			
Leader announces role to team			
Team roles are assumed			
Uterotonic medications given per policy			
Uterine tamponade device inserted per procedure			
Leader acknowledges team concerns			

SCENARIO SUPPORT MATERIALS
B. Uterine Atony Metrics

Metric Item	Measurement	Measurement	Comment
Time of diagnosis of hemorrhage to administration of first medication	Time Started:	Time Complete:	
Time help paged to time help arrived in room	Time Started:	Time Complete:	
Amount of time uterine massage was stopped unless directed by physician	Time Started:	Time Complete:	
Time from request for tamponade device to completion of insertion	Time Started:	Time Complete:	
Number of thin air or open air commands	#		
Number of thin air or open air communications	#		
Number of people in scenario without a role	#		
Roles not assigned or not filled during scenario	#		
Number of questions or concerns voiced about the management plan			

SCENARIO SUPPORT MATERIALS

C. Visual aids/cognitive aids: Place the manufacturer guidelines from uterine tamponade device used on your unit here