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

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
• 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

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Met</th>
<th>Unmet</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>Detection of hemorrhage</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Call for help, asks for specific help needed</td>
<td></td>
<td></td>
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<tr>
<td>Uterine massage begins upon detection of boggy uterus, stopped upon physician order</td>
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<td></td>
<td></td>
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<tr>
<td>Handoff given in SBAR format</td>
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<tr>
<td>Leader announces role to team</td>
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<td></td>
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<tr>
<td>Team roles are assumed</td>
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<tr>
<td>Uterotonic medications given per policy</td>
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<td></td>
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</tr>
<tr>
<td>Uterine tamponade device inserted per procedure</td>
<td></td>
<td></td>
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<tr>
<td>Leader acknowledges team concerns</td>
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## SCENARIO SUPPORT MATERIALS
### B. Uterine Atony Metrics

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

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