**Simulation Development Steps**

**Create a Case Scenario Utilizing the 4 T’s** *(Tone, Tissue, Trauma,* ***Thrombin****)*

* *Patient Information: Patient is a 39-year-old G8P4 at 36 weeks 5 days. Admitted for preeclampsia with severe features and started on MgSO4*
* *History: History of preeclampsia and postpartum hemorrhage requiring blood products. First delivery was C-section due to malpresentation. Subsequent deliveries were successful VBACs. Otherwise, no other significant medical history. No drug allergies. Current BMI 38.*
* *Presentation: 90 minutes following delivery, patient is experiencing increased bleeding*
* *Vitals, lab data: Labs drawn on admission. BP 170/100 HR 95 SpO2 96% Temp 97.8*
* *Delivery information: Induced with oxytocin for preeclampsia. SVD. Delivered a 5 lb 3 oz female infant. QBL at delivery 300 mL. Placenta intact at delivery. Fundus at the U following delivery*

**Learning Objectives:*****(Use the PPH Simulation Learning Objectives document to select objectives that meet your simulation goals.)***

When conducting the simulation, choose 3-4 of the objectives in the companion document.

<https://www.in.gov/health/ipqic/files/pph-simulation-learning-objectives.pdf>

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| --- | --- | --- |
| Cognitive | Technical | Behavioral |
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**Expected Duration:** *Approximately 45 minutes*

* 1. *15-minute sim*
  2. *30-minute debrief*

**Determine Roles** *(nurses, providers, other disciplines, family member/friend, etc.):*

* Primary RN
* Charge RN
* Resident and Primary MD
* Anesthesia
* Patient (embedded participant or manikin)
* Family member (embedded participant)
* Additional personnel (OR team, scrub tech, blood bank, respiratory)

**Equipment/Supplies:**

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| --- | --- | --- |
| **Setting** | **Moulage** | **Manikin** |
| \_\_ ED \_\_ Triage    \_X\_ L&D \_\_ OR/PACU | -Clots and blood | \_X\_ Low Fidelity    \_X\_ High Fidelity  (depends on facility capability) |

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| --- | --- | --- |
| **Equipment** | | |
| \_X\_EKG/HR \_X\_ Arterial Line    \_X\_ RR \_\_ PAP    \_X\_O2 Sat Probe \_\_ETCO2    \_X\_BP Cuff Other: | PIV Access    Yes\_X\_ or No\_\_    Gauge: \_\_18g\_\_  Location/s:\_\_L forearm\_\_\_\_    Rapid infuser X    Blood products X | Foley Catheter:  Yes \_X\_ or No\_\_  Urometer: X    Tamponade Balloon / intrauterine vacuum device:  Yes \_X\_ or No\_\_    Scale: X    Hemorrhage Cart X    Pads X |

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| --- | --- |
| **Medications/ Fluids** | |
| Methergine  Hemabate  Cytotec  TXA  LR  Sedation medication |  |

**Pre-briefing:**

*This is a safe learning environment. This is not an individual assessment of performance. Our goal is to identify gaps in care; how can we make your job easier/more efficient. This is a time to practice and make mistakes.*

*Orient learners to the simulation room and OR. Go over*

* + *Orientation to equipment and space*
  + *Simulation is a safe place; won’t talk about specific learners; mutual respect (what happens in sim stays in sim)*
  + *We want you to treat this like a real patient scenario; “suspend all disbelief that you have about simulation”*
  + *May or may not want to share the medical emergency in advance*
  + *How to obtain VS, meds, equipment, etc. How to call providers/call for help.*
  + *Share the learning objectives.*
  + *Assign a leader and/or assign roles (can be facility specific and based on resources/personnel)*

**Scenario Progression:**

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| --- |
| **Patient Initial State**    Alertness: Alert B/P: 128/90 HR: 110 RR: 16  Pain scale: 4      Uterus: Boggy QBL: 300 @ delivery    Other: Bleeding |

|  |  |  |
| --- | --- | --- |
| **Scenario Progression Outline** | | |
| *Timing* | *Patient Findings/Scripting* | *Expected Participant Behaviors/Interventions* |
| *5 minutes* | **Continues to bleed after initial interventions. QBL now 1130** | **Called RRT**  **Hemorrhage cart**  **Meds to bedside**  **2nd iv site**  **Draw labs**  **Fundal massage**  **Continuous fundal assessment**  **Assess bladder**  **Bolus of Pitocin**  **Ongoing QBL monitoring**  **Pull PPH protocol** |
| *10 minutes* | **Uterus continues to be boggy**  **Hypovolemic**  **VS deteriorating (BP 80/40, HR 120, SpO2 93%)**  **QBL 1600** | **2nd line medications**  **Increase fluids**  **Anchor foley with urometer**  **Oxygen**  **Tamponade**  **Ongoing QBL monitoring**  **Consider initiating MTP or blood products**  **Frequent vitals**  **Continue to follow PPH protocol** |
| *15 minutes* | **Continued decompensation** | **Initiating process for transfer for final destination of patient (OR, ICU, etc.)** |

**Debriefing: *(Use the PPH Simulation debriefing questions document)***

<https://www.in.gov/health/ipqic/files/pph-simulation-debriefing-questions.pdf>

**If a hemorrhage debriefing form is needed, one can be found in the Indiana toolkit:**

<https://www.in.gov/health/ipqic/files/Hemorrhage-Debrief-Form.pdf>