**Simulation Development Steps**

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

* + *Patient Information: A. R. is G2P2 37.2 weeks*
  + *History: Gestational hypertension in previous pregnancy*
  + *Presentation: IOL for gestational hypertension with Cytotec and Pitocin*
  + *Vitals, lab data: B/P 146/88, HR 87, RR 15, SpO2 99%. B+ blood type, GBBS -, Hep B & C -, Hgb: 9.9, Hct: 27, Plts: 110K, ALT: 16, AST: 18, uric acid: 1.2, LDH: 200, +1 proteinuria*
  + *Delivery information: AROM for 8 hours, total labor time 13.5 hours, successful VAVD 1 hour ago, PPH score updated to high risk, current QBL of 200 mL.*

**Learning Objectives:**

When conducting the simulation, use the PPH Simulation Learning Objectivesin the companion document to select 3-4 objectives that meet your simulation goals.

<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 30 minutes*

* 1. *10-minute sim*
  2. *20-debrief*

**Determine Roles** *(nurses, providers, other disciplines, family member/friend, etc.):****(Select roles based on your facility availability.)***

* Primary RN
* Secondary RN/OB tech
* Provider OB/ED/CNM/FMP
* House Supervisor
* Optional: Lab, Blood Bank, RT, OR staff, Pharmacy
* Embedded Participants (EP): support person, off going RN, patient

**Equipment/Supplies:**

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| --- | --- | --- |
| **Setting** | **Moulage** | **Manikin** |
| \_\_ ED \_\_ Triage  \_\_ L&D \_\_ OR/PACU  X\_ Postpartum | Fake blood (liquid, fabric with or without weights)  *Bloody chux/pads* | X\_\_ Low Fidelity  \_\_ High Fidelity |

|  |  |  |
| --- | --- | --- |
| **Equipment** | | |
| \_X\_EKG/HR \_\_ Arterial Line    \_X\_ RR \_\_ PAP  \_X\_O2 Sat Probe \_\_ETCO2  \_X\_BP Cuff  Other: *PPH cart & meds, Level 1, Blood warmer, warm blankets/Bair Hugger* | PIV Access  Yes\_X\_ or No\_\_  Gauge: \_18  Location/s: AC | Foley Catheter:  Yes \_X\_ or No\_\_  Tamponade Balloon / intrauterine vacuum device:  Yes X\_\_ or No\_\_  Scale: *QBL scales* |

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| --- | --- |
| **Medications/ Fluids** | |
| Pitocin  Cytotec  Methergine  Hemabate  TXA | LR/NS  Blood products (PRBCs, Cryo, FFP) |

**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, awake, oriented x 3 B/P: 146/88 HR: 87 RR: 15 Pain scale: 3  Fetal HR: n/a Uterine Activity: n/a QBL: 200  Other: |

|  |  |  |
| --- | --- | --- |
|  | | |
| *Timing* | *Patient Findings/Scripting* | *Expected Participant Behaviors/Interventions* |
| *2 minutes* | **Epidural wearing off; pt having more pain, rating 7/10** | **Implement pharm/non-pharm interventions for pain relief** |
| *2 minutes* | **Uterus is boggy, fundal height 2 cm above umbilicus and deviated to the right** | **Routine fundal assessment/lochia**  **Empty bladder (I&O or indwelling per provider order)**  **Initiate fundal massage; continue QBL or reinitiate** |
| *2 minutes* | **Pt continues to have uterine atony and excessive bleeding with clots**  **QBL: 550 mL** | **Call for help; call provider for medication orders; initiate PPH protocol** |
| *2 minutes* | **Provider orders medication** | **Obtains appropriate medications based on patient history/assessments; demonstrates how to mix/prepare medication(s); administers in a timely fashion (can be verbalized)**  **Delegates appropriately**  **Continues QBL** |
| *2 minutes* | **VS: BP 125/78, HR 120, O2 95%, RR 22**  **QBL: 1500 mL**  **Uterine tamponade/intrauterine vacuum device ordered** | **Obtain and setup uterine tamponade/vacuum device in a timely manner**  **Advocate for MBTP initiation**  **Continue QBL** |

**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>