**Simulation Development Steps**

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

* + ***Patient Information:*** *Lucy Smith 37y.o.*
  + ***History****: Pt is a G4P4 who delivered at 38 weeks following IOL for preeclampsia. Pt was on Pitocin for 23 hours with a therapeutic of 24. Pt was also on Magnesium Sulfate at a rate of 2gm/hr. Prenatal hx was unremarkable; dx of preeclampsia with this pregnancy; BPs 150s/90s. PSH/PMH unremarkable.*
  + ***Presentation****: Pt delivered via SVD 30 minutes ago. She has been firm, +1 with moderate bleeding. She has a first-degree tear that was repaired. She is due for her second 15-minute check now. I cleaned her up following her last check.*
  + ***Vitals, lab data****: Current vitals: HR 118; BP 110/60; spO2 95%; Temp 36.9; RR 18. Labs: Hgb 9.8; Hct 29; Plt 120s*
  + ***Delivery information****: Pitocin IOL for preeclampsia at 38 weeks. SVD first degree with repair. QBL at delivery was 360. She received an epidural at 5cm and was comfortable throughout the delivery. Delivered a vigorous baby boy.*

**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 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
  + Charge RN
  + Laborist/OB
  + Anesthesia/ CST
  + Additional RN(s)
  + Blood Bank, Pharmacy (include roles, as needed)
  + EP: off going RN; patient; support person(s)

**Equipment/Supplies:**

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| **Setting** | **Moulage** | **Manikin** |
| \_\_ ED \_\_ Triage  \_X\_ L&D \_\_ OR/PACU | Baby  Fake blood/clots (liquid or fabric)  Bloody pad/chux pad/linens | \_X\_ Low Fidelity  \_\_ High Fidelity |

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| **Equipment** | | |
| \_X\_EKG/HR \_\_ Arterial Line    \_\_ RR \_\_ PAP  \_X\_O2 Sat Probe \_\_ETCO2  \_X\_BP Cuff  Other: PPH cart stocked with all supplies in drawers and recorder sheets, cognitive aids also available on cart | PIV Access  Yes\_X\_ or No\_\_  Gauge: \_18g\_\_\_  Location/s:\_RFA\_\_\_\_\_  IV Pump  Rapid Infuser  Fluid Warmer | Foley Catheter (red rubber):  Yes \_X\_ or No\_\_  Tamponade Balloon / intrauterine vacuum device:  Yes \_X\_ or No\_\_  Scale:on cart/in room  Urinometer for Bakri |

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| **Medications/ Fluids** | |
| Methergine  Hemabate  Pitocin (IM and PIV)  Cytotec  TXA | Blood Products |

**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: B/P: 110/60 HR: 118 RR: 18 Pain scale: 4  Fetal HR: n/a Uterine Activity: n/a QBL: 360  Other: feeling faint/lightheaded, lots of pressure, pale |

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| --- | --- | --- |
| **Scenario Progression Outline** | | |
| *Timing* | *Patient Findings/Scripting* | *Expected Participant Behaviors/Interventions* |
| *2 minutes* | **Perform 2nd 15-minute fundal check**  **120; 108/55; 19; 95%** | **Note the uterus is boggy; observe blood/clots**  **Recognize change in vitals** |
| *2 minutes* | **Call for help; continue continuous fundal massage** | **Additional staff bring in PPH cart/med kit**  **Charge RN--Call for provider/ anesthesia** |
| *2 minutes* | **Provider at bedside takes over bimanual fundal massage and orders medications**  **Charge or 2nd RN delegate roles**  **122; 96/52; 22; 93%**  **QBL 350** | **Medication RN starts to pull up medications**  **2nd RN start 2nd IV and bolus fluids**  **3rd RN performs QBL and communicate totals**  **Primary RN applies O2 via non-rebreather** |
| *2 minutes* | **Patient starts to feel worse and is ℅ being cold**  **Patient continues to hemorrhage QBL 820**  **125; 80/60; 22; 92%**  **Provider initiates MBTP** | **Runner brings in warm blankets; Bair hugger**  **Continue to administer medications**  **Provider requests tamponade or suction**  **Charge RN notifies Surgical Team (anesthesia, CST, etc.) of patient status**  **2nd RN calls for MBTP** |
| *2 minutes* | **Patient continues to hemorrhage despite medications and tamponade or suction** | **Provider places tamponade or suction**  **Blood products are delivered**  **Move patient to OR** |

**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>