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# Obstetric In-Situ Drill Program Manual

V3 Released December 2022



Simulation and Drills for Patient Safety

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# Introduction

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Emergencies in obstetric care occur every day. Postpartum hemorrhage results in 140,000 deaths annually. Hypertensive emergencies, venous thromboembolic events, and maternal cardiac arrest also occur and result in significant maternal and fetal morbidity and mortality. In order to ensure prevention when possible and optimal outcomes when this is not possible, it is critically important that members of the health care team are educated and are readily able to recognize, diagnose, treat, and manage medical emergencies in pregnancy. The importance of clear communication and an interprofessional team approach to a culture of patient safety is clear.

This Practicing for Patients: In-Situ Simulation Program Manual was developed with these concepts in mind. It is recognized that if all members of the labor and delivery team practice and simulate medical emergencies on their actual labor and delivery unit that they could decrease obstetric related morbidity and mortality by improving the team's communication and response in an emergency. Furthermore, through simulation the team could also identify process issues that, when addressed, could also improve care. The ideal location to practice for patients experiencing an emergency is on the labor and delivery, postpartum, or postoperative recovery unit. This location allows the training team to recreate actual conditions regarding team composition, physical space, and institutional policies and procedures that cannot be replicated in a simulation laboratory.

Imagine your favorite sports team. Now imagine them making a mistake on a critical play because they have not had enough time to practice together. Lack of structured team practice can lead to minimal connection and chemistry between team members – call this culture. Moreover, without practice, there is lack of a standardized approach (knowledge of the team's "plays"). Practice teaches the team how to anticipate each other's actions and optimize communication. Overall, practicing helps a team hone its skills for the critical times in a "game" and helps all team members focus on their goal which, in the case of a postpartum hemorrhage, is decreasing maternal morbidity and mortality and improving outcomes. Now, continue to think of your labor and delivery team as your favorite sports team. Unlike a sports team, members of the labor and delivery team practice but are trained by different "coaches" (i.e. attend different classes) to prepare for obstetric emergencies. The basic concepts of care are the same, but the "plays" are different. In-situ drills help all members of care team practice under the same "coach". In-situ drills are the team's practice sessions and can be done at some hospitals that have and/or are willing to invest resources. This manual will help address the challenges of setting up this type of program.

The current lack of standardization in treatment protocols and lack of opportunities to practice can result in miscommunication and variation in care provided to patients who experience an emergency.

There is evidence that simulation training can improve obstetric outcomes to include fewer brachial plexus injuries, a decreased time from diagnosis to delivery with umbilical cord prolapse, and improved care during neonatal resuscitation. However, despite the evidence and general recognition that in-situ simulation training is something that should be done, there are many barriers to implementation. These include concerns about cost, lack of expertise in running simulations, and the challenge of running a drill on a busy labor and delivery unit.

The manual is written to help you overcome these barriers. The resource goal is that every institution that performs deliveries will be able to conduct in-situ drills for obstetric emergencies and move towards the goal of optimum care and outcomes. It does not have to be expensive and this manual includes step-by-step instructions on how to build your implementation team, brief leadership, decide on simulators, and even contains video examples of how to run and debrief after training.

This manual has been assembled by international experts with practical clinical and simulation experience. The guidelines were written to align with the treatment recommendations of their respective national organizations.

Thank you for taking the time to consider utilizing Practicing for Patients at your hospital. It is the commitment of providers like you who constantly work to improve care that makes the difference for our patients!

## Disclaimer



Permission is hereby granted for duplication and distribution of this document, in its entirety and without modification, for solely non-commercial activities that are for educational, quality improvement, and patient safety purposes.

All other uses require written permission from ACOG. Standardization of health care processes and reduced variation has been shown to improve outcomes and quality of care. This toolkit reflects emerging clinical, scientific, and patient safety advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Although the components of a particular manual may be adapted to local resources, standardization within an institution is strongly encouraged.

This resource was developed by the Council on Patient Safety in Women's Health Care, a now dissolved broad consortium of organizations across the spectrum of health for the promotion of safe health care for people who see obstetric and gynecologic care and continues to undergo revision and review by national subject matter experts in simulation.

# Acknowledgments



The Council on Patient Safety in Women’s Health Care would like to thank the volunteer members of the workgroup that originally worked to assemble the framework for the Practicing for Patients: In-Situ Simulation Program Manual. Individuals providing expert input for the content in each of our accompanying **Clinical Simulation Scenario Packages** are acknowledged on the respective package page.

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# General Overview and Objectives

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## Program Goal

This Practicing for Patients: Obstetric In-Situ Drill Program Manual will provide every unit with the ability to run in-situ obstetric emergency simulation drills to promote standardized responses which will improve the quality and safety of the care for their patients.

## Simulation Background

When thinking about running simulation drills, providers are often intimidated and concerned about the cost and time required and may have questions about how to get support necessary to make it happen. This manual will explain how in-situ simulation works and provide clear step-by-step instructions with video examples and forms to make it possible. To begin, we will answer some basic questions about simulation training in the obstetric environment.

### ► What is Simulation

Simulation is a situation or environment created to allow persons to experience a representation of a real event for practice, learning, evaluation, and/or to gain understanding of systems or human actions. In obstetrics it can be used to learn surgical skills or to practice for emergencies, including postpartum hemorrhage. It can also be used to improve existing processes.

### ► Why Use Simulation in Obstetrics

Simulation for obstetric emergencies is a relatively new area of focus but has a demonstrated ability to improve patient safety and outcomes. It is becoming an integral part of education and patient care. Drills for obstetric emergencies are now being recommended by the Joint Commission, which suggests that hospitals and providers can prevent maternal death using drills “to train staff in the protocols, to refine local protocols, and to identify and fix systems problems that would prevent optimal care.”<sup>1</sup> While more labor intensive than lectures, simulation is also relatively affordable as there are low-fidelity and inexpensive simulators available that are solid options for training.



► **Why Does Simulation Work as an Educational Tool?**

For learners, sitting and listening to lectures does not permit significant activation, which is key to learning and retaining information. Simulation not only gets the team involved but allows them to practice in a more realistic environment where there is no risk to actual patients. In an emergency, the patient is at the center; during a simulation the learner, team, and processes are at the center – a unique and privileged position.

► **Why Perform In-situ Simulation?**

In-situ simulation is when the event takes place where clinical care occurs. This approach allows the unit to practice technical skills, teamwork, and communication in their actual care environment. It also allows for the identification of potential facilities issues and barriers to care that cannot be replicated in a simulation center or other locations off the unit.



# Obtaining Institutional Support

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## Briefing Leadership

It is imperative to obtain support from hospital and departmental leadership when planning simulation drills. We recommend scheduling a meeting with the obstetrics department medical and nursing leadership to introduce your desire to conduct in-situ drills at your institution. This should include all specialties / units that will be involved (Anesthesia, Nursing, Blood Bank and potentially the Emergency Department). Plan to present a brief slide set that outlines your proposal. It is important to highlight the pros and cons of in-situ drills and be prepared to answer any questions that may arise. Sample presentations that you can use during this briefing have been provided. You can customize the slide sets to meet your specific organization's needs.

When speaking with leadership it is important to highlight that simulation in obstetrics has the potential for growth and creative development through tailoring of the program to fit your institution's unique needs. There is evidence for improving clinical outcomes through education and optimizing teamwork while lowering medical liability costs. Moreover, simulation drills for obstetric emergencies are not only recommended by the Joint Commission but they are required for postpartum hemorrhage and hypertensive emergencies. It is also important to stress that patient safety is the driving force for simulation. Simulation helps improve patient safety through providing education, enhancing communication, improving patient hand-offs, and driving system changes. Lessons learned in simulation are invaluable to patient safety. Simulation provides an opportunity to address rare but emergent situations in a team environment where stress is high, and mistakes are costly.

Simulation has been found to be an effective and innovative form of teaching clinical concepts. Learners may prefer this approach over sitting for traditional slide set lectures that are often not engaging and do not permit significant activation. Simulation provides a "no consequence" learning environment where participants can practice without their mistakes resulting in a detrimental outcome. Institutions that offer innovative educational opportunities are attractive to distinguished clinical faculty and medical students and can attract high caliber residents. Implementing simulation can also fulfill the requirements of the Accreditation Council for Graduate Medical Education (ACGME) Residency Review Committee (RRC) requirements as simulation has been added to the resident curriculum.

Initially, there may be some hesitancy to approve simulation efforts because of the cost of the simulators and the fact that this training requires time away from patient care, team effort, interdepartmental collaboration and ancillary staff support. Although materials such as obstetric simulators can be expensive, there are low-fidelity, low-cost, simulators available that are very effective. Moreover, it is important to point out that although simulation may seem expensive at the outset, the return on investment will be appreciated in many forms.

## Briefing the Team

Even if you have complete support from leadership and a motivated training team, if you do not engage the members of the health care team in the planning, your efforts will not be successful. It is imperative that providers be provided with a clear explanation of the following:

1. Why the program is being done: to improve patient care and outcomes
  - a. May consider showing a patient experience video, such as our Voices of Impact to remind the team why they are doing this.
2. How the program will be done: discuss scheduling and timing of simulation drills.
3. What will be done with the results: explain that this is not part of their evaluations and that any systems issues identified will be fixed.

## Return on Investment

The greatest potential impact of implementing in-situ simulation is decreasing maternal and neonatal mortality and morbidity. Evidence of this continues to build and given its recommendation by major organizations, the incentive to practice simulation is obvious. Simulation improves provider readiness, teamwork, team communication, and systems which impact maternal and neonatal mortality and morbidity directly.<sup>23</sup> Additionally, given recent studies demonstrating the decrease in incidence of brachial plexus injuries after drills for shoulder dystocia<sup>4</sup>, the absence of simulation training may leave the institution at risk of potentially expensive litigation. Also, for institutions that train residents, simulation is an effective way to train for the obstetric emergencies that teams inevitably encounter.

## Building the Implementation Team

For simulation drills to be successful, there must be an interprofessional ownership. Obstetric simulation efforts will require cooperation from and collaboration amongst departmental leadership, physicians, nursing staff, anesthesia, neonatal intensivists, ancillary staff, and opinion leaders. We recommend identifying the following members to form the core implementation team:

- ▶ Physician Lead
- ▶ Nursing Lead
- ▶ Support Staff Lead (pharmacy, blood bank)
- ▶ Change Leaders (those who can make the change and/or influence staff)
- ▶ Initial Team Composition:
  - A. Physician Lead
  - B. Nursing Lead
  - C. Support Staff Lead
  - D. Frontline Influencers (opinion leaders/ individuals who are highly respected and revered at the institution)

# Logistics

## Preparation and Scheduling

Depending on the scope of your simulation, confirm participation of the OB/GYN department, nursing, anesthesia, pediatrics/NICU, and ancillary services (i.e. laboratory, pharmacy, and blood bank) and if applicable, the simulation technician. After confirmation of participation, set a date for the simulation. When beginning, we recommend blocking out half day to run the in-situ drill and conduct the debrief. As your faculty learn how to set up and run the drills, it should take approximately an hour to conduct the complete simulation. We recommend that you run your initial simulations as scheduled events that the entire team is made aware of in advance. This will help to decrease anxiety, allow the team time to become familiar with the simulator and the drills, and allow the team members time to review their knowledge, if they choose. By making it feel less like a test of individual skill and more like a test of team function and process, engagement will be much easier to obtain. Once you have set a time, you'll need to identify the specific individuals who will participate in the simulation experience. Actual patients will still need to be taken care of during this time, so emphasize that those who will remain on the floor in their normal roles taking care of patients will have a chance to participate in future simulations. Depending on the number of participants, you may need to run the simulation multiple times. For example, if you have many participating residents, the drill may need to be run more than once so that each resident has an opportunity to have a role in the interprofessional simulation experience.

### Quick Reference Steps

- ▶ Confirm department participation.
- ▶ Set a date.
- ▶ Identify participating individuals.
- ▶ If necessary, divide participants.
- ▶ Conduct drill(s) and debrief(s).
- ▶ Begin scheduling next quarterly drill.

Once you have your participants identified, depending on the size, you may want to divide them into groups. By doing this you can have one group go through the drill while the other group debriefs (see figure below). At some institutions, because of time constraints or staffing issues, one group (comprised of residents, nurses, anesthesia, and pediatricians/NICU staff) may be chosen to run the drill while the remaining participants watch the drill in an auditorium setting via a live stream. The debrief is done with the entire group afterwards. We recommend that drills be run quarterly and the personnel for the drill change each quarter so that everyone gets a chance to participate.

Example of scheduling with two groups alternating between an obstetric emergency simulation drill and debrief:

	8:00am	8:30am	9:00am
Group A	Drill	Debrief	-
Group B	-	Drill	Debrief

### Collecting Equipment and Tools

Ahead of the simulation you will also need to ensure that you have access to all of the equipment and tools required to run a successful drill. Equipment that you might consider collecting prior to conducting the drill may include, simulated medications, simulated vital signs, emergency carts or delivery carts. We also recommend that you understand how your local rapid response team (RRT)/medical response team (MRT)/obstetric response team (OBRT) team is activated.

### Frequency of Training

While guidance on how often to run in-situ drills varies, we have found that it is important to do them often enough that they become part of the culture. This will depend on the size of your unit. Scheduling them on at least a monthly basis is usually a good place to begin.

### Staffing Roles and Responsibilities

During the simulation, we recommend personnel assume the role that they normally would in a real-life emergent situation. For example, nurses should be nurses; OB/GYN physicians should be OB/GYN physicians during. Additionally, participants should plan to call support staff, ancillary services, and anesthesia as they would during a real-life emergency as this is the only way to identify potential process/facilities issues that may interfere with patient care.

Once your simulation program is up and running, there is value to be had in swapping roles amongst participants. This approach provides great insight into what each profession requires from others and can lead to significant growth in team performance. However, at the start we recommend that all participants assume their existing “real world” roles.

## Simulation Facilitators and Technicians

We recommend having one facilitator assigned to each group. The role of the simulation facilitator is to ensure that the simulation runs smoothly. At the beginning of each group's simulation, the facilitator will review capabilities and limitations of the simulator with the group. The facilitator will begin the simulation by sharing the basic assumption with the team:

**“ Everyone here is intelligent, well-trained, wants to be their best, and is here to improve patient care. This is not a test of individuals, it is a test of process, a tool to identify and potentially fix gaps on our unit, in our teamwork, in our communication, and the overall reliability of the care we provide. It is also an opportunity to learn and ask questions in a safe environment.”**

Throughout the simulation the facilitator will manage the “case flow” of each scenario and prompt the team when the case points have been covered and the drill is over. The simulation facilitator may have to provide information such as physical findings on examination, lab results, vital signs, etc. Facilitators should provide a summary of the team's actions/performance during the drill to the debriefing staff for use during the combined team debriefing. For example, during the drill if the group ordered labs, the facilitator will provide this documentation to the debriefer.

In institutions with a simulator that needs to be managed by a technician, simulation technicians will run the actual simulators and equipment/monitors. They should work closely with the simulation facilitators to keep the simulation running smoothly. They are also responsible for troubleshooting any technical issues and for case scenario moulage or setting the stage for the simulation. Please note that a high-tech simulator is not necessary for the objectives of this program.

## Nurses

We recommend that scenarios include actual nurses who assist and assume their normal daily roles in the simulation. Nurses should be trained on the simulation and assist the providers where necessary in finding medication and equipment and administering medication as they would during a real-life emergency. Trainers should pay special attention to the teamwork, communication, and the process improvement scenarios.

## **Family Members**

You may consider having simulated family members as part of your simulation. Although not mandatory, family members help make for a real-life situation. For each simulation, we recommend having at least one person assigned to play a family member. This is a critical in ensuring that the scenario is as real as possible. It also helps keep the team engaged and helps them remember to communicate with the family.

As the simulation evolves and you become more comfortable with the simulation process, you may consider using members of your institution's patient advisory board for these roles. The participation of non-clinical individuals enhances simulations and creates real-life scenarios. Additionally, you may consider asking the hospital or health system CEO play to role of the patient. We have found that doing this helps the team feel supported and helps the CEO engage with the work of the team.

## **Debriefers**

There should be one debriefer assigned for each simulation group. You may assign a co-debriefer in situations where the group is large. The role of the debriefer is to monitor and observe the simulation. They may observe from an observation room (if applicable) or from a corner of the room. Once the drill/simulation is completed, they will debrief the group following the processes outlined in the Team Review and Debriefing section of this manual. They should use the checklist and notes that they and the simulation facilitator took throughout the simulation.

## **Providers**

All providers should assume their normal daily roles.

# Equipment Options



## Fidelity

Fidelity speaks to realism, which refer to the simulator, to emotions felt by a team member, or to the story of the patient or the unit. There is ambiguity about which aspect of fidelity is referred to, as a result it is better to speak of the realism intended.

## Low-Tech

This option refers to inexpensive equipment that is unlikely to have any electronic components. This equipment could even be homemade, created/assembled using instructions found on the Internet. It is more likely to be light, easy to store, as such many hospitals can be convinced to leave these simulators out for use at any time. This manual focuses on simulations using low-tech equipment. This could also be a live person playing the role.

## High-Tech

This option typically refers expensive equipment, usually electronic, and usually heavier and more cumbersome than the low-tech alternatives (although advances in miniaturization have made these units much more portable). Because of cost, complexity, and size, the equipment is not likely to be left out or made easily accessible to a single learner or small group of learners - on their schedule - who want to use it to review a process. These units can be set up in a simulation laboratory.

In choosing the type of equipment, the team is in part deciding on the approach it will take using low-tech materials, one should plan to allow teams to run simulations at all times: day or night. After all, if we are to work towards providing reliable care from shift-to-shift-to-shift, the only way to do so is to uncover the process issues that prevent us from doing so.



## Choice of Mannequin

The choice of mannequin is specific to the institution and the team. We have developed an overview of obstetric simulator options to aid you in your decision-making process but please keep in mind that this is not meant to be an exhaustive list. Be that as it may, we recommend that you decide what your purpose is for simulation, and then make your decision about the mannequin after.

For example, if your organization was trying to implement a new process for measuring blood loss in a postpartum hemorrhage, then perhaps a higher-tech mannequin would be better. However, we remind the reader that the top two issues consistently causing safety concerns are based on communication and teamwork. A high-tech mannequin is not necessary to work on these issues. In the end, cost should never be the barrier that keeps your organization from beginning its own simulation program. Be innovative, and any model will allow you to reach your goals.



# Team Review and Debriefing

## General Team Review

As previously described, the individual assigned to the role of debriefer will observe the group during the simulation. You may also consider assigning an associate debriefer to help with the review and discussion following the simulation. While there are many ways to debrief, to make this as simple as possible we have developed basic Team Review and Debriefing Forms for each emergency included that the debriefers can use to note key points as well as critical actions and interventions that are done during the simulation. We have also created a Facility Protocol Change Form that can be used to follow up on any facilities/systems issues identified so they can be addressed. As you become more comfortable with debriefing you may adjust the forms as necessary to best fit your institution.

## Low-Tech

The debrief session should take place in a setting that can fit the entire team comfortably. A conference room or a setting with a blackboard or dry erase board is ideal, although you may need to utilize a delivery room to save time and keep all participants together. The session should begin with the debriefer once again reviewing the basic assumption: "Everyone here is intelligent, well-trained, wants to be their best, and is here to improve patient care. This is not a test of individuals, it is a test of process, a tool to identify and potentially fix gaps on our unit, in our teamwork, in our communication, and the overall reliability of the care we provide. It is also an opportunity to learn and ask questions in a safe environment." This is done to set the tone that it is not a test but a way to practice and improve.

### Quick Reference Steps

- ▶ Review the basic assumption.
- ▶ Review learning objectives.
- ▶ Ask how it went.
- ▶ Review case notes.
- ▶ Discuss key takeaways.
- ▶ Develop list of potential system changes.
- ▶ Present system changes to leadership.
- ▶ Submit Practicing for Patients feedback form.
- ▶ Set date to repeat drill.

The debriefer should then review the learning objectives for the simulation and ask the team how they believe the simulation went. This will help release any performance anxiety that the team may have. Next, the team should review the performance of critical actions and teamwork/communication during the in-situ drill utilizing the checklists and case specific notes that the debriefer took during the simulation. The debriefer will then lead the team in a discussion of what they think they did well and what they will take away from the simulation. It is important to remember to conclude on a high-note – the debriefer may consider having each member share something positive about his or her team

members. Of note, it is essential that recommendations for change be implemented quickly after the simulation, otherwise the engagement of your team will suffer.

In conclusion, the team should make a list of potential system changes that could be made to help improve the identification and response to the obstetric emergency. Following the simulation, the debriefer should meet with the obstetrics and gynecology leadership to finalize a list of changes to be made to their institution's protocols for the specific topic. The Facility Protocol Change Form should be completed to document the proposed changes or items that need to be corrected.

To assist other institutions, we ask that all users submit the fully online Practicing for Patients Feedback Form. Please note that there is not specific information about your institution collected on this form and that feedback is anonymous. The goal is to obtain feedback on the simulation program, scenarios, and identify any common issues that are occurring related to care during a postpartum hemorrhage.

Finally, a date should be set to repeat the in-situ drill after the identified facility changes have been implemented.



# Simulation Scenarios



We have developed standardized case scenarios for each obstetric emergency covered that you can utilize to begin the simulation experience within your institution. These are available in our Clinical Simulation Scenario Packages, designed to complement this manual. Our goal is to provide at least three scenarios for each obstetric emergency covered. When beginning your program, we recommend that you begin with these scenarios. Once the team has completed these case scenarios you may want to change some of the details, but the overall flow can remain the same. For each case scenario we have also included a patient chart, a case flow diagram, and family member instructions.

## General Simulation Instructions

### ► General Principles

During the simulation, we recommend that the team run the scenario as if they were addressing the care of a real patient. This means obtaining all adjunct supplies and calling ancillary services as they would in a real-life emergent situation. If medications are needed, those should be retrieved – but not opened – to prevent waste. The team should assign a member to write down the desired orders as if they were ordering them in the electronic medical record (if applicable). Using this approach provides an opportunity to both observe the teamwork and communication and identify any potential facilities or systems issues that arise.

### ► Simulation Setup

The overall simulation setup is very similar in each scenario. The delivery room should be stocked and in the same condition as it would for actual patients at your institution. The simulator or simulated patient should be in bed and prepared for the scenario. If running a hemorrhage scenario, it is helpful to already have blood on the perineum and linens at the beginning of the scenario. If desired, place an infant mannequin on the warmer or in the arms of the patient, so the team will have to address this as well during the simulation. An IV may be in place (taped to the arm) with a bag of IV fluids hanging. After you complete your simulation, make sure to inform your housekeeping staff so that the room can be properly cleaned.

### ► Pre-Simulation Briefing/Orientation

Prior to the simulation, the facilitator should brief the team on the logistics and rules of the simulation. They should make sure the team is aware of the following:

- They are simulating an obstetric emergency and that they should treat the simulator as a real patient.
- If additional supplies or instruments are needed, a team member should physically go and obtain them.
- If assistance and/or other providers (anesthesia, etc.) are needed, they should be contacted as in a real emergency.
- If they feel they need to take the patient to the operating room, they should physically move the patient.
- If medications are needed, they should be obtained in the normal manner, but not opened or used during the drill.
- The type of simulator being used (if applicable) and the capabilities and limitations that it has. This may include how hemorrhage is demonstrated during the simulation (actual bleeding vs. dried faux blood on pads, etc.) and how vital signs will be displayed/reported.

### ► Beginning the Simulation

- After you have conducted the Pre-Simulation Briefing/Orientation, have the primary OB nurse come with you to the simulated patient's room.
- To begin a scenario, read the scenario to the nurse and then have the team enter the room. At this point, the person playing the role of the patient/family member should tell the nurse about the patient's current symptoms / status.

### ► Simulators to Be Used

The simulator to be used will depend on your institution and the scenario you are simulating.

### ► Demonstrating Maternal Vital Signs



You will need a way to show the patient's changing vital signs to the team throughout the simulation; if your simulator can show maternal vital signs on a monitor, you can use this during the scenario. If not, you can use vital signs cards to report the values during the case or employ one of the many available web-based applications.

You can develop your own vital sign simulator cards that simulate a patient monitor [here](#).

### ▶ **Simulating Hemorrhage**

- Fake Blood: There are various recipes available for the creation of fake blood. This method will require cleanup, based on the recipe you select you should be aware of the potential for staining.

Recipe option here: [Health Simulation Contrast Creative – How to Make Fake Blood](#)

- Red Fabric: Blood-red colored fabric can be used in lieu of fake blood. This method requires no clean up.
- Dried “blood” on disposable bed pad: You can fill a disposable bed pad with fake blood for use during the simulation.
- Suction Canister Cards: Pre-printed cards denoting various volumes (300 cc, 500 cc, 700 cc, 1000 cc) can be used to represent blood loss amounts. This method requires no clean up.
- These scenarios are good opportunities for your delivery team to practice measuring cumulative blood loss (formal, as quantitative as possible).

### ▶ **Simulating Seizures**

Eclamptic seizure: If you have a high-fidelity simulator with this capability, you may use that in order to demonstrate an eclamptic seizure. If you are using a staff member to act as the patient with or without a hybrid simulator, then the person should demonstrate general tonic-clonic activity. Of note, when having a real person play the role of the patient, make sure and brief the team not to actually place an IV during the scenario.

### ▶ **Basic Scenario Tips**

We have provided a list of basic scenario tips for each type of obstetric emergency to help answer common questions that may come up from simulation participants. These are included with each simulation case.