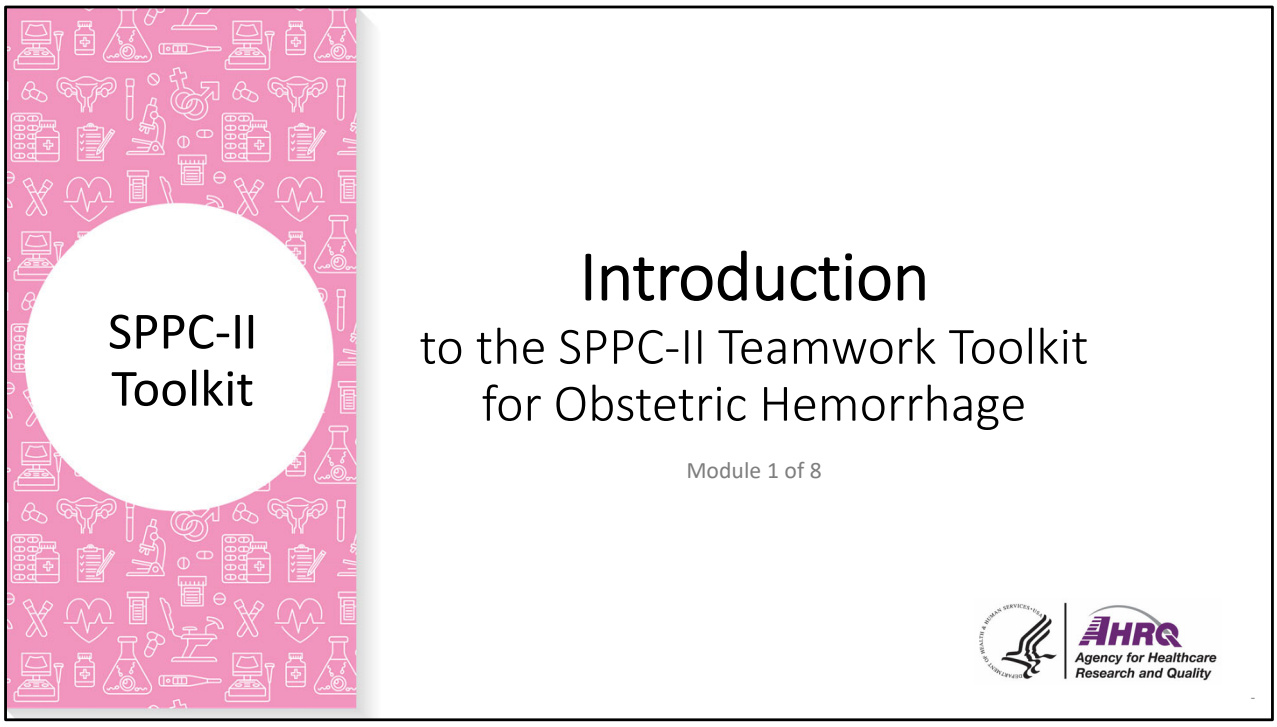


SCRIPT

Thank you for participating in the Safety Program for Perinatal Care II (also known as SPPC-II) presented by the Johns Hopkins University, Agency for Healthcare Research and Quality, and the Alliance for Innovation on Maternal Health (AIM). This module will introduce you to the SPPC-II program and the Teamwork Toolkit for the Obstetric Hemorrhage bundle. It will serve as the foundation for the remaining training modules, which will cover a suite of useful teamwork tools and their application to managing obstetric hemorrhage in accordance with the AIM framework.

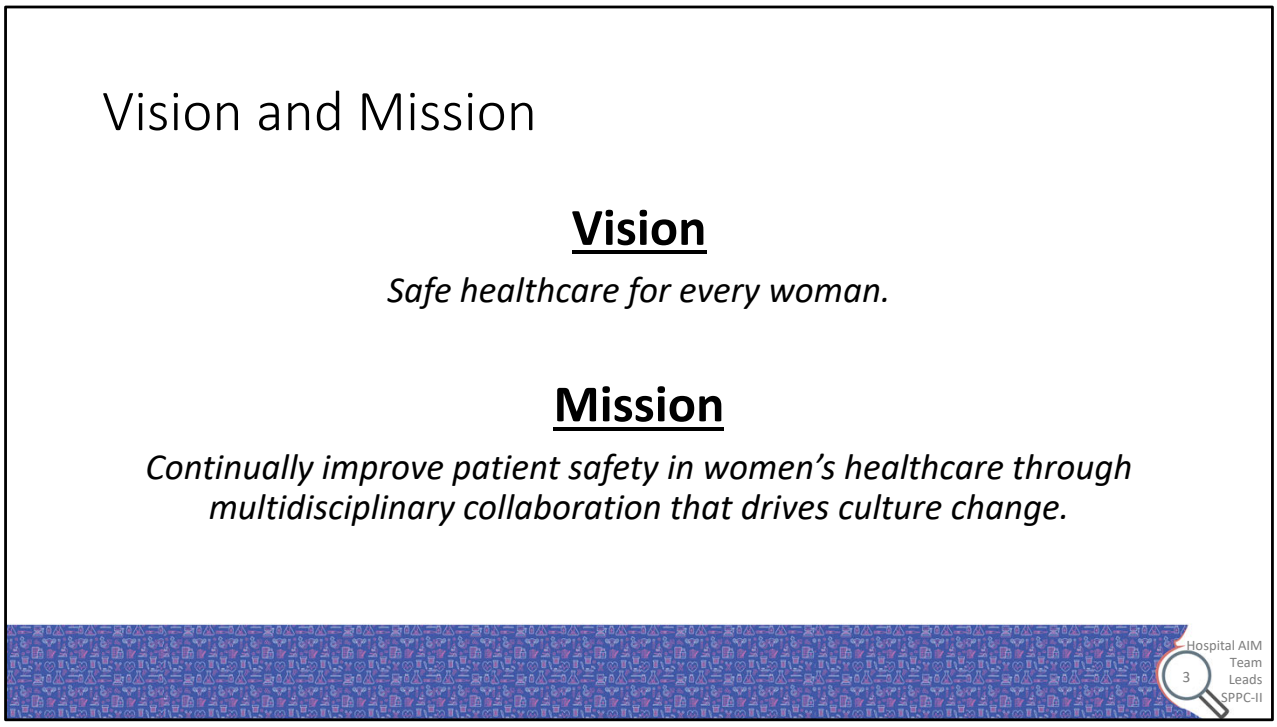
Overview

- Mission and Vision
- Care Components: Technical and Adaptive
- SPPC-II Teamwork Toolkit
- The 4 Rs of AIM Patient Safety Bundles
- The Master Clinical Scenario: Obstetric Hemorrhage

SCRIPT

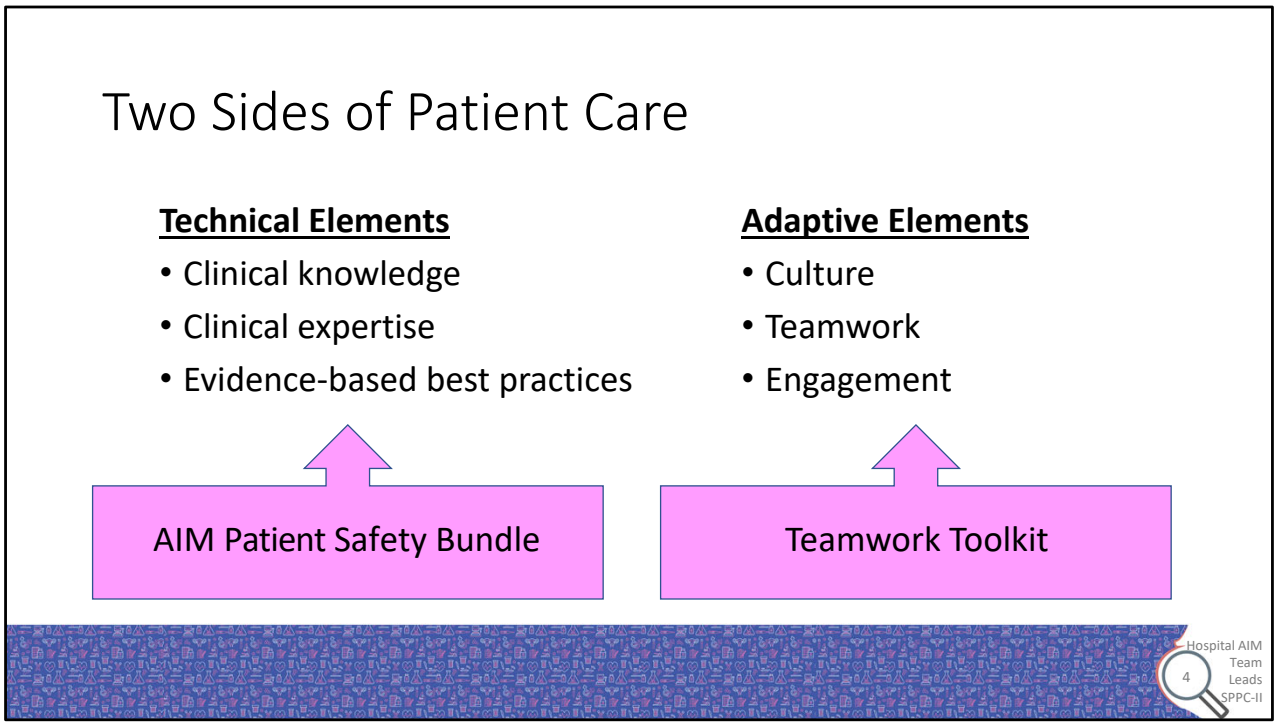
A brief outline of this session is:

- To provide an overview of AIM's mission and vision
- Explain the technical and adaptive sides of patient care improvement work
- Situate the SPPC-II Teamwork Toolkit within this framework and mission
- Provide an overview of the 4 Rs of AIM's Obstetric Hemorrhage patient safety bundle
- Introduce the clinical scenario of obstetric hemorrhage, which will serve as the basic scenario in which we will demonstrate all of the tools covered in this workshop



SCRIPT
Guided by the vision to achieve safe healthcare for every woman, the AIM program is working toward elimination of all preventable maternal mortality and severe morbidity across the United States. We will share maternal mortality and severe maternal morbidity statistics later in the day during the Evaluation module (Module 8).

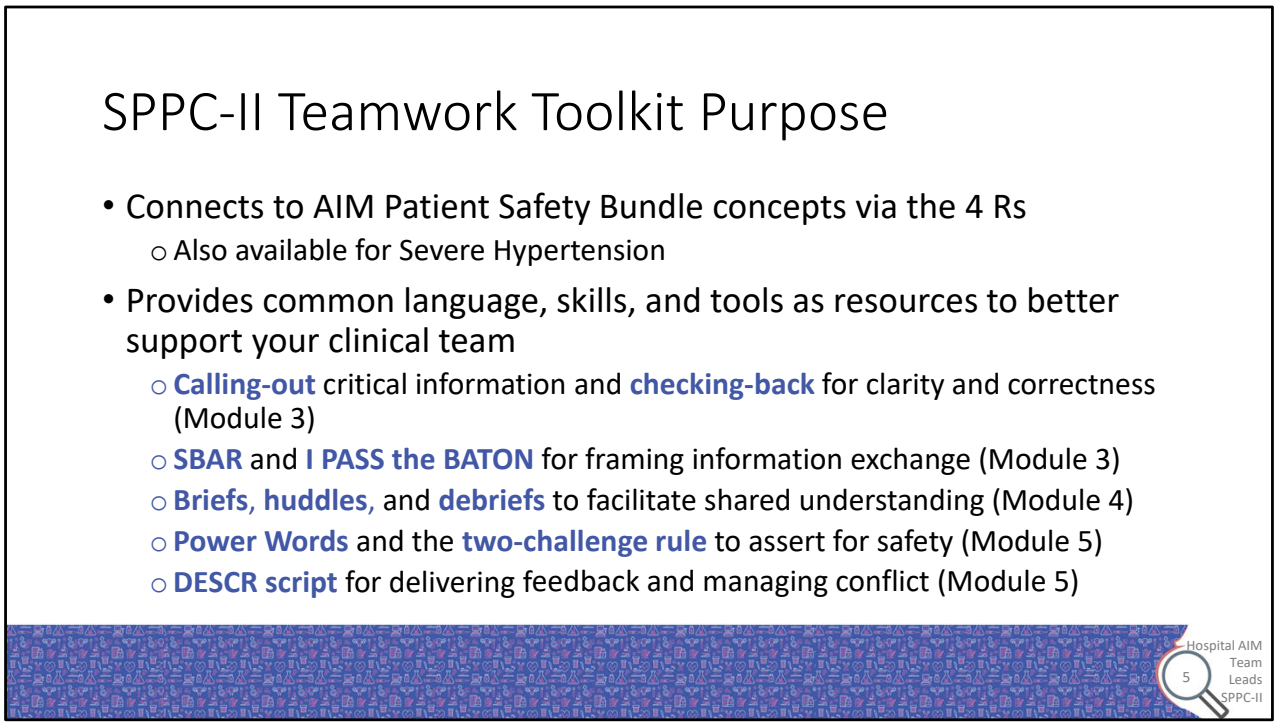
The mission of AIM is to continually improve patient safety in women's healthcare through multidisciplinary collaboration that drives culture change. To this end, AIM has created multiple patient safety bundles designed to address specific concerns within obstetric care, such as severe hypertension. Working toward the improvement of overall maternal health outcomes, AIM partners with State teams and health systems to align national-, State-, and hospital-level quality improvement efforts and implementation of the patient safety bundles.



SCRIPT

We know you are working hard to align yourself with the AIM mission and vision statements by committing all you can to your clinical practice. You may be surprised to learn that patient safety isn't simply about the application of clinical knowledge and expertise. While these technical elements are essential, there is a second side to care that complements clinical skills. Termed "adaptive" because they enable translation of technical competence into practice, these components include the cultural and socio-emotional elements that deeply affect the way technical elements of care are delivered. Consider for a moment how your ability to do your job is enhanced or hindered by your working relationships. Imagine how the care you provide might be or feel different when you're completely in sync with your teammates versus what it might look like if you had completely dysfunctional team dynamics. Totally different, right?

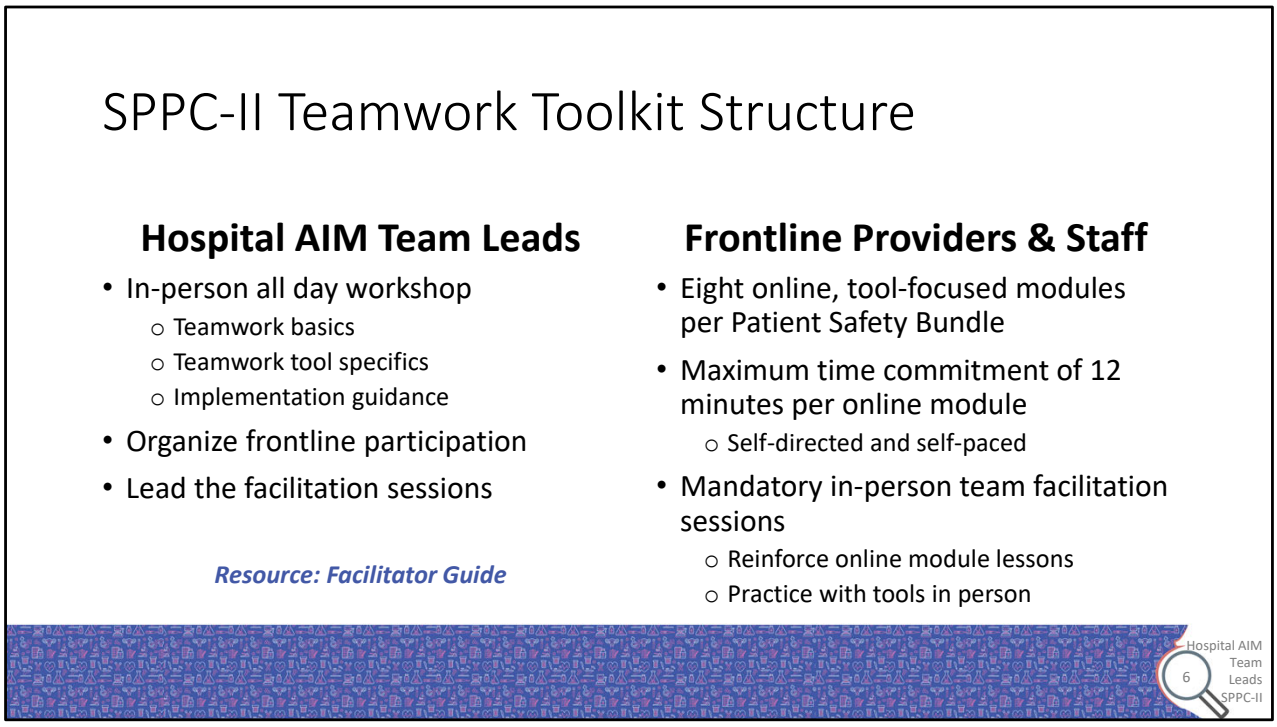
Hopefully, what you take away from this simple mind exercise is the understanding that, when we have the goal to provide safe care to every woman, we have to consider both whether we are caring for her with the best clinical knowledge available and within the most effective adaptive setting. The AIM patient safety bundles that your organization is implementing satisfy the technical side. This teamwork toolkit aligns with those bundles to help improve the adaptive side of patient care. The SPPC-II Teamwork Toolkit will do so by providing you with specific tools and strategies you can use when working with your colleagues to provide team-based care to your patients.



SCRIPT

This toolkit has been designed to connect established teamwork concepts within the context of AIM's Patient Safety Bundle for Obstetric Hemorrhage using AIM's 4 Rs framework. A similar toolkit is available for AIM's Severe Hypertension Patient Safety Bundle. The SPPC-II Teamwork Toolkit is comprehensive in its ability to teach language, skills, tools, and strategies you can utilize with your team daily and presents a case scenario that demonstrates how these strategies may unfold during an obstetric hemorrhage. Not only does the SPPC-II Teamwork Toolkit provide instruction on the adaptive skills that allow you to best engage in teamwork that keeps your patients' safety and quality of care at the forefront of everything, but it also discusses how to have difficult conversations and interactions with coworkers/colleagues that come when working in a stressful and busy environment.

We will discuss the terms and concepts on this slide as we proceed throughout today's workshop. Your frontline staff will also be expected to complete online modules covering each of these topics, though their numbering will be different from that presented here.

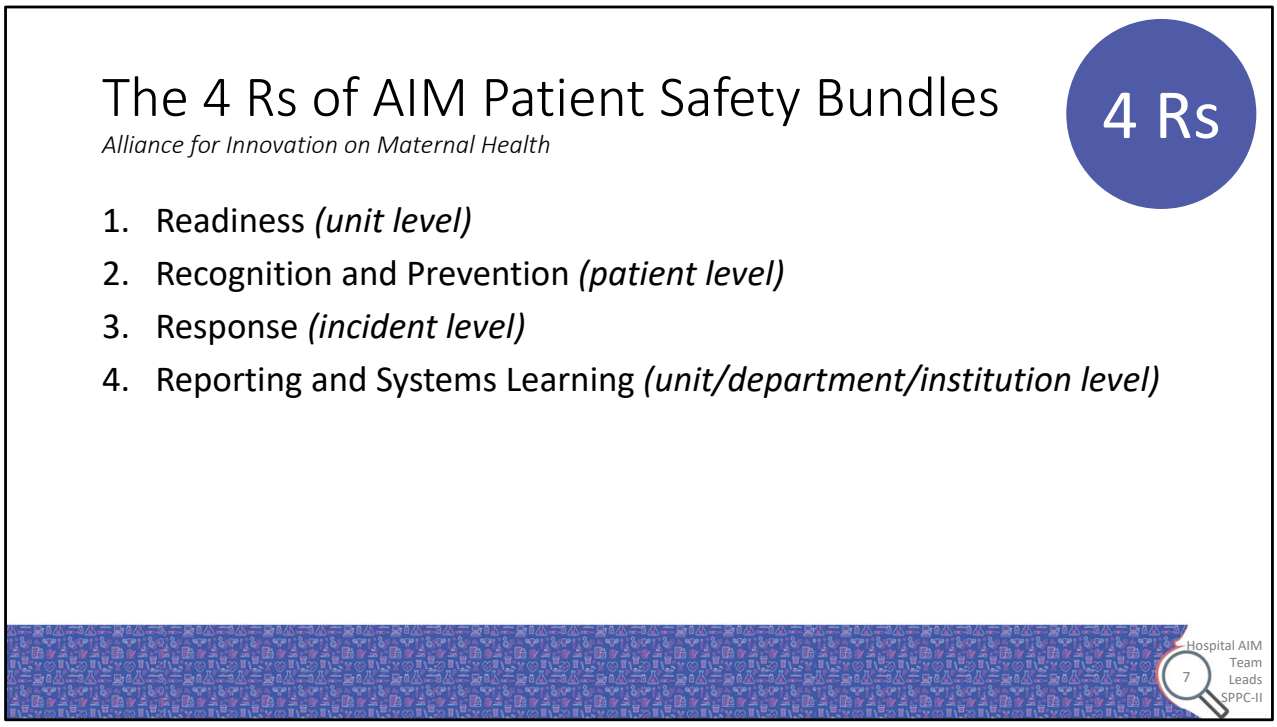


SCRIPT

There are two audiences for this toolkit: Hospital (or OB) AIM Team Leads and the frontline providers and staff. All of you here today are part of your Hospital AIM Team and responsible for leading the efforts for rolling out both the AIM clinical bundles and this SPPC-II Teamwork Toolkit to your frontline staff at your home institutions.

As our Tier 2 audience, you'll participate in this in-person workshop during which you will learn teamwork basics, teamwork tool specifics, and implementation necessities. We will help you organize frontline participation and teach you how to lead the facilitation sessions.

Your frontline providers and staff are what we call our Tier 1 audience as they will really only learn about teamwork tool specifics that are the foundation to everything else you will learn. The training developed for the frontline include eight online tool-focused modules that have been tailored to each patient safety bundle. We have kept each of these modules purposefully short—under 12 minutes each. However, to supplement this information and demonstration-based training, we expect you to schedule in-person team facilitation sessions so lessons from the training are reinforced through demonstrated commitment to their use and practice. See the Facilitator Guide for more explicit guidance on how to mange the rollout of these materials.



SCRIPT

AIM is a national data-driven maternal safety and quality improvement initiative based on proven implementation approaches to improving maternal safety and outcomes in the United States. AIM provides evidence-based frontline resources for birth facilities and provider/public health teams to adapt and implement a series of action steps (patient safety bundles) on high-risk maternal conditions. These patient safety bundles are standardized evidence-informed processes to reduce variation in response to maternal care. They are developed by multidisciplinary work groups of experts in the field representing each of our AIM partners and specialty organizations.

Each patient safety bundle consists of four domains, known as the 4 Rs. These include readiness, recognition and prevention, response, and reporting. Specifics of each domain is tailored to each patient safety bundle.

This module will focus on the 4 Rs associated with the Obstetric Hemorrhage bundle.

OB Hemorrhage: Readiness

READINESS

Every unit

- Hemorrhage cart with supplies, checklist, and instruction cards for intrauterine balloons and compressions stitches
- Immediate access to hemorrhage medications (kit or equivalent)
- Establish a response team - who to call when help is needed (blood bank, advanced gynecologic surgery, other support and tertiary services)
- Establish massive and emergency release transfusion protocols (type-O negative/uncrossmatched)
- Unit education on protocols, unit-based drills (with post-drill debriefs)

SCRIPT

Readiness includes five areas of focus that will help facilities prepare for and prevent delays in the management of obstetric hemorrhage cases. These five areas include: preparing a hemorrhage cart, immediate access to hemorrhage medications, establishing a response team, establishing a massive transfusion protocol, and educating team members on protocols and unit-based drills.

OB Hemorrhage: Recognition and Prevention

RECOGNITION & PREVENTION

Every patient

- Assessment of hemorrhage risk (prenatal, on admission, and at other appropriate times)
- Measurement of cumulative blood loss (formal, as quantitative as possible)
- Active management of the 3rd stage of labor (department-wide protocol)

SCRIPT

Recognition and prevention includes three areas of focus that should be incorporated into the care of every patient. These three areas are: assessment of hemorrhage risk, measurement of cumulative blood loss, and active management of the third stage of labor.

OB Hemorrhage: Response

RESPONSE

Every hemorrhage

- Unit-standard, stage-based, obstetric hemorrhage emergency management plan with checklists
- Support program for patients, families, and staff for all significant hemorrhages

SCRIPT

Response includes two interventions that should be utilized in every hemorrhage case. These two interventions are: an obstetric hemorrhage emergency management plan and support for patients, families, and staff who are a significant part of a hemorrhage case.

OB Hemorrhage: Reporting and Systems Learning

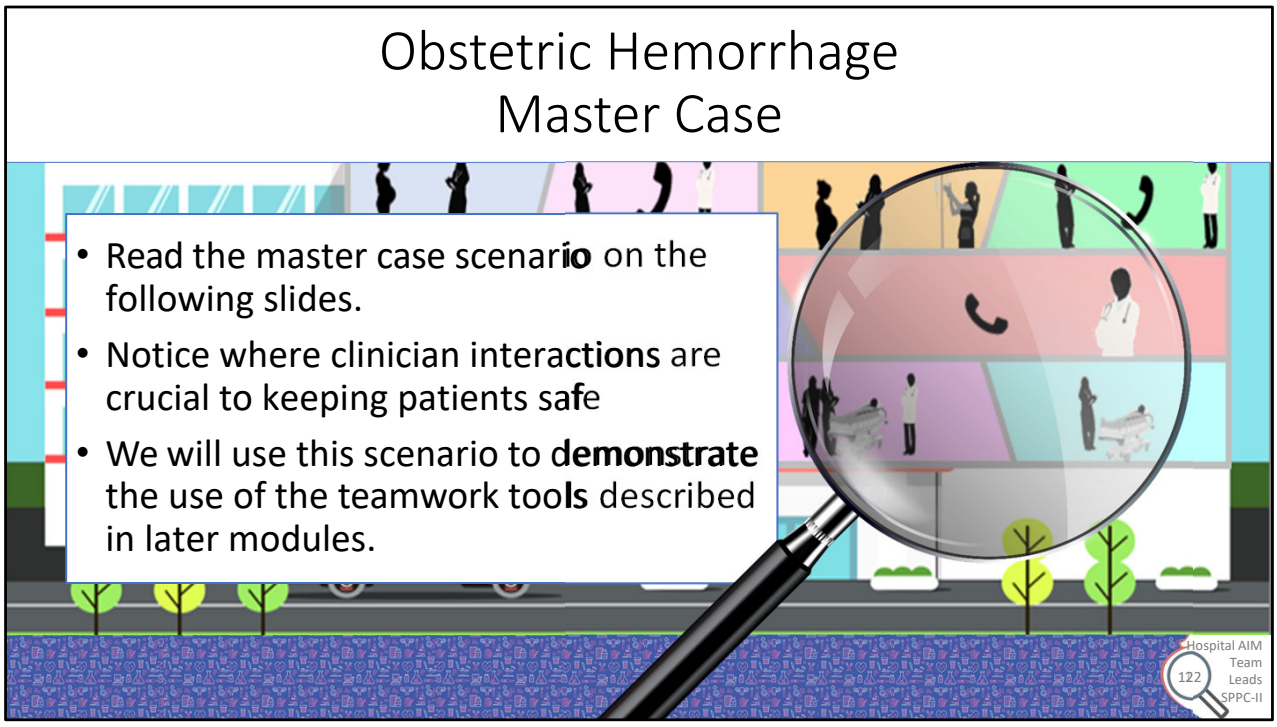
REPORTING/SYSTEMS LEARNING

Every unit

- Establish a culture of huddles for high risk patients and post-event debriefs to identify successes and opportunities
- Multidisciplinary review of serious hemorrhages for systems issues
- Monitor outcomes and process metrics in perinatal quality improvement (QI) committee

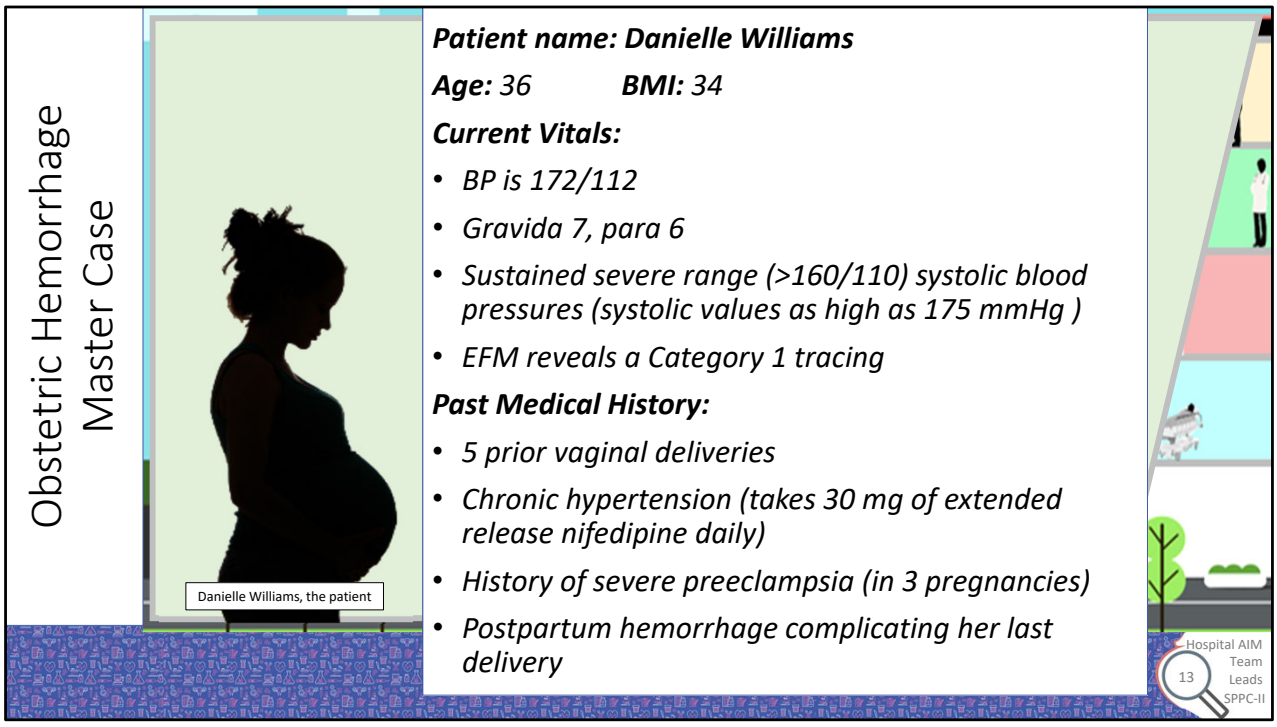
SCRIPT

Reporting and systems learning includes three focused areas of systems improvement that should be implemented by every unit that provides maternity care. These areas of systems improvement are: establishing a culture of huddles and debriefs, multidisciplinary review of serious hemorrhages, and monitoring outcomes and process metrics.



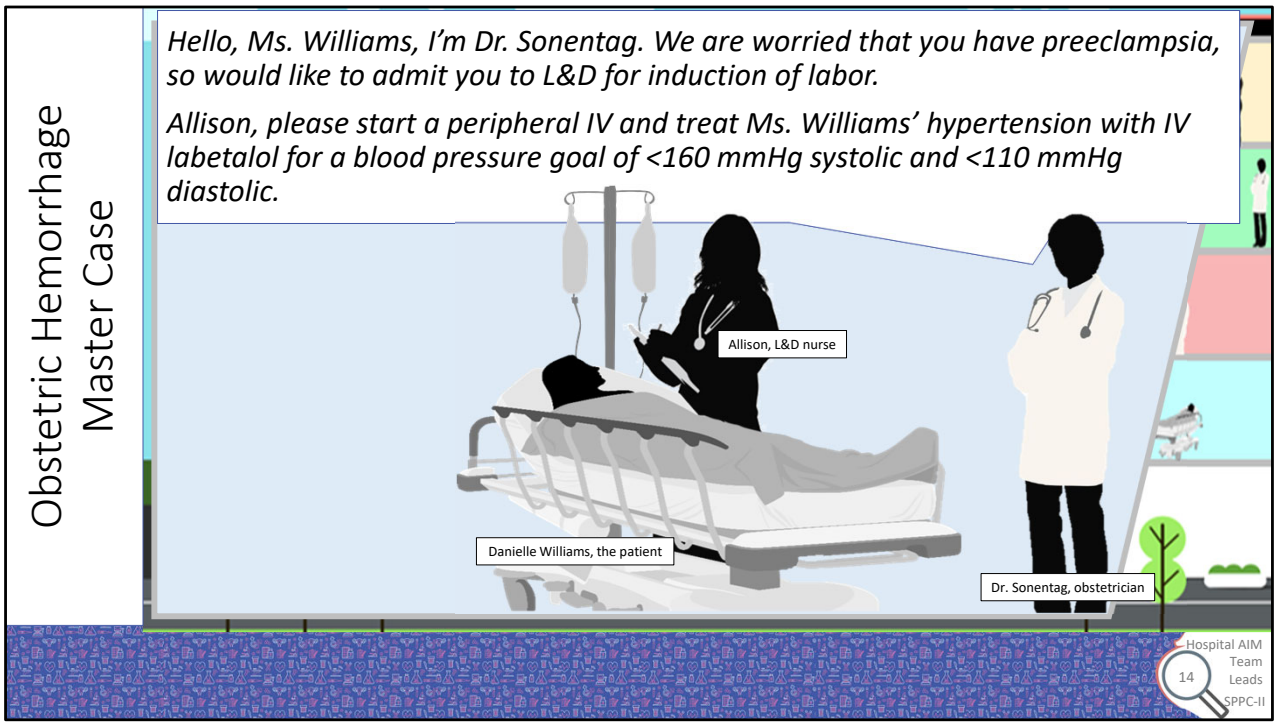
SCRIPT

We conclude the introduction module with the master case scenario related to an obstetric hemorrhage case. Read through the case, which has been presented in a comic strip layout, to see the scenario that will be used and referenced throughout the entire SPPC-II Teamwork Training Toolkit. At certain points in this case, you may see multiple places where clinicians' interactions are crucial to facilitating patient care, helping keep them safe. These instances will be explored in the other online modules in which the teamwork tools are individually introduced.



SCRIPT

A 36-year-old pregnant female, Danielle Williams, who is at 38 weeks and 6 days gestational age, is referred to the labor and delivery unit from the outpatient clinic due to a blood pressure of 156/98, which is above her baseline. Her BMI is 34. She is a gravida 7, para 6, with five prior vaginal deliveries. Her past medical history is complicated by chronic hypertension, for which she takes 30 mg of extended-release nifedipine daily, severe preeclampsia in three of her prior pregnancies, and postpartum hemorrhage complicating her last delivery. Otherwise, she has had an uncomplicated prenatal course with no additional complications. In labor and delivery triage, her initial BP is 172/112 and serial blood pressures over the course of an hour reveal sustained severe range (>160/110) systolic blood pressures, with systolic values as high as 175 mmHg. Electronic fetal monitoring reveals a Category 1 tracing.

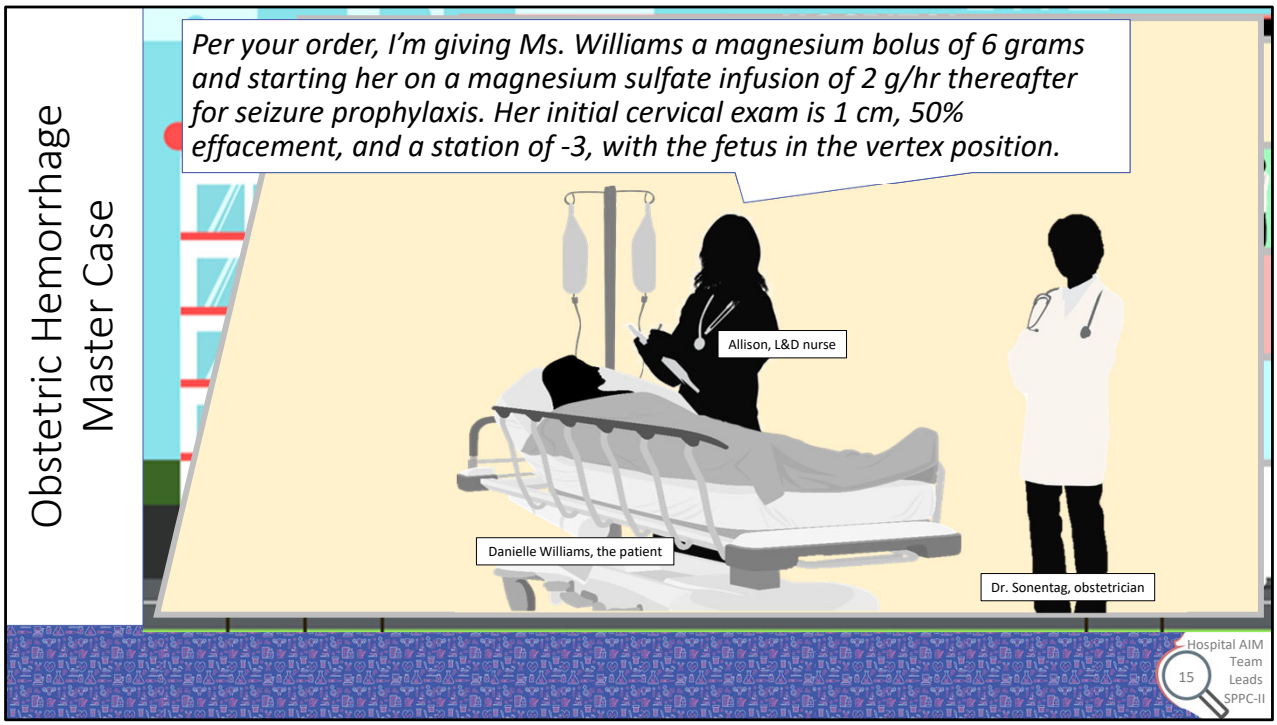


SCRIPT

The obstetrician, Dr. Sonentag, is notified, and he places the orders to collect labs to rule out preeclampsia. The nurse, Allison, collects the ordered labs, and the results show:

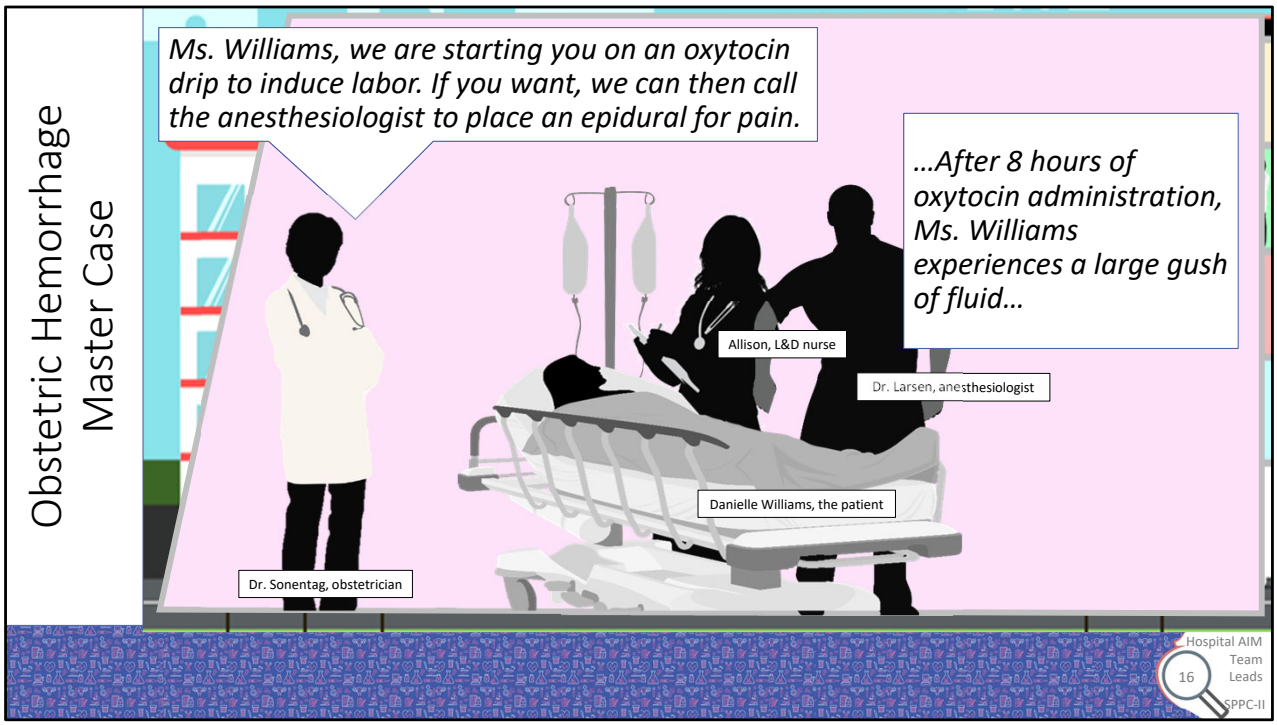
- Protein/creatinine ratio = 0.46
- 3+ protein in urine sample
- Elevated transaminases: AST=107, ALT=98
- Hgb = 10 g/dl
- Platelet=165k

Ms. Williams is diagnosed with severe preeclampsia and is admitted to L&D for induction of labor. Allison starts a peripheral IV and treats Ms. Williams' hypertension with IV labetalol for a blood pressure goal of <160 mmHg systolic and <110 mmHg diastolic. Ms. Williams is given a magnesium bolus of 6 grams and started on a magnesium sulfate infusion of 2 g/hr thereafter for seizure prophylaxis. In terms of progress of labor, her initial cervical exam is 1 cm, 50% effacement, and a station of -3, with the fetus in the vertex position.



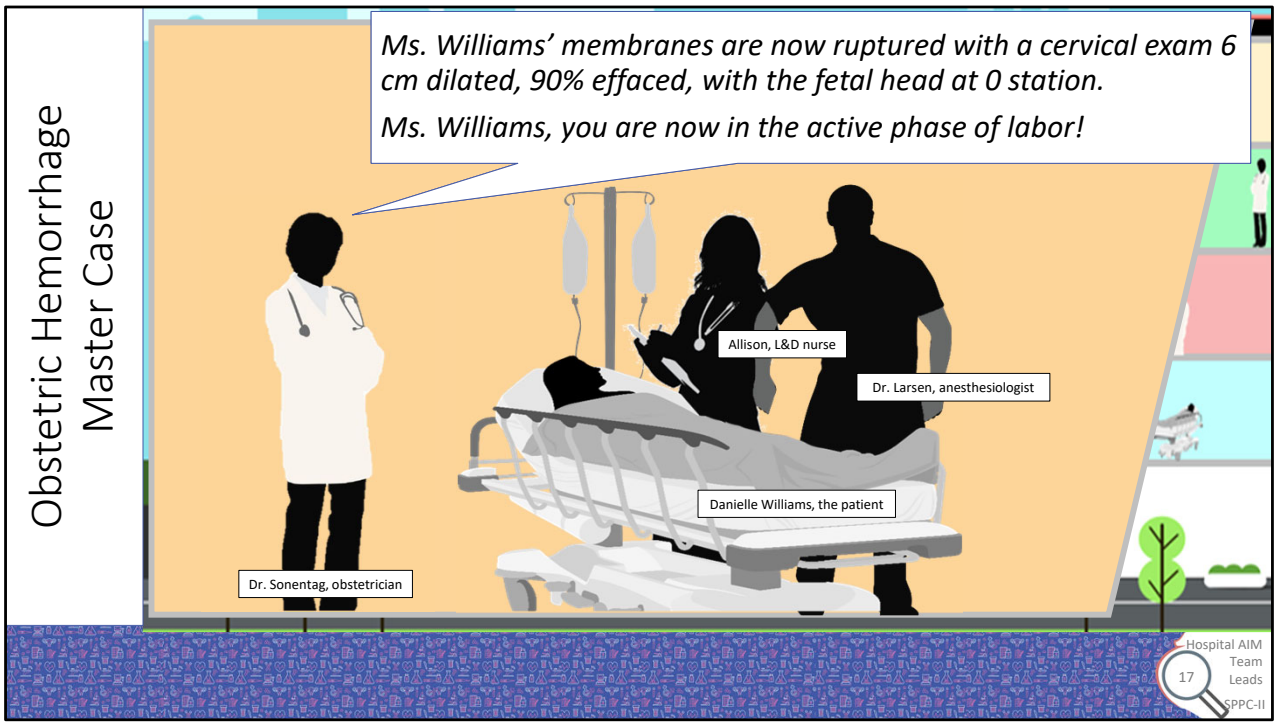
SCRIPT

Allison starts a peripheral IV and treats Ms. Williams' hypertension with IV labetalol for a blood pressure goal of <160 mmHg systolic and <110 mmHg diastolic. Ms. Williams is given a magnesium bolus of 6 grams and started on a magnesium sulfate infusion of 2 g/hr thereafter for seizure prophylaxis. In terms of progress of labor, her initial cervical exam is 1 cm, 50% effacement, and a station of -3, with the fetus in the vertex position.



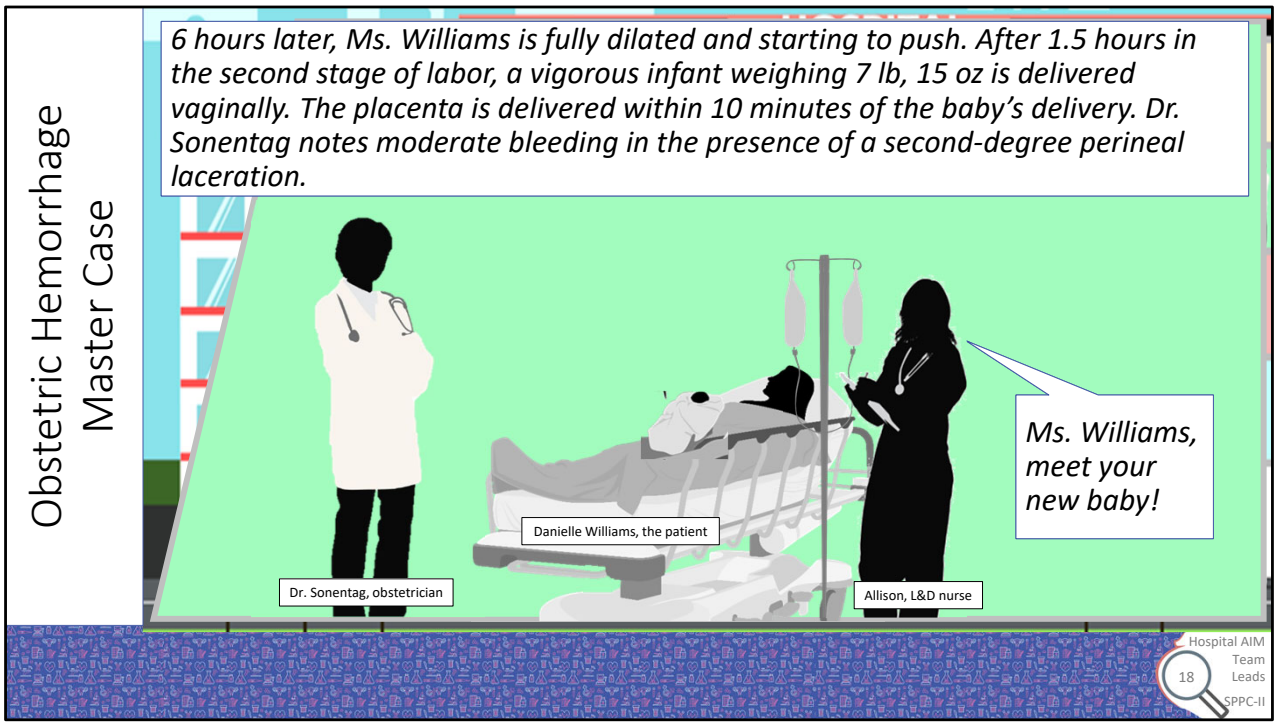
SCRIPT

Ms. Williams is started on oxytocin for induction of labor. Over the course of her induction, her contractions became more painful, and the anesthesiologist is called to place an epidural that the patient requests. After 8 hours of oxytocin administration, Ms. Williams is noted to have spontaneous rupture of membranes with clear fluid.



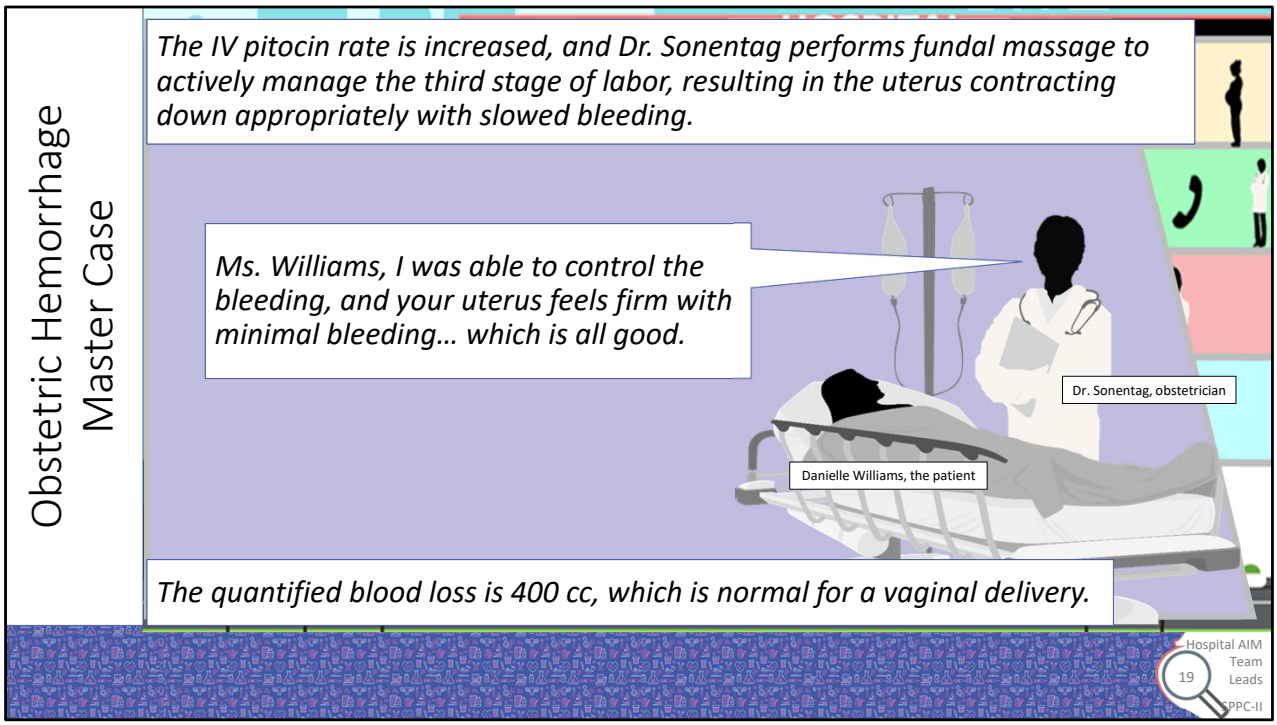
SCRIPT

Cervical exam by Dr. Sonentag at that time is 6 cm dilated, 90% effaced, and 0 station, marking transition to active labor. Over the next 4 hours, the patient progresses to full dilation (10 cm) and starts pushing.



SCRIPT

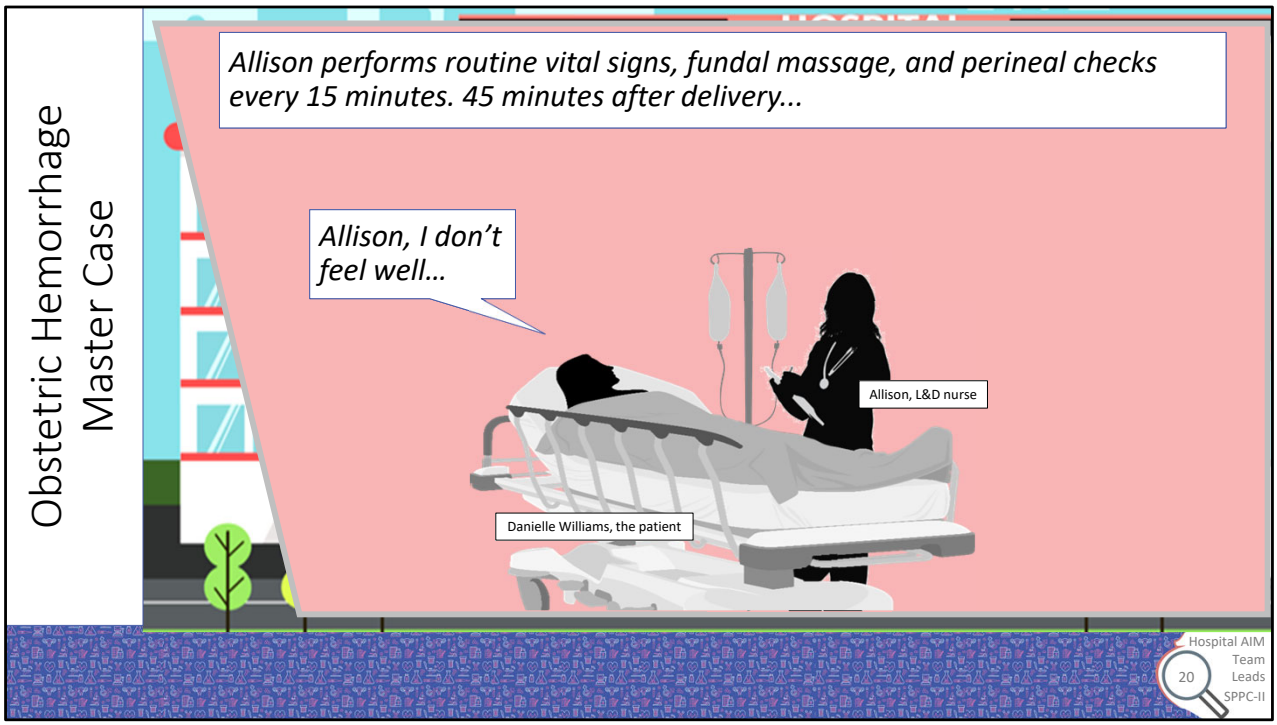
Six hours later, Ms. Williams is fully dilated and starting to push. After 1.5 hours in the second stage of labor, a vigorous infant weighing 7 lb, 15 oz is delivered vaginally. The placenta is delivered within 10 minutes of the baby's delivery. Dr. Sonentag notes moderate bleeding in the presence of a second-degree perineal laceration.



SCRIPT

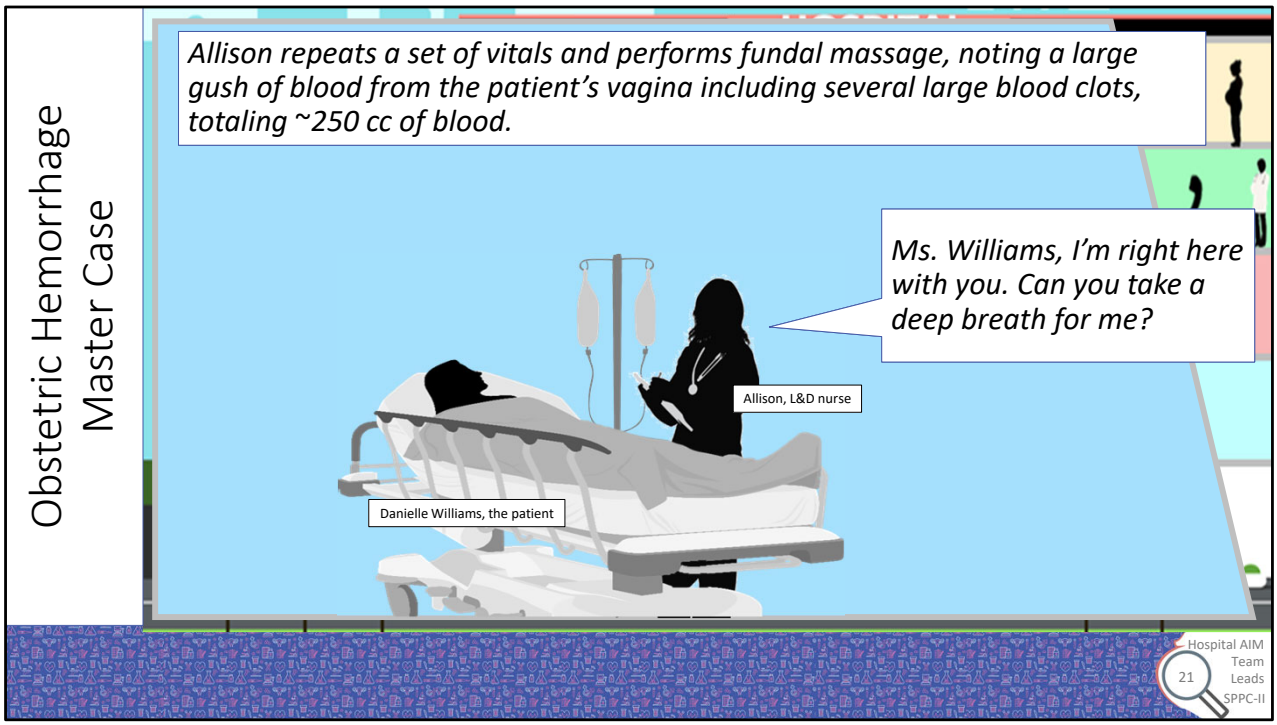
The IV pitocin rate is increased, and Dr. Sonentag performs fundal massage to actively manage the third stage of labor. After several minutes, the uterus contracts down appropriately, with slowed bleeding. Once the uterine bleeding is controlled, Dr. Sonentag repairs the second-degree laceration in the usual fashion. The uterus is palpated one additional time following perineal laceration repair, and it is still noted to be firm with minimal uterine bleeding.

Ms. Williams is cleaned and returned to the dorsal supine position. She is given the infant for initial breast feeding. Dr. Sonentag and the remainder of the obstetric team except for Allison leave the room. The quantified blood loss at this time is 400 cc, which is normal for a vaginal delivery.



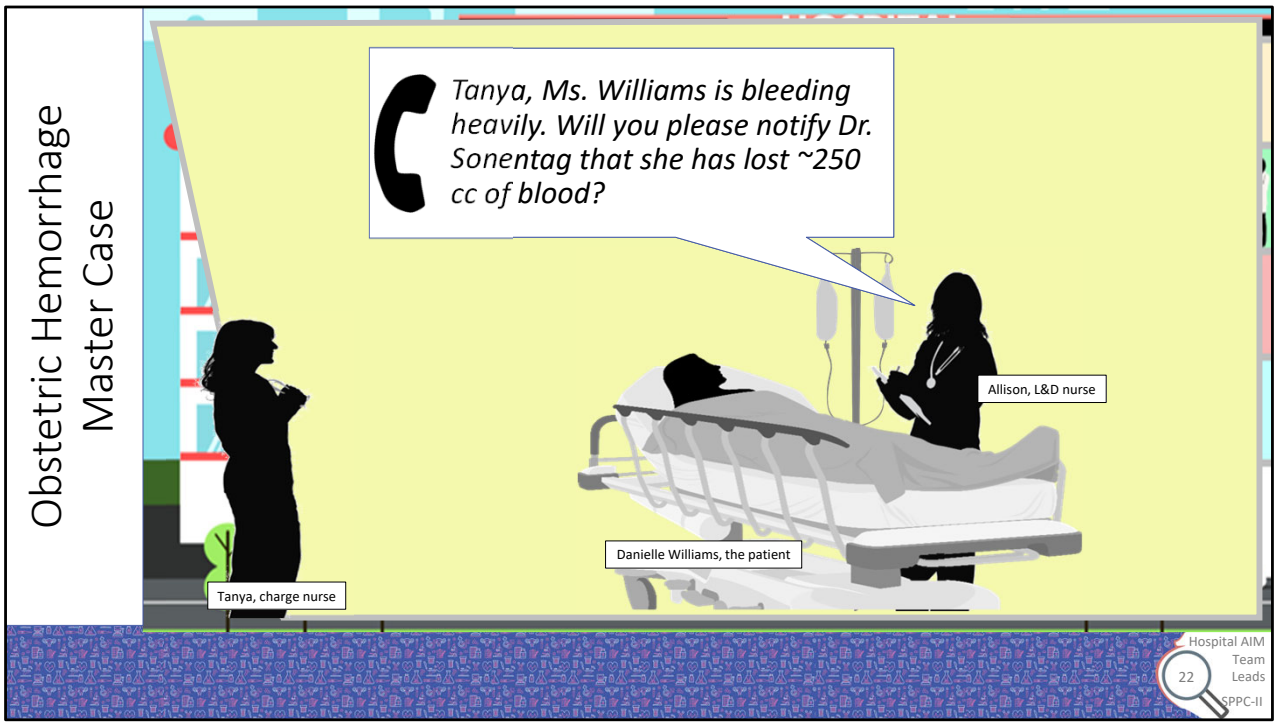
SCRIPT

Post-delivery, Allison performs routine vital signs, fundal massage, and perineal checks every 15 minutes. Forty-five minutes following delivery, the patient reports to the nurse that she is feeling slightly dizzy and lightheaded.



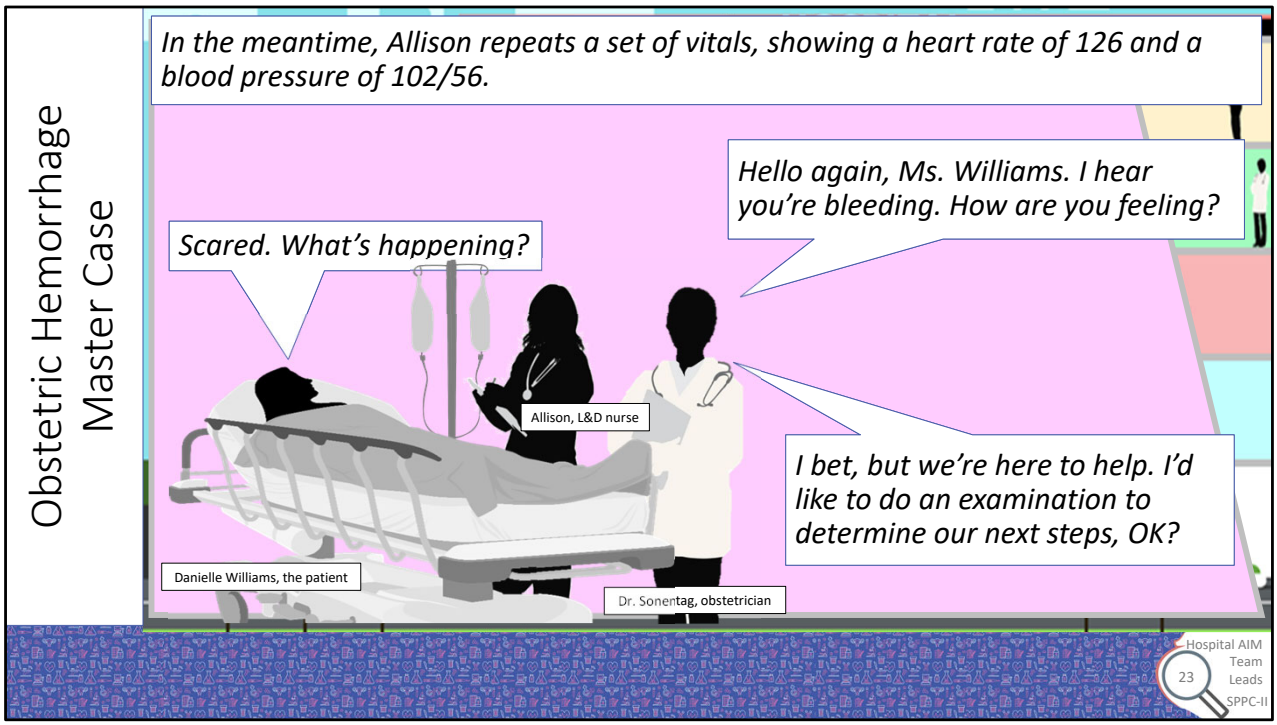
SCRIPT

Allison repeats a set of vitals and performs postpartum fundal massage, noting a large gush of blood from Ms. Williams' vagina including several large blood clots, totaling ~250 cc of blood.



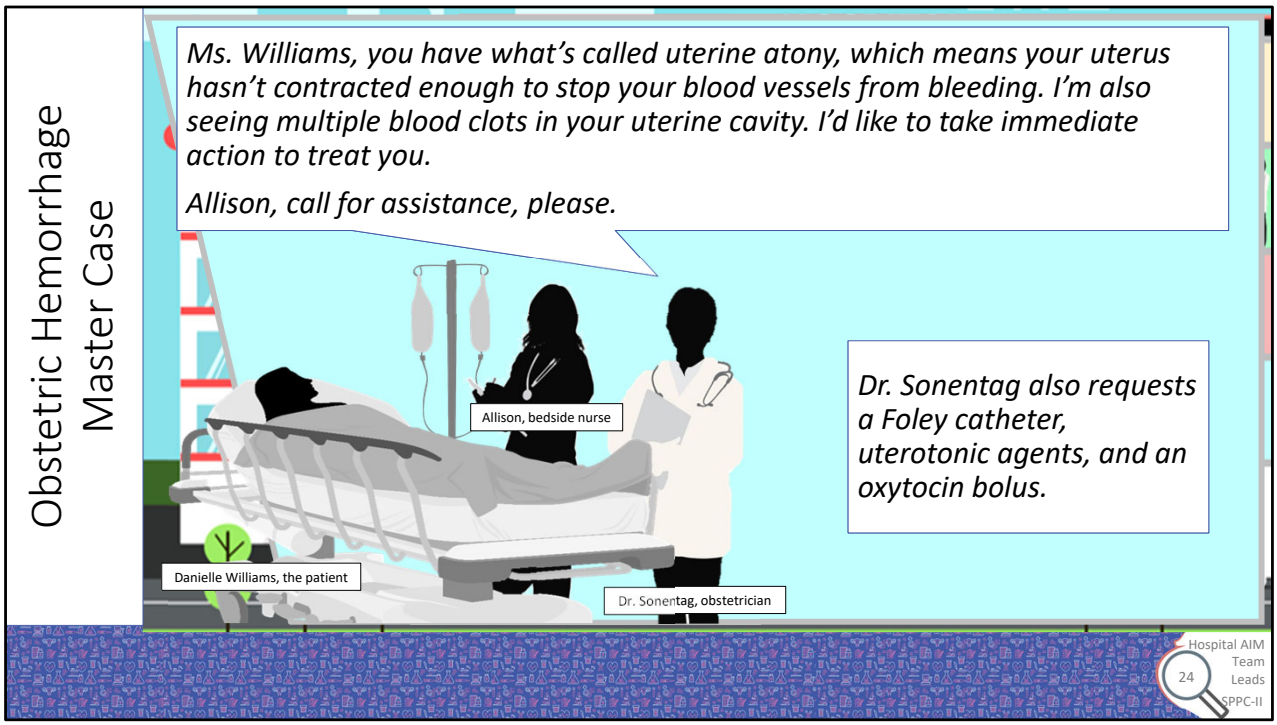
SCRIPT

She calls to the charge nurse, Tanya, to notify the obstetrician that the patient is bleeding heavily.



SCRIPT

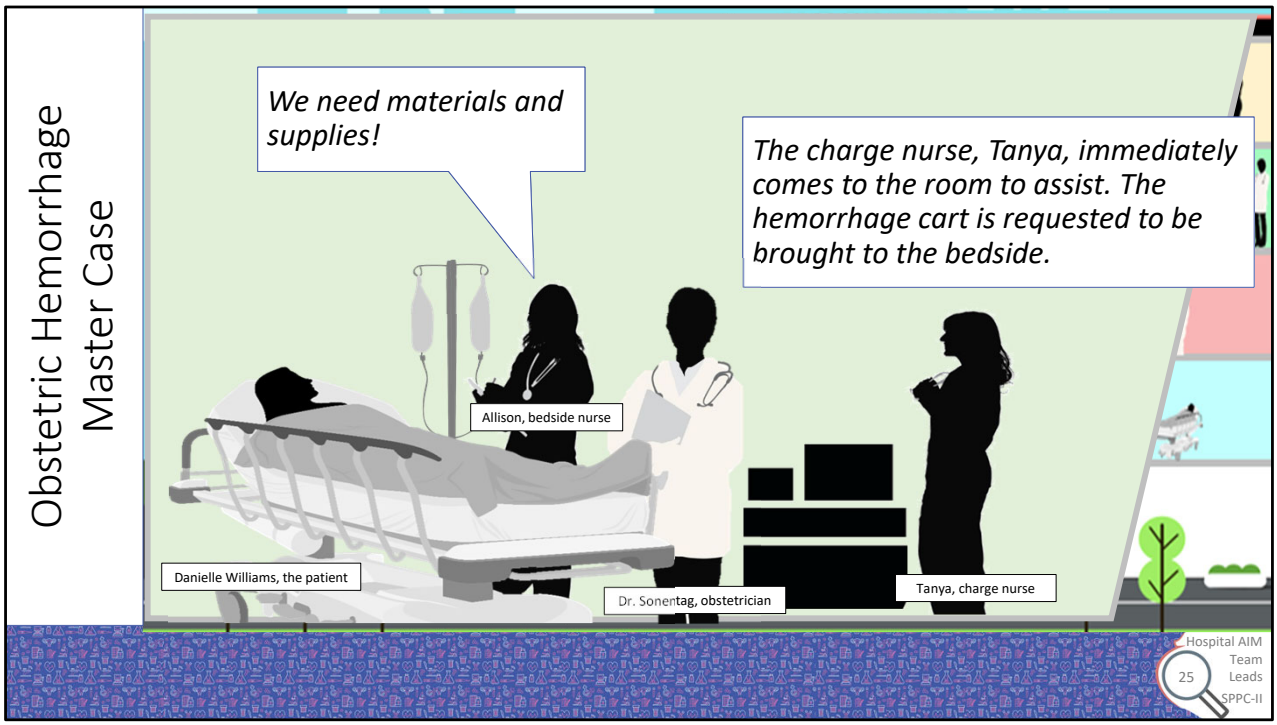
In the meantime, Allison repeats a set of vitals, showing a heart rate of 126 and blood pressure of 102/56. Soon after, Dr. Sonentag arrives to examine the patient.



SCRIPT

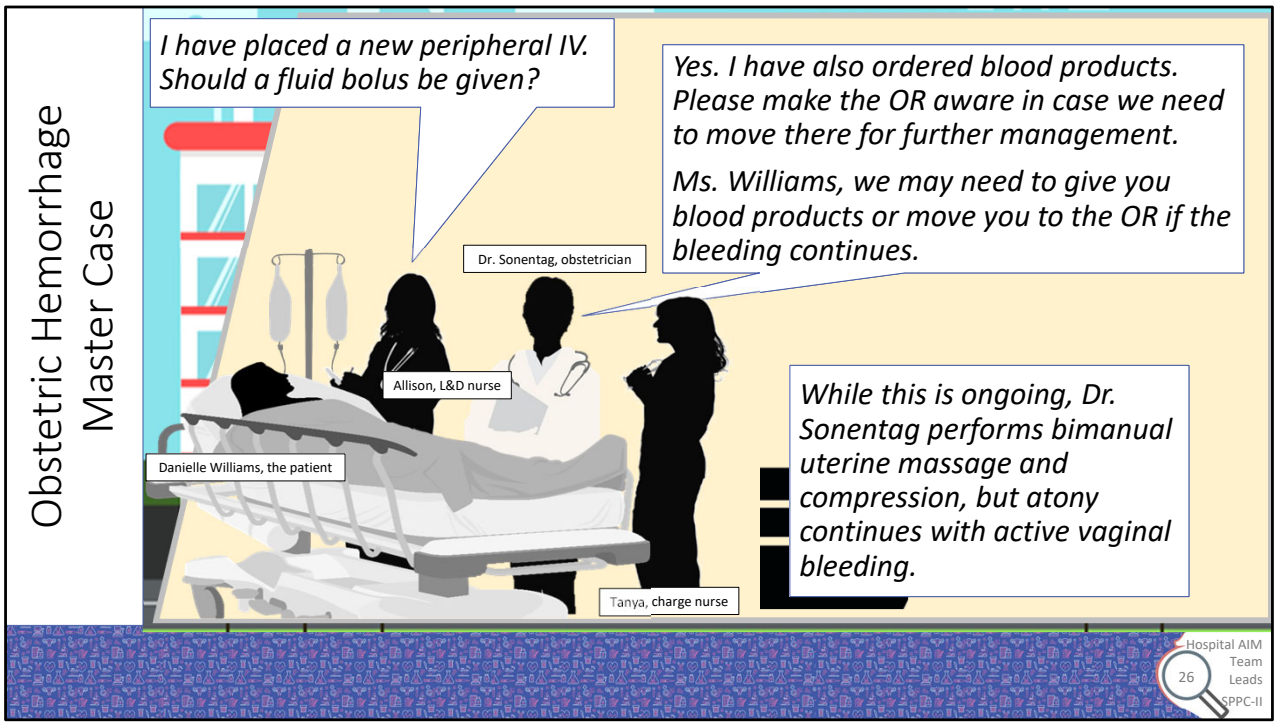
Dr. Sonentag notes active bleeding from the vagina, with an atonic uterus noted on abdominal exam. The bed is broken down once again, and Ms. Williams is placed in lithotomy position after being informed.

Bimanual exam is performed, noting profound uterine atony, active bleeding, and multiple blood clots in the uterine cavity. Dr. Sonentag asks Allison to first call for assistance. He then asks for a Foley catheter for bladder emptying, in addition to the uterotonic agents, and an oxytocin bolus.



SCRIPT

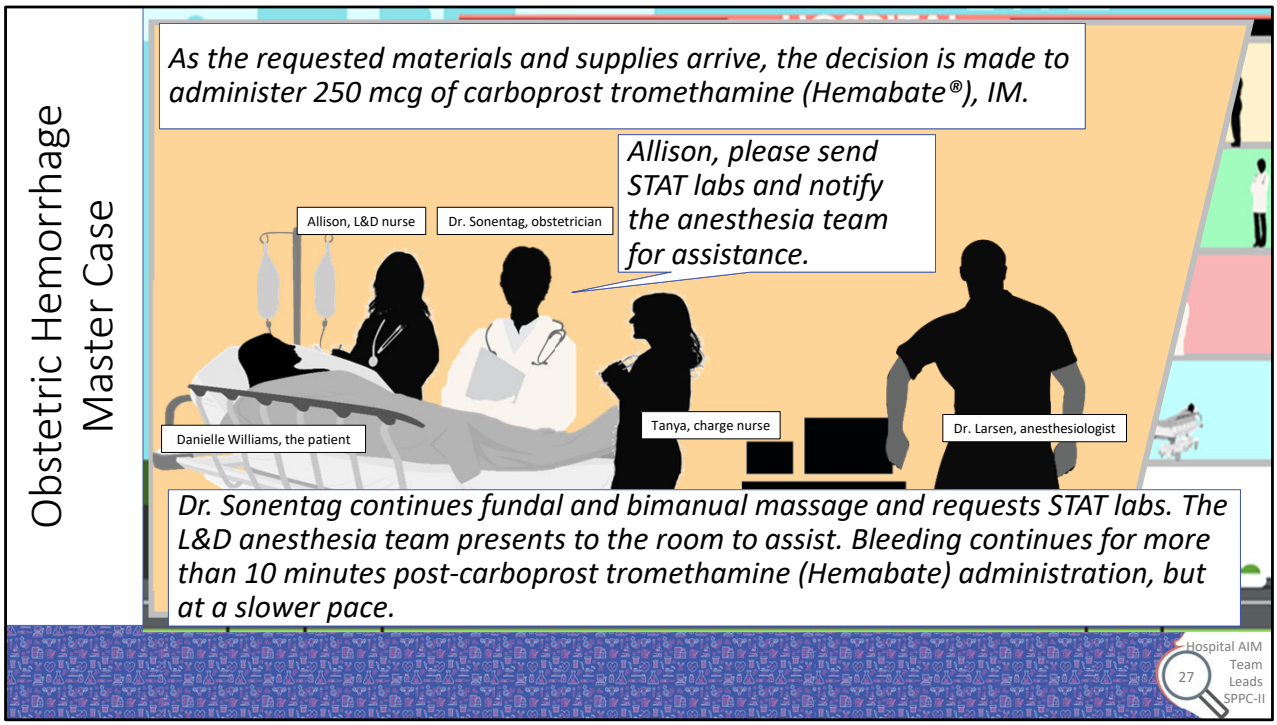
Allison calls out to the front desk for the requested materials and supplies. Tanya brings the hemorrhage cart to the bedside, which included the necessary supplies, the checklist and instruction cards for medication dosing, intrauterine balloon placement, and compression stitches. She begins assisting immediately.



SCRIPT

A new peripheral IV is started, and Allison asks Dr. Sonentag if a fluid bolus should be given. She replies affirmatively, indicates she has already ordered blood products, and asks Allison to make the OR aware in case they need to move there for further management.

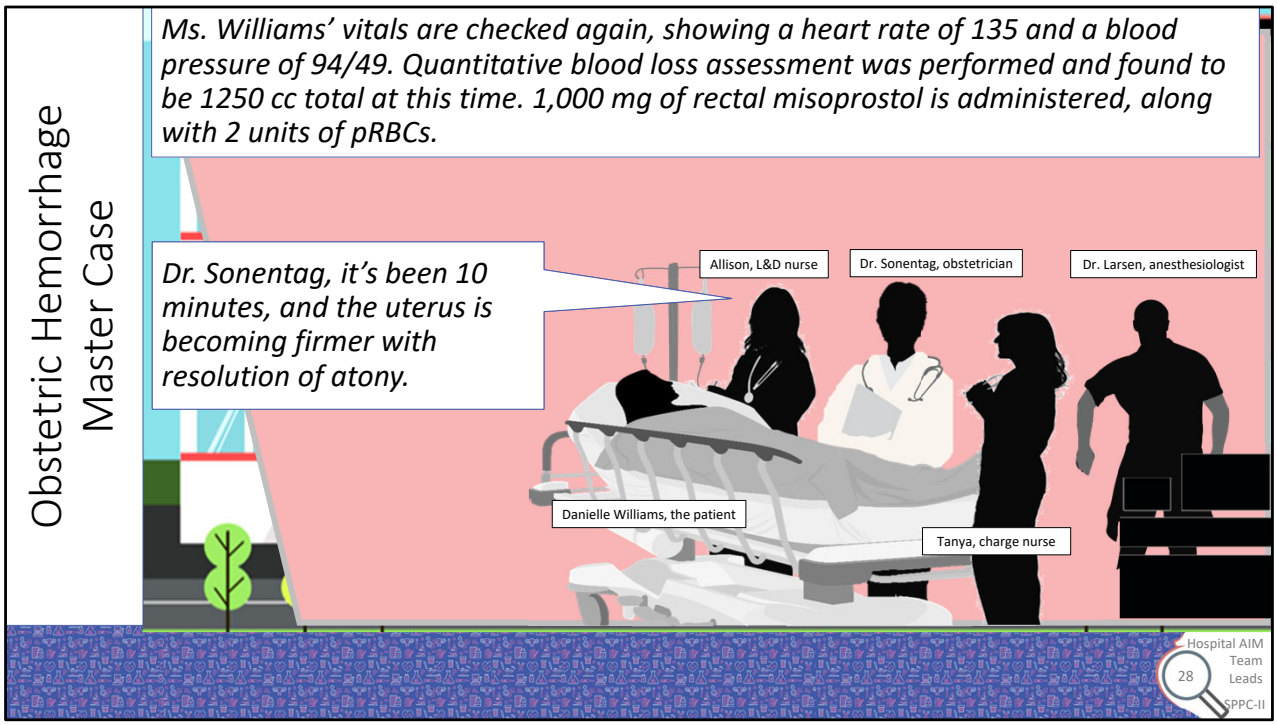
While this is ongoing, Dr. Sonentag performs bimanual uterine massage and compression, but atony continues with vaginal bleeding.



SCRIPT

As the requested materials and supplies arrive, the decision is made to administer carboprost tromethamine (Hemabate) at 250 mcg (0.25 mg),IM.

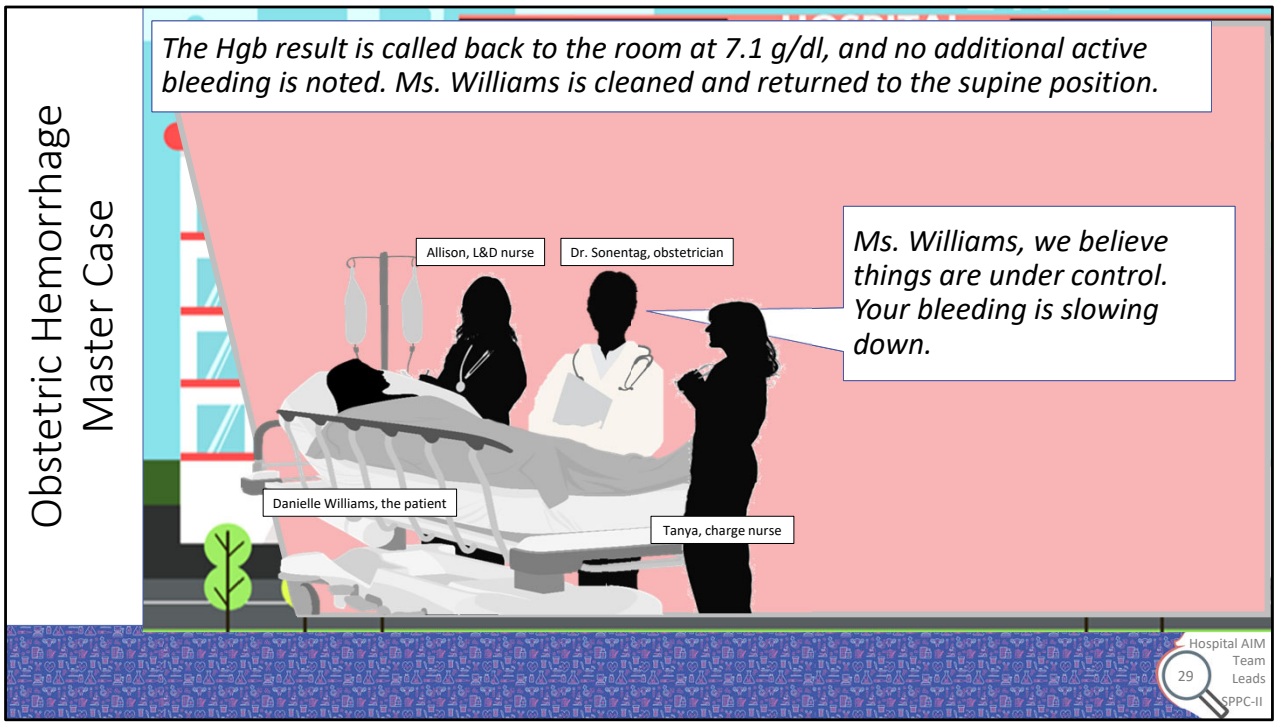
Dr. Sonentag continues fundal and bimanual massage and requests that Allison send STAT labs. The L&D anesthesia team is notified and presents to the room to assist. The bleeding continues for more than 10 minutes post-carboprost tromethamine (Hemabate) administration, but at a slower pace.



SCRIPT

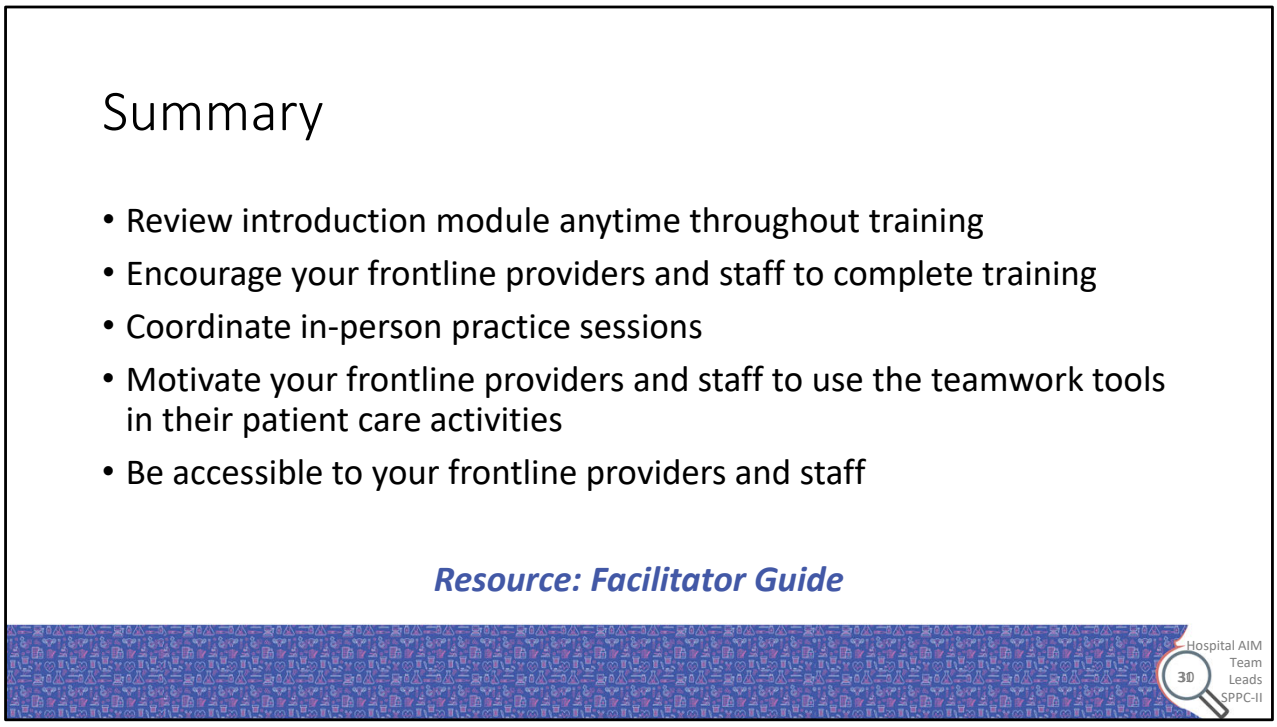
Ms. Williams' vitals are checked again, showing a heart rate of 135 and a blood pressure of 94/49. The laparotomy sponges and other materials are weighed and the blood in the collection drape measured for a quantitative cumulative blood loss of 1,250 cc at this time. 1,000 mg of rectal misoprostol is administered, along with 2 units pRBCs by the nurse per the obstetrician request.

The bleeding continues to slow over the next 10 minutes, with the uterus becoming more firm with resolution of atony.



SCRIPT

The Hgb result is called back to the room at 7.1 g/dl, and no additional active bleeding is noted. The patient is cleaned and returned to the supine position.



SCRIPT
In conclusion, this introductory module sets the foundation for the SPPC-II Teamwork Toolkit. The remaining modules will draw from and build on the case scenario that we just walked through in order to demonstrate each of the teamwork tools and strategies within an example of an obstetric hemorrhage case. It is the same scenario your frontline providers and staff will see in their introduction modules.

Ultimately, it is your responsibility as a Hospital AIM Team Lead to enable and encourage your frontline providers and staff to participate in the eight online modules associated with your clinical patient safety bundle and coordinate practice sessions that will reinforce the use of these tools within your organization.

To do so, be accessible to your frontline providers and staff and feel free to adopt a training approach that works best for your local needs and check out the Facilitator Guide for more explicit guidance on how to mange the rollout of these materials.

Resources

- Obstetric Hemorrhage Patient Safety Bundle Weblink:

  https://saferbirth.org/wp-content/uploads/safe-health-care-for-every-woman-Obstetric-Hemorrhage-Bundle.pdf

SCRIPT

Complete information about the obstetric hemorrhage in pregnancy patient safety bundle, including the 4 Rs can be found at: https://saferbirth.org/wp-content/uploads/safe-health-care-for-every-woman-Obstetric-Hemorrhage-Bundle.pdf.

Acknowledgments

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