



Case 1: Postpartum Hemorrhage Secondary to Uterine Atony

Learning Objectives

By the end of this scenario, each care team member should be able to successfully do the following:

- Recognize risk factors for postpartum hemorrhage.
- Identify postpartum hemorrhage due to uterine atony and be able to treat with appropriate medical management.
- Demonstrate teamwork and communication skills during a simulated postpartum hemorrhage.

Planned Completion Points

To successfully complete this scenario, the care team should successfully do the following:

- Recognize uterine atony as the etiology for postpartum hemorrhage.
- Perform uterine massage.
- Administer two different uterotonic medications.
- Call for blood (e.g. 2 units of PRBCs).

OR



- If 10 minutes has elapsed after recognition of hemorrhage and the team has not corrected the hemorrhage **or called for blood**.

Expected Duration

Approximately 60 minutes (30 minutes for simulation / 30 minutes for debriefing).

Case Scenario

▶ Patient: Marla Smith

Mrs. Marla Smith is a 38-year-old G3P2012 who was admitted in active labor at 39+3 weeks and had a spontaneous vaginal delivery 30 minutes ago. Her delivery was uncomplicated. She had a first-degree laceration that did not require repair. She is approximately 30 minutes postpartum and has just called out because she feels dizzy and has more bleeding.

▶ Patient Information

- She has no significant past medical history.
- She has no known drug allergies.
- Her pregnancy was uncomplicated except for an elevated 1-hour glucose screen with a normal 3-hour glucose tolerance test.

▶ Laboratory Data (On Admission):

- Hemoglobin: 12.2
- Hematocrit: 36.6
- WBC: 12,000
- Platelets: 218,000

▶ Delivery Information

- **Measurement of cumulative blood loss (as quantitative as possible)** from the delivery was 300cc.
- The placenta was inspected at the time of delivery and appeared to be intact per the delivery note.
- There was only a first-degree laceration that did not require repair.
- The infant weighed 4120 grams.
- The patient has an IV line in place with oxytocin running.

▶ Family Member/Patient Instructions

- **Standardized Patient:** If a person is playing the role of the patient during the scenario, she should emphasize that this is much more bleeding than the last delivery. As the bleeding continues the patient can also state that she is feeling faint and dizzy.
- **Family Member/Friend:** If someone plays the role of the patient's family member or friend, he or she may be the patient's partner, mom, other relative, or friend. This person should continue to ask questions during the scenario including things like, "Why is she bleeding so much?" or "She looks like she is kind of pale."

As the patient's vital signs continue to decline, this person should occasionally ask, "Is she going to die?" This person should be anxious with any mention of going to the OR and asks for clarification as



to why that is necessary. This person should continue to voice that the patient wants to have more children and should initially refuse to, but reluctantly, leave the patient's bedside when/if asked to.

▶ **Answers to Common Questions for this Scenario**

- The patient does not have a history of asthma or hypertension in this case.
- The patient does not have any known allergies to medications.
- If asked additional questions, try to redirect and not answer specifics so as not to introduce things that might complicate the scenario (i.e. don't say that she has a relative with an unknown bleeding disorder).



Case 1: Case Flow/Algorithm with Branch Point and Completion Criteria

Simulation facilitator will introduce the scenario to the team outside the room and then bring OB Nurse to the patient's room to review the patient scenario. The OB Nurse should then enter the room, assess the patient and then call for assistance.

VITALS	
Start	
BP: 130/80 HR: 105bpm EBL: 500cc	→
2 mins	
BP: 110/70 HR: 120bpm EBL: 750cc	→
2 mins	
BP: 90/65 HR: 125bpm EBL: 1000cc	→
2 mins	
BP: 80/60 HR: 140bpm EBL: 1500cc	→
2 mins	
BP: 110/75 HR: 105bpm EBL: 500cc	←
End	

OB Provider/team as called enters room and is briefed by OB Nurse.

The patient should be examined by the team and initial management of the hemorrhage started (fundal massage, examination for lacerations, retained products of conception, etc.)

When asked or the provider does the appropriate exams, inform the team of the following:

- No evidence of additional lacerations
- No evidence of retained products of conception
- The uterus continues to be boggy

Initial vital signs should also be available

The patient will continue to hemorrhage, and the uterus will remain atonic. Vital signs should change approximately every 2 minutes and get worse as bleeding continues (can use monitors or vital sign cards). **Team should be calling for blood.**

OB provider may order labs; however, no additional labs are available during the simulation. The team should progress with treatment based on deteriorating vital signs.

Providers should recognize hemorrhage and call for additional help and administer medications (may also use Intrauterine balloon tamponade or pack uterus).

Scenario ends when the team has done the following:

- Performed uterine massage
- Examined for lacerations
- Evaluated for retained products of conception
- Administered two medications to correct uterine atony (correct dose and route)
- Called for blood**

OR

The team fails to correct the hemorrhage within 10 minutes **or fails to call for blood.**

