Case Scenario for the Postpartum Hemorrhage Drill
Participant Version

Preventing Postpartum Hemorrhage: A Matter of Patient Safety
Wisconsin Association for Perinatal Care

Initial description of the patient
A 37-year-old black female P7007 at term admitted in early labor. Her prenatal course was significant for gestational diabetes controlled with diet. The patient’s past obstetrical history was significant for a progressive increase in the size of her children at birth, with her last child weighing 9# 3 oz. Her past medical history was significant only for a strong family history of diabetes mellitus.

On admission, the patient’s cervical exam was 4/C/VTX/-1/AROM with clear fluid. Her contractions decreased in intensity and frequency after AROM. A Pitocin® augmentation was begun and the patient quickly progressed to C/C/VTX/+1. She delivered a 10# 2 oz baby with a moderate shoulder dystocia that was treated effectively with the McRobert’s maneuver and suprapubic pressure after a left mediolateral episiotomy. The placenta delivered spontaneously without difficulty. [discussion]

Please read Scenario A.

Scenario A:

The patient had persistent bleeding during the episiotomy repair that responded to fundal massage and intravenous Pitocin® drip. The placenta was examined by the attending physician and was noted to be complete. An inspection was also made for cervical and vaginal lacerations. Neither was found. On initial postpartum evaluation by the nurse, the patient had heavy bleeding with clots and a boggy, flaccid uterus. [discussion]

Please continue reading:

The patient was given IM methylergonovine, but continued with a persistently atonic uterus. A type and screen was confirmed and the patient was given 0.25 mg 15-methyl prostaglandin F2α IM (carboprost). Her uterus began to firm and the bleeding decreased significantly. No further bleeding ensued and the patient was transferred to the postpartum unit without incident. [discussion]

Now we will proceed with the same patient, but with a different scenario. Please read through Scenario B.

Scenario B:

The patient had persistent bleeding during the episiotomy repair. The attending physician left after the episiotomy repair with instructions to the postpartum nurse to continue the IV oxytocin drip and to give methylergonovine if the bleeding persisted. No inspection of the cervix and vagina was performed prior to repair of the episiotomy. The placenta was not examined. The patient continued to bleed heavily despite the methylergonovine. The nurse called the attending physician, but there was no response. Despite aggressive fundal massage by the postpartum nurse, the bleeding persisted. The patient had an episode of hypotension and the attending physician was re-called. [discussion]
The attending physician responded and gave another order for methylergonovine. There was no response to this treatment and the patient had another episode of hypotension after passing a large clot. [discussion]

The attending physician was called again with report of the patient’s condition and returned to evaluate the patient. The patient was hypotensive, tachycardic, diaphoretic, and pale after passing another large clot. The physician ordered a dose of 15-methyl prostaglandin F$_2\alpha$ IM to be given and a type and cross for 4 units of packed red blood cells. The prostaglandin was not available on the obstetrical unit. The prostaglandin had not been re-ordered by the hospital pharmacy after its last use because of its expense and its infrequent use. The pharmacist, however, suggested the possibility of using misoprostol, which was available in the pharmacy. The patient was given 800 mcg of misoprostol PR and had a rapid decrease in her bleeding with a concomitant firming of her uterus. [discussion]

The patient had to have a specimen drawn for type and cross because no blood was available from the admission blood draw. Because of the patient’s unstable status, 2 units of uncross-matched O(-) blood were given. She received a total of six units of packed red cells and left the hospital without further incident. Six months postpartum, however, the patient was diagnosed with Hepatitis C, which was traced back to her postpartum transfusion. [discussion]

Now we will proceed with the same patient and a third scenario. Please read Scenario C. Scenario C:

The patient had persistent bleeding after repair of her episiotomy. An immediate re-inspection of her cervix and vagina by her attending physician revealed no occult lacerations. She was treated with continued IV Pitocin® and given multiple doses of 15-methyl prostaglandin F$_2\alpha$ as well as a course of rectal misoprostol without response. A type and cross was ordered after the initial failed response to prostaglandin. The patient was taken to surgery after counseling regarding the possible need for hysterectomy. An exploratory laparotomy was performed. The uterus was persistently atonic. There was no evidence of occult lacerations or other cause for the bleeding. Hemostatic B-Lynch sutures were placed to stop the bleeding. The bleeding decreased markedly with this procedure and the patient’s abdomen was closed. She received a total of 8 units of packed red blood cells during and after the surgery. She left the hospital without further incident. [discussion]