



# Anaphylactic Reaction to Blood Administration

## Simulated Clinical Experience (SCE™) Overview

**Location:** Medical-Surgical Unit

### History/Information:

A recently divorced, 46-year-old female was admitted to the hospital yesterday morning for a total abdominal hysterectomy with bilateral salpingo-oophorectomy due to multiple large uterine fibroids. Over the past two years she had increasing pain that was not relieved with medication, excessively large menstrual flow, and long standing anemia refractory to standard treatment. Despite earlier recommendations from her healthcare provider to seek surgical intervention, she elected to wait due to multiple personal issues including her recent divorce and having two teenage children at home. During this time of postponing the surgery, she required two outpatient blood transfusions due to the severe anemia. Her significant preoperative lab values included a hemoglobin of 8.4 and a hematocrit of 32%. The morning of admission her vital signs were a heart rate of 78, blood pressure of 110/70, respiratory rate of 16, and a temperature of 37°C. Her blood type is A negative. Intraoperatively her estimated blood loss was 450mL. Her postoperative period has been uneventful and you are the nurse assigned to her care the following morning. The night nurse reports that the patient slept for the early part of the shift, but has been awake complaining of discomfort since 0430 hours. Her last vital signs, taken at that time, were a heart rate of 88, blood pressure of 102/60, respiratory rate of 18, and a temperature of 37.4°C.

### Healthcare Provider's Orders:

NPO until passing flatus then begin clear liquid diet and advance as tolerated

Vital signs every 4 hours

Out of bed to chair evening of surgery and then ambulate 3 times per day

Urinary catheter to bedside drainage; Discontinue morning of postoperative day one

Intake and Output every shift

IV of D5LR with KCl 20mEq per liter at 125mL/hour

AM labs: Hemoglobin and Hematocrit, Electrolytes, BUN, Creatinine, Glucose

Oxygen to maintain SpO<sub>2</sub> greater than 92%

Sequential compression devices (SCD) on while in bed

Incentive spirometer every hour while awake

Morphine PCA: 2mg every 2-10 minutes with 4 hour lockout of 40mg or IVP Morphine 2-4mg every 2 hours prn pain

Promethazine 25mg IVP every 6 hours prn nausea

Ketorolac 30mg IVP every 6 hours for 3 days

Ferrous Sulphate 325mg PO twice a day with meals; Begin when oral intake resumes

Docusate Sodium 100mg PO daily

Milk of Magnesia 30mL PO daily prn constipation

## Learning Objectives

1. Formulates a nursing plan of care for a patient receiving blood or blood products (ANALYSIS).
2. Differentiates between, discusses the implications for, and describes differences in the nursing management for various types of blood and blood products (COMPREHENSION).
3. Prioritizes the implementation and approach to the nursing management of a patient receiving blood or blood products (ANALYSIS).
4. Evaluates the patient's response to interventions and modifies the nursing care as appropriate for the patient experiencing an adverse reaction to blood administration (EVALUATION).

## Questions to Prepare for the Simulated Clinical Experience

1. Discuss the nursing management of the postoperative patient who has undergone a total abdominal hysterectomy with bilateral salpingo-oophorectomy.
2. Identify the potential complications nursing care is designed to prevent after this surgery. Include a discussion of the nursing and collaborative approach to their treatment should they occur.
3. Identify the indications for use for each of the following blood products and any special nursing considerations: Packed RBC, Whole Blood, Platelets, WBC, Fresh Frozen Plasma (FFP), Albumin, and Platelets.
4. Discuss the standard of nursing care when transfusing any blood product.
5. What assessment data does the nurse need to collect to identify an adverse reaction when transfusing any blood product?
6. What are the various types of blood reactions, their accompanying symptomology, potential short and long term complications, and treatment?
7. Describe the pathophysiology of anaphylaxis.
8. What is the protocol for the treatment of anaphylaxis?

## References

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