



SIMULATION SCENARIO #3

Febrile Transfusion Reaction: "I'm Burning Up!"

Simulation Device: Thermometer

Skills Progression Line



Simulation Level: Beginner

Source: Benner, P. E. (1995). *De novice à expert : excellence en soins infirmiers*. InterEditions.

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THE THERMO



- Inspired by the Welch Allyn Suretemp Plus 690.
- Allows you to simulate a temperature measurement.
- Compatible with low, medium, high-fidelity manikins or with a simulated/standardized patient.
- The oral and rectal probes are compatible with Welch Allyn probe covers.
- Comes with USB-C cable, an oral probe and a wall charger. A rectal probe can be included if mentioned when an order is placed.
- Powered by a rechargeable Lithium-ion battery (4-hour autonomy).
- Works in °C and °F (must be mentioned when ordering).

THIS DEVICE IS



User-friendly



Remote-controlled via instant Bluetooth connection



Durable



Designed, manufactured and assembled in Canada



Environment-friendly
(1 device bought = 1 tree planted)



Controlled via Innov2Learn's free, easy-to-use app for all devices

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NURSING SKILLS

This simulation develops the nursing student's practical skills for dealing with an outpatient exhibiting signs of a transfusion reaction.

AUTHORS

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OVERVIEW OF THE CLINICAL SITUATION

Madeleine St-Pierre, 71, suffers from chronic anemia. She is doing well and is able to go about her day with the help of a support treatment that was started a year ago as a response to an increase in her shortness of breath. She receives a blood transfusion once a month at a day clinic.

First, the nursing student will receive a report from their colleague at the day clinic and will need to monitor Ms. St-Pierre's transfusion that started two hours ago.

Second, the nursing student will need to identify the abnormal symptoms of a febrile transfusion reaction (fever, chills, headache, flushed face, mild tachycardia), follow the current protocol for transfusion reactions, inform the doctor by phone, provide appropriate monitoring, and determine if the transfusion can be completed in the patient's current state.

LEARNING GOALS

COGNITIVE LEVEL: Use the data collected to anticipate possible complications of blood transfusion.

EMOTIONAL LEVEL: Communicate efficiently and professionally in a manner that fits the context when:

- Submitting a report
- Calling the doctor
- Informing the patient of the undesirable event

PROCEDURAL LEVEL: Implement a monitoring approach that is appropriate to the care situation.

Follow the current protocol for this type of care situation.

TEACHING MATERIAL

- Hi-fi simulator
- Innov2learn Thermometer Simulator (result: oral temperature of 38.4°C)
- Sphygmomanometer, stethoscope, oximeter (parameters: BP 148/86, pulse 118, sat.99%)
- Transfusion reaction protocol or doctor's order
- Actor to play the part of the Day Nurse to hand the student the report

PRE-REQUISITE KNOWLEDGE/SKILLS

- Physical assessment of an adult
- Differentiating the types of transfusion reactions
- Structured interprofessional communication
- Taking vital signs/interpreting the data
- Using a thermometer/interpreting temperature readings

SIMULATION TIMETABLE

EXPECTED INTERVENTIONS

- Receive the report
- Identify the signs and symptoms of a febrile transfusion reaction
- Implement the current transfusion reaction protocol
- Inform patient of the undesirable event
- Fill the patient's chart

Briefing (suggested duration: 30 minutes)

1. Introduce the clinical situation, the skills to be developed and the learning goals.
2. Provide guidance and support to students about proper monitoring of blood transfusions: double-checking, anticipating possible side effects/ complications.
3. Assist students with the principles of structured interprofessional communication.
4. Reinforce double-checking high-alert medication protocol.
5. Expected Course of Action: send a report, assess the patient's clinical condition, use data collected to intervene.

Caregiving Situation

(suggested duration: 15 minutes)

Expected Assessments

- Targeted clinical assessment including:
 - Physical state: PQRSTU assessment of symptoms of a transfusion reaction
 - Monitor vitals (pulse, BP, temperature, oxygen levels)
 - Complete a 2-nurse double check of packed red blood cells as per double-check guidelines for high-alert medications

Debriefing (suggested duration: 30 minutes)

- Roundtable discussion of emotions (as needed).
- Cognitive level:
 - Priority assessment in the event of an emergency;
 - Differentiating the types of transfusion reactions.
- Emotional Level:
 - Structured interprofessional communication principles;
 - Informing the patient of an undesirable event.
- Procedural Level:
 - Implementing the transfusion reaction protocol.
- Significant and durable competencies learned to be implemented in professional practice.

CLINICAL TOOL: ASSESSING PAIN WITH PQRSTU

(TO USE AND ADAPT TO THE SYMPTOMS DISPLAYED DURING THIS SIMULATION)

- P: What caused your pain? What relieves it? What makes it worse? (movements, drugs, applying hot/cold therapy, etc.)
- Q: Describe your pain. What do you feel? (Throbbing, burning, numbing, electric shocks, deep, superficial)
- R: Where do you feel pain? Point to the painful area(s) with your finger.
- S: Do you feel discomfort elsewhere?
- T: When did the pain start? Is it intermittent or constant? If it is intermittent, when does it occur?
- U: What do you think is causing the pain? What does it mean to you?

SOURCES

Reference List:

- Jarvis, A., Chapados, C. et Lavertu, E. (2020). L'examen clinique et l'évaluation de la santé. Chenelière Education, pages 256-257.
- Lewis, S. et al (2016). Soins infirmiers médecine et chirurgie, 2ème édition. Chenelière éducation, p. 521.