Firelands Regional Medical Center School of Nursing

Faculty Manual

SIMULATION MEDICATION ERRORS REFLECTION QUESTIONS

Directions: Provide in-depth, thorough answers to each of the following questions by October 31st, 2025 at 0800. Answers should be added directly into this document and must total at least 400 words. Please submit to your personal Edvance360 Dropbox along with the completed Variance Report. Include all medication errors on one Variance Report.

1. Explain errors in the process that could have contributed to this incident.

Our simulation team did not figure out weight-based maintenance fluids at the bedside before continuing the IV infusion of D5 ½ NS. We checked the IV pump to make sure it matched the orders per the Health Care Provider but did not verify if it was correctly calculated. The order was for 80mL/hr, which was currently running as we were doing our simulation. Based on the child's weight (15kg) and height (39inces), the maintenance rate should have been 52mL/hr.

2. What are the potential complications that could have occurred to this patient related to the medication error(s)?

Potential complications that could have occurred are fluid overload. This would present with symptoms such as tachypnea, crackles, edema, and hypertension. Another potential complication could be hyponatremia. This would present with symptoms such as headache, irritability, nausea/vomiting, or seizures. Another potential complication could be hyperglycemia from excess glucose being infused through the IV.

3. What follow-up care would you provide to the patient related to the medication error(s)?

Immediately I would stop the incorrect IV flow rate and program the pump to the correct flow rate. I would make sure the IV line is clean and patent to prevent other complications. I would perform a focused assessment by doing a full set of vital signs, respiratory exam for crackles or work of breathing, a cardiovascular exam for capillary refill and perfusion, weight comparison, and neuro status for level of consciousness. I would make sure there are strict I&Os and assess every 1-2 hours. I would obtain provider ordered labs such as BMP, CBC, serum glucose, and possibly a urinalysis for specific gravity if hyponatremia is suspected. If the child had signs of fluid overload, I would anticipate the IV fluid rate to be reduced or put on a temporary hold, and a possible diuretic ordered by the provider. I would document a variance report, notify the charge nurse and health care provider immediately, and communicate with the caregiver per policy, making sure they know the correct steps have been taken.

4. How would you prevent this type of event from occurring in the future?

To prevent this event from occurring in the future I will do a bedside calculation every time and use pediatric maintenance fluid math and compare it to the ordered rate. I will write the target amount on the MAR and communicate it in handoff report. Another way is to have another nurse double check for all of the medication infusions by verifying the fluid rate based on the child's height and weight. I will educate myself by practicing looking for medication errors in the future. I will also encourage my partners to speak up and pause the infusion if the rate looks unexpected based on the child's height and weight.

5. Write an SBAR to the healthcare provider regarding this incident.

Situation: I am calling about the 3-year-old receiving D5 ½ NS. We discovered the primary infusion running at 80mL/hr per order and the correct rate should be 52mL/hr. We have corrected the pump to run at 52mL/hr.

Background: Infusion was initiated prior to our verification. Our team missed the weight-based check during the simulation. The fluid type matches the order, but the rate was the error.

Assessment: Current vital signs are Sp02: 88%, blood pressure 89/48, heart rate 149, respirations 39, temperature 100.9, with no edema. No acute neurologic compromise. Stridor heard on auscultation.

Recommendation: Continue correct IV flow rate of 52mL/hr. Order BMP and serum glucose now. Maintain strict I&Os, neuro and cardiopulmonary checks q2h. Variance report has been filled out, and the family will be updated per policy.