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Quality Improvement Activity: Bedside Shift Report

A 30-year-old female that is 38 weeks pregnant with a history of preeclampsia was admitted to the hospital last night for blurred vision, proteinuria, and hyperreflexia with ankle clonus. The night nurse started a magnesium drip per physician's orders. Eleven hours later the patient started to exhibit weak deep tendon reflexes, decreased urine output to 30mL per hour, and a respiratory rate of 10 breaths per minute. The night nurse recognized the patient was experiencing magnesium toxicity. She stopped the magnesium infusion, prepared calcium gluconate 10%, and notified the physician. She was battling fatigue from a long shift, and she was also late to report. She quickly hung the calcium infusion, but instead of starting the calcium gluconate she restarted the magnesium infusion. The patient had finally fallen asleep after a long night, so the nurses decided to give the patient's report in the hallway. The night nurse stated, "The patient came in with signs of severe preeclampsia and the physician initiated the magnesium sulfate protocol to prevent eclampsia. The patient developed magnesium toxicity, so I stopped the infusion and started calcium gluconate 10%." The day nurse continued to receive report and check on her other patients. Then she went to perform her morning assessment of this patient. The patient's magnesium level increased, and she presented absent deep tendon reflexes, urine output of 20mL per hour, and a respiratory rate of 8 breaths per minute.

Describe the scenario. In what way did the patient care or environment lack? Is this a common occurrence?

In this scenario, a pregnant female reported to the hospital for experiencing blurred vision. She had a history of preeclampsia that progressed to severe preeclampsia. The night nurse initiated the magnesium sulfate protocol and successfully recognized when the patient was experiencing magnesium toxicity. The night nurse handled the situation appropriately by stopping the

infusion. The patient care error occurred when the night nurse hung the calcium gluconate, but she started the wrong infusion. Instead of starting calcium gluconate, she restarted the magnesium infusion. This caused the patient's symptoms to progress as the serum magnesium levels continued to rise. The patient's care was lacking when the nurses performed bedside shift report outside of the patient's room. The day nurse was unable to validate the correct infusion, so the patient received even more magnesium. Unfortunately, bedside report doesn't always occur in the patient's room. It is very common for nurses to do report in the hallway, so they don't disturb any sleeping patients. However, it is important that we provide and receive an accurate report, even if it awakes the patient.

What circumstances led to the occurrence?

The circumstances that led to this occurrence was the night nurse starting the wrong infusion and bedside shift report was not given in the patient's room. The night nurse told the day nurse that the calcium gluconate was infusing, while the magnesium sulfate was actually being administered. This error could have been corrected during the shift report, but instead this caused the patient to experience severe magnesium toxicity.

In what way could you measure the frequency of the occurrence? (interviewing nurses, examining charts, patient surveys, observations, etc.)

The frequency of occurrence could be measured through medication incident reports and frequent observation of where nurses give the change of shift report. There is a break in communication when the nurses choose to give report in the hallway. It does not allow the nurses to confirm that the correct care or treatment is being implemented. It also does not allow the patient to be a part of the report and discuss their care or dispute misinformation.

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What ideas do you have for implementing interventions to address the problem?

A new nursing protocol would need to be implemented to successfully solve the issue of giving handoff report outside of the patient's room. This protocol would include:

- Requiring both nurses to be present at the patient's bedside when giving and receiving report.
- Implementing a bedside report checklist, which will consist of:
    - Both nurses will assess all infusing IV medications (label, volume, and rate)
    - Both nurses will assess any oxygen devices (flow rate, placement, etc.)
    - Both nurses will assess the environment for any additional hazards
    - Both nurses will need to sign and fill out this document
    - The leaving nurse must also update any recent medications and time received on the patient's dry erase board to provide clear communication with the patient and the oncoming nurse.

How will you measure the efficacy of the interventions?

All nurses will be required to turn in a signed bedside report checklist to the charge nurse at the beginning and the end of each shift. This extra task will help with clarifying communication errors amongst healthcare workers, and it will increase patient safety. Measuring the efficacy of the interventions can be done by reviewing the number of incident reports during the time of shift change.