RISK CASE STUDY

Case: Patient Deterioration – Intensive Care Unit

Abstract:

An Intensive Care Unit (ICU) patient with a history of diabetes sustained an insulin overdose induced coma. Non-compliance with orders and team communication practices were cited as key contributing factors by peer experts.

Key Words:

Emergency Department

Intensive Care Unit

Acute Care

Patient Deterioration

Critical Test Results/Laboratory Testing

Documentation

Triage Assessment

Interprofessional Communication

Case summary:

A patient with a history of diabetes and recurrent hypoglycemic seizures presented to the Emergency Department (ED) at a community hospital. While in the ED, the patient began to seize and was subsequently admitted to the ICU, with a noted deteriorating level of consciousness. Following the patient's admission to the ICU, blood sugars were obtained which indicated hypoglycemia. Relying on the results of the reading which indicated hypoglycemia, the attending physician proceeded to order the initiation of intensive insulin therapy. As a result of the treatment received, the patient went into an insulin overdose induced coma.

Medical legal findings:

Expert review of the case was critical of the care provided to the patient, noting there were significant issues with regard to the involved nurses' failure to follow the organization's Intensive Insulin Protocol and medical directives. Review of the patient's chart revealed that during the course of the patient's stay within the ICU, the patient's blood glucose was initially managed with sliding scale subcutaneous insulin. Following a bedside blood glucose test, which indicated that the patient's capillary blood glucose was "low", a glucose sample was sent to the hospital's lab for verification. The results of the laboratory testing were inconsistent, with documentation within the patient's chart indicating that the attending physician was notified of the discrepancy. While the details of the conversation between the involved nurses' and the attending physician were not documented, the communication resulted in the subsequent initiation of intensive insulin therapy.

Following the initiation of the protocol, the documentation within the patient's chart indicated that the involved nurses intended to measure the patient's blood glucose levels at standardized intervals. However, the involved nurses failed to do so, resulting in a 2 hour delay, at which time testing indicated a low blood glucose reading. The involved nurses were permitted to accumulate their breaks and taking them all at once resulting in patients' assigned nurses being away for 1 to 2 hours. The involved nurses then proceeded to delay treatment until the results of confirmatory laboratory testing were received and did not contact the attending physician of the concerning results.

After the initiation of treatment, the nurses failed to check the patient's blood sugar at the mandated 10, 20 and 30-minutes post-administration time intervals. When the patient's blood sugar was checked two hours later, results again indicated low blood glucose. Treatment was immediately initiated. Expert review suggested that the patient sustained a prolonged period of hypoglycemia that lasted a minimum of 7.5 hours and was untreated for at least 4.5 hours, contributing to the patient's further neurological deterioration.

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Reflections:

Reflecting on your practice as well as your facility's policies, procedures and processes:

1. Several team communication breakdowns are evident in this case. Describe the role effective and timely team communication play in patient safety. Reflecting on your local policy/practices, what and when should have the nurses communicated to the patient's MRP (Most Responsible Physician)?
2. Discuss whether all patient/resident/client assessments, including vitals signs, need to be documented. Would your answer change if you charted by exception? Describe the formal processes/contingency plan in place to address unexpected increases in patient volumes and acuity levels potentially impacting the frequency and quality of patient monitoring?
3. Reflecting on your organization's critical test policy/protocol, who is accountable for notifying the most responsible or ordering physician/practitioner of the test results? Does this policy clarify who is accountable for interpreting and communicating the results to the patient for tests ordered pursuant to a medical directive?
4. In this case the involved nurses failed to follow the organization's Intensive Insulin Protocol and related medical directives. Discuss whether regulated health professionals are accountable to be familiar with and follow all applicable clinical policies and guidelines. Would your answer differ for staff granted privileges versus staff working in the employee model? Describe under what circumstances deviance from facility policy would be acceptable, and what should take place to protect the patient and the practitioner?
5. Reflecting on your organization/program's expectations, are nurses covering for breaks expected to perform and document the necessary assessments and vital signs?
6. Describe the purpose of medical directives. How do they differ from clinical practice guidelines, policies and 'standing orders'? Are standing orders permitted in your facility? Discuss the obligations of the practitioner who implements the medical directive. Are medical directives 'discretionary' if the patient meets the criteria for the directive? What should take place if a medical directive is not implemented where indicated?

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