RISK
CASE STUDY

Case: Patient Deterioration - Neurology

Abstract:

Inadequate monitoring and communication of a neurosurgical patient's deterioration resulted in permanent neurological harm. The nursing care was considered indefensible by medical-legal experts.

Key Words:

Acute Care

Post-Operative Care

Neurology

Diagnostic Imaging

Patient Deterioration

Documentation

Monitoring

Hierarchy and Culture

Interprofessional Communication

Case summary:

Following a neurosurgical procedure, a patient was admitted to the neuro-critical care unit at a tertiary care facility for post-operative care. Post-operative orders for the patient included vital and neurological signs to be monitored and documented every hour and systolic blood pressure (SBP) maintained within the range of 140-180.

Two hours after the patient's admission to the unit, the patient's SBP was noted to be 192. The involved healthcare providers documented that the patient was exhibiting severe left arm weakness, as well as mild left leg weakness. One hour later, the patient's SBP had risen to 199.

As the shift progressed, the patient's SBP rose to 202 and the attending surgeon subsequently wrote further orders to maintain the patient's SBP between 140-160. The surgeon also ordered the patient be given an antihypertensive medication.

On the patient's second day post-op, the patient's SBP progressively dropped from 180 to 114 and continued to fluctuate below the ordered parameters throughout the day. On the patient's third day post-op, the patient was noted to exhibit severe left ankle weakness in addition to continuing left arm weakness. On the patient's fourth day post-op, the patient's SBP began to rise, with the patient now exhibiting no neurological response in their left arm or leg.

Following an assessment by the attending physician during morning rounds, the patient was sent for an urgent CAT scan (CT). The CT imaging was subsequently interpreted as being highly suggestive of a hemodynamic infarction, resulting from a prolonged period of hypotension.

Medical legal findings:

Expert review of the case was critical of the nursing care provided to the patient, noting the involved nurses had consistently failed to act in accordance with the orders of the involved physicians. The patient's health record revealed throughout the patient's admission to the unit, the patient's vital and neurological signs had been monitored every two hours, in direct violation of the physician orders. The experts were critical of the nurses' failure to advise the involved physicians of changes to the patient's neurological status and extremity weakness until morning rounds, resulting in delays in treatment that served to further exacerbate the injuries sustained by the patient. The nurses' patient monitoring and communication practices were considered indefensible.

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Reflections:

Reflecting on your practices as well as your unit's patient monitoring and communication policies, procedures and processes:

1. Discuss whether a 'busy night' is an acceptable explanation for not performing vitals and neurological assessments. If not acceptable, describe what should have taken place. Describe the formal processes in place at your facility to assist staff with a sudden/unexpected surge in patient acuity and volumes. Are all staff (including agency/contracted care providers) aware of these supports?
2. This case identified several instances of non-compliance with and violation of hospital policies, procedures and physician orders. Peer experts suggested that nurses on the unit rarely read the physician orders related to vital signs as they felt the accepted normal practice was every two hours. Discuss the concept of 'normalization of deviance' as it applies to healthcare delivery and this situation.
3. Discuss what steps should take place if a healthcare provider elects to deviate from hospital policies and procedures and/or physician orders. Under what circumstances is deviation from hospital policy acceptable?
4. The attending physicians relied on the nurses to communicate signs of neurological deterioration in a timely and effective manner. While not evident in this case, interprofessional and hierarchical/culture issues can negatively impede a team's communication practices including the communication of critical findings. Discuss why a practitioner may hesitate to speak up when clinically indicated. Describe how hierarchy and a unit's culture impact effective team communication. Reflecting on your local practice/processes, what supports are in place to support and encourage healthcare providers to speak up?

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