Human Factors Analysis in Patient Safety Systems

A health care system submitted a root cause analysis (RCA) to The Joint Commission for a sentinel event that involved a patient whose blood levels were not drawn frequently enough to monitor the thinness of her blood while receiving a continuous heparin infusion. The patient had been started on a heparin infusion on an orthopedic unit and then was later transferred to a cardiac unit. The order set for the heparin infusion was not entered properly, leaving out the automatic order for blood tests every 6 hours. During the handoff report, the nurses did not discuss when the next blood test would occur to monitor the heparin infusion. For 24 hours, the patient went without blood tests until an oncoming nurse questioned the situation during the handoff report. At this time, the off-going nurse also reported that the patient had been complaining of a headache for several hours. A computerized tomography (CT) scan showed intracerebral hemorrhage. When the patient's mental status deteriorated, the family chose not to proceed with surgery due to the patient's

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Human factors engineering designs processes to support human strengths and mitigate human weaknesses.

multiple comorbidities and recent decrease in quality of life. She expired three days later. Although the organization had conducted a thorough RCA, The Joint Commission asked it to revise the RCA and consider human factors issues that led to the event and implement more strategies that incorporate human factors solutions, which would more reliably prevent the event from occurring again.

"We cannot change the human condition, but we can change the conditions under which humans work."

— James Reason*

Addressing Active vs. Latent Failures

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Strategies for Addressing Human Factors in a Process or System