Scenario A involved an error of commission (inpatient drug error) and scenario B involved detecting an error that already occurred (drug infusion error)” Lobos et al (2019).

Abstract:

INTRODUCTION: An adverse event (AE) is a negative consequence of health care that results in unintended injury or illness. The study investigates whether simulation-based event analysis is different from traditional event analysis in uncovering root causes and generating recommendations when analyzing AEs in hospitalized children.

METHODS: Two simulation scenarios were created based on real-life AEs identified through the hospital’s Safety Reporting System. Scenario A involved an error of commission (inpatient drug error) and scenario B involved detecting an error that already occurred (drug infusion error). Each scenario was repeated 5 times with different, voluntary clinicians. Content analysis, using deductive and inductive approaches to coding, was used to analyze debriefing data. Causes and recommendations were compiled and compared with the traditional event analysis.

RESULTS: Errors were reproduced in 60% (3/5) of scenario A. In scenario B, participants identified the error in 100% (5/5) of simulations (average time to error detection = 15 minutes). Debriefings identified reasons for errors including product labeling, memory aid interpretation, and lack of standard work for patient handover. To prevent error, participants
suggested improved drug labeling, specialized drug kits, alert signs, and handoff checklists. Compared with traditional event analysis, simulation-based event analysis revealed unique causes for error and new recommendations.

CONCLUSIONS: Using simulation to analyze AEs increased unique error discovery and generated new recommendations. This method is different from traditional event analysis because of the immediate clinician debriefings in the clinical environment. Hospitals should consider simulation-based event analysis as an important addition to the traditional process.

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