Objective: Improve patient safety and flow by teaching residents via lesser known EHR tools to recognize status changes in admitted patients, efficiently mine the chart, and complete tasks faster.

Description: We created simulated patients in an EHR training environment with admission data. These patients have sparse notes describing hyperbilirubinemia, but data obtained via advanced methods shows the patient’s presentation is concerning for sepsis. Participants review the chart and create a written handoff with the patient’s problems and their plan. Each participant then gives verbal handoff to a moderator posing as the oncoming resident. The moderators then demo tools to find key data indicating risks to patient safety and review best practices in the admission workflow.

Lessons Learned: The sessions focused on a neonate with hyperbilirubinemia. Of 17 pediatric interns, 8 (47%) identified vital sign abnormalities concerning for sepsis. 3 (18%) identified that the patient’s risk factors placed their bilirubin in the exchange transfusion range.

Interns felt the experience was beneficial (median 97 on 0-100 scale, range 76-100). Intern comments stressed that sessions should be started earlier in the year and that the debriefing should also review relevant order sets. Moderator comments suggested that early in the year, the assigned task should focus more on the verbal assessment and plan versus a clean written handoff.

Cost: The creation of the case required ~25 hours of work from senior pediatrics residents and ~8 hours from Information Services personnel. Administration of the curriculum requires at least 2 moderators available for 90 minutes and 8 computers with EHR access.

Barriers to Implementation: This curriculum requires a “training” build environment to create simulated patients as well as a realistic, refreshable “training sandbox” EHR environment capable of making copies of the same patient data. Each case must be built one encounter at a time due to constraints in the build environment.

Key Information

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Number of interns (total = 17) who detected the safety issue

- Hypoglycemia
- Hypothermia
- Tachycardia
- Absence of BP
- Bili exchange threshold

More efficient technique
Less efficient technique only