Clinical Decision Support Tool for Parental Tobacco Treatment in Hospitalized Children

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OBJECTIVES: To create and evaluate the feasibility, acceptability, and usability of a clinical decision support (CDS) tool within the electronic health record (EHR) to help pediatricians provide smoking cessation counseling and treatment to parents of hospitalized children exposed to secondhand smoke (SHS).

METHODS: Mixed method study of first-year pediatric residents on one inpatient unit. Residents received training in smoking cessation counseling, nicotine replacement therapy (NRT) prescribing, and use of a CDS tool to aid in this process. The tool, which alerted when a patient was identified as exposed to SHS based on the history taken on admission or during a prior encounter, had the following capabilities: adding SHS exposure to the patient's problem list; referral to Free Quitline through discharge instructions; and linking to a printable NRT prescription form. We measured feasibility by EHR utilization data. We measured acceptability and usability of the tool by administering questionnaires to residents.

RESULTS: From June-August 2015, the alert triggered for 106 patients, and the tool was used for 52 (49%) patients. 41 (39%) patients had SHS exposure added to the problem list, 34 (32%) parents were referred to the Quitline through discharge instructions, and 15 (14%) parents were prescribed NRT. 10 out of 15 (67%) eligible pediatricians used the tool. All clinicians surveyed (9 out of 10) found the tool acceptable and rated its usability good to excellent (average System Usability Scale score was 85 out of 100, 95% CI, 76–93).

CONCLUSIONS: A non-interruptive CDS tool to help residents provide smoking cessation counseling in the hospital was feasible, acceptable, and usable. Future work will investigate impacts on patient outcomes.

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