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Title

COaching for Asthma to AChieve Better Health Outcomes with Coach McLungsSM Through Primary Care Implementation

Priority 1 (Research Category)

Healthcare informatics

Presenters

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Abstract

Context: Asthma is a prevalent chronic disease that is difficult to manage and associated with marked disparities in outcomes. Among the most visible disparities is the higher rate of visits to the Emergency Department (ED) for uncontrolled asthma involving the most at-risk patients. One promising approach to addressing disparities is Shared Decision Making (SDM), a process by which the patient and provider jointly make a healthcare choice. SDM is associated with improved outcomes for patients; however, time constraints and availability of staff are noted implementation barriers. The use of health IT solutions may increase the adoption of SDM.

Coach McLungsSM is an interactive web-based application that engages pediatric patients and their caregivers in a personally tailored experience and collects patient-reported data. The background logic then incorporates the complex asthma guidelines to determine the level of severity or control and pulls forward tailored guideline-based treatment recommendations for both the patient and provider in two respective summaries, which provides decision support for both audiences in developing a shared decision around the treatment plan.

Objective: The goal of this study is to evaluate the implementation of the Coach McLungsSM intervention into primary care.

Study Design and Analysis: Stepped wedge randomized control study design with a baseline control period and 5 intervention steps over 3 years.

Setting: 21 pediatric and family medicine practices within a large, integrated, nonprofit healthcare system based in Charlotte, NC.

Population Studied: Patients between 7-17 years old with an asthma diagnosis.

Intervention: Implementation will be guided using the Expert Recommendations for Implementing Change (ERIC), a compilation of implementation strategies, and evaluated using CFIR (the Consolidated Framework for Implementation Research) and RE-AIM (Reach Effectiveness, Adoption, Implementation, Maintenance).

Outcome Measures: We will measure changes in emergency department visits, hospitalizations, and oral steroid use, which serve as surrogate measures for patient-centered asthma outcomes.

Conclusions: We anticipate that the tailored implementation of Coach McLungsSM across primary care practices will lead to a decrease in emergency department visits, hospitalizations, and oral steroid use for patients in the intervention group as compared to the control arm.