

Abstract

Partners eCare Research Core for Clinical Research: Pilot to Build and Test Silent Best Practice Alert Notifications for Recruiting Inpatient Study Participants

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Abstract

Background: Participant recruitment remains one of the greatest challenges for many research groups. For an observational prospective study of objective and subjective measures in outpatients with chronic obstructive pulmonary disease (COPD) to assess clinical deterioration (Emerald-COPD) at Partners Connected Health, recruiting COPD patients from the inpatient setting was inefficient and low-yielding. To screen for eligible participants, Research Coordinators spent over two hours per day manually searching through the EPIC Reporting Workbench from three hospitals and reviewing admission notes to determine whether patients met eligibility criteria.

Objective: This pilot project, conducted in collaboration with Partners eCare Research Core (PeRC), examines a new EPIC functionality built to support inpatient recruitment for clinical trials. The silent Best Practice Alert (BPA) system identifies potentially eligible participants in real time to help research teams maximize recruitment accuracy and efficiency of resources.

Methods: This out-of-the-box solution alerts study staff of the inpatient admission of potential participants through EPIC In-Basket messages. The silent BPA notifications detect an event of interest, in this case hospital admissions, using criteria pre-selected by Emerald-COPD research staff. Criteria included: patient class, admit diagnosis, prescribed medications, and presence of COPD on the EPIC problem list; these were used to flag potential participants at multiple Partners hospitals. We hypothesized that this tool would reduce the daily screening time, the number of missed potential participants as well as the time needed to recruit the targeted number of patients.

Results: To date, there have been 171 potentially eligible patients identified through BPA notifications. Of those, we have enrolled 26 participants into the Emerald-COPD study. Since implementation, there have been an average of 3 additional patients each week that were missed during our previous method of screening. In addition to expanding the pool potential participants, this tool has decreased screening time for Research Coordinators. The silent BPA screening method has proven to be 4 times faster than our previous screening method, projected to save 442.5 hours over the duration of the study.

Conclusions: Automation of the recruitment process has allowed us to identify potential participants in real time and avoid missing patients. This has made a substantial impact in raising our enrollment numbers. Silent BPA screening is a considerably faster method which allows for Research Coordinators to devote more time to other important aspects of research such as retention of enrolled participants. When time is allocated effectively, the study can run smoothly and be more cost effective. The outcomes have all been favorable, notably our experience working with the PeRC team. From the build process to implementation, the team

was responsive and engaged. This was essential to the speed of production and our encouraging progress. This innovative and instrumental functionality can be specified to the needs of other clinical research groups hoping to utilize EPIC for participant recruitment.

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electronic health record; innovation; participant recruitment

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