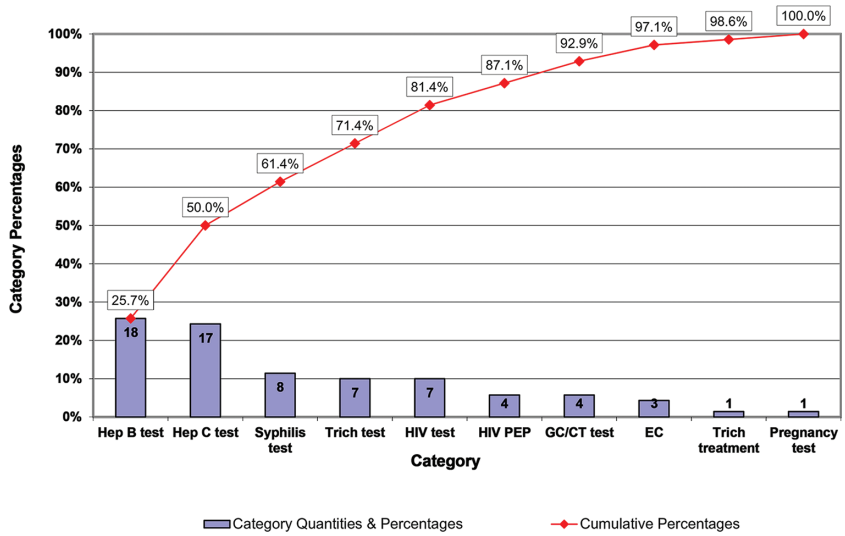

Abstract 985 Figure 3 Causes of non-adherence to guidline for evaluation and management of alleged sexual abuse by category Jan 2017 – June 2017, n=23

encounters in which care adhered to guideline recommendations. Data were abstracted from the records of all patient encounters evaluated in the PED for reported sexual abuse.

Results We analysed 567 patient encounters for reported sexual abuse over 24 months. A statistical process control chart depicting the proportion of encounters with guideline-adherent care (Figure 2) illustrates special cause variation and a shift in the centerline from 57% to 87% which has been sustained for 7 months. We categorised reasons for non-adherence on a Pareto chart (Figure 3).

Conclusions Using improvement methodology, we successfully increased guideline-adherent evaluation and management of patients presenting for sexual abuse. Targeted education and an electronic order set were associated with improved adherence to a novel care guideline.

998 REDUCING UNNECESSARY IV STARTS IN CHILDREN WITH DIABETES PRESENTING TO THE EMERGENCY DEPARTMENT

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10.1136/bmjoq-2017-IHI.20

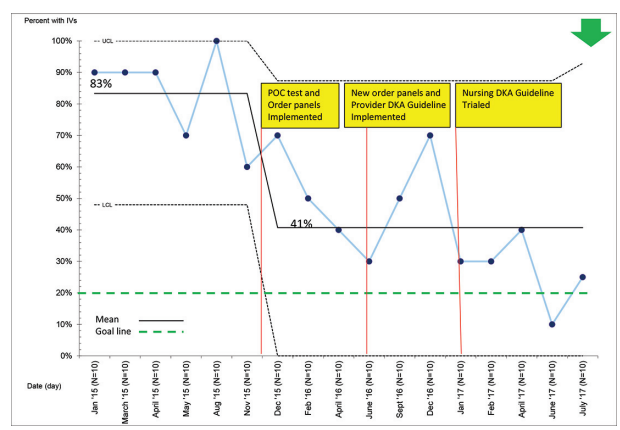
Background Unnecessary medical interventions prolong emergency department (ED) stays and increase costs. We found that 83% of children with diabetes mellitus (DM) presenting to the ED not in diabetic ketoacidosis (DKA) underwent unnecessary IV placement.

Objectives We aimed to decrease IV placements to 20% within 18 months for children presenting to the ED with known DM not meeting DKA criteria.

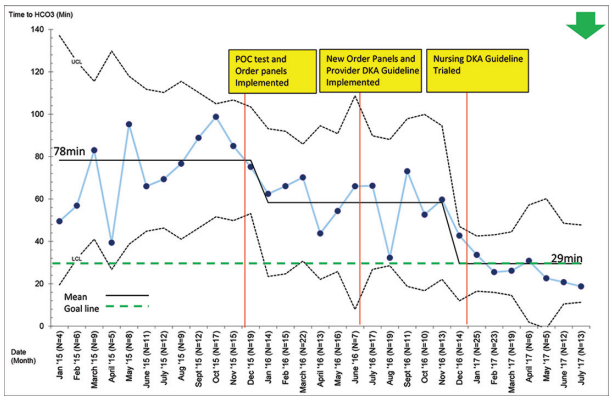
Methods This QI project was conducted in a tertiary care paediatric ED and included children with known DM. Plan-do-study-act cycles included point-of-care (POC) testing, order panel use, and DKA clinical care and nursing guidelines. Outcome measures, analysed on statistical process control charts, included number of IV starts and time to first bicarbonate result. The percent of patients receiving unnecessary IV starts was analysed using the Chi-square test. Process measures included rate of POC testing and order panel utilisation.

Results Between January 2015 and July 2017, 294 DM patients were evaluated for DKA. 168 patients (57%) did not meet DKA criteria. In those patients without DKA, the overall number of unnecessary IV starts decreased from 83% pre-interventions to 41% post-interventions ($p<0.001$; Fig 1). In the same 168 patients, mean time to first bicarbonate decreased from 78 to 29 min (62%) after implementation of all four interventions (Fig 2). Use of POC testing and order panels increased from zero to 92% and 75%, respectively.

Conclusions Using QI methodology, we achieved a meaningful reduction in unnecessary IV starts and time to DKA determination in patients presenting with known DM found not to have DKA.



Abstract 998 Figure 1 P Chart: proportion of patients with IV start (Pts. with DM without DKA)



Abstract 998 Figure 2 X-bar chart: reduction in time to first HCO3 (All DM patients presenting with concern for DKA)

1005 REDUCING ED REVISITS AMONG COPD PATIENTS MANAGED IN ED OBSERVATION UNIT: RELIABLE IMPLEMENTATION OF COPD CARE-BUNDLE USING IMPROVEMENT SCIENCE

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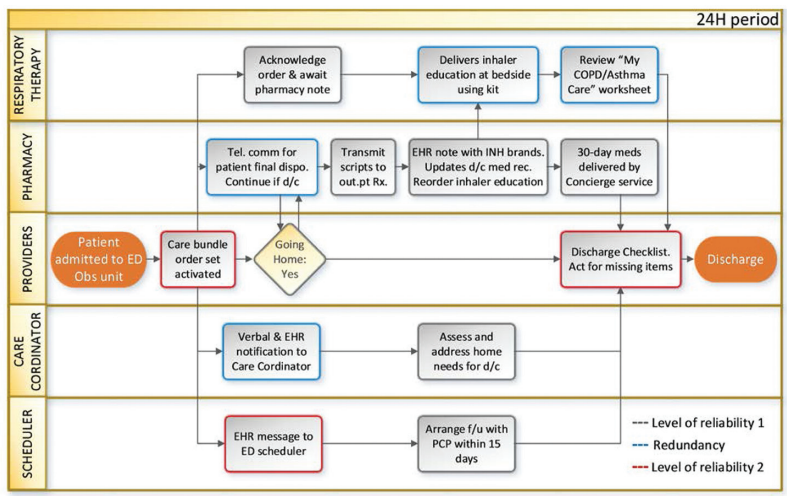
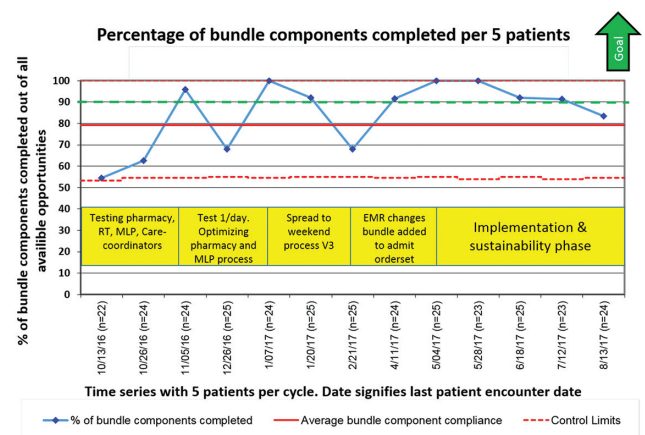
10.1136/bmjoq-2017-IHI.21

Background COPD exacerbations (eCOPD) deleteriously effects patient outcomes and healthcare spending. Emergency Department observation units (ED-Obs) provide short-term acute care in order to reduce resource utilisation, however successful COPD-specific programs in ED-Obs are lacking.



Abstract 1005 Figure 1 COPD care bundle delivery process in ED observation unit. COPD: chronic obstructive pulmonary disease, ED: emergency department, Obs: observation, d/c; discharge, dispo: disposition, Rx: prescription, HER: electronic health record, INH: inhalers, PCP: primary care provider



RT: respiratory therapists, MLP: mid-level provider, EMR: electronic health record

Abstract 1005 Figure 2 Process measure: adherence to COPD care bundle components. RT: respiratory therapists, MLP: mid-level provider, EMR: electronic health record