The Problem

• Contemporary studies highlight significant variation in clinical practice as an important cause of poor healthcare value.

• As the national landscape shifts from volume-based care toward value-based care, hospital leaders increasingly look toward quality and performance improvement to standardize the delivery of clinical care employing tools such as clinical practice guidelines, protocols and clinical pathways.

• The systematic application of standardized pathways is often costly we care stay MPH

• For each patient, a comparative cohort resembling the patient was constructed from the electronic health record (EHR).
• For neurosurgery: postoperative LOS was 3.5
• From 9/2016 - 1/2018 we enrolled 313 patients from 3 surgical subspecialties representing 14 surgeries
• 72% patients met and outperformed the established clinical targets.
• Aggregate mean LOS (days) and variability improved compared to the pre-intervention cohort.
• For cardiac surgery: ICU LOS was 2.5 ±1.4 vs 4.1 ±3.4 p<0.001 and postoperative LOS was 6.0 ±5.3 vs 8.4 ±6.0, p=0.001.
• For orthopedic surgery: postoperative LOS was 3.8 ±9 vs 4.6 ±2.2, p=0.001.
• For neurosurgery: postoperative LOS was 3.5 ±1.4 vs 3.9 ±1.4, p=0.06.
• Mortality, reintubation, ICU and hospital readmission rates were unchanged. Patient experience was rated highly.
• Project Design/Strategy

• Beginning in September 2016, we formed an interdisciplinary team to advance the Clinical Effectiveness program at LCPH Stanford. (Clinicians, Surgeons, Nurses, Analytics, Executive Leadership, Quality Manager, Improvement Specialist, Information Services)

• Eligible patients included those undergoing an index operation within congenital heart, orthopedic or neurosurgery.

• For each patient, a comparative cohort resembling the patient was constructed from the electronic health record (EHR).

• From this baseline “control group” we derived the median experience for clinical milestones, from which we developed achievable targets in clinical care.

• Targets were prominently displayed at the point of care from the moment the patient arrived to the hospital and remained transparent to all the stakeholders in the patient’s care, including families.

Impact

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Our Approach

Project Aim

• In the absence of objective benchmarks for the treatment of pediatric surgeries, we developed a clinical effectiveness intervention to promote a shared mental model between healthcare providers by providing clinical targets established based on historical data at the point of care.

• Our aim was to assess the efficacy of clinical targets beyond the effect of clinical pathways in reducing intensive care and total postoperative length of stay (LOS).

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