Abstract:

**Introduction:** Discharge from the hospital is a complex process, requiring effective and timely communication between patients, families and caregivers and multiple inpatient providers and staff. Suboptimal communication may contribute to delays in discharge, in turn causing patient dissatisfaction, provider care team frustration, increased potential for iatrogenic harm, and inefficient use of resources. Checklists and standardization of roles and responsibilities are tools commonly employed by health care quality improvement efforts, and may also improve care team communication in the discharge process.

**Purpose:** The intervention sought to create clear, standardized roles, processes, and tools to enhance care team communication regarding the discharge planning process for and inpatient medical service at a large academic medical center. Program Description: A team of 8 medical students participating in the Health Innovations Scholars Program at the University of Colorado developed a focused quality improvement project to improve the patient discharge process. Over five weeks, the team performed a detailed needs assessment and current state analysis (via stakeholder interviews, process mapping and measurement, and literature-based research regarding discharge best practices). Multiple communication failure modes were identified. During three PDSA cycles, the QI team introduces communication tools and systems intended to address the most common failure modes and enhance care-team collaboration. Specific interventions focused on rigorous definition of roles and responsibilities in soliciting and articulating the estimated date of patient discharge (EDD) during discharge rounds, recording the current EDD with the patient’s Electronic Health Record (EHR), and using a visual indicator of EDD (VID) within patients’ rooms to help foster structured conversations regarding potential barriers to discharge. Key metrics included adherence to prescribed roles during discharge rounds, correct usage of tools (EHR and VID), the number of weekly unanticipated discharges, average length of stay (LOS), and percentage of discharges by 2pm, and HCAPHS scores relevant to discharge communication.

**Results:** The project achieved substantial success across all chosen metrics. Audits of adherence (n = 53) to prescribed roles during discharge round were 96% (soliciting and articulating EDD), 92% (EDD entered in EHR), and 77% (use of VID). Additionally, unanticipated discharges decreased from a baseline median of four per week to two per week. Over the month-long project, average LOS decreased by 0.4 days (8% compared to an equivalent non-intervention cohort) and percentage of discharges by 2pm increased from 20% to 35%. The PDSA cycles did not increase length of discharge rounds. HCAPHS scores from the project period are pending.

**Conclusion:** Formalizing roles and responsibilities in the discharge planning process is an effective method of standardizing communication between providers, staff, and patients, and can improve the efficiency and effectiveness of discharge planning.