CASE STUDY Improving the quality of discharge instructions

How the University of Iowa Stead Family Children's Hospital improved its electronic template for family/caregiver written discharge instructions

The University of Iowa (UI) Stead Family Children's Hospital significantly improved the quality of family discharge instructions during the 12-month Pediatric Hospital Care Improvement Project's (P-HIP) Transitions of Care Learning Collaborative. The hospital achieved this by creating a new template in the electronic health record (EHR) system that included many key items contained in the measure. The new template was introduced and refined quickly due to a hospital-wide discharge instructions improvement effort inspired by a strategic goal to improve care for families and patients. A well-formed collaborative team led by a dedicated physician and expert nurse clinician and the engagement of the information technology (IT) support team were also important factors.

Hospital Context for Quality Improvement Focus

UI Stead was one of eight hospitals that participated in the collaborative, which sought to improve overall performance on family/caregiver written discharge instruction quality.

At UI Stead, the discharge summary is a physician-generated document, while the After-Visit Summary (AVS, a term used in the Epic EHR) is nursing-generated. As part of a larger system, making changes to the templates was more difficult because they need to be vetted for adult patients by executives who work in adult health care. However, prior to the start P-HIP, the system had begun a large initiative to improve the quality of discharge materials at a system-level, so this initiative aligned well.

During initial discussions with hospital staff, the project lead determined that many clinicians had reservations about key items in the measure, so they worked to understand—and respond to—the resistance.

The UI Stead team had these goals:

- Improve scores on the measure by aligning efforts with the updates to the Epic template already planned by the hospital.
- Work with IT/AVS committee to explore addition of key items that are not automatically included.
- Constantly evaluate and improve by verifying abstraction.

Improvement Process

Forming an effective team is a crucial step. The UI Stead team used a dyad approach with equal contributions from the Hospitalist Principal Investigator (PI) and a doctorate nurse clinician with expertise in quality improvement (QI), specifically post-discharge patient outcomes. They recruited various teams and individuals for discrete parts of the project and were able to maximize their effort. The team was relatively small, but had solid support from key people and departments, including executive leadership.

Hospital

The University of Iowa Stead Family Children's Hospital is a teaching hospital and Iowa's only comprehensive children's hospital. The hospital has 190 beds and serves the entire state.

Lead Staff for Improvement Project Kelly Wood, M.D. Kirstin Manges, M.S.N., Ph.D.

Quality Measure

Family/caregiver written discharge instructions content

Admitted children/adolescents should have documentation of written discharge instructions provided to family/caregivers in their medical record. It should contain the following:

- Admission and discharge diagnoses
- Medication list at discharge
- Pending test results
- Follow-up tests that need to be completed
- List of follow-up appointments

- 24/7 telephone contact number if problems arise
- Number to call for assistance getting needed appointments
- Immunizations given
- Admit and discharge dates

The PI, Kelly Wood, M.D., served on the P-HIP expert advisory committee. As an experienced QI researcher and director of the Pediatric Hospitalist Program with a long tenure at the hospital, she was a great fit for leading this initiative. Early on, Wood was able to secure the support of Kirstin Manges, a recent doctorate of nursing and Healthcare Systems graduate with significant adult and pediatric nursing experience. Manges was able to support the quality improvement and conceptualization of the work, and spearhead nursing education. After Manges left UI Stead, this role was filled by others who understood the informatics side of the work. Throughout the collaborative, the dyad sought the support of the discharge instructions education committee. These nurses helped them understand the document and workflow.

As hospital-to-home discharge instructions are EHR driven, having the support of the IT team is critical. The QI team was able to garner the IT team's resources early in the improvement project, and the team was eager to support the hospital-wide goal of improving discharge instructions for families. Senior IT engineers and the chief medical informatics officer supported this work and led the Epic template development after the team shared information about the measure.

Most key items were straightforward to add to the Discharge Instructions Template. When the template went live, the scores on the measure jumped significantly (see control chart below). The next few months saw even more increases due to refinement of the more challenging key items, such as the Follow-up Tests item. However, a second adjustment to the template expanded the discharge order and created a section called "What's Next," which pulls in the follow-up tests ordered at discharge. The team was unable to pull in the Pending Test Results item because of pushback from the administration team, but a compromise was reached where a blanket statement is pulled in if pending labs are present. While this doesn't technically meet the measure for abstraction, it provides important information to the families. EHR systems often need refinements and adjustments as the process evolves, so having IT on board helped as the process evolved.

Based on her experience, Wood's advice to other teams is that once organizational buy-in is obtained and a team is ready to work with EHR engineers, key items should be broken into groups that make sense. This prevents engineers from doing large-scale adjustments all at once, yet allows the teams to see significant progress. Having a dyad approach also allowed for productive small group work meetings with key stakeholders related to the specific area of focus.

Impact

UI Stead started the collaborative with a mean score of 73.7 and ended at 96 (see team results chart below). They were able to sustain near perfect scores for the past year.

While many teams saw important improvement, UI Stead Family Children's Hospital had the biggest jump with the highest levels of sustainability. Hard-wired changes are the easiest to maintain, so this success is due to institutional buy-in and IT commitment.

Team Results



