



☰ CASE STUDY

Johns Hopkins Community Physicians Early Implementation of Encounter Notification Service Demonstrates Reduction in Hospital Readmissions

Background on Client Intervention and Goals of Program

The Chesapeake Regional Information System for our Patients (CRISP) is the statewide Maryland Health Information Exchange (HIE) that is over 350,000 electronic hospitalization notifications per month to hundreds of subscribing organizations such as hospitals, physician practices, and payers in Maryland and Washington D.C. CRISP provides this service using Audacious Inquiry's Encounter Notification Service, or "ENS". Johns Hopkins Community Physicians (JHCP), a leader in providing and advancing comprehensive patient and family-centered care as a part of Johns Hopkins Medicine, has implemented ENS to help them achieve lower readmission rates for patients that have been seen within seven days of discharge.

JHCP has had a number of other successes that can be attributed to ENS and its ability to immediately notify caregivers when, where, and why hospitalizations are occurring. Prompt receipt of encounter notifications has helped to improve patient satisfaction, improve communication with patient's primary care providers (PCP) upon discharge from the hospital, provide PCPs with insight into real-time hospital events, and improve satisfaction of PCP's related to care transitions and communications with hospitals.

The Problem, including Context for Issue in Health Care

According to the Maryland Hospital Association, from July 2012 through July 2013, there were 45,244 readmissions among 235,532 Medicare admissions in Maryland, for an all-cause readmission rate of 19.2%. The current U.S. national average is 17.4%, which is expected to continue decreasing at a steady rate. Current calculations estimate that Maryland will need to improve 5-10% per year, every year, to meet the U.S. national average by 2018.

Typical causes of preventable readmissions include gaps in planning for transitions to other caregivers, failures in communication, delays in scheduling post-hospitalization care, and medication discrepancies during transitions. Historically, these causes have been difficult to gain control of because caregivers are often uninformed about patient's hospitalizations. By the time a caregiver or PCP learns of a hospitalization, it might be too late and readmission is inevitable.

Timely and reliable notifications enabled by ENS have reduced unnecessary readmissions, lowering JHCP's Medicare readmission rate to 15.3%, which is lower than the Maryland and national average.

Further complicating readmission trends is the poor communication between hospital-based and primary care physicians. As patients transition out of the hospital, it is critical for the hospital to share information with the post-acute care provider and primary care physician to coordinate patients' care (Rodak, 2013). One study estimated that poor care coordination, including inadequate management of care transitions, was responsible for \$25 to \$45 billion in wasteful spending in 2011 through avoidable complications.

A key aspect of the Affordable Care Act that is meant to address this are medical homes, which are practices that closely manage and coordinate care for patients with chronic conditions (Health Affairs, 2012). JHCP participates in several Patient Centered Medical Home (PCMH) programs, including a state-wide multi-payer pilot and payer-based PCMH programs. JHCP has 11 sites that are recognized by the National Council for Quality Assurance (NCQA) as a PCMH at level 3, which is the highest level of recognition. The use of technology and coordinating care are key components to achieve success in a medical home.

ENS Solution and Implementation of Product

CRISP launched its ENS service in early 2012 as a tool that could be leveraged to inform caregivers that hospitalizations were taking place for patients under their care. As part of a comprehensive and cross-disciplinary care team approach to reducing readmissions, JHCP began using the ENS system in September of 2012.

JHCP receives these notifications centrally and notifies the office clinical staff and the PCP of the patient's admission and discharge from hospitals in Maryland, Washington D.C. and Delaware.

The staff at the PCP office contact the patient right after discharge and perform 3 key functions: (1) schedule a follow up appointment with the PCP within 7 days of discharge, (2) address immediate needs of the patient, and (3) reconcile the patient's medications after discharge from the hospital.

Using ENS, JHCP has been able to successfully impact a number of recommended best practices to reduce readmissions, including:

- Timely communication at handoff at discharge from the hospital
- Early post-acute follow-up with the PCP
- Early post-discharge phone calls
- Improved transfer between facilities
- Effective medication management

Clinical Outcomes and Business Results

JHCP has seen a lower hospital readmission rate in 30 days post discharge for their self-insured patients that are seen in 7 days by their PCP, compared to those that are not seen in 7 days. Because PCPs are notified in a timely manner about hospitalizations and thus get the scheduling process started sooner, patients are able to be seen within the 7-day window after discharge.

Additionally, in 2013, JHCP's Medicare readmission rate was 15.3%, which is lower than the Maryland and national average. The timely and reliable notifications enabled by ENS have reduced unnecessary readmissions, and significantly improved communication after a hospitalization to enable better transitions of care for the patient.

Annualized Readmission Rate

