



Reducing hospital readmissions

Research is a tool to analyze the option of post-hospital visits

Dr. Dan Huynh, Dr. Huong Nguyen, Heather Watson

Nationally, nearly 1 in 5 patients discharged from a hospital is readmitted within 30 days. Kaiser Permanente Southern California has long worked toward reducing readmissions. A few years ago, leaders tried recommending that clinicians schedule special post-hospital visits within 7 days after their patients were discharged. The visits would focus entirely on patients' recovery from their recent hospital stay, tests that needed to be followed up on, and medications they should be taking.

But the visits were hard to schedule and difficult for physicians to fit into their already packed schedules. The idea didn't take off.

"Physicians raised a lot of questions regarding the value and timing of the post-hospital visit," said Dan Huynh, MD, regional assistant medical director, Hospital Quality.

"Physicians base their work on evidence but we didn't have the data to show the benefit of these visits. We said, 'We need a study.'"

The Department of Research & Evaluation stepped in.

Research partners with doctors to improve care

Kaiser Permanente is a learning health care organization that uses research to improve the lives of its members and the communities in which they live. KPSC's research scientists find answers to national health care questions, as well as work directly with some of the region's 7,000 physicians to improve care in practical ways.

The post-hospital visits, or POSH visits, seemed to be a good way to improve care. However, the few small studies done in other settings showed mixed results.

POSH introduced to help heart failure patients

Originally, post-discharge provider visits at KPSC were a strategy to improve heart failure outcomes, said Sandra Koyama, MD, an adult primary care physician at the Kaiser Permanente Baldwin Park Medical Center.

“We noticed that many patients had problems with medications after discharge,” Dr. Koyama said. “Patients had duplicate medications, did not pick up their medications, or were confused by the instructions and didn’t know what to take. Additionally, some patients weren’t confident about how to care for themselves after discharge, or weren’t taking the right medications.”

As the regional physician co-lead for heart failure, Dr. Koyama was interested in making sure patients’ needs were met with smooth hand-offs from hospital to home. Part of that work involved a focused visit with a personal physician within a week of being released from the hospital. This seemed to make the biggest difference for members with heart failure, she said.

The Readmission Steering Committee rolled out the POSH visits to all patients who were at high risk of being readmitted, based on the experiences with heart patients and findings from current literature.

Scientists interested in answering questions

Huong Q. Nguyen, PhD, RN, was hired by the Department of Research & Evaluation in 2012. She quickly developed close partnerships with clinical colleagues. Together, they prioritized the POSH visit evaluation as part of a larger national study on care transitions (Project ACHIEVE) for which she is the KPSC site lead. The work was funded by the Patient-Centered Outcomes Research Institute.

The study examined the electronic health records of more than 71,000 Medicare Advantage patients who were discharged from KPSC hospitals from 2011 through 2014. The researchers found that patients who had a POSH visit with a primary care clinician within 7 days of discharge to homes were:

- 12% to 24% less likely to be readmitted than those who did not complete a visit.
- 28% less likely to experience hospital readmission than those completing any other type of outpatient visit.

“The study highlighted the value of both the routine and tailored POSH visits in ensuring continuity of care,” said Ernest Shen, PhD, a research scientist biostatistician at KPSC. Dr. Shen was the lead author on the *JAMA Internal Medicine* article published in November 2016.



Alfred Mikaru, Dr. Sandra Koyama

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— *Huong Q. Nguyen, PhD, RN*

POSH visits increased even more after study

Scheduling and completion rates for POSH visits have continued to improve, said Heather L. Watson, MBA, a practice specialist for the Southern California Permanente Medical Group’s Complete Care Support Program’s readmission reduction effort.

“Our POSH appointment scheduling and completion rate has significantly improved over the last 2 years,” Watson said. “This is a result of us having the research to show that it makes a difference.”

Dr. Nguyen said the POSH work is a great example of how the Department of Research & Evaluation leverages external funding to address internal questions that ultimately informs care delivery and benefits patients both inside and outside of Kaiser Permanente.

“This really is a virtuous model of research-operations partnership,” Dr. Nguyen said. “By bringing together the clinical side and the research side, we can accomplish what’s really important to our health system and the larger medical community.”