

# Reducing Hospital Readmissions With Enhanced Patient Education

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PATIENT EDUCATION

At least 20 percent of all patients who are admitted to a U.S. hospital make a repeat visit within 30 days of discharge, according to Medicare and others who've studied the pervasive problem of hospital readmissions.<sup>1</sup>

Medicare alone currently spends \$15 billion a year on rehospitalizations, and in 2004 estimated the total cost to be \$17.4 billion. These tallies do not account for the intangible strain high readmissions put on hospitals or the distress and dissatisfaction caused to patients who repeatedly find themselves back in the hospital.

But a whopping three-quarters of readmissions could likely be avoided with better care, reported a 2007 congressional report by the Medicare Payment Advisory Commission. And hospitals, insurance companies, and the US Congress have taken notice.

Specifically, under the new federal healthcare law, the Centers for Medicare & Medicaid (CMS) services will use a 30-day cutoff to start penalizing hospitals with higher than expected rates of readmissions, starting in 2012, and may ultimately refuse payment for selected diagnoses that occur within this timeframe. Health reform legislation also initiates a closer look at global payment systems, with a number of pilot projects planned that would include reimbursement per diagnosis as opposed to each service, including readmissions, related to a diagnosis.

The causes of readmissions vary widely. While in some cases, patients' conditions may unavoidably get worse, many patients return to the hospital quickly because of an error that occurred during their first visit. AHRQ estimates that one in five patients has a complication or an adverse event, such as a drug

interaction, after being discharged from the hospital, drastically increasing their odds of a costly ER visit or readmission.<sup>2</sup>

### **The patient education connection**

The good news, however, is that a large swath of these issues can be resolved, not with more medical procedures and tests, but with simple communication. In particular, patients who have a clear understanding of their after-hospital care instructions, including how to take their medicines and when to make follow-up appointments, are 30 percent less likely to be readmitted or visit the emergency department than patients who lack this information, according to a study funded by the Agency for Healthcare Research and Quality (AHRQ) and published in the February 3, 2009, issue of the *Annals of Internal Medicine*.<sup>3</sup>

According to Brian Jack, MD, who led the research team at Boston University Medical Center's Department of Family Medicine, a staggering amount of hospitalized patients receive no education about how to care for themselves at home at all.

"Life in the hospital is full of conflicting priorities, and the education of the patient becomes one of the

lower priorities," Jack says. "For whatever reason, it's very clear that [patient education] doesn't get done."

To help change this scenario, Jack and colleagues developed a multifaceted program to educate patients about their post-hospital care plans, called the Re-Engineered Hospital Discharge Program, or Project RED. The program used specially trained nurses to help patients arrange follow-up appointments, confirm medication routines and understand their diagnoses using a personalized instruction booklet. A pharmacist contacted patients between two and four days after hospital discharge to reinforce the medication plan and answer any questions.

Thirty days after their hospital discharge, the 370 patients who participated in the RED program had 30 percent fewer subsequent emergency visits and readmissions than the 368 patients who did not. Nearly all (94 percent) of the patients who participated in the RED program left the hospital with a follow-up appointment with their primary care physician, compared to 35 percent for patients who did not participate. And nearly all (91 percent) participants had their discharge information sent to their primary care physician within 24 hours of leaving the hospital.<sup>4</sup>

Project RED is only one of numerous studies showing a profound connection between patient education and reduced readmissions.

For example, at Del Sol Medical Center in the mostly Latino community of El Paso, Texas, the adoption of a patient education software system that allows staff to print out patient information about heart failure and heart attacks in multiple languages, including Spanish, contributed to a drastically reduced heart failure readmission rate during the study period—from 16 percent to 7 percent.<sup>5</sup>

And a year-long study of 109 heart failure patients at Columbia San Jose Medical Center in 1998 found that patients who participated in a low-cost education program in increasing self-care and medication compliance were nearly half as likely as nonparticipants to be readmitted to the hospital.<sup>6</sup>

### **Making patient education work**

While the pattern is clear that patients who have a better understanding of their medications, signs and symptoms of disease, diet and lifestyle requirements and upcoming physician appointments and tests have exponentially better success staying healthy outside

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the hospital, not all patient education programs are created equal. Across the dozens of completed studies and initiatives underway, organizations with the best results have the following traits in common:

- **Teaching efforts are consistently targeted to the appropriate key learner**
- **Educators consistently evaluate patients' understanding of the information provided**
- **Organizational culture supports efforts to prioritize patient education**
- **Strategies and technologies are adopted to make patient education activities fit easily, if not automatically, into hospital employees' work flow**
- **Education materials are designed thoughtfully with the patient in mind**

### 1. Identify the key learner

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In 2009, the threat of losing reimbursement for certain readmissions prompted leadership at Pennsylvania's Lehigh Valley Health Network (LVHN), to create change across its three hospitals that would improve care and prevent patients from boomeranging back shortly after discharge.

Through its collaboration with the Institute for Healthcare Improvement (IHI), the LVHN workgroup learned that one of the top reasons patient education efforts fail is because key learners are not consistently identified on admission or involved in the teaching



process, says patient care specialist Debra Peter, MSN, RN, BC, CMSRN.

“Key learner” is defined as an individual or group of individuals, which may or may not include the patient, who is responsible and accountable to the learning process. To identify the key learner, Peter says that LVHN staff are now trained to ask patients standardized questions on admission, such as “Who accompanies you to physician appointments?,” “Who assists you with your medications?,” “Who takes care of you at home?” and “Who should be listening in at the time of discharge to your instructions?”

The nurse then documents these findings on the whiteboard in the patient's room, so that any member of the healthcare team who interacts with that patient can see clearly who should be involved with the teaching, she says.

### 2. Evaluate learning

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Also under the advice of the IHI, LVHN's second major focus of its discharge-process-improvement initiative was to consistently evaluate patients' understanding of what they've been taught, says Paula Robinson, MSN, RN, BC, the network's patient family and consumer education manager.

As many hospitals have done with impressive results, LVHN adopted a learning-evaluation strategy called “teach back,” which encourages key learners to relay what they've learned in their own words. Questions staff might ask a heart failure patient, for example, include, “What is the name of the diuretic or water pill you take?” or “What amount of weekly weight gain should you report to your physician?”

Although some hospitals use teach back by asking patients the same such questions repeatedly during every day of hospitalization, LVHN found better results by asking patients a different set of teach-back questions during every day of their hospitalization, as follows:

- **Day 1: Knowledge questions, such as what following a low-sodium diet entails.**
- **Day 2: Attitude questions, such as, “Why is it important to take your water pill every day?”**
- **Day 3: Behavior questions, such as, “How will you remember to check for symptoms of heart failure every day?”**

In the first three months LVHN began using teach back with its heart failure patients, the network found that patients with whom they use teach back experienced lower readmission rates and lengths of stay. Among heart failure patients readmitted for heart failure within 30 days between July and September 2009, teach-back patients were readmitted 25 percent less often than those who did not receive teach-back evaluation, Robinson says.

While nursing staffs typically take on the bulk of the responsibility in educating hospital patients about their conditions and what to do after discharge, LVHN has gradually involved more disciplines, such as pharmacy, rehab services and others, in providing and evaluating patient education. Clear, smooth communication among caregivers is essential to sustaining this culture change.

To keep education sessions clearly documented for the entire healthcare team, LVHN uses Krames On-Demand, a Web-based application offering access to thousands of Krames patient education handouts, Robinson says. Krames On-Demand offers LVHN staff the ability to document the patient education encounter and content, as well as a learning assessment report. Throughout the hospital stay, educators use the program to keep track of the patient's ongoing educational progress.

"When we communicate or document effectively the answers to these questions, it becomes clear where the gaps in learning take place," Robinson says. "When staff go into the patient's education record on Krames, they can get a really good view or snapshot of what teaching has been done and what areas of teaching still need to take place. So we can use that tool as a standard work document for everybody that touches the patient with education," she says.

### 3. Create a culture supporting education

It is true that patient education takes additional staff time. But with clear documentation to avoid unnecessary redundancy and a knack for multitasking (e.g., discussing the importance of a medication while administering it), these critical discussions don't take as long as one might expect.

In Peter's experience, day 1 teach-back questions take 5-8 minutes to cover, while day 2 and 3 take 3-4 minutes each. "There is a little bit more time, but it's the right thing to do," she says. "And the nurses have not

pushed back on the process because they know we were doing the right thing."

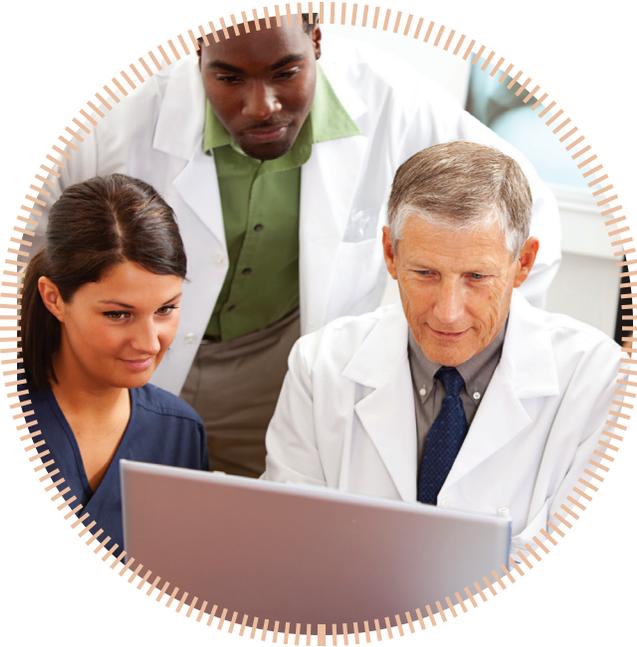
### 4. Adopt systems to make it seamless

High- and low-tech strategies abound to make providing patient education easier and more automatic. LVHN, for example, has added teach back as a 12 o'clock order on all patients' medication screens, Peter says.

"It's right there on the [provider's] screen and all they have to do is double click for the order detail and to see the questions," she says. "That is a wonderful prompt and bumps the priority up, with the expectation they do the follow up in the Krames system with the progress to the teaching—the learner's outcomes."

At the other end of the technology scale, Boston University Medical Center is currently testing a virtual educator by the name of Louise as part of its ongoing Project RED. "Louise is an animated computerized character that speaks with empathy," Jack says. "Using unique software, she creates sentences that are tailored to that person." In other words, the listener gets information about his or her own medications and appointments, rather than general instructions based on a condition. What's more, Jack says, is that at the trial's half-way mark, twice as many people who've used the Louise system say they prefer it over being discharged by a doctor or nurse.

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“We have data to show that people don’t just like it, but off-the-scale like it,” Jack says. The reason: Louise has plenty of time and goes over things slowly and carefully and teaches patients their after-hospital care plan. Louise even uses teach back to test patients’ understanding of the information and prints report for providers detailing any problems.

Despite the resoundingly positive patient reviews of Louise and the tool’s ability to free up clinicians to provide more care, the system has its critics. “People say we shouldn’t replace people with information technology,” Jack says. “But the fact is that people aren’t doing [education] now, and we need information technology to deliver the info that is necessary to people.”

But well before introducing Louise, Jack says, all of the tool’s benefits were studied and proven using human educators. “We’re emulating that process using health information technology,” he notes.

### 5. Provide patients with well-developed materials

While highly sophisticated technology and complicated diagnostics may be hard at work in the background, patients’ take-home information should be just that: a clear synopsis of what they need to do and know upon leaving the hospital.

“Some of these materials that have histology slides on them or pathology specimen shown under

microscope are a lot less useful to the people who are using them who have no clue about such things,” Jack says. “I wonder about the people who designed these things; [these materials] are being designed for doctors, not patients.”

Many of the best education materials, Jack says, are designed to anticipate areas in which learners might become confused. For example, the medication page used by Project RED lists all of a patient’s medications using both generic and trade names, what they’re for, and how to take the drugs using simple words. Importantly, any medication that is new is highlighted, as is any drug that the patient has been instructed to stop taking. So if a patient is taking a dose of a generic medication in the hospital, for example, and discharged on the brand name, he or she knows clearly not take both doses of the same drug, Jack says.

There are also a number of basic features of print, Web and video materials that can enhance literacy: plain language, active voice, large fonts, relevant illustrations, and the use of color coding. These qualities make information not just easy on the eyes, but also more apt to positively affect patients’ behavior—and to stop the cycle of costly and frustrating revolving-door readmissions.

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