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Pharmacists: The Antidote to Readmissions?
In-house and community pharmacists connect with patients on both a clinical and a social level

By Ron Shinkman

Patient readmissions within 30 days of discharge have always been a common feature of the hospital business landscape. For decades, hospitals actually benefitted from the phenomenon, getting paid each time the patient came through their doors.

Those days are over.

In 2012, the Centers for Medicare & Medicaid Services introduced the Hospital Readmissions Reduction Program, financially penalizing hospitals for readmissions of any patient. Hospitals can now lose up to 3 percent of their total Medicare revenue if their rate of readmissions is too high.

That’s put significant pressure on hospitals to curb readmissions. Many hospitals and healthcare systems have formed transition teams to better coordinate post-discharge care and keep close tabs on patients to reduce their chances of returning.

And, increasingly, staff of pharmacists are part of those teams.

There are several reasons for this. Many patients are prescribed several medications after their discharge—medications that often are the key to controlling the conditions that put them in the hospital in the first place.

Meanwhile, medication adherence is a serious and often unaddressed issue. The organization Prescriptions for a Healthy America estimates that about half of all patients do not take their medicine as prescribed and one in five prescriptions go unfilled. Moreover, medication adherence tends to be lowest among patients with chronic conditions—the same conditions that often lead to hospital stays.

Aside from physicians, pharmacists are usually among the most highly-educated healthcare professionals in the hospital. The typical doctorate of pharmacy program is six years long, including internships and residencies in a hospital or other care delivery setting. And while pharmacists may not have the clinical knowledge of physicians, they possess an unsurpassed holistic knowledge of medications and how patients may react to them. Many patients have had regular interactions with their community pharmacists, and they consider them trusted figures who are often more approachable than their physicians.
The knowledge, clinical and social skills possessed by pharmacists can be brought to bear in curbing patient readmissions.

Hospitals and healthcare system leaders rely on their own pharmacies and pharmacists to reduce patient readmissions. But some are also looking beyond their own walls to find partners in community pharmacies, as well.

“\textit{I hear this a lot: ‘I wish I asked the doctor that.’ But they didn’t because they didn’t want to interrupt the doctor.}”

\textit{JOSH AKERS, PHARMACIST, KELLEY-ROSS PHARMACY GROUP, SEATTLE, WASHINGTON}

Two approaches

The Kelley-Ross initiative, known as in-home medication coaching, is being conducted in conjunction with Virginia Mason Medical Center. Focusing on patients with congestive heart failure, it was funded with a grant from Cardinal Health, which pays for the time pharmacists spend making house calls. Five of

Both Shannon and Josh Akers, a Kelley-Ross pharmacist active in the Virginia Mason initiative, say that establishing a direct interaction between discharged patients and pharmacists is an excellent way to fill in potential gaps in care. Patients tend to have a less formal relationship with pharmacists than their physicians, making them more likely to ask questions.

“I hear this a lot: ‘I wish I asked the doctor that,’” Akers says. “But they didn’t because they didn’t want to interrupt the doctor.”

That pharmacists also tend to have more direct experience in public and retail settings makes it easier and more natural for them to interact with patients.

“We are able to provide a little bit more time on the treatment side, and explain the why and how for patient care,” Shannon says.

Two Approaches

The programs have different approaches toward encouraging medication adherence for recently discharged patients at risk for readmission. Kelley-Ross pharmacists make house calls to patients. And while Lily’s will deliver drugs bedside and works with patients on its own premises.

The Kelley-Ross initiative, known as in-home medication coaching, is being conducted in conjunction with Virginia Mason Medical Center. Focusing on patients with congestive heart failure, it was funded with a grant from Cardinal Health, which pays for the time pharmacists spend making house calls. Five of
the Kelley-Ross pharmacists on staff participate in the program.

Heart failure is not only one of the most common chronic conditions for elderly patients, it’s also one of the leading causes of readmissions. Nearly a quarter of patients wind up being readmitted within 30 days. That figure increases to more than 30 percent between 60 and 90 days.

After congestive heart failure patients are discharged from Virginia Mason, The Kelley-Ross pharmacists talk to patients on the phone within 72 hours and schedule an in-home visit within seven days.

According to Akers, 70 percent to 80 percent of the patients will have some sort of healthcare issue as soon as they leave the hospital, and virtually all of them will have a medication issue. He noted that the typical CHF patient is taking 14 different medications upon discharge.

“They may be taking a diuretic, but the dose is too low,” Akers says, which leads to fluid retention and a potential readmission. Other complications can arise if the dose of medication has changed but they continue taking the prior dosage or the medication has been discontinued by the physician altogether and they are still taking it.

Kelley-Ross pharmacists make four to five home visits a week. The intent is not only to discuss the medicines the patient is taking and to establish a rapport with the patient—who is often slightly confused as to why a pharmacist is visiting their home—but to evaluate their surroundings and how it might impact their medication adherence.

“Is the home dirty or well-kept? Or are the medications strewn throughout the house? Or properly kept and accounted for? That’s what we’re looking at,” Akers says.

“We are able to provide a little bit more time on the treatment side, and explain the why and how for patient care.”

JENNIFER SHANNON, OWNER, LILY’S PHARMACY, JOHNS CREEK, GEORGIA

During the visit, the patient will also be asked to go through their regular routine for taking their medicine.

“We look at how they’re doing things. How ... they fill a pill box, or reviewing what’s in the pillbox itself,” Akers says.

Issues that could lead to serious healthcare setbacks often surface. They include something as simple as the patient’s inability to cut a pill in half to reach the proper dosage. In many cases, the patient will just stop taking that pill. The pharmacist will provide a pill cutter, pill box or other pharmaceutical accessories that help better organize medications.

Feedback and evaluations are often sought from patients on a one to five scale. Prior to visits, the scores are usually one to three. After most visits, they go up to a five.
Shannon set up her pharmacy’s initiative and approached Emory Johns Creek on her own. She saw participating in a care transition program not only as helping the community, but also as a tool for building her fledgling business. It took multiple approaches to the hospital over six months before officials there listened to her proposal, which she suggested could save the hospital as much as $2 million a year in Medicare readmission penalties and other costs.

The transition program focuses on patients who have been identified at high risk for readmission. That includes conditions connected to high rates of readmissions such as heart failure, stroke or pneumonia, but also specific circumstances, such as recent prior hospital admissions and taking five or more medications, as well as other Joint Commission measures.

Shannon built a small consultation room off the main pharmacy to meet with patients, who are asked to bring their meds with them. She holds about 10 consultations a week. After transferring prescriptions from the patient’s old pharmacy, she will conduct a reconciliation of the medications they have with what’s been prescribed. That often leads to deletions of medications that are no longer prescribed and ferreting out caches of expired medications and to help avoid potential complications.

“There is usually something wrong almost every time, and usually something wrong at discharge,” Shannon says. “There are incorrect things that happen, such as the dose [or the labeling] is wrong”

This can also be exacerbated by the patient giving incorrect medication during their original admission. “Patients are not the best historians when they’re in the hospital,” Shannon says.

After that’s complete, Shannon will call the patients’ physicians with an updated medication list.

**Bottom Line Results**

The two programs have had significant results. When Virginia Mason began the initiative as part of a pilot program last September, the hospital’s readmission rate for congestive heart failure was 22.5 percent. Among the patients in the initiative, it’s 7.5 percent—a reduction of two-thirds. Kelley-Ross and Virginia Mason are in talks to continue and expand the program beyond its one-year time period.

Of the 70 patients in Shannon’s program over the past six months, only three have been readmitted—all for different disease states than when they previously entered the hospital. She estimates the savings to Emory Johns Creek has been $168,000 during that time.

Both Shannon and Akers say that the face-to-face interaction is the entire key to their programs working.

“It is better than any kind of telephonic and telemedicine contact,” Akers says.
Why Don’t Patients Take Their Medicine?
Understanding barriers to compliance is key to overcoming them

By Ron Shinkman

When Kurt Salmon healthcare strategist Scott Siemer was assembling an ACO in Dallas for dual-eligible enrollees for an employer a few years ago, he encountered two obstacles to medication adherence that tell a strikingly cohesive tale.

One would-be enrollee never filled her prescriptions. She dutifully collected years’ worth of scrips in a shoebox instead.

Another individual dutifully filled his prescriptions—then proceeded to empty them out of the bottles into a large Ziploc bag. It created what Siemer called a colorful “mish-mosh” reminiscent of a child’s candy bag immediately after Halloween.

These patients are hardly unique. Their stories represent the physical self-compartmentalization among patients who don’t adhere to their prescription regimens. Meds and plastic vessels are as familiar a combination as peanut butter and jelly.

“It is extremely common,” said Josh Akers, a pharmacist with the Kelley-Ross Prescription Pharmacy in Seattle. Patients often come in with bottles grouped together in plastic bags or pills metered out into individual bags. They often contain meds long-since expired or that have been deleted from their current course of treatment or that lack instructions for proper use.

Jennifer Shannon, a pharmacist who owns Lily’s Pharmacy in Johns Creek, Georgia, once had a patient come into the pharmacy with two plastic bins full of medication that had accumulated over the years. Another patient kept all their pills in a bowl on the kitchen table. Yet another patient in their 70s kept all her meds in her pocket. She also served as a caregiver for her adult son. Not only might she take her medication randomly, she often would fish out a few of her pills and give them to her son as well.
When it comes to not taking meds, metaphorical self-compartmentalization can occur as well. Patients who are leaving the hospital are at particular risk for this phenomenon.

Experts say many patients, upon discharge from the hospital, have a single goal in mind: They just want to get home. As a result, they’re often unable to focus on managing their prescriptions.

“Clearly, people who have been in the hospital have had some trauma, and they are in general weaker coming out than coming in,” said Glen Stettin, M.D., a senior vice president and chief innovation officer for Express Scripts. “The regimens also tend to get more complicated on discharge. They may have gotten something in the hospital to prevent ulcers or indigestion or to help them sleep, and they are continued on discharge.”

Side effects from a medication are also an issue. Many patients prefer to keep that to themselves.

“Most laypeople don’t know there are seven medicines to lower cholesterol,” Stettin said. “They often believe the doctor gave them the best medicine for them. If they’re having a side effect, they often think it’s their fault.”

There is also another rising issue patients are often reluctant to discuss: Cost.

Pharmaceutical prices rose 9.8 percent in the U.S. between May 2015 and May 2016, according to the federal Producer Price Index. Investment-related services were the only other item in the PPI that experienced a bigger year-over-year price increase. There have also been heavily criticized business practices in the pharmaceutical industry that have contributed to rising prices, such as companies buying up rights to drugs that have been on the market for decades and rising their prices many multiples.

“We’re hearing about affordability more and more,” said Kevin Day, the executive resident with the National
Community Pharmacists Association. Such issues complicate the continuum of care, many observers say.

Donna Durfee, a pharmacist by training and principal with Wellspring Partners, an affiliate of Huron Consulting, acknowledged that the drug pricing issue has become more onerous for patients. “I’m hearing more ... about these issues,” she said.

Durfee cited two examples from people she knows personally. One was prescribed the latest agent to treat osteoporosis and fretted about the $3,600 co-payment. Another was being treated for rheumatoid arthritis whose coverage was disrupted as the result of a job change.

Pharmacists and others interviewed for this eBook say the best way to approach the issue is to have hospital case managers try to enroll patients in financial assistance programs, obtain coupons to cover co-payments that are distributed by many drug companies, or work to fill some of their prescriptions at low-cost pharmacies operated by Target or Wal-Mart, which often charge as little as $4 for medications.

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GLEN STETTIN, M.D., SENIOR VICE PRESIDENT AND CIO, EXPRESS SCRIPTS

However, these cost-saving solutions often present problems of their own. Co-payment assistance usually lasts for six months to a year, merely placing the patient in a financial bind further down the road. And Shannon, the Georgia pharmacist, said that some patients can spend hours traveling around to fill their prescriptions at the lowest price, exhausting the patient and putting them at risk for more health issues. And since those big corporate pharmacies rarely communicate with one another, medication records for the patients are often fragmented as well.

“It is so dangerous,” she said.
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Data Analytics to Identify Readmissions Risk

When it comes to medication adherence, past results are an indication of future performance

By Ron Shinkman

Assessing which patients are at risk for readmission is not an exact science. Instead, it’s closer to handicapping a race before it’s run: Poring over a patient’s past healthcare history, present circumstances and other esoteric details to determine a risk for readmission.

But pharmacists and other clinicians don’t accomplish this by reading tote sheets. They have to perform their own form of handicapping. And for that they need data analytics.

“When you’re looking at a patient population with chronic conditions, you’re not going to get 100 percent accuracy. But when it comes to a root cause, there are certain specific factors that put a patient at higher risk of readmission,” says Asif “A.J.” Ally, a pharmacist by training and vice president of clinical affairs for Argus Health Systems, a Kansas City, Missouri-based company that provides pharmacy management services to health insurers.

In general, what are the biggest predictors for readmission? Throw out that old stockbroker television ad chestnut that “past performance is not indicative of future results.” Experts—including pharmacists—say that prior hospital admissions are a very strong indicator of the risk for readmission. So is any patient taking five or more medications.

According to Ally, specific medications such as antidepressants or glucocorticoids—a steroid used to treat hypoglycemia—are also red flags. And don’t forget that men are at greater risk of failing at their medication adherence than women, Ally says.

There are also socioeconomic circumstances to consider. Low-income patients who may not have resources to pay for their prescriptions or to access caregivers are at higher risk for being readmitted. So are elderly patients who are living alone and may not be able have the support system to make follow-up appointments, attend physical therapy or maintain a continuum of care post-discharge.

Only largest hospitals and health systems maintain extensive IT departments: Most use software to identify at-risk patients.

In 2012, Express Scripts launched a program that uses data analytics to predict which patients are at risk for not adhering to their medication post-discharge. Glen Stettin, M.D., Express Scripts’ chief innovation officer,
says the software helps guide its pharmacists to stay in touch by phone, email or other method with specific patients who have been identified as being at risk for not taking their medications. The program has helped improve medication adherence, although Stettin says the company does not track readmission data for those patients.

South Nassau Communities Hospital, a 455-bed hospital in Oceanside, New York, uses software to analyze every patient admitted into the facility.

"When it comes to a root cause, there are certain specific factors that put a patient at higher risk of readmission."

ASIF "A.J." ALLY, PHARMACIST AND VICE PRESIDENT OF CLINICAL AFFAIRS, ARGUS HEALTH SYSTEMS, KANSAS CITY, MISSOURI

According to Regan, after the software has performed an analysis, it will score each patient at being a low, medium or high risk for readmission. That gives the hospital options in terms of referring the patient to its various programs to prevent readmission, including regular post-discharge meetings with one of South Nassau’s 30 pharmacists. If the at-risk patients have a smartphone, hospital staff can load them up with apps that will remind them when to take their medications.

Particular red flags for readmission risk are heart failure, sepsis, congestive obstructive pulmonary disorder, substance abuse and being prescribed multiple medications.

According to Ally, virtually every patient will suffer some sort of adverse event after hospital discharge, whether it’s a side effect of their drugs, a fall or some other issue. But using data to help manage their discharge properly can avoid their return—and the penalties that healthcare organizations incur when that happens. 

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Overcoming Health Literacy Issues
Low literacy rates hurt medication compliance, readmission rates and patient outcomes

By Ron Shinkman

A U.S. Department of Education survey conducted in 2013 concluded that 21 percent of adults in the U.S. read below a fifth grade level. According to 2015 data from the Centers for Disease Control and Prevention, just 12 percent of U.S. adults scored in the highest literacy levels, and only 9 percent scored among the highest levels for what is known as numeracy, the grasp and application of mathematical skills in everyday living.

And people with lower literacy proficiency are more likely than those with better literacy skills to report poor health, according to the CDC.

With comparative reading abilities so low, it’s little wonder many patients have trouble reading and comprehending their medical prescriptions, let alone guides for managing their chronic conditions. Low health literacy is a major obstacle in effective healthcare delivery.

“There are a lot of patients across the country who are not as medically literate as the healthcare industry thinks they are,” says Kevin Day, an executive resident and associate director of strategic initiatives for the National Community Pharmacists Association. “When they’re discharged, their health literacy is often underestimated. They leave the hospital loaded down with a lot of information, distressed and worried, and getting back into the flow of things can be difficult.” As a result, medication adherence—and keeping out of the hospital—can often prove difficult.

Confronting relatively low health literacy among its patients has been one of the challenges of South Nassau Communities Hospital in Oceanside, New York, in its attempt to get them to better adhere to their medication regimens and to reduce readmissions as a result. The 455-bed hospital is located on western Long Island, about 30 miles from midtown Manhattan.

Of particular concern at the hospital are patients with congestive heart failure. It is one of the most common chronic conditions among patients over the age of 65, and one of the biggest causes for readmission.

Medication management for the condition is formidable. Patients usually have to take a carefully choreographed combination of drugs that include diuretics to avoid retention of bodily fluids, angiotensin-converting-
enzyme (ACE) inhibitors to counter blood vessel dilation, beta blockers to manage cardiac arrhythmias and spironolactone, digoxin or hydralazine to control blood pressure. That is assuming congestive heart failure is the only condition the patient has; many are also dealing with diabetes or chronic obstructive pulmonary disease.

“We see a lot of readmissions,” says Edward DeLucie, South Nassau’s director of pharmaceutical services.

To address the issue, South Nassau created what is known as the cardiac health program, where patients are counseled weekly for the first four weeks after discharge by specialist caregivers, including pharmacists, dietitians and nurse practitioners. A hotline number connects them to those caregivers if they have any questions.

However, such conferences have become commonplace for any patient who is considered at risk for readmission, such as those who have had bariatric surgery or suffered strokes. Every patient is evaluated based on risk factors such as prior admissions. DeLucie estimates about 500 patients a month are counseled, up from just a few dozen in 2010.

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KEVIN DAY, AN EXECUTIVE RESIDENT AND ASSOCIATE DIRECTOR OF STRATEGIC INITIATIVES FOR THE NATIONAL COMMUNITY PHARMACISTS ASSOCIATION

The hospital also recently expanded the program to psychiatric patients, who are often at very high risk not to take their meds on an ongoing basis. Their prescriptions are filled by a local pharmacy and are presented to those patients just prior to discharge.

South Nassau has some 30 pharmacists on staff. Along with discussion about the medications the patient is taking, the pharmacist also tries to create a rapport with the patient.

“We ask what is going on with you; if you have any questions,” DeLucie says.
Rita Regan, who oversees South Nassau’s performance management and care transitions program, noted that the pharmacists also try to drill down regarding the patient’s lifestyle, and give them commonsense tips on when to use their meds. For congestive heart failure patients, that may include advising not to take their diuretics before they go to bed because it will keep them up all night, for example. Or, if they regularly patronize the gambling buses that go to Atlantic City, not to take it just before departure.

“We try to drown them in paper. You usually have to speak to a person seven times for them to get a concept.”

EDWARD DELUCIE, DIRECTOR OF PHARMACEUTICAL SERVICES, SOUTH NASSAU COMMUNITIES HOSPITAL, OCEANSIDE, NEW YORK

Patients are also given printouts about the drugs they’re taking. Such pieces of literature are specifically written at a level so that most laypersons can understand them.

“We try to drown them in paper,” DeLucie says, adding that it is part of a concerted effort to try and communicate crucial data to patients. “You usually have to speak to a person seven times for them to get a concept.”

South Nassau was unable to provide specific statistics for all its counseling programs, but the cardiac health program has paid dividends. According to Regan, the readmission rates for chronic heart failure patients dropped from 25 percent to about 15 percent over the last 18 months.