**Issue Brief**

**Collaborative Video Solutions in Healthcare**

Reducing Hospital Readmissions and Improving Patient Care

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Too many patients who leave the hospital find themselves returning for more inpatient care less than a month later. Hospital readmissions are a global healthcare problem that are not only troubling for patients but are also costly. In the United States, readmissions of Medicare patients within 30 days are estimated to cost more than $17 billion annually.1 To encourage hospitals to reduce the number of patients who return within 30 days, countries—including the U.S. and the U.K.—have set up a system of financial penalties for hospitals with high readmission rates.

Not all readmissions can be avoided, of course. Patients re-enter for many reasons. However, studies have shown that too often, a large factor in readmission is lack of coordinated care for patients at home once they are discharged. Patients and their caregivers, if they have them, may not understand how to take prescribed medications or be aware of dangerous warning signs. There may be confusion over whom to contact with medical questions or when follow-up appointments must be made. Primary care physicians may not have been kept in the loop regarding a patient’s hospitalization.

In this issue brief, we will look at ways that video services—such as video conferencing and the increasing use of mobile video technologies—can reduce hospital readmissions by improving communication between patients and health professionals both during and after the discharge process, which enables better coordination of care. It will also explore other ways that video services can help improve patient health.

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**Why Reducing Readmissions is Vital**

Because frequent readmissions are seen as costly and potentially harmful to patients, the Affordable Care Act (ACA) included the Hospital Readmissions Reduction Program, which set up a gradually escalating system of financial penalties for hospitals with high readmission rates. Beginning in 2012, hospitals have been penalized up to 1 percent of their Medicare reimbursements for patients being seen for heart failure, heart attack or pneumonia who had been readmitted in less than 30 days. As of March 2013, about 2,200 U.S. hospitals had been penalized (about two-thirds of all hospitals), with the average penalty being about $126,000, for a total of $280 million. The amount that hospitals will be penalized for readmissions will rise in coming years, from the current 1 percent of Medicare reimbursements to 2 percent in October 2013 and 3 percent in 2014.

The penalty system may be working: In early 2013, the Centers for Medicare and Medicaid Services (CMS) revealed that the rate of readmission for Medicare patients with the three monitored conditions had dropped to 17.8 percent from a previous average that neared 20 percent.2 In 2015, CMS plans to monitor additional health conditions, with fines assessed for readmissions. The new conditions to be monitored are chronic obstructive pulmonary disease (COPD), coronary artery bypass graft, percutaneous transluminal coronary angioplasty (or blocked arteries) and other vascular conditions.3 The possibility remains that additional conditions will be added in the future.

While fines for readmissions are currently limited to Medicare patients with certain conditions, this doesn’t mean that other readmissions are being ignored. Readmissions for all causes in patients ages 18 and up are also measured and reported.

- CMS, in conjunction with Yale University, has developed an all-cause readmissions measure to provide a better assessment of the quality of care at hospitals for Medicare-aged patients.4
• The nonprofit National Committee for Quality Assurance’s (NCQA) all-cause readmissions measure reviews all unplanned readmissions for patients 18 and up. The NCQA is publicly reporting its findings for commercial and Medicare plans, and Medicare is using it as part of its Medicare Advantage Star Rating program.  
• CMS has set up a “Hospital Compare” website and is including information about readmission rates. A consumer trying to decide between competing hospitals might be swayed by a hospital being listed as below or above average in this category.

Hospitals and medical experts have voiced concerns that the focus on readmissions may unfairly impact teaching and safety-net hospitals — those that treat more underserved individuals who may be less likely to have support systems in place once they leave the hospital. CMS is being urged to revise its guidelines to take these factors into account when assessing fines. To date, no change in policy has taken place.

However, CMS has started reimbursing medical providers for transitional care and patient coordination services. This change means that doctors, nurses, care managers and others can receive payment for the type of discharge planning and care management seen as essential to preventing readmissions.  

New advances in mobile video and cloud access enable multi-point, live video-supported programs (such as patient-care consultations or post-discharge meetings) that can help reduce hospital readmissions.

How New, Mobile Video Solutions Play a Role

Consider this common situation: A 65-year-old woman recovering from a heart attack is sent home from the hospital with prescriptions for 12 different medications. She’s tired, in pain and can’t quite remember what the nurse told her to take or when; she has some discharge instructions she was handed but can barely interpret them; and when she tries to call the hospital to clarify, she’s on hold so long she gives up. In her confusion, she takes the wrong medications, once again becoming so ill she needs to be readmitted back into the hospital.

Now imagine instead that the same patient, as part of the hospital discharge plan, is able to easily video conference with her physician or nurse when she gets home to clarify her understanding of what she’s been told to do. Because in addition to the medication she receives, the patient is also given an easy-to-use tablet to take home that has a large, brightly colored icon she can touch that instantly brings up a video of a nurse describing how and when to take her medication. She can also touch an icon that connects her to a care manager for a video chat where she can ask questions. The care manager can see firsthand how she is doing and can prevent drug errors from occurring. The patient may also be given medical devices that collect readings, such as heart rate, blood pressure or weight that are sent to the same tablet and transmitted to a centralized dashboard monitored by her healthcare team that can quickly react to a dangerous change in her health condition.

This is just one example that explains how video technologies can help reduce readmissions. New advances in mobile video and cloud access enable multi-point, live video-supported programs (such as patient-care consultations or post-discharge meetings). Tablets can also be used, as described in the example above, going from hospital to home with the patient and providing a means for education, support and connection. Together, these new advances allow for continuous personal care.

Recent studies show video can make a difference. At St. Vincent Hospital in Indiana, for example, video conferencing between nurses and discharged patients with congestive heart failure and lung disease cut readmission rates to just 3 percent (compared with a control group, which saw 15 percent readmissions).

Telehealth and telemonitoring also have been shown to reduce readmissions. Partners HealthCare in Boston reports telemonitoring of heart failure patients improved readmissions by close to 50 percent, saving $10 million, while Centura Health at Home in Colorado found so much success with its remote patient monitoring that it plans to expand its program to 2,000 patients by the end of 2013. Similarly, in Ontario, Canada, patients with COPD, diabetes or congestive heart failure are remotely monitored using tele-homecare equipment from the Ontario Telemedicine Network.

Training nurses to act as transition guides for patients can also pay off by cutting the need for rehospitalization. Mercy Health in Cincinnati, Ohio, implemented Dr. Eric Coleman’s care transitions model — and saw readmission rates drop 15 percent. While video services weren’t used, the
principles used in the Coleman model would work well with video services, which can extend the communication and collaboration between patient and provider even further.

Other ways that collaborative video can be used in healthcare delivery to improve readmission rates, as well as overall patient health include:

- **Case management:** Patients can have push-button access to live video visits with case managers
- **Education about conditions:** Patients and caregivers can view instructional videos to learn proper care and red flags to identify
- **Transition of care:** Live video interaction connects and supports patients; monitoring devices, such as Bluetooth-enabled blood pressure cuffs, can keep the medical team aware of the patient’s status
- **Medication management:** Physician instructions for the use of pills and other medications can take place over video, which can potentially catch medication errors
- **Follow-up visits with physicians:** These visits can be coordinated with the care team; patients and caregivers can click videos to be reminded of scheduling

Additionally, video tools can be used to prevent hospital admissions and provide outpatient program support. At the South Carolina Department of Mental Health, patients receive video consultations at 21 hospital emergency rooms statewide, an approach that has saved $21 million.12 These video services are used to prevent patients, in many cases, from needing hospitalization. Rather than entering a costly inpatient stay for evaluation, patients with mental health problems can be seen in the emergency room via video conference with doctors. These “rapid intervention” consultations resulted in more patients being seen and referred for follow-up outpatient treatment, while also reducing the incidences of hospitalizations.

“Our telepsychiatry program is focused on accelerating the initial treatment of patients to improve health outcomes and reduce the length of hospitalizations,” says Ed Spencer, director of the department’s telepsychiatry consultation program. Studies have found that the program has reduced treatment cost per episode by more than $1,800 and increased post-hospitalization adherence to outpatient care by 200 percent.13

**New Health Organizations and Collaborative Video**

As a result of the Affordable Care Act, new organizations are being formed, called Accountable Care Organizations (ACOs), which aim to support health and save money through prevention and wellness programs. Those that are successful in cost cutting will receive financial bonuses from the U.S. government. As of March 2013, there were about 250 ACOs in the U.S., serving about 4 million Medicare recipients. The federal government hopes to save up to $940 million through the program over four years.14

Other countries also support similar organizations. For example, in Australia, non-governmental, community-based “Medicare Locals” are being launched to improve overall health and wellness. One goal is to promote national telehealth services and strategies.15 In addition, the government provides financial incentives to health providers who help patients receive video consultations.16

Challenges to running and forming an ACO include trying to coordinate disparate, often geographically separated groups and individuals. A primary care practice may have headquarters in one city with locations throughout a state; specialists may even be in other regions of the country. Collaborative video helps bring people together so that organizations can run more smoothly.

Video technology has been used successfully in health organizations to serve a variety of types of patients, including veterans, prisoners, rural populations and patients with chronic conditions such as diabetes, as well as those with acute conditions like strokes.

- The U.S. Veterans Administration Northwest Health Network connects remotely located patients with health providers using video instead of in-person visits, saving $742,000 in 2011. The network uses clinical video conferencing for mental health services, management of defibrillators, assistance with the amputation clinic, teledermatology and many other services.17
- UK telehealth services have reduced emergency room admissions by 20 percent and reduced mortality by 45 percent.18
- Texas Tech Health Services connects prison and rural populations with medical and mental health professionals via video.19
- Saint Vincent Hospital in Pennsylvania uses virtual education in its bariatric and diabetes programs for patient training and support. The hospital’s stroke program connects its doctors with consulting neurologists via video. Doctors collaborate on grand rounds and in tumor boards using telepresence.20

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