Healthcare On Demand: An Expanding World of Telemedicine Raises New Questions for HIM Professionals

By Lisa A. Eramo

It's midnight, and your cough has been unrelenting. You power up your laptop and visit one of the many websites that feature online access to physicians 24/7. Within minutes, you're engaging in a video consultation with a board-certified physician who evaluates you, provides clinical instruction, and prescribes medication. Minutes later, you're back in bed resting with a prescription on your nightstand that you'll fill first thing the next morning.

You have other options, too. You can see a specialist located miles away via high-definition video from the comfort of an exam room at your local clinic. You can also walk into a freestanding kiosk at your local pharmacy and interact via video with a physician in a nearby city. If things take a turn for the worse and you're admitted to the intensive care unit of a hospital, you may even have the comfort of knowing that you're being monitored by ICU nurses around the clock from a remote location.

Welcome to the world of telemedicine—where the use of electronic information and telecommunications technologies support long-distance clinical care. These technologies typically include video-conferencing, the Internet, store-and-forward devices, streaming media, and terrestrial and wireless communications. It is a world in which access to healthcare is paramount and simple. Distance is no longer a barrier to services because technology is there to fill the gap.

However, it is also a world where new questions arise for HIM professionals. How does the format of the record change when providers engage in telemedicine? How can information be integrated from the telemedicine device or application and into an electronic health record (EHR)? Should there be a seamless integration? What about authentication, privacy, and security? Most of these questions still need answers—and need HIM professionals to provide them.

Telehealth is a Growing Trend

The use of telemedicine has been increasing steadily over the last few years, and it is poised to explode in growth in the near future. According to a study by Parks Associates, the number of households using video consultations will grow from 900,000 in 2013 to 22.6 million in 2018. Today, patients between the ages of 18 and 34 who have an annual household income of $50,000 or more are currently the heaviest users of online healthcare communication tools, according to the study.

The Veterans Health Administration (VHA) has been using telemedicine since 2003 to target chronically ill veterans. According to a report titled "Scaling Telehealth Programs: Lessons from Early Adopters," which was published in 2013 by the Commonwealth Fund, the VHA reported reductions in bed days of care for eight different targeted chronic conditions. This included a 20 percent drop for nearly 9,000 enrolled diabetes patients, a 56 percent decrease for nearly 340 patients then receiving home health monitoring for depression, and a 45 percent drop for nearly 140 patients with post-traumatic stress disorder.

Even entities in the private healthcare industry are tapping into telemedicine's power. For example, ADT, the home security firm, announced last year that it would partner with Ideal Life to integrate their health and monitoring technology into an interactive home management system, ADT Pulse. Pulse allows customers to remotely arm and disarm their security systems, provide real-time video feeds from electronic devices, lock and unlock doors, and receive notifications and alerts. Through their partnership with Ideal Life, customers and their caregivers and medical providers can now also use Pulse to monitor and track health and wellness in real time.

Additionally, Verizon announced in June that it would offer Virtual Visits during which providers who contract with Verizon could engage with patients via a phone, tablet, or laptop to discuss simple acute conditions.

Telemedicine is expanding at lightning speed primarily because patients want this technology, says Sherilyn Pruitt, director of the Office for the Advancement of Telehealth at the Department of Health and Human Services. "They [healthcare consumers] aren't afraid of video because they're familiar with Skype, Tango, and Snapchat," she says, adding that smartphones have revolutionized the way in which consumers interact with technology of all kinds.

Telemedicine technology is moving beyond its traditional application in rural areas to include larger metropolitan areas where travel barriers can also exist, Pruitt says. "In an urban area, particularly in medically underserved areas, even though a patient might live within 10 miles of a major medical facility, in order for them to get there they need to take three buses and a train," she says. "This could take them three hours. Telemedicine allows the specialists to be where the patient is when that patient needs the care."

However, one of the biggest barriers to the expansion of telemedicine is the fact that providers must be licensed in the state in which the patient is located. "This takes time, and it costs money," says Pruitt.

Fight Ongoing to Convince Payers, Providers to Embrace Telemedicine

Reimbursement is another barrier. Not all insurance providers pay for telemedicine. Medicare has perhaps the most restrictive payment guidelines. Although Medicare will pay for remote test interpretations (i.e., for radiology or pathology), it will only pay for video interactions when a patient is located in a non-metropolitan area. Changing this could open up telemedicine options to hundreds of thousands of patients—and possibly be the catalyst that moves telemedicine from novel to everyday medicine.

Jonathan D. Linkous, CEO of the American Telemedicine Association (ATA), says that Medicare's payment stipulations, which were implemented 15 years ago, are antiquated and don't support the growth of these services. "We've been in the 21st century for 14 years. Medicare is still moving at the speed of a glacier," he says.

Medicare's resistance could be rooted in a perceived fear of fraud—that is, providers billing for virtual encounters that never occur. But Linkous says this fear is unfounded and not based in any reality. Medicare may also be receiving pushback from physicians, some of whom could fear the competition inherent in telemedicine expansion.

"Telemedicine allows doctors to see patients from [all areas of the country]," Linkous says. "This means patients can get access to any doctor they want. A patient may end up leaving their doctor for a better doctor. It's a good thing for consumers and the public, but not so good for the bad doctors."

The ATA and others have pushed Medicare to reconsider its payment policies to include coverage for telemedicine regardless of a patient's geographic location, the services provided, or the real-time nature of the service. Linkous hopes that there may be enough momentum in Congress to change these rules within the next two years.

Pruitt says that HHS already has several initiatives underway to build an evidence base for the efficacy of telemedicine services. On September 1, HHS was expected to announce five provider recipients of an evidence-based tele-emergency grant program that will provide each site with $400,000 per year for three years to develop and measure the outcomes of telemedicine services. The goal is to more closely examine costs and benefits of telemedicine in the hopes of eventually expanding coverage for these services.

Despite Medicare's resistance, other payers have welcomed telemedicine with open arms. Dozens of state Medicaid programs currently pay for some form of telemedicine, and 30 states have proposed legislation to expand coverage, says Linkous. Various large private payers and employers pay for telemedicine both in rural and metropolitan areas, he adds.

Breaking New Virtual Ground

Many providers aren't waiting for Medicare to expand coverage for telemedicine. Consider Mercy Health System, which operates acute care, specialty care, and critical access hospitals in Arkansas, Kansas, Missouri, and Oklahoma. In May, Mercy officially broke ground on the first virtual care center in the United States. The four-story, 120,000 square foot center located in Chesterfield, MO, will open in 2015 and provide an estimated three million telehealth visits in the next five years.

"Essentially, it's all about access. We don't have enough providers," says Tom Hale, MD, executive medical director for Mercy's telehealth services. "It has been difficult to get providers to where our patients are. Many of our patients are in rural

areas. It's also the case that we have to find a less expensive way to deliver healthcare."

Mercy's virtual care center will include more than 75 service lines, including telestroke, pediatric telecardiology, telesepsis, teleradiology, telepathology, home monitoring, and more. All providers who render telemedicine services must be credentialed and licensed through Mercy Virtual, a business entity under the Mercy umbrella.

Hale says Mercy's foray into telemedicine began with its SafeWatch eICU—a program in which Mercy doctors and nurses provide around-the-clock monitoring for hospital ICU patients from a remote location. Launched in 2006, Mercy specialists monitor more than 450 beds in 28 ICUs throughout a five-state region, including non-Mercy facilities in South Carolina. High-definition cameras and sophisticated technology allow providers to zoom in on patients and see details as small as pupil dilation.

"It has been very successful from a quality standpoint," Hale says. "We've decreased mortality and length of stay. It has also been widely accepted by our patients."

Questions Arise on Telemedicine's Information Impact

However, Mercy's telemedicine offerings initially raised questions about information management. Hale says HIM professionals provided input at the onset of the program to address important questions related to storage and integration. For example, Mercy had to decide whether it would store the video portion of the telemedicine encounter within its EHR. Hale says the health system ultimately decided not to do so, citing storage and liability as primary concerns.

"If you do telehealth and save the video, then why wouldn't you have to set up video within the operating room and everywhere else?" Hale says. "To me, it's not only a storage nightmare, but it's an incredible barrier for people to feel like they can be open and honest."

Daniel Z. Sands, MD, MPH, a Boston-based consultant specializing in health IT transformation, non-visit based care, and participatory medicine, agrees with Mercy's approach. "If you store it in the record, you're going to need mountains of memory. You're going to need special servers just to manage this information," he says. However, he admits that storing single video recordings of a function or demonstration might be more useful than storing the recording of an entire visit.

"There's just so much you can do when you start thinking about adding in these multimedia objects. It probably does add a certain richness to the record," he says. Storing the recordings of entire visits would only be helpful if providers could tag words or phrases so they could easily find discussions that take place, he adds. Ideally, providers could also generate a note based on an audio or video recording.

Still, as telemedicine evolves, experts agree that HIM professionals must be able to work collaboratively with IT professionals and others to answer questions related to the logistics of storing video and audio files within the health record. Today, the record typically only includes images and text.

Another HIM question that Mercy had to address was where it would store clinical information produced during the actual telemedicine encounter—that is, whether it would integrate the telemedicine technology directly with the EHR or keep the two technologies separate. This was particularly important for Mercy's external clients because it would mean that Mercy providers would need direct access to the external client's EHR for order entry and documentation.

Mercy decided that any providers would document directly into the site's EHR as they engage in telemedicine with patients via video rather than automatically stream information. Hale says this ensures that there is only one source of the truth for the information: the EHR.

Telemedicine Increases Patient Engagement

The Cleveland Clinic is another site at which telemedicine services are taking off with lightning speed. In particular, the clinic began a year-long pilot program last May to offer walk-in kiosks called HealthSpot stations in three of its family health centers. These 8-by-5 foot enclosures are outfitted with touch screens, integrated medical devices, and two-way video-conferencing abilities. During the pilot program, the clinic averaged 20 visits per month at each station.

Christopher Soska, chief operating officer at Cleveland Clinic's Community Hospitals and Family Health Centers, says he is already working on expanding kiosk locations beyond the clinic's walls to include community centers, retail shops, churches, businesses, universities, and schools. Patients can conveniently walk up to a kiosk without scheduling an appointment and be treated for low acuity conditions, such as fever, cold, flu, rashes, eye conditions, ear aches, sore throat, sinus infections, respiratory infections, or allergies.

Here's how it works. An LPN attendant helps patients enter basic demographic information into the kiosk, such as name and address, using a touch screen. No other personal information such as a Social Security number or clinical information is stored within the kiosk itself. No information is exchanged between the kiosk and the EHR, Soska explains. As with Mercy, providers who are located hours away document directly into the EHR while they interact with a patient via video technology. This video is not recorded, and thus it's not part of the health record.

What's unique about the Cleveland Clinic HealthSpot stations is that patients are expected to participate in the exam. If a provider, for example, wants to check a patient's heart beat, a stethoscope is accessible within the unit. The patient places the device on his or her body and follows the provider's instructions. This information is streamed in real-time to the provider for interpretation and so that he or she can input the data into the EHR.

"We thought we'd get more traction from the younger patients, but it's a mix," Soska says. "People like the technology. They're fascinated by it."

Questions Remain on Information Integrity, Integration

Although telemedicine can benefit patients significantly, it also raises a variety of other questions for HIM professionals. For example, if a patient uses a health system's kiosk as a new patient who has never seen a provider within that system, how will identity authentication and insurance verification occur? Can this ever be truly automated? Who will subsequently ensure that there aren't identity duplicates if and when that same patient returns for a face-to-face visit with a provider?

For new patients who access the Cleveland Clinic's kiosks, an LPN will verify whether a patient is new or established via a laptop connected to the EHR before that patient enters the kiosk. If the patient is new, the LPN will assist with registration and assign that individual a clinic medical record number that he or she will use upon return to the kiosk or the actual facility.

With online telemedicine there are other challenges as well. In particular, there is no doctor-patient relationship, says Pruitt, which could call into question the quality of the care provided. "You're seeing a patient virtually for the first time, and you end up prescribing medicines based on the person's own description of their symptoms and not based on any lab tests."

The same could be true for independent kiosks or retail health clinics that aren't part of a health system, such as the kiosks currently popping up in Walmart and CVS, Sands says. Clinical decisions are made somewhat in isolation.

Experts agree, however, that the same could be said for the disparate and uncoordinated care that happens even without telemedicine, as patients see providers in different systems in which there is a lack of interoperability. Without a patient's full history, providers are left to make decisions based on information they can glean in the moment. "Telemedicine makes it easier for people to get access to care, which is a great thing, but care that is uncoordinated may not be such a great thing," Pruitt says.

HIM professionals must be able to contribute to conversations about the integration of health information generated from these types of encounters, Pruitt says. Will this interaction be documented? If so, how? Will it become the patient's responsibility to ensure that this information eventually finds its way into the provider's record as well?

Privacy and Security Concerns

As with any medical encounter, those encounters performed using telemedicine technology are vulnerable to privacy and security threats. Interception of audio or video technology is a concern. Also, because visits can occur anywhere and anytime, it does raise questions about the settings in which these encounters take place. "Because the provider is actually communicating with the patient and looking at the patient, it's important that the provider do so in an area that's secured from prying eyes," Sands says. Patients need to think about this as well, he adds.

Mobile devices and apps that store patient data and facilitate telemedicine are also certainly subject to theft. Interestingly, the Food and Drug Administration issued draft guidance, available at http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm401785.htm, in June stating that it considers medical-device data systems (i.e., hardware or software products that transfer, store, convert formats, and display medical device data) to be so safe that it declined to oversee them. This guidance contradicts previous FDA rulings that occurred as recently as January 2011 in which the FDA stated it considers these devices to be among the highest-risk technologies in healthcare.

HIM professionals can help ensure that patients understand the importance of securing these devices as much as possible. The integrity of one's health information depends on this privacy and security.

HIM's Evolving Role in Telemedicine

Telemedicine will only continue to grow commensurate with population health management and other initiatives aimed at improving the quality of care, and it's going to be paramount for HIM to be at the table when important decisions are made.

"It's our belief that fee-for-service is dead and that we're moving to a population heath management payment methodology," Hale says. "If we manage our populations effectively, we keep patients healthy and ultimately reduce costs."

As telemedicine offerings continue to expand, HIM professionals must not only be able to answer questions about integration and privacy and security, but they must also serve as patient advocates. In lieu of true interoperability, telemedicine places an incredible amount of responsibility on patients to coordinate their own care. HIM can help educate patients about the importance of their health information and the important role they play as true care coordinators.

"Telemedicine is a good thing," Sands says. "It's a way for us to expand the reach of our healthcare system and be more patient-centered. We're in a state of evolution, and health information management professionals are going to need to be a part of all of this."

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