

Life-saving technology continues to hold its own in medical industry







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elemedicine technology, which dates back to the early 1900s, has become a mainstay for rural patients and practitioners who recognize the benefits of timely diagnosis and treatment. The global market for these remote-access health systems will be worth more than \$12 billion by 2012, according to estimates from Datamonitor, a business analyst and research firm.

How did we get here?

Telemedicine surfaced as a business model almost 100 years ago. Doctors used phone lines to transmit heart sounds to cardiac experts, and the National Aeronautics and Space Administration (NASA) sent data from astronauts to physicians during 1960s space travels. Other telemedicine pioneers:

- Massachusetts General Hospital established a station in 1967 to provide occupational health services for hospital employees and emergency care to travelers.
- Alaska and Canada used satellite technology to link hospitals with remote villages.
- Prison systems used telemedicine to decrease the costs of transporting inmates to medical facilities.

Technological advances open a world of possibilities for physicians and patients. Internet technology and robotics make it possible to link thousands of medical centers in all 50 states. And by using cameras, high-resolution monitors and other data-gathering tools, world-class doctors reach rural patients who would otherwise travel hundreds of miles to see specialists.

Radiology, pathology, cardiology and dermatology specialists as well as some surgeons are seeing major applications for telemedicine. The military is also considering use of telesurgery in battlefield situations where a remote surgeon can work with professionals on-site to treat wounded troops.¹

Scanned images of patient data and video conferencing between providers and patients gain traction every day as acceptable, even preferred, practices. Some commercial payers encourage video visits between patients and psychologists or other mental health providers.

In 2009, United Healthcare awarded a \$150,000 grant to Arizona Telemedicine Network/Copper Queen Community Hospital of Bisbee to support the use of telemedicine for cardiology specialty consultation in rural southeast Arizona.²

Payers are also encouraging family and general practice physicians to use home-based devices for monitoring diabetics and patients with congestive heart failure and other chronic conditions. This approach results in fewer hospital stays and emergency room visits, which saves providers money and improves patient comfort. The 2008 Medicare expanded reimbursement of in-home patient self-testing for patients with chronic atrial fibrillation and venous thromboembolism is an example of the effectiveness of this approach.

Company influence

Telecommunication service providers have fueled telemedicine growth. In April 2010, AT&T inked a \$27 million deal with the California Telehealth Network (CTN) to provide managed network services. CTN will work with AT&T to build an 860-site statewide network that connects smaller hospitals and clinics to larger hospitals, specialists and experts.

Along with AT&T, Qwest will provide network connectivity for Colorado's Telehealth Network, which is designed to provide remote diagnostics for patients who live great distances from medical facilities. And Verizon recently won network contracts with Humana and Maimonides Medical Center in New York.

Pradeep Albert, MD, DABR, chief information officer for Medical Arts Radiology, Long Island, N.Y., is keenly aware that every minute counts when it comes to medical care.

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"Faster technology helps us make quicker decisions," Albert says. "It can mean the difference between sending someone home to wait for a report, to the emergency room to wait for hours as a condition worsens, or diagnosing immediately and getting the patient to urgent care. It can mean saving lives."

Within telemedicine, a significant area for growth lies in telerobotics. Intuitive Surgical Inc., a robotics technology provider in Sunnyvale, Calif., estimates that using robots to deliver care will represent a \$4 billion market. The company's system allows doctors to perform surgery using a robot operated through a computer system. The system was used in 136,000 procedures performed in 2008, a 60 percent increase from 2007, according to Intuitive Surgical Inc.

From an industry perspective, telesurgery got a boost in 2007 when the National Comprehensive Cancer Network (NCCN), a not-for-profit alliance of cancer centers worldwide, accepted robotic prostatectomy surgery. NCCN creates national practice guidelines for prostate cancer treatment.

As a result, Inova Fairfax and George Washington University hospitals experienced 500 percent and 300 percent increases, respectively, in robotic prostatectomy procedures between 2004 and 2007.

Crossing state lines

Using the latest technologies requires significant investments of time and finances, and users (physicians, technicians and nurses) routinely experience steep learning curves and a longer time before they see a return on investment.

For example, a radiology group that wants to increase revenue by reading patient films for a large multispecialty group or small hospital located in another state will see increased volume of readings and the subsequent

increase in revenue. However, the technological investment to make radiological readings possible (hardware and software) should be considered at length before contracts are negotiated.

An often overlooked barrier, and one that could have huge ramifications, involves state licensing. While technology has evolved at a rapid and continuous pace, credentialing regulations and processes have not. Jumping into telemedicine without analyzing critical issues may have serious consequences, including a lawsuit for practicing medicine without a license. The United States is truly a republic of sovereign states with different requirements and guidelines for physician licensure. Crossing state lines continues to be a major hurdle for telemedicine.

For most states, licensure requirements specify that a physician providing care or services is licensed in the state where his or her patient lives. To this end, state governments are encouraging physicians in their states to service in-state patients.

When crossing state lines, physicians must ensure that they comply with each state's licensing requirements. The cost of computers, satellite connections, software and other technology components pales in comparison to the licensure obstacles in the United States.

Since each state sets licensure requirements, variability is immense. For example, Rhode Island does not require specific state licensure as long as a telemedicine physician is working with a physician in the state. Some states such as Alabama and Nevada have special licenses for telemedicine, a few offer telemedicine licenses or certificates for physicians practicing across state lines and several require full licensure for the practice of telemedicine with in-state patients.

Oregon represents a compromise: It has statutes specific to telemonitoring licenses that allow a physician to direct a technician to make adjustments

to equipment that reads neurological impulses.

Because of these ever-changing, disparate requirements, the process of credentialing physicians who practice telemedicine can be a long and arduous exercise. After researching requirements in a patient's state, physicians must develop a formal process for obtaining licensure that abides by state laws, federal regulations and accreditation standards. Next, credentialing can be lengthy and costly. The initial fees for a license application vary from \$35 to \$1,400 and do not include fees for criminal background checks, fingerprinting and verification of licenses held in other states. When marketing for telemedicine services, the cost of licensure in each state needs to be considered. In addition, it is important to start any application process as early as possible. The licensure process can take anywhere from four weeks to six months or more.

Finally, providers should monitor the standards landscape regularly for changes and adapt their process accordingly.

Who pays?

About one-fifth of the states in the nation have some type of legislation that requires commercial insurers to reimburse physicians for telemedicine services. Medicare providers may bill for telemedicine services as long as they follow the federal requirements of efficiency, economy and quality of care outlined at the government website.³

In addition, Medicare requires providers to practice within the statemandated guidelines. With most insurers following Medicare's lead, payment is not a troubling barrier at this time. Now that healthcare reform has passed, the cost savings associated with telemedicine are expected to spur growth in this area. With the application of telemedicine, savings are realized not only by investment in services and procedures to decrease costly

hospitalizations (patient self-testing), but out-of-pocket patient expenditures will decrease as less time and money are spent on trips to medical offices and labs.

As demand for telemedicine grows, state licensure enforcement will become a larger issue. If an insurer discovers that a physician using telemedicine is not licensed in the state where the patient is receiving care, payment may be denied.

Future telemedicine services will also continue to expand into specialty care. However, primary care is ripe for telemedicine delivery. As the U.S. population ages and the number of physicians in primary care decreases, professional and economical care in this realm will become increasingly valuable.

Industry members have seen urgent care centers of one kind or another placed in drug or retail stores with centers that are usually staffed by physician assistants or nurse practitioners. However, wouldn't it be

nice for your patients to sit in front of their computers and "visit" with your physicians?



join the discussion: Have you used telemedicine in your practice? Tell us online at mgma.com/connexioncommunity or connexion@mgma.com

Notes

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