Telehealth: What is it?

AAHKS Digital Health Committee

Telehealth is without question the most mature market for digital health technologies within healthcare. Wikipedia's definition of telehealth is, "the distribution of health-related services and information via electronic information and telecommunication technologies. Telehealth allows long distance patient/clinician contact and care, advice, reminders, education, intervention, monitoring and remote admission."

According to the American Telemedicine Association[1], whose yearly conferences now gather more than 10,000 members, the promise of telemedicine, a synonym for telehealth, is fourfold: improve access, reduce cost, improve quality, and meet patient demand for healthcare for on-line health care services.

The most common application of telehealth technologies in orthopaedics is the virtual visits that are being delivered by physicians to patients in remote locations or for whom travelling is problematic. Over 200 networked programs exist connecting over 3,000 remote sites in the United States today. Technology companies provide the infrastructure to healthcare systems wishing to deploy their services over the web to patients in and out of their network. Telehealth visits can be "synchronous," which utilize live communication platforms, or "asynchronous," which exchange information back and forth but not necessarily simultaneously. Clinician to clinician consultations, virtual physical therapy, remote robotic surgery, home monitoring of patient health data, and remote support of hospitals without specialty care access are all considered telemedicine as well.

In orthopaedics, we have seen two areas in particular benefit from telehealth services. The first is the use of patient engagement platforms that help education, management and communication between providers and patients in the perioperative period. Such platforms have been shown to increase patient satisfaction and lower readmission rates. The second area is in the use of virtual rehabilitation and physical therapy to replace traditional in-person visits following surgery. Several trials have shown excellent outcomes from these platforms. Text, video and virtual reality offerings abound in this space, many of which offer remote sensors that track patient motion and progress.

Since internet access is critical for telehealth to succeed on a wide scale, its adoption was for a long time tied to the penetrance of smart phones or the spread of broadband access into remote or underserved communities. As almost 77% of Americans now own smart phones and 92.3% have broadband access [(2)], telehealth has had a massive uptake in both utilization and venture funding ($1.2B from 2013 to 2014 alone). Successful telehealth startups have shown that the financial markets are betting that America is ready for this technology [(3)].

With respect to payment for services rendered, many states such as California, Texas and Georgia, and now the federal government have expanded the ability for telehealth visits to be reimbursed. In particular, the CHRONIC Care Act recently signed into law as a bipartisan effort, expanded telehealth options for Medicare Managed Care plans, enabled kidney dialysis at home (a form of telemedicine), and allowed 44 "next generation" Accountable Care Organizations (ACOs) to provide telehealth services for all Medicare beneficiaries. Previously the Centers for Medicare & Medicaid Services (CMS) had also decided to cover remote patient monitoring for Medicare patients suffering from chronic health conditions at home[(4)].

1. http://atawiki.org.s161633.gridserver.com/wiki/index.php?title=Welcome
2. https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2018-broadband-deployment-report
3. https://www.cbinsights.com/research/telemedicine-startup-funding/
4. https://thesource.americantelemed.org/blogs/jessica-washington/2018/02/09/american-telemedicine-association-applauds-landmar?CommunityKey=a19668dd-1d45-44c2-8c38-318adc561770&tab=