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Telehealth in Academic Medicine: Roles, Opportunities, and Risks

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Academic medical centers (AMCs) are increasingly implementing telehealth programs to enhance patients' access to care, distribute physician expertise more widely, and increase value. Across the United States, AMCs draw on clinical expertise, research excellence, and the mission of training the next generation of providers to solidify their role as leaders in telehealth. Increased engagement in telehealth services creates both opportunities and risks for AMCs.

What Is Telehealth?

Telehealth can be described as a collection of means or methods for enhancing health care, public health, and health education delivery and support using telecommunications technologies.[1] A range of terms are commonly used to describe these services, including telehealth, telemedicine, virtual care, connected care, and digital health. The technologies of telehealth can be grouped into the following categories:

Live Video (Synchronous)

Use of audiovisual technology to conduct real-time care in lieu of in-person visits

- An individual—patient, caregiver, or provider—is able to have a virtual visit with a provider over a secure Health Insurance Portability and Accountability Act (HIPAA) compliant encrypted connection.
- This technology is particularly effective for overcoming geographic barriers.

Store-and-Forward (Asynchronous)

Use of secure e-mail, electronic medical records, and other platforms to send images, questions, messages, and some test results between providers or between patient and provider

- Current applications are available in ambulatory, emergency, inpatient, and other settings.

Remote Patient Monitoring (RPM)

Use of technology to track patients outside of the health care setting to better predict their needs

- RPM is often used with chronic conditions, enabling staff to monitor patient status through recurrent data capture of clinical measures (e.g., blood sugar, weight, blood pressure).

Mobile Health (mhealth)

Use of cellphones or tablets to send messages to patients, promoting healthy behavior, reminding them of medications or alerting them to disease outbreaks

- For example, secure text messages from a virtual health coach may provide patients with daily personalized reminders to exercise, eat healthy, and take medications.

What Are the Opportunities and Risks Regarding Telehealth for Academic Medicine?

As telehealth tools and technology rapidly advance, so too has the for-profit market for these tools.[2] Within AMCs, telehealth programs must decide what to build themselves and what to buy from vendors. As payment models shift increasingly to promote value and new opportunities for reimbursement emerge, there are growing opportunities for telehealth to be a principal modality for meeting patient needs.[2]

If AMCs are to be leaders in this emerging field, the following priority areas[2] which provide both opportunity and risk, are critical to consider:

Health Provider Workforce

Opportunity:
- Extend current workforce capacity
- Reduce the longstanding gap in access that affects underserved populations, especially in rural and remote areas

Risk:
- An additional burden on providers and staff (already overwhelmed and overworked) who must learn new skills and competencies

Medical Education

Opportunity:
- Establish guidelines for education and training, determine competencies and skills needed, and formalize telehealth curriculum

Risk:
- Insufficient or disjointed efforts in establishing high-quality telehealth training for physicians and other staff, leading to inconsistent quality of care and risks to patient safety

Research and Data

Opportunity:
- Lead rigorous research, ensuring quality of care is maintained and improved, while building the evidence base to support regulations and reimbursements

Risk:
- Widespread enthusiasm and profit-driven motives of industry outstrip research efforts to critically examine the effect of telehealth on quality and cost of care

References:
1. Center for Connected Health Policy. About Telehealth. 2019. https://www.cchpca.org/about/about-telehealth. Accessed February 19, 2019.
2. These areas were identified by several academic medical center telehealth leaders during an Association of American Medical Colleges Telehealth Roundtable Meeting, April 20, 2016, Washington, DC.

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