Store and Forward (Asynchronous Telehealth)

Description

Asynchronous telehealth is the transmission of recorded health history/information or clinical/diagnostic data through an electronic communications system to a healthcare provider who uses the information to evaluate the case or render a service outside of real-time or live interaction. The data that is stored and then forwarded may include medical images, lab work, vital signs, or other clinical data that can easily be transmitted using technology. Since the data is not transmitted real time, t is considered asynchronous.

Purpose

Asynchronous telehealth allows the provider to receive data on a patient via technology from a distance. The provider is then able to review the data at a optimum time. This process may be used to reduce unnecessary referrals and to increase the timeliness for treating patients. If the system is set up properly, it can increase the chances of having a more precise and robust diagnosis because healthcare providers will be able to obtain specialist consultations (mHealthIntelligence, 2019).

Patient Population

Asynchronous telehealth has been primarily utilized for collection of diagnostic data, specialist review and consultation, or monitoring of patients at a distance.

Additional Equipment to Consider

The provider and patient will need access to the internet, sensors, and a computer, tablet, or Smartphone with text, email, and video capabilities.

Reimbursement Considerations

The reimbursement codes that should be considered include CPT Code 99451, CPT Code 99452, and Code G2010.

Examples of Technology and Uses

Technology	Uses
SMS Text Messaging	- Medication Reminders - Appointment Reminders - Educational Messages
Asynchronous Video	- Consultation assessments to primary care, nursing homes - Educational videos
Computerized guided therapy	- Education - Peer support

Technology	Uses
Mobile device ecological momentary assessment	• Granular assessments of symptoms activities
Mobile device sensors	• Track activity • Track location • Track movement
Mobile app-based psychotherapy and psychoeducation	• Adjunct to face-to-face therapy • Education

Vendors (software)
See Videoconferencing

Examples of Use Cases

The Champlain BASE™ eConsult Service in Ontario, Canada, connects primary care providers and specialists. The program has been hugely successful, having secured over 2 million dollars in funding and reaching a level of national collaboration. The Champlain BASE™ service has been hugely successful. A total of 41,728 cases have been completed by 1,417 registered PCPs (1,202 family physicians and 215 nurse practitioners) from 520 clinics in 118 towns/cities, who can access 114 specialty services. It has provided thousands of patients with quick access to specialist advice.
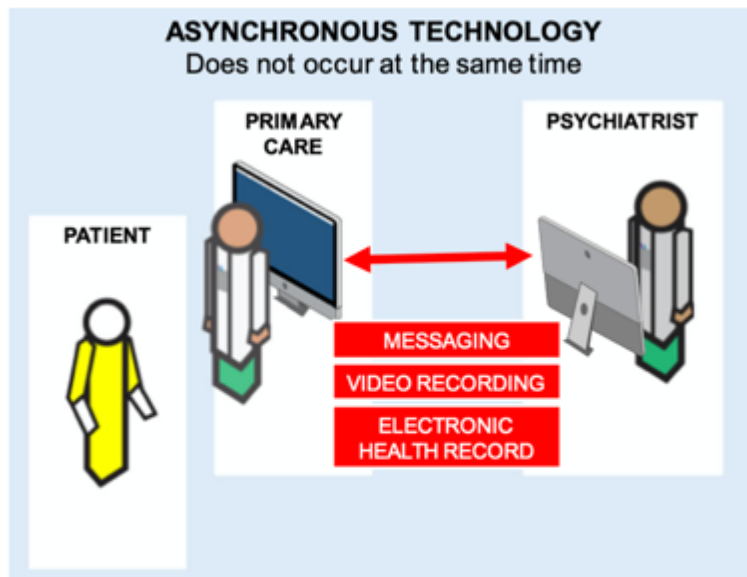
Center for Connected Health Policy
https://youtu.be/uT9fD7J3n6I

Other Examples
Transferring EEG images of stroke patients from Critical Access Hospitals to Neurologist to determine treatment
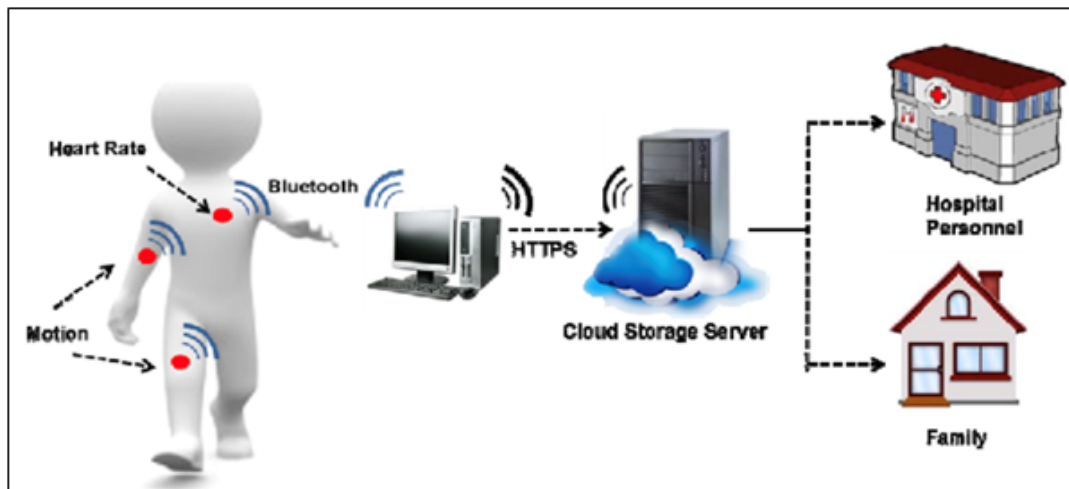Cardiac Monitoring/Holter Monitor for diagnoses and management of Cardiac Patients

Images

Chan, S., Li, L., Torous, J. *et al*. Review of Use of Asynchronous
Technologies Incorporated in Mental Health Care. *Curr Psychiatry
Rep* **20,** 85 (2018). https://doi.org/10.1007/s11920-018-0954-3

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