INTRODUCTION TO TELEMEDICINE

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DISCLOSURES

No disclosures to report.

OBJECTIVES

At the conclusion of this activity, participants will be able to:

- Define and differentiate between telehealth and telemedicine.
- Differentiate between synchronous, asynchronous, remote patient monitoring, and mobile health.
- Utilize proper web etiquette during telemedicine visits.
- Summarize how to perform a physical exam during a telemedicine visit.
- Demonstrate how to document a telemedicine visit.
- Identify the technology required for a telemedicine visit.

DEFINITION OF TELEHEALTH

The US Department of Health and Human Services defines telehealth as "the use of electronic information and telecommunications technologies to support long distance clinical health care, patient and professional health-related education, public health and health administration."[1]

1. HealthIT.gov. What is Telehealth? How is Telehealth Different from Telemedicine. Accessed August 16, 2020. https://www.healthit.gov/faq/what-telehealth-how-telehealth-different-telemedicine#:~:text=The%20Health%20Resources%20Services%20Administration,public%20health%20and%20health%20administration.

TELEMEDICINE VS. TELEHEALTH
IS THERE A DIFFERENCE?

- The terms are "often used interchangeably may have different means depending on where you are and who is covering/paying for your health services."[2]

  - Telemedicine = direct health care services

  - Telehealth = umbrella term

2. Center for Connected Health Policy. Telehealth 101 – Terminology. July 22, 2020. Accessed August 15, 2020.
https://www.cchpca.org/sites/default/files/2020-07/SLIDE%20DECK%20-TELEHEALTH%20BASICS%20%20E2%80%93%20Terminology%20JULY%202020.pdf

TYPES OF TELEHEALTH

The Center for Connected Policy Divides Telehealth into four domains:

1. Synchronous (i.e., live video)
2. Asynchronous (i.e., store-and-forward)
3. Remote Patient Monitoring
4. Mobile Health [3]

3. Center for Connected Health Policy. http://www.cchpca.org. Accessed October 27, 2020.

TYPES OF TELEHEALTH

SYNCHRONOUS

- AKA: real-time live videoconferencing

- A live virtual visit using audio-visual technology

- Similar to an in office visit

TYPES OF TELEHEALTH

ASYNCHRONOUS

- AKA: Store-and-forward

- Electronic transmission of medical information to another practitioner (specialist) who uses the information to evaluate the case.[2]

- Store-and-forward is usually between medical professionals but can also be between patients and their healthcare provider.

2. Center for Connected Health Policy. Telehealth 101 – Terminology. July 22, 2020. Accessed August 15, 2020.
https://www.cchpca.org/sites/default/files/2020-07/SLIDE%20DECK%20-TELEHEALTH%20BASICS%20%E2%80%93%20Terminology%20JULY%202020.pdf

TYPES OF TELEHEALTH

ASYNCHRONOUS

Asynchronous/Store-and-Forward information includes:
- X-rays
- MRIs
- Photos
- Patient data
- Video-exam clips

TYPES OF TELEHEALTH

REMOTE PATIENT MONITORING

- AKA: RPM

- The use of digital technology to collect medical information from a patient located at a distant site and electronically transmitted to the healthcare provider.

TYPES OF TELEHEALTH

REMOTE PATIENT MONITORING EXAMPLES:

- Pulse oxygenation saturation levels (patients with COPD, other types of lung disease, etc.)
- Weights on a scale (obese patients)
- Blood pressure readings (hypertensive patients)
- Blood sugar readings (diabetics)
- Heart rate (arrythmias)
- EKG (arrythmias/heart disease)

TECHNICAL REQUIREMENTS FOR TELEMEDICINE

- Reliable and fast internet connection
  Good rule of thumb: if you can watch streaming videos, then the connection is speedy enough.

- Protocol in place if internet connection is lost
  Will you finish the visit over the phone?
  Be sure to have a patient phone number on file. [4]

4. Assets.acponline.org. 2020. *Telemedicine: A Practical Guide For Incorporation Into Your Practice*. [online] Available at: <https://assets.acponline.org/telemedicine/scormcontent/?&_ga=2.205745552.2045937122.1603571197-1718218295.1601417245#/lessons/nYairjqIPVr0aZBNFe6ExBwD24Hi8_Ia> [Accessed 24 October 2020].

TECHNICAL REQUIREMENTS FOR TELEMEDICINE

- Must use a HIPAA compliant platform

  Two ways to ensure HIPAA Compliance:

  1. Have a minimum of 128-bit encryption that is password protected.
  2. Sign a Business Associate Agreement with the vendor that provides the service.[4]

4. Assets.acponline.org. 2020. *Telemedicine: A Practical Guide For Incorporation Into Your Practice*. [online] Available at: <https://assets.acponline.org/telemedicine/scormcontent/?&_ga=2.205745552.2045937122.1603571197-1718218295.1601417245#/lessons/nYairjqIPVr0aZBNFe6ExBwD24Hi8_la> [Accessed 24 October 2020].

TECHNICAL REQUIREMENTS FOR TELEMEDICINE

Hardware Requirements

- Computer (laptop or desktop)
- Camera (built in or external)
- Smartphone or tablet (personal preference)
- Headset or headphones (personal preference)
- Speakers (could consider external)
- Microphone (could consider external)[4]

4. Assets.acponline.org. 2020. *Telemedicine: A Practical Guide For Incorporation Into Your Practice*. [online] Available at: <https://assets.acponline.org/telemedicine/scormcontent/?&_ga=2.205745552.2045937122.1603571197-1718218295.1601417245#/lessons/nYairjqIPVr0aZBNFe6ExB wD24Hi8_la> [Accessed 24 October 2020].

TECHNICAL REQUIREMENTS FOR TELEMEDICINE

Setting up your telemedicine office:

- See patients in a private room so as to maintain patient privacy
- Have a clean/uncluttered environment with a light-colored background wall
- Ensure the location is quiet with no background noise
- Ensure there is adequate lighting
- Do a trial run in your office prior to the first visit [4]

4. Assets.acponline.org. 2020. *Telemedicine: A Practical Guide For Incorporation Into Your Practice*. [online] Available at: <https://assets.acponline.org/telemedicine/scormcontent/?&_ga=2.205745552.2045937122.1603571197-1718218295.1601417245#/lessons/nYairjqIPVr0aZBNFe6ExBwD24Hi8_la> [Accessed 24 October 2020].

TECHNICAL REQUIREMENTS FOR TELEMEDICINE

Dedicated Telemedicine Platforms Vs. Audiovisual Service

Pros of having a dedicated telemedicine platform

- Patient can check into the virtual waiting room prior to the visit
- Patient can verify identity
- Scheduling feature – some allow for patients to self-schedule appointments
- Patients can send images or messages within the platform. [4]

4. Assets.acponline.org. 2020. *Telemedicine: A Practical Guide For Incorporation Into Your Practice*. [online] Available at: <https://assets.acponline.org/telemedicine/scormcontent/?&_ga=2.205745552.2045937122.1603571197-1718218295.1601417245#/lessons/nYairjqIPVr0aZBNFe6ExBwD24Hi8_la> [Accessed 24 October 2020].

TECHNICAL REQUIREMENTS FOR TELEMEDICINE

Telemedicine through the EHR

- Some EHR vendors offer this service

- May require an additional expense

- Advantage: EHR can track the length of visit, making it easier for audits to justify the cost of the visit [4]

4. Assets.acponline.org. 2020. *Telemedicine: A Practical Guide For Incorporation Into Your Practice*. [online] Available at: <https://assets.acponline.org/telemedicine/scormcontent/?&_ga=2.205745552.2045937122.1603571197-1718218295.1601417245#/lessons/nYairjqIPVr0aZBNFe6ExB wD24Hi8_Ia> [Accessed 24 October 2020].

WEB ETIQUETTE DURING A VIRTUAL VISIT

- Dress professionally
- Have appropriate body language
- Maintain Eye contact as best as possible
- Speak clearly and enunciate your words
- Eliminate unnecessary background noise
- Do not have any food or drink visible to the patient
- Be aware of your background and avoid windows where someone can see the patient on the screen.[4]

4. Assets.acponline.org. 2020. *Telemedicine: A Practical Guide For Incorporation Into Your Practice*. [online] Available at: <https://assets.acponline.org/telemedicine/scormcontent/?&_ga=2.205745552.2045937122.1603571197-1718218295.1601417245#/lessons/nYairjqIPVr0aZBNFe6ExB wD24Hi8_la> [Accessed 24 October 2020].

DOCUMENTATION OF THE TELEMEDICINE VISIT

IN ADDITION TO YOUR USUAL DOCUMENTATION, ALSO INCLUDE:

- A statement saying that the service was provided via telemedicine. Include the technology utilized, the location of the patient, and the person providing the service.

- Why the service was done through telemedicine rather than in-person

- Document informed consent was obtained to perform the visit via telemedicine and that the limitations of a telemedicine visit have been explained to the patient. [4]

4. Assets.acponline.org. 2020. *Telemedicine: A Practical Guide For Incorporation Into Your Practice*. [online] Available at: <https://assets.acponline.org/telemedicine/scormcontent/?&_ga=2.205745552.2045937122.1603571197-1718218295.1601417245#/lessons/nYairjqIPVr0aZBNFe6ExBwD24Hi8_la> [Accessed 24 October 2020].

DOCUMENTATION OF THE TELEMEDICINE VISIT

THE PHONE VISIT:

<u>Vital Signs</u>: Patient reported…

<u>Resp</u>: speaking full sentences? Voice normal/quality. Audible cough and description if so?

<u>Psych</u>: Insight, speech pattern, appropriateness

DOCUMENTATION OF THE TELEMEDICINE VISIT

THE VIDEO VISIT:

<u>Gen</u>: NAD, general appearance, body habitus

<u>Skin</u>: Dry, no lesions

<u>HEENT</u>: NC/AT, visual inspection (swelling, trauma, color, discharge) managing own secretions, EOM, PERRL- face window, no nystagmus, gross vision intact (pt denies any vision changes/ can do online visual exam),pt can perform tragus/pinna manipulation, tenderness on mastoid, sinus palpation/tap, mouth/lips (palpate around lips),oropharynx user dependent, voice, nares-patent

<u>Resp</u>: Effort, accessory muscle use/nasal flaring, speaking full sentences, cyanosis, cough, audible wheezing

<u>CV</u>: No JVD, no edema or varicosities noted.

<u>Abd</u>: pt can locate pain, heel drop

<u>MSK</u>: ROM, moving all four limbs appropriately, FROM, Gait normal.

<u>Neuro</u>: no aphasia, no facial asymmetry, CN 1-12 grossly intact, MMSE - WNL, Romberg, heel/toe walk

<u>Speech-</u> mental status: speech- normal rate, volume, articulation, thought process- sequential and coherent

<u>Psych</u>: cooperative, appropriate situational mood

CLINICAL PEARLS

<u>VS</u>: Home BP cuff, pulse ox, glucometer? Find their pulse and count out loud- beats/min and reg/irreg. Count their respirations when doing BP cuff. Pain scale. Have pt show you numbers/reading- objective.

<u>Gen</u>: general appearance (diaphoretic, flushed, pallor, ill appearing?), body habitus- have the patient stand up so you can see the patient – not just waist up.

<u>Skin</u>: Dry, on exposed areas examined no lesions noted- rashes- glass test, place a common object like coin for comparison/assessment of size.

<u>HEENT</u>:   EOM – have pt look up/down/side to side- more dramatic and see nystagmus, flash light on their phone to illuminate mouth or oropharynx. PERRL- close their eyes and open next to natural light source with phone camera at eye level. If c/o congestion- ask pt to yawn- and note any cracking or popping in ears? If it's a Child- press on eustachian tube , note any tenderness on mastoid, sinus palpation/tap, mouth/lips (palpate around lips),oropharynx inspection, voice

<u>Resp</u>: Deep breath in and out, patent nares.

<u>CV</u>: No JVD, no edema or varicosities noted.

<u>Abd</u>: Ask pt to lay down. position camera to be and be able to watch face for any grimacing, can pt locate pain? Palpate in all quadrants- start with ribs to xyphoid, Identify dominant hand/ avoid camera mirroring problems, ask for helper if applicable,

 -Inflamed appendix?- Ask pt to do jumping jacks. Can test for Murphys sign- RUQ

<u>MSK</u>: ROM, Moving all four limbs appropriately, Gait

CLINICAL PEARLS

MSK:
-Can incorporate special tests
-Foot/Ankle- Ottawa rules

Neuro: aphasia, facial asymmetry, MMSE, Romberg, heel/toe walk, speech CN 1-12 grossly intact,

  CN1- olfactory (coffee, citrus, perfume/cologne, deodorant, candles)

  CN2- vision- grossly read something, NIH stroke cards, visual fields, pupils,

  CN 3,4,6- EOM

  CN5- touch face, numbness/tingling, ice,

  CN7- raise eyebrows, close eyes, show teeth

  CN8 intact to voice

  CN9/10 dysarthria, palate evaluation

  CN11- shoulder shrug

  CN12- tongue out - fasciculations

Psych: cooperative, appropriate situational mood

COURSE EXAM

Must obtain 70% to pass and receive credit for the course.

COURSE EXAM

Telehealth is:

A. The use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration.
B. A term often used interchangeably with telemedicine.
C. Includes education, public health, and provider-to-provider interactions
D. All of the above.

Answer: D

QUESTION 2:

Which of the following types of telehealth is used to describe live audio-visual telemedicine visits?

A.   Synchronous
B.   Asynchronous
C.   Store-And-Forward
D.   Remote Patient Monitoring

Answer: A

COURSE EXAM

Which of the following is true regarding store-and-forward technology:

A. An example of store-and-forward would be a primary care provider sends x-ray results through encrypted e-mail to a radiologist for a second opinion.
B. Store-and-forward usually takes place between medical professionals as a consult.
C. Is also known as "Asynchronous" telehealth
D. All of the above

Answer: D

COURSE EXAM

True or False.

You must sign a Business Associate Agreement with the vendor that supports your audio-visual platform in order for it to be HIPAA compliant.

Answer: True

QUESTION 5:

Which of the following items should you document during a telemedicine visit:

A. A statement saying that the service was provided via telemedicine. Include the technology utilized, the location of the patient, and the person providing the service.
B. Why the service was done through telemedicine rather than in-person
C. Document informed consent was obtained to perform the visit via telemedicine and that the limitations of a telemedicine visit have been explained to the patient
D. All of the above.

Answer: D

COURSE EXAM

True or False.

Performing your telemedicine visits through an EHR platform can help you to track the length of each visit, which makes it easier for you to justify the cost of the visit in the event of an audit.

Answer: True

COURSE EXAM

QUESTION 7:

Which of the following items is considered appropriate web-etiquette when performing a telemedicine visit:

A.   Wearing a baseball hat during the visit
B.   Having food in view of the computer camera
C.   Leaning back in your chair with your arms crossed
D.   Maintain good eye contact and limit background noise

Answer: D

COURSE EXAM

True or False.

It is impossible to do a physical exam during a telemedicine visit.

Answer: False

QUESTION 9:

True or False.

The Center for Connected Policy Divides telehealth into four domains: Synchronous, Asynchronous, Mobile Health, and Remote Patient Monitoring

Answer: True

COURSE EXAM

True or False.

Patient confidentially is not important when performing telemedicine visit.

Answer: False

COURSE SURVEY

QUESTIONS

Please e-mail us at:
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or visit our website:
pavmt.org

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VIRTUAL MEDICINE