




Intro to Telehealth with Mobile Devices and clinical and Telehealth Etiquette MATRC 2019

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Telehealth and mobile devices

- Weather trying to reach medically underserved populations, managing chronic diseases, following patients post procedure, or seeing a patient in a busy emergency room, mobile devices and applications are showing up all across the spectrum of healthcare
 - New applications and platforms are leading to innovation in healthcare at a very rapid rate
 - With growth and innovation comes an entirely new set of training needs and security concerns that need to be addressed in a thoughtful manner
 - New never collected data from new devices is being stored in more and more locations
- 



What are these mobile devices we talking about?



Tablets and smartphones



Tablets and smartphones have been a natural fit for the health care industry in a lot of ways. Low cost and ease of use have led to rapid adoption of this technology.

These devices are at the root of the explosive new industry in some cases acting as a hub and collection device for a large variety of health information

Health information on these devices can be in some cases automatically sent to a healthcare provider or brought into appointments on the device for discussion

Apple Health app on the iPhone is a great example of a hub application collecting data from various locations



Home health devices

Some examples of home health devices

- Bluetooth/WiFi enabled scales
- Wireless blood pressure cuff
- EKG and heart rhythms
- Tyto Care home exams
- Smart watches
- Bluetooth enabled glucometers
- Continuous monitor glucometers
- Fitness and activity monitors
- Pulse oximeter
- Smart prescription bottles

With all these devices consumers must do the due-diligence to ensure devices are accurate and data is secure



Device and application security

Device Security

- Mobile device management
- Device passcodes
- Data Encryption
- System updates
 - Apple IOS and android
- Location services
- Remote system lock/erase
- Finger print scanner
- Facial Recognition
- Cloud backups and storage



Application Security

- Application updates
- Data encryption
- Data storage on the device
- Data in the cloud
- Database and information backups
- Authentications tied to device

Security in the digital age and keeping data safe is more challenging than ever. New companies and technologies may not have experience with PHI or for some devices may not have the same security and HIPAA requirements.

HIPAA

Healthcare providers are using mobile technology at an unprecedented level, and are allowing the use of smartphones, tablets and other portable devices.

If mobile data security measures are insufficient, entities are at risk of violating HIPAA regulations. If that occurs, heavy fines can follow.

Even if mobile devices are secured, there is considerable potential for the users of those devices to violate HIPAA rules or company policies

Can I BYOD? Consider how personal devices play into the fold

Telehealth Tech... Why

Some factors driving innovation and new paths to care:

- Consumer confidence, engagement, and demand
- Lack of access due to geographic location and socio-economic conditions
- Management of chronic disease
- Lowering hospital readmissions (Hospital Readmissions Reduction Program (HRRP))
 1. Acute Myocardial Infarction (AMI)
 2. Chronic Obstructive Pulmonary Disease (COPD)
 3. Heart Failure (HF)
 4. Pneumonia
 5. Coronary Artery Bypass Graft (CABG) Surgery
 6. Elective Primary Total Hip Arthroplasty and/or Total Knee Arthroplasty (THA/TKA)
- Transfer Management
- Smarter easy to use lower cost technology
- Access to broadband and connectivity LTE, 5G
- More

Mobile devices in home setting

- As use of new tech with people in home settings expands, it will be crucial to develop standards on how what and when we interact and utilize all this new data
- If users are in homes how will you support there technology?
- More data creates a unique question about which sources should and can be used to improve outcomes

Etiquette when using mobile devices in clinical settings

- Using these devices in a clinical setting is not always intuitive and requires planned procedures, training, and practice to ensure quality data collection and video encounters
- Typically etiquette discussion revolve around controlling environmental factors, professional dress, eye contact with the camera, paying attention to the screen to seem engaged, not forgetting the small talk.
- What if this is a specialty physician at home seeing a patient in a busy ER? Do the requirements change?
 - In these circumstances some conditions may be hard to control, best effort should still be used for privacy and attention to care
- Familiarity with device functionality and operation
- Resilience to technical trouble even with planning, training, and testing there will be technical failure

Instructions and Protocols

Simple clear instructions developed along side the care team to meet the needs of the service line

Planning and being prepared are crucial

Testing systems

Standardized work that is easy to apply across many services as much as possible



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Mobile Devices in Clinical Spaces

A) Preparing the space for the consult

1. iPad Cart
 - a. Place iPad cart in a convenient location and ensure that it is charged
 - b. Log onto Jabber
2. Use privacy screen if needed and available
3. Check lighting adequacy
 - a. If face-to-face, the room lighting is normally sufficient
 - b. For detailed exams (e.g. viewing wound on patient)
 - i. Use provided light source
4. Check audio quality
 - a. Minimize background noise (e.g. radios, outside conversation)

B) Using the device during the consult

1. Device placement
 - a. Face-to-face conversations
 - i. If using the iPad cart, ensure there is enough space to move the cart around the patient and place cart in front of the patient so their head and shoulders are in the video
 - b. Detailed exams
 - i. If using the iPad for detailed exams, a SEMM provider would hold iPad as still as possible to give best view possible
2. During the exam
 - a. Use self-view camera for face-to-face conversation and use main camera for conducting the physical exam
 - b. Ensure audio is adequate on mobile device for patient exam



Protocols

Protocols with needed programmatic information in one location to ensure consistent delivery of care.

Users trained and participating in mocks drills to help refine these protocols

Special Event Medical Management (SEMM) Telemedicine Process

SEMM Contacts

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A. Pre-event Set Up

1. [SEMM onsite provider](#) consults on-call schedule in EMS manager notes to identify the [SEMM on-call EM physician](#)
2. [SEMM onsite provider](#) confirms that equipment is charged and operational
1. [SEMM onsite provider](#) places page with [SEMM on-call EM physician](#) to request a test of system connectivity and [SEMM on-call EM physician](#) logs into jabber

B. Patient Assessment

1. [SEMM onsite provider](#) will complete initial assessment to include history of present illness, past medical history, physical exam, diagnostic results, and initial treatments, if any, prior to contacting [SEMM on-call EM physician](#) for consult request

C. Consult Request and Validation

1. [SEMM onsite provider](#) places page to [on-call SEMM EM physician](#)
2. [SEMM on-call EM physician](#) will return call within 8 minutes of page
3. Once phone call is established, the [SEMM onsite provider](#) will present in a formatted fashion the patient using the information in B1 to the [SEMM on-call EM physician](#)
4. [SEMM onsite provider](#) and [SEMM on-call EM physician](#) will determine if a video connection is needed
5. [SEMM onsite provider](#) identifies the video extension from the device to provide to the [SEMM on-call EM physician](#)

D. Consult Preparation

1. [SEMM onsite provider](#) moves equipment to the patient location

E. Performing Consult

1. [SEMM on-call EM physician](#) initiates video call to [SEMM onsite provider](#) and performs consult
2. The [SEMM onsite provider](#) will operate the video equipment to allow an appropriate review of the patient and test results, if any
3. Technical issues contact UVA Telemedicine (TMED) immediately, xxx-xxx-xxxx PIC, 1455 or via online paging system (<https://paging.healthsystem.virginia.edu/smartweb>)

F. Completing Consult

1. [SEMM on-call EM physician](#) and [SEMM onsite provider](#) would determine next steps for the patient. Refer to existing SEMM protocols for:
 - a. Treatment
 - b. Transport
 - c. Refusal
2. [SEMM onsite provider](#) returns equipment or cart to charging station
3. Technical issues contact UVA Telemedicine (TMED) immediately, xxx-xxx-xxxx #1455 PIC, or via online paging system (<https://paging.healthsystem.virginia.edu/smartweb>)

Last thoughts and some best practices to walk away with

- Be clear and direct on what technology is being supported and how users get access to help
- Users must be fully enabled and trained to deliver care via technology, anything less can lead to poor experience and outcomes
- Question security around your personal devices and what info you share
- Expect Change in how we receive care, Google, Apple, and Amazon

Planning and practice will lead to
better relationships and access to care!



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Thank You!