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COVID-19: Rapid Application of Technology for Emergency Department Tele-Triage
An Information Paper

Created by Members of the ACEP Health Information and Technology Committee
Primary Author – Todd B. Taylor, MD, FACEP

Abstract

Telehealth has emerged as an opportunity to address serious challenges faced by the highly contagious COVID-19. Emergency physicians are urgently considering options for tele-triage as one solution to reduce risk of infection, reduce PPE use and enable staff in self-quarantine to continue duties. Telehealth is perhaps the ultimate form of "electronic" Personal Protective Equipment (ePPE). Several have promoted telehealth as an alternative to face-to-face healthcare interactions to reduce in-person healthcare visits and prevent viral transmission within healthcare facilities. Tele-triage has been shown to "*provide a safe and efficient alternative to in- person screening of patients while allowing a comparable level of efficiency, decreasing rates of Left Without Being Seen (LWBS) and providing greater flexibility in the provider's schedules*."

Regulatory Changes & Waivers have enabled broad use of telehealth including ED triage from remote locations enhancing efficiency of Medical Screening Examination (MSE) providers.

- **HIPAA Waiver** allows use of non-HIPAA compliant technology during the National Emergency Declaration, so ED & on-call providers can have video communication with patients via personal smartphone, tablet, laptop, kiosk, etc.
- **EMTALA Waiver** does not affect telehealth directly, but allows for alternative OFF-campus screening (MSE defer/refer to off- campus locations) which may be served by remote MSE providers.
- **Updated EMTALA Guidance Clarifies:**
  - **Alternative ON-Campus Screening:** Previously allowed (without waiver), but CMS clarified the use of tele-triage by remote physician\QMP with an onsite nurse.
  - **"Drive-Through" Testing:** Allowed, but may require at a brief interaction with a nurse which could be done remotely via a tablet or other device.
  - **QMP Qualifications:** Reiterates QMPs for MSE purposes must be "acting within their scope of practice and licensure" (functionally eliminates RNs in most states), but expands use of APPs (PA\NP) for MSE via remote access.
  - **ED Tele-Triage MSE:** Clarifies MSE can be done via telehealth (on or off-site). Assuming clinical circumstances do not require an in-person physical exam, it is not required. Onsite RN may perform "assessments" (including physical findings) reported to the QMP. This is more than mere triage & has potential to discharge from triage (with only an RN physically interacting with the patient). Whether MSE completion and discharge at triage is advisable is a matter of local hospital policy.

Telehealth ED E/M Billing Codes: Medicare can be billed typical ED E/M billing codes (99281 to 99285, 99291-99292 & Observation Codes 99217-99220, 99224-99226 & 99234-99236) for the duration of the Declared National Emergency.

Summary

This information paper provides guidance including context, review of various solutions, and an example of a rapid tele-triage implementation process. Taken together, tele-triage can have a dramatic impact on ED operations from all perspectives including economically. A single provider can manage multiple patients in triage, seamlessly across multiple facilities. While it may seem implausible, tele-triage can be implemented at one or more EDs within a hospital system in just a few days.

For many, telehealth has suddenly become a necessity. Regulatory relief has finally made it economically feasible. The necessary technology (software & hardware) are now very affordable. Hospitals using these solutions consistently show improved throughput, patient safety, and satisfaction. There is relatively little risk. With the help of an established vendor, the implementation process is surprisingly easy and fast. The COVID-19 pandemic presents a major challenge, but it is also an important opportunity to take emergency care to the next level. The only missing ingredient is the will to do it. And, as perhaps never before, the lives of your patients and staff depend on it.

RESOURCES:

- ACEP Emergency Telemedicine Section 2014 Information Paper "Telehealth in Emergency Medicine: A Primer
- Jefferson Health, Philadelphia, PA.: "At Jefferson Health, a Success Story Around ED Teletriage That Offers Hope in the Emerging COVID-19 Pandemic" by Mark Hagland in Hea!thcare Innovation, Mar 21, 2020.
- MedStar Heath, Washington Hospital Center, Washington, DC: "Teletriage Emergency Department Program". May 2018.
- Baptist Health South Florida, Coral Gables, FL: "Solution ER Overcrowding: Tele-triage". 1 Aug 2016.
- Aurora Healthcare, Milwaukee, WI: "At Aurora Healthcare, Telehealth Use is Improving ER Patient Flow". 5 Jan 2018

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Disclaimer: *This paper identifies several vendors and products to illustrate typical uses for tele-triage. These mentions do not constitute ACEP's endorsements or promotion of any vendor or product, implied or otherwise. The primary author has no financial or other relationship with any telehealth vendor or product.*

Introduction & Purpose

Emergency physicians (EPs) are urgently considering options for tele-triage as they face the COVID-19 pandemic in the United States (U.S.). The purpose of this Information Paper is to provide EPs with guidance as they consider these options. This document provides context, reviews various choices, and summarizes an example of a rapid tele-triage implementation process.

The World Health Organization declared the COVID-19 outbreak a pandemic on March 12, 2020 and continues to monitor daily progress of the disease worldwide.

Cases in the U.S. are rapidly increasing, particularly in large metropolitan areas, currently led by New York City.

The White House Coronavirus Task Force and the Centers for Disease Control and Prevention (CDC) have promoted telehealth as an alternative to face-to-face healthcare interactions to reduce in-person healthcare visits and prevent viral transmission within healthcare facilities.

The American College of Emergency Physicians (ACEP) promotes the highest quality of emergency care, and is the leading advocate for emergency physicians, their patients and the public[1]. In February 2020, ACEP published a policy on Emergency Medicine Telehealth (APP-1) stating in part, "*Emergency physicians are uniquely qualified to utilize emergency telehealth to provide medical care across the spectrum of conditions and severity. Telehealth eliminates distance and cost barriers, improving access to medical services that would otherwise not be consistently available or affordable.*"

In June 2014, the ACEP Emergency Telemedicine Section published an Information Paper "Telehealth in Emergency Medicine: A Primer"[2]. In conclusion, the paper stated, "*Telehealth is an exciting, continually evolving use of technology that provides an innovative way of organizing emergency department workflows across the country, allowing for optimal and efficient patient care.*"

In November 2019, ACEP established the Health Information & Technology Committee (HITC) tasked with 14 objectives (APP-2), including *#5. Explore avenues to foster distributed health technologies*.

Telehealth triage screening (aka "tele-triage") in EDs has been shown to "*provide a safe and efficient alternative to in- person screening of patients while allowing a comparable level of efficiency, decreasing rates of Left Without Being Seen (LWBS) and providing greater flexibility in the provider's schedules.*"[3]
In the context of the current pandemic, tele-triage has the additional advantages of reducing opportunity for healthcare worker (HCW) infection, reduction in the use of Personal Protective Equipment (PPE), and the ability to remotely utilize HCWs that are in self-quarantine due to exposure or convalescing from recent infection.

Pursuant to the COVID-19 crisis and the HIT Committee's objectives, we have prepared this document to assist our members in Rapid Application of Technology for Emergency Department Tele-Triage.

Six Steps Toward Rapid Application of Technology
for Emergency Department Tele-Triage

1. Aligning Stakeholders

The worldwide pandemic calls for emergency physicians to step forward as leaders on the frontlines at the epicenter of this crisis. Winston Churchill once remarked, "*The future is unknowable, but the past should give us hope… the hope that human ingenuity, reason and character can combine to save us from the abyss and keep us on a path… to broad, sunlit uplands*."[4]

Emergency Medicine (EM) success requires collaboration between clinicians, hospital administration, and information technology (IT) specialists. Alignment among these groups is critical for rapid deployment of technology in response to any crisis, particularly this current pandemic. Telehealth has emerged as a major technology opportunity to address many of the challenges of a highly contagious viral disease.

In this effort, there are two primary goals: 1) Ensuring every patient receives safe and rapid care; 2) Effectively protecting other patients and HCWs from risk of infection. The risk of infection is not solely from patients. HCWs themselves frequently become infected, spreading the virus to other staff or to other patients who are injured or ill with an unrelated disease. In China over 3400 HCWs were infected, representing about 5% of cases in one province[5]. Italy is much worse with about 9% of known cases occurring in HCWs[6]. To date, more than 60 Italian physicians have died from the disease[7]. Closer to home, at least 18 U.S. HCWs have perished from the disease even at the early stages of the pandemic in the U.S.[8] Clearly, "business as usual" will not do.

Compounding the crisis, when HCWs fall ill and are removed from available staff, the healthcare system capacity falls dramatically. Nowhere is this more acute than in America's EDs. High volumes of undifferentiated patients in an often chaotic environment where PPE must be changed so frequently that the risk of infection is almost certain. Add to this shortage of even basic PPE and the HCW infection crisis escalates quickly.

It is imperative that public policymakers, hospital administrators and IT leaders understand these challenges in the context of emergency care workflow. "Every click counts" in busy ED settings where unnecessary delays cascade downstream toward increase patient risk.

ePPE: Telehealth and specifically tele-triage has emerged as new high-tech "electronic" Personal Protective Equipment — perhaps the ultimate barrier to infection risk.

Emergency Medicine is fortunate to have established examples where telehealth (including tele-triage) has been used effectively to improve patient flow via remote consults and demonstrating the secondary benefits noted above.

EXAMPLES:

- **Jefferson Health, Philadelphia, PA.:** "At Jefferson Health, a Success Story Around ED Teletriage That Offers Hope in the Emerging COVID-19 Pandemic" by Mark Hagland in Hea!thcare Innovation, Mar 21, 2020.

- **MedStar Heath, Washington Hospital Center, Washington, DC:** "Teletriage Emergency Department Program". May 2018.

- **Baptist Health South Florida, Coral Gables, FL:** "Solution ER Overcrowding: Tele-triage". 1 Aug 2016.

- **Aurora Healthcare, Milwaukee, WI:** "At Aurora Healthcare, Telehealth Use is Improving ER Patient Flow". 5 Jan 2018.

2. COVID-19 Pandemic: Navigating a Rapidly Changing Regulatory Environment for Telehealth

NOTE: Special Waivers under the National Emergency Declaration end with termination of that declaration. When considering and implementing telehealth technology for the COVID-19 pandemic, keep in mind that utility that may extend beyond the current crisis.

HIPAA: HHS Office for Civil Rights (OCR) Waiver

References*: [Notification of Enforcement Discretion for Telehealth Remote Communications During the COVID-19](#) [Nationwide Public Health Emergency](#)* and *[CMS Fact Sheet](#)*

Excerpt: HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT (HIPAA): *"Effective immediately, the HHS Office for Civil Rights (OCR) will exercise enforcement discretion and waive penalties for HIPAA violations against health care providers that serve patients in good faith through everyday communications technologies, such as FaceTime or Skype, during the COVID-19 nationwide public health emergency."*

Practical Implications:
1. This waiver is only applicable until the National Emergency Declaration ends.
2. Temporarily allows commonly used non-HIPAA-compliant communications technology (e.g. FaceTime, ZOOM, Skype, Google Hangouts, GoToMeeting, etc.) for communication between providers and between providers & patients.
3. Does not impact existing HIPAA-compliant commercial products

Practical application of the waiver allowing for non-secure communication:
1. ED & on-call providers can communicate with patients via personal smartphone, tablet, laptop, kiosk, etc. in a variety of ways (examples):
   a. Video check-in with triaged patients waiting in their car.
   b. Video check-in to discharge patients sequestered in an ED room without having to don PPE.
   c. Text with patients: results, check-in, "nurse call", post-discharge follow-up
   d. Telehealth consult via smartphone.
   e. Video Tele-triage
2. Limitations of non-commercial video communication platforms:
   a. Despite the waiver, some hospitals require patients to sign an additional liability waiver for the use of unsecure video platforms.
   b. Once hospital personnel start using these unsecured platforms, it may be difficult to pull it back when the waiver expires.
   c. There will likely be a huge amount of HPI residing on unsecure devices when this is all over.
   d. Does not enable documentation, limited copy/paste ability, lack of treatment pathway utility, etc.
   e. Cumbersome switching between patients, i.e. single point-to-point connection.
3. Commercial telehealth (or even better, specific ED tele-triage products) obviate the above issues and can live on after this crisis.

EMTALA Implications & Waiver:

EMTALA WAIVER (Effective March 1, 2020): *See CMS (26 page) Waiver Compendium (EMTALA at the end)*

This waiver does not affect telehealth\tele-triage directly. However, it will allow hospitals to defer/refer the MSE to alternative off-campus locations as long as that process is compliant with the State's Emergency Preparedness Plan.

As part of the State's Plan, hospitals may be required to have a brief interaction with a medical professional (RN, APP, physician) before referral to assure no immediate medical need. Using a tele-triage platform, a security guard (for example) at the point of contact could have a device for a video interaction with a nurse to satisfy this requirement and document the interaction.

UPDATED COVID-19 EMTALA GUIDANCE (Mar 30, 2020): *See CMS (17 page) Updated EMTALA Guidance*

Alternative Screening Locations: This CMS guidance clarifies the use of alternative COVID-19 screening sites on and off campus, where the use of telehealth/tele-triage may be very beneficial. Instead of spreading the required "Qualified Medical Persons" (QMP) across multiple sites, triage can be done from a single remote location enhancing efficiency.

"Drive-Through" Testing: This is allowed, but may require at least a brief interaction with a nurse to determine exactly what is being requested and if other medical needs are present. Similar to what is described above, a tablet (e.g. "tablet on a stick") could be used for this interaction and a trained tech could obtain the test sample.

QMP Qualifications: This CMS guidance reiterates that QMPs must be "acting within their scope of practice and licensure", which functionally eliminates RNs as QMPs in most states. APPs (PA & NP) remain suitable QMPs, but may be in short supply. Again, remote access to QMPs would help mitigate availability issues.

Telehealth ED MSE: CMS clearly states that a QMP can perform the MSE via telehealth whether on or off-site. In other words, assuming the clinical circumstances do not require it, a physical exam by the QMP is not required. However, the onsite RN may perform any number of "assessments", including physical exam findings that will be reported to the QMP. Note: This is more than mere triage and will potentially allow discharge at the point of triage with only an RN physically interacting with the patient.

Whether MSE completion and discharge at triage is advisable, except perhaps in the most clear cut cases, has long been debated. However, in the setting of this current crisis, this is an important addition to the ability to rapidly assess and disposition patients presenting to the ED. Further, this is but one aspect of such a process, where a "Provider-In-Triage" (PIT) has been shown to significantly improve ED flow and throughput.

Taken together, tele-triage can have a significant impact on ED operations from many perspectives including economically.

TELEHEALTH ED E/M BILLING CODES: *See Physicians and Other Clinicians: CMS Flexibilities to Fight COVID-19*

Due to various other waivers, providers can now bill Medicare for more services via telehealth while mitigating the risk of the spread of the virus. Under the public health emergency, clinicians can provide Medicare beneficiaries with telehealth-based services using typical ED E/M billing codes listed below. In addition, providers can waive Medicare copayments for telehealth.

CMS added ED E/M CPT codes 99281 to 99285, Critical Care CPT codes 99291-99292 & Observation Codes 99217-99220, 99224-99226 & 99234-99236 to approved Medicare telehealth services for the duration of the COVID-19 national emergency.

3. **Tele-Triage Use Cases**

"Use Case" is a term-of-art in information system engineering. It is a description of how the end-user will actually uses a process or system to achieve the expressed objective.

For more: [What is a Use Case? - Definition & Examples](#)

Grant Chamberlain (former chair of the board of the American Telemedicine Association) emphasized that a myriad of telehealth use cases exist and warned that belief in a single technology solution as the answer to all use cases is misguided. He published a series of white papers providing an overview of the industry.

For more: [Deconstructing the Telehealth Industry](#)

So, it is no surprise that a variety of use cases exist with direct relevance for emergency medicine and telehealth. Most are familiar with the telehealth use case providing access to remote specialists, such as neurology, radiology, cardiology, behavioral health, etc. Relevant to the COVID-19 pandemic, remote acute care visits for patients in their homes is also being utilized to avoid bringing the virus into physician offices or even the ED. Several ED physician groups are providing these urgent tele-visits with great success[9,10]. Within the ED and throughout the hospital, telehealth is being used to staff residents and communicated in various ways with patients and staff.

An emerging use case for managing patient flow starting at ED intake is "tele-triage". And with COVID-19, it has become a high priority use case, particularly when EDs use outdoor screening tents or split flow models to rapidly identify and segregate potential COVID-19 patients. These multiple locations (or even multiple EDs) create the need for efficient use of the limited numbers of physician/QMP screeners. By connecting them via telehealth, they can be in multiple places at nearly the same time, not only moving patient to patient, but location to location as demand requires.

For this use case, an on-site provider (typically nurse or tech) with proper PPE does the preliminary initial assessment. They then collaborate with a remote physician (or a QMP) via telehealth technology. Properly implemented, this approach increases efficiency and decreases exposure risk for patients and providers. Moreover, this use case can involve physician/QMPs that might otherwise not be available due to self-quarantine or acute infection convalescence. So, not only does this use case improve efficiency of individual providers, it functionally increases the workforce by both preventing infection and mitigating quarantine when it does occur. This same use case is now being used throughout the hospital in ICU, medical units, clinics, etc.

Other use cases have similar utility for reducing risk to HCW in potentially contaminated areas including patient registration, discharge teaching, virtual rounding of patients in observation units, and aftercare follow up.

The potential for efficiency and productivity improvement from coordinating onsite and remote personnel in new ways extends to many other aspects of the care process & to general ED operations beyond the current COVID-19 pandemic.

Remote Provider   **Patient & Nurse at Triage**
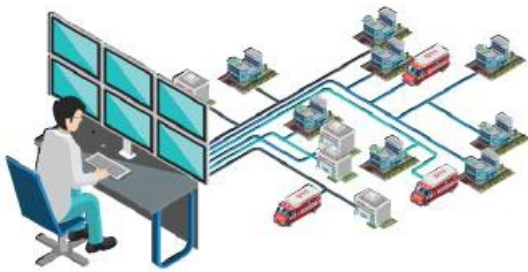
A single provider can manage multiple patients in triage, seamlessly across multiple facilities

4. Technology Choices for Rapid Application of Tele-Triage

Technology choices for EM telehealth programs can be grouped into three main categories: 1) General purpose video communication tools; 2) Traditional telehealth software; 3) Technology designed specifically for emergency medicine.

Popular general purpose video communication platforms for consumer and business meetings include Skype, Zoom, GoToMeeting, Facetime, Google Hangouts and WebEx. One healthcare specific video platform is Doximity.

These tools are ubiquitous, relatively inexpensive and may be useful in certain circumstances. But they are generally limited to direct one-to-one conversations and do not include routing and queue management capabilities of other products designed for healthcare environments[11,12]. For example, if a responding provider is busy on a different video call, it can be difficult to manage new incoming requests. And when groups of patients are involved in a common video connection, patient privacy concerns arise. Further, recent reports of products like ZOOM being hacked may limit their use in healthcare[13].

> The HIPAA Journal March 2020: *"There are now serious concerns about the security of Zoom. This creates doubts about using Zoom for communicating medical information, which needs to be fully protected under HIPAA. Zoom has publicly committed to upgrading its security and fixing all security problems. Until the security issues with Zoom are resolved, alternative telemedicine solutions should be used."*

If you choose to rely upon the use of a patient's own phone, you must consider if they have one, is it with them and whether it is compatible with the platform you have chosen. In June 2019, Pew Research reported only 81% of Americans have a smartphone[14]. So at least 20% of patients may be excluded from this option. Traditional telehealth vendors offer non-specialty specific systems that may be able to be adapted for some emergency use cases. Software that supports this general direct to consumer healthcare video visits is widely available. Market leaders in this category include: Teladoc and American Well, but many other choices are available. Certain Electronic Medical Record (EMR) products may also have a built-in capability for routine telehealth.

InTouch, SOC Telemed and many others[15] have offered software for specialist consults for years. But some of these software vendors require special hardware that can be very expensive and use proprietary video protocols that require server stacks to be installed locally. Nevertheless, newer approaches use less expensive hardware and are cloud-based eliminating local onsite servers.

Tele-triage choices have also been designed specifically for emergency medicine use cases. Some are primarily focused on secure HIPAA compliant text messaging, such as CirrusMD and ED Loop. These can be particularly useful for reporting post-visit diagnostic tests, for example, communicating COVID-19 test results after the ED visit. But this approach assumes the patient is proficient with the technology and consents to its use.

It should be noted that previously CMS issued guidance (January 2018) that banned the use of text messages for healthcare[16]. More recently however, it has been acknowledged that texting information to patients is allowed under HIPAA, provided the "Covered Entity has warned the patient that the risk of unauthorized disclosure exists and has obtained the patient´s consent to communicate by text"[17]. Both the warning and consent must be documented.

Moving to the next level and for managing patient flow in multiple acute care facilities, a new generation of ED specific telemedicine products has emerged. One example is EmOpti which provides software

specifically designed for high volume EDs and is especially adept for complex environments where multiple remote providers can respond to multiple facilities on a managed demand basis. To date, EmOpti has logged over 300,000 remote tele-triage consults servicing multiple facilities.

Modern tele-triage systems have been shown to increase efficiency of triage[18] (20+ triage consults per remote provider per hour[19]) and decreased LWBS rates[20]. Diagnostic accuracy of tele-triage has been shown to be equivalent to an onsite provider in triage[21] with high levels of provider satisfaction[22]. Additional features of next generation tele-triage systems include EMR integration, business analysis/reporting, predictive analytics, treatment pathway integration, clinical decision support and language translation.

5. Tele-Triage Remote Staffing Options

Various options can be employed for staffing remote tele-triage. Providers that are experienced and able to rapidly assess undifferentiated patients are obviously preferred.

Ideally, assuming adequate availability, local staff (e.g. group members) would fill the role of remote provider since they are already credentialed and understand the environment serviced by the telehealth program. However, in the context of the COVID-19 pandemic, staff shortages due to illness and quarantine have already forced hospitals to rely on external physician resources[23]. However, with tele-triage, suitable staff that may be out on home quarantine and who otherwise feel healthy, can still contribute. And, external staff recruited to help, even from other states, can contribute without leaving home and without risk of exposure.[24]

While equivalency of Registered Nurses and Advanced Practice Providers (APP, i.e. Nurse Practitioners & Physician Assistants) for tele-triage has not been systematically studied, APPs have been shown to provide care equivalent to physicians and achieve similar patient outcomes in primary care settings[25]. Further, "existing research supports the use of nurse practitioners and physician assistants in acute and critical care settings."[26] ACEP "Guidelines Regarding the Role of Physician Assistants and Advanced Practice Registered Nurses in the ED" (ACEP Policy, – June 2013) states, "Physician assistants (PAs) and advanced practice registered nurses (APRNs) provide services in various roles in EDs, including out- of-hospital patient care, patient triage, patient care in the ED, and administrative functions."

Additional considerations with regard to supervision may be necessary if APPs will serve the role of a QMP with the expectation they may discharge patients from triage via telehealth. However, if APPs already serve this role with in- person ED care, the use of tele-triage may be a natural extension of that role. A strictly triage role may be applicable for Registered Nurses with an ED tech onsite since in most states RNs cannot serve in the QMP role. The bottom line is that under most instances, patients triaged by telehealth will receive subsequent in-person care by an appropriate onsite provider. And, in the case of discharge at triage, only the most straightforward cases may be appropriate for this disposition. Ultimately, local hospital policy and practice will dictate how RNs & APPs are used in this context.

In some settings (e.g. rural and shortages due to the pandemic) external staffing for tele-triage may be necessary. InDoc is an example of a company providing this type of remote assistance. In light of the pandemic, it is anticipated additional companies will venture into this arena.

Given the urgency associated with the COVID-19 pandemic and required staffing needs, the ACEP Telehealth Section has placed a plea for volunteers for telehealth staffing. An irony of this pandemic is that EDs not in the acute pandemic areas have seen volumes reduced by as much as 50%. Emergency physicians may find new careers in part-time work providing telehealth in a variety of settings.

One TeleTriage physician can cover multiple EDS simultaneously.

Example **What are the potential savings in a system with the following three emergency departments?**	ED volume 60,000	ED volume 50,000	ED volume 40,000
	3% LWBS	2% LWBS	1% LWBS
	40 minute D:D	35 minute D:D	30 minute D:D
	175 minute LOS	165 minute LOS	150 minute LOS

TeleTriage often decreases Door to Doctor times by 75% or more.	TeleTriage typically reduces Left Without Being Seen rates by a half to two-thirds.	TeleTriage frequently reduces the Length of Stay of discharged patients by 15 to 45 minutes.	Hospitals that implement TeleTrige can see a 4-point improvement in overall Press Ganey scores.
$ 1 Million	**$ 1.5 Million**	**$ 16.5 Million**	**Priceless**
Door to Doctor time is directly linked to liability risk. A 75% reduction in Door to Doctor time would reduce the expected number of annual claims by two-thirds.	A reduction in the Left Without Being Seen rate by 50% would result in an additional 1,500 revenue-generating patients for the system annually.	A 10% reduction in Length of Stay would result in an additional 41,000 bed hours of capacity across the three emergency departments, this is the equivelent of 16,500 patients- without the need to increase staffing.	Press Ganey scores are highly predictive of overall HCAHPS scores. A 4-point Press Ganey improvement equates to movement from the 33rd to 67th percentile. This is often an immediate and sustained improvement.

Used with permission: InDoc

6. Tele-Triage Acquisition & Implementation Process

In normal times, one might explore several options and perhaps employ a Request for Proposal Process (RFP). This is not one of those times, ergo the title of this paper: Rapid Application of Technology for ED Tele-Triage.

Many EDs may have the luxury of slower volumes at the moment, but that can change in less than 2-3 weeks. So, now might be the best time to implement tele-triage. Even EDs in the throes of the pandemic may find it worth the effort due to the looming potential for PPE and staff shortages. And for perhaps all of these reasons, this may not be the best time to "figure it out on our own". Leveraging the experience and proven technology of an established vendor (even in normal times) is often the best course of action.

While it may seem implausible, tele-triage can be implemented at one or more EDs within a hospital system in just a few days under most circumstances albeit perhaps with certain compromises. One compromise may be lacking full integration with your EMR at first (due mostly to the need for hospital IT resources). But, dual monitors on the same remote provider computer can easily allow the EMR to be open on one monitor and the telehealth application on the other. This allows copy/paste or direct documentation in the EMR during the encounter. Since most of the remote providers would likely be working from home, the remaining workplace setup can be done to suit each individual.

Finally, like all ED projects, there is "the dance". Stakeholders (Providers, Nursing & Administration/IT) must be aligned and motivated to pursue the project as a high priority, especially in challenging times.

Process for rapid tele-triage implementation, some of which can be done in parallel:
1. Identify specific use case(s), e.g. decrease exposure risk, improving metrics, distributed MSE, etc.
2. Decide which EDs will launch tele-triage (if more than one) & designate the triage site locations to be utilized at each. Note: This may be a triage tent or even a "tablet on a stick" if doing initial interaction inside a vehicle.
3. Confirm personnel to be involved: Onsite triage RNs, techs & remote providers (Physicians, APPs, RNs).
4. Select a vendor or create a project plan for component selection & self-implementation.
5. Ensure required technology is approved for use in your environment (expedite IT security/architecture reviews).
6. Confirm new workflows with clinical teams, to include if QMPs will be used for triage disposition. Note: If not already doing triage disposition, this may not be the time to start unless realities of the pandemic supersede.
7. Set up user accounts & train users. Note: Consider the required training time in selection of vendor/product.
8. Review & approve necessary business documents. This includes contracts for necessary software licenses & other technology. A HIPAA Business Associate Agreement (BAA) may be necessary if any Personal Health Information (PHI) is within the vendor's control.
9. Obtain necessary equipment, including computer hardware, mounting brackets, rolling stands and accessories depending on technology choices. Note: Due to WiFi & mobile computer technology (e.g. tablets), hardware requirements can be quite modest on both sides of the interaction.
10. Acquire, install & configure software/hardware.
11. Test the system and new workflows with an expert team. Consider a backup plan for downtime.
12. Go Live!

Summary

For many, telehealth has suddenly become a necessity. Regulatory relief has finally made it economically feasible. The necessary technology (software & hardware) are now very affordable. Hospitals using these solutions consistently show improved throughput, patient safety, and satisfaction. There is relatively little risk. With the help of an established vendor, the implementation process is surprisingly easy and fast. The COVID-19 pandemic presents a major challenge, but it is also an important opportunity to take emergency care to the next level. The only missing ingredient is the will to do it. And, as perhaps never before, the lives of your patients and staff depend on it.

Additional resources available: ACEP Health Innovation & Technology Committee and Emergency Telehealth Section

Author Contact: Todd B. Taylor, MD, FACEP

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