

Espousal and Emerging Trends of Telemedicine in the Spotlight of Corona Virus Care

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Abstract

As the COVID-19 virus wreaks havoc with the healthcare system, telemedicine is stepping up into the spotlight and helping healthcare provider organizations and caregivers better respond to the needs of Americans who have contracted the virus and Americans who need to touch base with their providers on the status of their health. Telemedicine is making a very positive contribution to healthcare during the pandemic, and is being used in a variety of ways. But telehealth technologies do have certain limitations when it comes to treating patients during a pandemic. Further, there is a chance telemedicine could add to hospitals being overwhelmed, unless it's used well. But hospitals are learning to adapt to telehealth during a pandemic.

Keywords: Telemedicine, Telehealth, Coronavirus pandemic, Technology

Introduction

Telemedicine is being used during this global pandemic, telehealth is emerging as an effective and sustainable solution for precaution, prevention and treatment to stem the spread of COVID-19. Telehealth is bridging the gap between people, physicians and health systems, enabling everyone, especially symptomatic patients, to stay at home and communicate with physicians through virtual channels, helping to reduce the spread of the virus to mass populations and the medical staff on the frontlines, said

Dedi Gilad, CEO and co-founder of Tyto Care, a telemedicine technology company. Critically, hospitals are quickly adopting telehealth to treat quarantined patients infected with COVID-19, "By deploying telehealth solutions and programs, people who are suffering from other medical ailments during this time can receive care from home, without entering medical facilities, minimizing their risk of contracting the virus."

"In addition, the CDC is urging the public and medical staff to use telehealth solutions for non-urgent communication in an effort to reduce the pressures facing emergency rooms and clinics," he explained. "By deploying telehealth solutions and programs, people who are suffering from other medical ailments during this time can receive care from home, without entering medical facilities, minimizing their risk of contracting the virus." Telemedicine is being used extensively in the "forward triage" of patients long before they arrive in the primary care clinics, said Dr. Siaw Tung Yeng, founder and CEO of MaNaDr, a telemedicine technology and services company.

Minimizing risk to healthcare workers

"The primary care physicians are working tirelessly in the frontlines at ground zero," he said. "With MaNaDr, we're able to divide the patients into the at-risk and not-at-risk groups. Appropriate measures can then be taken to minimize the risks to healthcare workers and patients. The right actions can then be taken for the patients who have been pre-screened, saving precious time and minimizing risks of transmission to all."

Many chronic patients can from home have scheduled teleconsultations to avoid face-to-face clinic visits and hence minimize their risks of exposure to COVID-19, he added. "Many in-clinic visits with mild acute respiratory infection can be followed up very closely, almost on a daily basis."

"Chronic medicine can be delivered to their house," Yeng noted. "Also, many in-clinic visits with mild acute respiratory infection can be followed up very closely, almost on a daily basis. Should there be any changes in their clinical states, appropriate actions can be taken immediately. Telemedicine provides a 24/7 lifeline

for patients to connect to their providers. This offers great comfort and assurance to the patients in these trying times.”

A telehealth surge

Dr. Jason Hallock, chief medical officer at SOC Telemed, a telemedicine technology and services vendor, reports that healthcare is seeing a surge of direct-to-consumer telemedicine providers operating at a large scale helping to provide care to patients who might be wondering if they need care after exhibiting potential symptoms associated with the novel coronavirus.

“Simultaneously we’re also seeing a rapidly increasing need for on-demand acute care via telemedicine,” he said. “This includes ICU programs offering intensive care for the most critical patients. However, tele-triage is exploding in terms of the number of use-cases that involves determining when a patient presents in the emergency department whether they need to be issued a bed or if they can be seen in another area within the hospital in order to keep the patient safe and to reduce potential exposures. “This helps to limit providers’ exposure to the virus and other infectious diseases. As we know, if a hospital worker is exposed without adequate protection, they’d be put into self-quarantine for 14 days,“Using acute telemedicine for tele-triage is helping keep staff in a low-risk category for infection by completely eliminating exposure for those doctors or other hospital staff.”

Playing catch-up with telehealth

Unfortunately, providers and policymakers are playing catch-up with telehealth technologies right now and are just beginning to recognize that they are essential solutions for keeping potentially infected individuals out of hospitals and doctors’ offices, a healthcare communications and telehealth technology company. As this public health crisis continues to escalate, however, telemedicine is quickly gaining recognition as a critical tool to slow the spread of COVID-19.

“We see three primary roles for telehealth technologies during this crisis,” he said. “The first is simple, to screen patients remotely rather than having them visit the practice or hospital. They can be used to triage patients with cold and flu-like symptoms and to remotely care for those who don’t need medical intervention or

could receive care at home. By keeping potentially infected individuals out of hospitals and doctors' offices, the healthcare system can lower the risk of transmission to other patients and healthcare staff." COVID-19 can be very harmful and even fatal for people with compromised health, and by using video visits, physicians can help these patients avoid coronavirus exposure." The second role for telemedicine during the pandemic often is overlooked: To help provide routine care for patients with chronic diseases who are at high risk if exposed to the virus, COVID-19 can be very harmful and even fatal for people with compromised health, and by using video visits, physicians can help these patients avoid coronavirus exposure.

The third significant role is counter intuitive but just as important: Providers and their staff are not immune to infection and are at increased risk for contracting COVID-19 due to their continuous exposure to infected patients, he said. Once tested and confirmed, these providers will be quarantined and become unavailable to the healthcare system just when it needs them most with telehealth technologies in place, quarantined providers have the option to continue to see patients via remote feeds.

Limitations to telehealth from COVID-19

Telemedicine can be a tool for managing COVID19. However, there is one glaring disconnect that must resolve a digital health think tank. The basis for out-of-hospital management is testing "The linchpin of management of a pandemic is widespread testing and conventional telemedicine today may not offer that. Perhaps a 'crisis-based' evolution of telemedicine can help find local testing centers and also manage the flow of patients seeking a test."

With respect to COVID19, the data suggests that most people will have a mild infection and the clinical course will be unremarkable. In these instances, telemedicine may not really be all that necessary, "However, for a smaller subset of higher risk patients, the clinical course may not be consistent with conventional telemedicine," he explained. "These patients often present with a more serious condition that results in rapid decompensation and requires hospitalization. The reality might be that for COVID19, telemedicine, as it exists now, needs to be

modified to help manage early testing, diagnosis and triage for those who may require in-patient care.”

Not yet equipped for telemedicine

The most significant limitation to telehealth use in the COVID-19 response right now is that while some hospitals and large physician practices are equipped to deliver care in this way, most hospitals and private practices are not, “Telemedicine hasn’t traditionally been used in response to public health crises, but that is changing with COVID-19,” he said. “I’m encouraged that government and private insurance companies are making policy changes to promote its use. The CDC is calling for healthcare facilities to adopt telemedicine to protect patients and staff, and many large hospitals are racing to implement and scale up these capabilities at their frontlines.”

More doctors’ offices also are implementing telehealth. “In Maryland, MedChi, the state medical society, has called for increased use of this technology to help physicians better care for patients amid the pandemic,” he noted. “MedChi is providing physicians in its Care Transformation Organizations with DrFirst’s secure care collaboration tool, which includes telehealth functionality, to help them more safely and effectively care for their patients.” There is a learning curve to using telemedicine in the traditional provider/patient relationship.

“Practices need to notify patients that office visits may be replaced by telemedicine consults; they need to train providers to use the tools, revise scheduling processes, determine triage procedures, review payer telehealth policies and establish billing practices,” he suggested. “This isn’t necessarily a lengthy process, but it’s helpful for providers to have a set of guidelines to ease the transition.”

A lack of hardware

There are some limitations; the main one is a lack of endpoints within hospitals to be able to implement telemedicine – meaning a limited access to the hardware, “While some hospitals may have dedicated technology for programs like stroke care, hospitals are now re-purposing some of these endpoints for other work like tele-triage,” he explained. “While many telemedicine programs are hardware-agnostic, providers

still need to ensure this technology is equipped with the right tech for the type of exam, such as camera quality, sound, etc.”

A provider organization does not need best-of-breed technology to stand up a program quickly; however, the better the technology is, the better the experience is for the patient, and the services that can be provided broaden. “Another issue is access to broadband – some hospitals struggle with running a quality connection within their facilities and now we are faced with taking this to potentially new areas of care, such as an outside tent,” he explained. “As hospitals plan disaster capacity, Wi-Fi connections need to be considered. Acoustics within a building can also be a limitation depending on the room construction.”

For instance, concrete or tiled rooms create echoes where it can be challenging to hear and talk to a patient. This is easily remedied with some accommodations for acoustics such as soundboards on the walls.

“Another limitation for hospitals may be needing to credential new doctors,” Hallock said. “That is an area that is highly scrutinized by organizations including the Joint Commission. While the process can be accelerated, any additions of temporary staff are still required to have the proper credentials and licensing to provide patient care.”

Hospitals are adapting to telemedicine during the pandemic

Hospitals routinely prepare for crises, but they have not really leveraged telehealth technologies in the past, “As the healthcare system grapples with COVID-19, however, will see more and more hospitals adopt these technologies to limit exposure at the frontlines, and to protect staff as well as other patients,” . “Hospitals that choose well will find that the benefits of telehealth extend beyond this current public health need – because other crises will surely come.”

Hospitals in Israel, for example, have integrated Tyto Care’s telehealth solutions to examine COVID-19 patients in quarantine wards, as well as to monitor patients in isolation at home by delivering the TytoHome kit. “Tyto Care’s partners in the U.S. and Europe also are expanding their utilization of the solution to address this pandemic,” he said. “The solution can be deployed quickly and at scale, with training of medical staff and implementation possible within a single day. For home

deployments, Tyto Care is able to ship directly to the quarantined patient's home and the on boarding process is intuitive and simple.”

Expanding programs and training

There are two main areas of adaptation for telemedicine at this time: Hospitals are expanding their telehealth services and also finding ways to train staff on a shortened timeline, said Hedges of Software Advice.

“The first one is a no-brainer: Telemedicine is such a perfect, ready-made solution to addressing COVID-19 that it wouldn't make sense not to use it, and plenty of hospitals are making efforts to grow their telehealth services to better serve patients during this time,” she said. “The extent of telemedicine features that hospitals can deploy varies, but it could include investing in anything from video hardware to facilitate remote consultations or telemedicine carts to conduct exams with hospitalized patients from outside their rooms.”

For those healthcare organizations that did not have telemedicine in place before the outbreak, or those that are adding additional services at this time, training is a big obstacle, she added. Fortunately, most telemedicine providers offer robust training modules to help users launch their software, so practitioners are leaning heavily on these resources to deploy telemedicine quickly, patients are very much on board with telemedicine outside the context of COVID-19,”. “From a recent survey we conducted of U.S. patients, we found that 84% are more likely to select a provider that offers telemedicine over one that doesn't, so it's clear this technology is something patients want. Practices are investing in telemedicine today out of a need to better equip themselves for coronavirus, but they should see it as a long-term investment to provide a better patient experience as well.”

Conclusion

Telemedicine has the potential to bring more patients into the hospital in a pandemic. Further, telemedicine programs require caregivers and other staff to function. Today, with COVID-19, Most hospitals still do not have the capability to deliver telehealth because, before now, it was largely viewed as a tool for ambulatory or post-acute care, “Now, of course, they are moving quickly to ramp up, so their emergency

departments can triage patients outside the four walls of the hospital,” he said. “Telemedicine also can help first responders in the field communicate with ED doctors, helping to ensure those who need hospital care get it quickly and efficiently – and, at the same time, divert those who don’t need hospital care to other facilities or [keep] them safe in their homes.”

“Also, the medical staff is getting infected and quarantined by COVID-19 thereby limiting the pool of available providers, By deploying advanced telehealth solutions, physicians are expanding their reach – even if quarantined – with the ability to remotely examine and diagnose more patients in a shorter amount of time, minimizing the number of patients entering hospitals and medical facilities.”

Telemedicine is reducing the burden on hospitals as they deal with the spread of COVID-19 and the associated increased caseload, Although some doctors are now required to dedicate time to screening patients via telemedicine while maintaining treatment of other patients, they would be doing that anyway – and worse, they’d be doing it in person. By dealing with patients on the very front end and separating the sick from the not very sick, we’re able to ensure physicians can determine where patients can be best cared for in the emergency department. For hospitals to really make a jump in telemedicine, they need to look at proven technology, such as enterprise-based platform systems that will let them customize a program, stand it up quickly and learn from best practices in other areas of care.

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