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My Thoughts/My Surgical Practice

Implications for the use of telehealth in surgical patients during the COVID-19 pandemic

The COVID-19 pandemic has placed an unprecedented burden on healthcare systems across the globe. In efforts to mitigate transmission and spread of the virus, social distancing, closure of public spaces, and quarantines have been implemented across the country. Despite the unfolding pandemic, other diseases require treatment, and will through what could be months of social distancing in the foreseeable future. Patients still require post-op care, emergency procedures, and surgical evaluations for time-sensitive new diagnoses. Telehealth may be able to help close the gap created by the pandemic and further our reach going forward. While surgery may not seem like it would lend itself to telehealth practices, multiple studies have shown it can be a viable modality for safe and effective surgical care as an alternative to in-office visits in the pre and post-operative periods.[1–3]

There are three primary forms of telehealth, including video, telephone calls, and instant messaging, including email, health system messaging services, and mobile apps to track patient recorded metrics. While video conferences may be preferred, each has benefits and can be commonly accessible by patients in 2020.

While no current guidelines exist for preoperative evaluations or general surgery consults, the literature suggests that all preoperative telehealth evaluations should undergo an in-person evaluation by the operative surgeon on the morning of the surgery.[1,5,6] While telehealth is limited by the lack of physical exam, this can be overcome by through using video conferencing for consults. Telehealth evaluations provide the unique advantage of allowing a local primary care physician or mid-level to consult the surgeon remotely, and perform a supervised physical exam.[1,6] Furthermore, telehealth offers patients timely visits, often sooner than an in-person visit, and has high rates of satisfaction from patients and clinicians.[1,5,6] Surgical subspecialties and oncologic resections lend themselves well to telehealth preoperative surgical evaluations, as demonstrated in a study by Cerfolio et al. published in June 2019, with 55 of 56 patients enrolled underwent thoracic oncology surgeries.[5]

Postoperatively, telemedicine offers a variety of modalities easily accessible by patients and surgeons. Video conferences and pictures were taken on a smartphone are effective for follow-ups, including the detection of post-operative complications and even saves patients time.[2] A study in 2017 also used mobile phone pictures for early detection of post-operative complications following appendectomy (laparoscopic or open) and found a 100% sensitivity, 91.6% specificity, and a negative predictive value of 100%.[6] These favorable results include patients undergoing complex oncologic surgeries.[2,5]

Historically, there has been a lack of legal guidelines and stringent HIPAA policies that have been amended to allow use of easily accessible technologies like Skype and FaceTime for telehealth from the patient own home.[8] The Center for Medicare Services (CMS) expanded coverage and reimbursement of telehealth encounters, with state Medicaid and private insurances left to decide under public eye.[9] These changes allow for greater accessibility to telehealth for both patients and providers.

The implementation of telehealth during the COVID-19 pandemic helps anyone and everyone adhere to policies of social distancing and reduce exposure, particularly patients at high risk for severe COVID-19 infections. Post-operative follow-ups can be rapidly implemented using video calls, or a combination of phone calls and wound images taken by patients demonstrated to be safe and effective ways of detecting early post-operative complications. Laxities in HIPAA laws make this easily implemented using technology hospitals and patients have on hand like email, computers, and smartphones with widely accessible and free apps like Skype, FaceTime, and WhatsApp with minimal financial costs to patients and providers. All patients should be asked if they are willing to enroll in telehealth post-operative care over in-person clinic visits before commencing with telehealth follow-ups. Enrollment can be discussed with patients before discharge, and existing follow up patients can be counseled over the phone for enrolled in telemedicine follow-ups.

For any in-patient surgical consult, PPE can be conserved by utilizing providers who have already donned PPE in the process of caring for COVID-19 positive patients to perform the physical exam. This format can be used for multiple consultations at once, minimizing viral exposure to the COVID provider and reducing the risk of transmission to other staff and patients. Room reentries and the number of people in the room would also be minimized this way—all vital steps in containing the pandemic.

As the government recommended social distancing and American College of Surgeons recommend a moratorium on elective surgery continues it may be necessary to begin preoperative evaluations for oncological surgeries before the treatment window closes, or patients face complications due to delays in care. Providing imaging and labs are completed, the surgeon can review records, imaging, and resectability then discuss medical history, risks, benefits, and alternatives to surgery with the patient and family members over videoconference.

Outside of oncological resections, out-patient preoperative telehealth evaluations will likely be the hardest, least urgent, and thus last to implement, but is entirely possible. With the moratorium on

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elective surgeries this should be a lower priority, but can be a useful tool for primary care and urgent care providers to gain surgical consults and rule out an urgent need for surgery, without having to expose the patient to the risks of contracting SARS-CoV2 in an emergency room.

The COVID-19 pandemic has already plunged the American healthcare System into a technological world it may not have been ready for, and so we must adapt. While the initial implementation of telehealth practices may be unexpected and rocky, this pandemic could evolve telehealth into a mainstay of many fields of medicine, in particular surgical post-operative care. With multiple trials and pilot studies demonstrating methods and efficacy of implementation, it is clear that telehealth can be a powerful tool to maintain quality healthcare while preserving the safety of patients amid the current pandemic.

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