

The Compounding Access Problem for Surgical Care Innovations in the Post-COVID Era

Jessica I. Billig, MD, MS* and Erika D. Sears, MD, MS†✉

Keywords: innovations, post-COVID, surgical access

(*Ann Surg* 2020;272:e47–e48)

Surgical outcomes, such as mortality and complication rates, can be substantially affected by delays in care. For emergency surgery, access to “round-the-clock” operating rooms, personnel, and surgeons is associated with lower mortality rates.¹ Long delays in care for essential nonurgent surgery, including cancer operations, can lead to lower overall survival and higher complication rates.^{2,3} The reasons behind surgical delay are multifactorial, including patient, provider, and health system characteristics.⁴ Improving overall access to surgical care is important for patient outcomes. However, the U.S. health system is on the precipice of a post-coronavirus (COVID-19) surgical access crisis as a result of ongoing mitigation efforts.

During the pandemic, many hospitals have halted all nonurgent operative cases, including cancer operations, aiming to reserve beds for COVID patients. This has led to a substantial backlog of procedures, which will only continue to grow. Moreover, patients who were scheduled to have surgery during the pandemic may have progression of their disease, likely resulting in more complex and higher risk procedures. Many patients are also financially strained given the economic downturn from COVID-19. Barriers to access will be multiplied as patients have become furloughed or terminated, have taken on additional childcare, elder care, and sick care responsibilities, and have lost health insurance coverage. This “perfect storm” puts patients at risk of further delays in care. As we surface from the COVID-19 pandemic, surgeons will face the dilemma of scarce operative resources (ie, time, operating room space, surgical workforce, etc) and how best to provide for the multitude of patients who had their surgical care delayed. Expansion of surgical access will need to be in the context of continuing COVID-related constraints, including limited hospital bed and intensive care unit capacity and a possible “second wave” of infections. Reinstating surgical services will be different for each health system and will need to be weighed against the risk of COVID resurgence. Given this compounded access problem, we need to evaluate access to surgical care from a larger societal perspective and consider the added financial and time barriers that patients will be facing in what becomes the new normal as a result of COVID-19.

What new strategies are needed to improve access to surgical care in the post-COVID-19 era? To improve surgical access, an integrated health system approach is needed with proactive and innovative strategies to provide surgical care for all people. We have detailed 3 solutions to increase access to surgical care: continued growth of telemedicine, expanded operating room schedules and settings, and transparent surgical billing.

STRATEGIES

Telemedicine

During COVID-19, there has been an explosion of telemedicine. On March 6, 2020, the Coronavirus Preparedness and Response Supplemental Appropriations Act was signed into law and waived Medicare telehealth payment requirements, permitting all Medicare patients to receive telehealth in their place of residence.⁵ Though this act expanded telehealth on a temporary and emergent basis, telehealth should continue to be available for all patients in the post-COVID era without barriers. Telehealth can improve access to surgical care through minimizing patient travel, obviating the need for significant time off of work, and promoting flexibility in time of day that visits are scheduled. This is especially important for hourly wage earners, those furloughed and returning to work after social distancing restrictions are relaxed, and patients with childcare, elder care, and sick care responsibilities. Previously, telehealth has been implemented in several health systems for postoperative care, which should be broadly adopted.⁶ However, there are instances where initial surgical consultation can be done via telehealth, such as routine evaluation of biliary colic. Certain surgical conditions (ie, melanoma excision with previous biopsy) do not need a physical examination during initial consultation, and physical examinations can be deferred to the preoperative holding area where the operative plan can be adjusted accordingly.

To continue the expansion of telehealth for surgery, sustained telehealth payments are needed. After the pandemic has subsided, the Centers for Medicare and Medicaid should continue to pay for telehealth visits, including phone visits. Surgical offices and health systems will need to broaden telehealth platforms to adequately handle an increased volume of virtual visits from multiple providers at the same time. With the rise in telehealth, strategies to streamline care will be essential. To reduce travel time and time off work, patients can have their surgical work-up (ie, imaging for cancer staging, biopsies, etc) at a local facility. Physicians and practices will need to implement approaches for easy transfer of medical information across providers or health care systems to avoid additional delays. This could include joining cloud image transfer networks, permitting interoperability among previously siloed health systems and real time access to imaging exchanges.

Operating Room Time and Operative Setting

Given scarce operative resources in the post-COVID era, innovative solutions are necessary to expedite surgical care. First, expansion of operating room time can be implemented to increase the

From the *VA/National Clinician Scholars Program, VA Center for Clinical Management Research, VA Ann Arbor Healthcare System; Section of Plastic Surgery, Michigan Medicine, Ann Arbor, Michigan; and †VA Center for Clinical Management Research, VA Ann Arbor Healthcare System, Ann Arbor, Michigan Section of Plastic Surgery, Michigan Medicine, Ann Arbor, Michigan.

✉endavis@med.umich.edu.

Dr. Erika D. Sears is supported by Career Development Award Number IK2 HX002592 from the United States (U.S.) Department of Veterans Affairs Health Services R&D (HSRD) Service.

The authors report no conflicts of interest.

Copyright © 2020 Wolters Kluwer Health, Inc. All rights reserved.

ISSN: 0003-4932/20/27202-0e470384

DOI: 10.1097/SLA.0000000000004085

overall number of cases performed. This includes operating beyond the usual working hours. Hospital systems may need to expand availability of surgeon block time that may include evening or weekend hours, especially for elective procedures. Expansion of operating room hours and resources will need to be informed by the surgical burden of disease (ie, backlog of oncologic cases), staff well-being, emergency surgical demands (COVID and non-COVID-related), and resource availability, such as personal protective equipment, surgical instruments, anesthesia providers and medications, and operating room staff. To avoid burnout and fatigue, a fair and equitable schedule should give surgeons equal opportunity for daytime and nighttime hours. However, a hierarchy of surgical needs should be agreed upon by each practice or hospital system with more urgent cases having priority.

Beyond availability of operating room time, we may also need to expand ambulatory surgery center capacity, specifically to accommodate 23-hour observation patients. Increasing capacity will move cases from acute care hospitals, thus further freeing up inpatient beds and operative rooms. Moreover, surgeons should critically assess which 23-hour observation procedures may be safely transitioned to purely outpatient surgery, reserving scarce resources for more complex surgical cases and keeping healthy patients out of the hospital. For example, mastectomies with implant-based reconstruction can be transitioned to ambulatory surgery centers as 23-hour observation or as outpatient operations, as patients generally stay less than 24 hours with few complications.

Additionally, for smaller procedures, the clinic setting is the perfect opportunity to perform local anesthesia cases. In the clinic, surgeons can perform excision of cutaneous malignancies, including those needing small reconstructions, cataract surgery, carpal tunnel release, wound debridement, cystoscopy, hysteroscopy, among multiple other minor procedures. This would give patients immediate access to procedures which may be considered “elective” that will surely have longer than usual wait times in the post-COVID era. Additionally, performing minor procedures in the clinic setting obviates the need for operating room time, reserving the operating room for more complex procedures. The clinic setting also offers the unique ability for expedited care. Surgeons can see a patient for consultation and perform the procedure on the same day using clinic-based procedure rooms. By reserving time slots at the end of the clinic day, surgeons can substantially improve access for patients by performing same day procedures. These same day consultation and procedures can minimize patient transportation and additional time off work.

Transparent Surgical Billing

Efforts to improve access to surgical care must also include financial considerations. Patients are experiencing substantial economic consequences as a result of COVID-19, with skyrocketing unemployment rates, thereby placing new monetary strains on patients. To minimize the potential financial harms from surgical care, patient financial obligations must have greater transparency

before surgery. Each surgeon, practice, or healthcare system should provide patients with access to transparent pricing for their most performed procedures from the common insurers at each facility. Price transparency can improve access to surgical care by minimizing unanticipated financial harms.

Surgeons should also consider modifiable cost contributors, such as operative setting. For procedures that can be performed in multiple operative settings, office locations result in lower out-of-pocket expenses. Practices and hospitals can set up payment plans with patients for their out-of-pocket expenses before the surgical procedure. Payment plans, especially for patients with high-deductible plans, can permit patients to decrease the financial risk of surgery and improve access. Lastly, policies aimed at increasing insurance coverage for patients will help improve access. The Affordable Care Act (ACA) marketplaces closed on December 31, 2019 in most states, thus limiting patients from participating in ACA insurance plans. However, California has enacted a COVID-19 extended open enrollment schedule through June 30, 2020 to allow patients to obtain health insurance.⁷ Reopening the ACA marketplaces in all states can help provide patients with insurance coverage, which will improve access overall.

The post-COVID era will put unprecedented stress on surgical care, resulting in a compounding surgical access crisis. Innovative strategies to improve access to surgical care can lead to better postoperative outcomes. Fortunately, the pandemic has resulted in the expansion of telemedicine, which must continue in the post-COVID era. However, telemedicine is only the beginning. Surgeons and health systems must take proactive and immediate action to reduce post-COVID surgical access challenges.

REFERENCES

1. Daniel VT, Rushing AP, Ingraham AM, et al. Association between operating room access and mortality for life-threatening general surgery emergencies. *J Trauma Acute Care Surg*. 2019;87:35–42.
2. Kaltenmeier C, Shen C, Medich DS, et al. Time to surgery and colon cancer survival in the United States. *Ann Surg*. 2019 [Epub ahead of print].
3. Merkow RP, Bilimoria KY, Tomlinson JS, et al. Postoperative complications reduce adjuvant chemotherapy use in resectable pancreatic cancer. *Ann Surg*. 2014;260:372–377.
4. Institute of Medicine. *Access to Health Care in America*. Washington, D. C: The National Academies Press; 1993. Available at: <https://doi.org/10.17226/2009>.
5. The Centers of Medicare and Medicaid Services. Medicare Telemedicine Health Care Provider Fact Sheet. 2020. Available at: <https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet>. Accessed April 13, 2020.
6. Nikolian VC, Williams AM, Jacobs BN, et al. Pilot study to evaluate the safety, feasibility, and financial implications of a postoperative telemedicine program. *Ann Surg*. 2018;268:700–707.
7. Covered California. California Responds to COVID-19 Emergency by Providing Path to Coverage for Millions of Californians. Available at: <https://www.coveredca.com/newsroom/news-releases/2020/03/20/california-responds-to-covid-19-emergency-by-providing-path-to-coverage-for-millions-of-californians/>. Accessed April 24, 2020.