VIEWPOINT

COVID-19: BEYOND TOMORROW

Preserving Elective Surgeries in the COVID-19 Pandemic and the Future

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"Cancel everything" has trended as a hashtag during the coronavirus disease 2019 (COVID-19) pandemic, and for good reason. The pandemic has touched virtually every aspect of society, substantially altering, and at its onset halting, the very ways nearly every person in the United States works, learns, lives, and maintains health.

The practice of surgery has not been immune, with emergency declarations by many states to suspend elective procedures and office visits in mid-March. While only temporary, this abrupt cessation of surgery has had far-reaching implications that can inform future approaches in the context of both crisis and uncertainty.

Elective Procedures as Essential

Although most operations and procedures are described as "elective," these interventions are essential contributors to patient health, to the well-being of communities, and to the solvency of the nation's health care system, which comprises nearly 20% of economic activity in the United States. The choice of the term *elective* is therefore unfortunate when used in regulations; "nonemergency" surgery would be more accurate.

As COVID-19 emerged, these procedures were temporarily stopped to mitigate the risk of virus transmission; to preserve personal protective equipment (PPE), hospital bed capacity, and key equipment (eg, ventilators); and to allow shifts in health care staffing patterns. The American College of Surgeons disseminated a tiered acuity scale[1] to guide patient triage for surgery relative to severity of illness, time sensitivity, and community disease prevalence, with hospitals and health systems delicately balancing case prioritization; safety of patients, surgeons, and other health care professionals; and resource availability.

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Consequences of Delays in Care

These safeguards, however, did not account for the physical and emotional challenges of delayed surgeries, concerns associated with resuming pandemic care, and changes in mindset needed to move forward effectively with ongoing concerns about COVID-19.

The negative effects on patient health outcomes are being realized as delays become disruptions in care. A survey conducted by Massachusetts General Hospital among 534 patients with breast cancer indicated that 31.7% reported they experienced delays in screening or treatment from May to July 2020.[2] Similarly, at Wake Forest Baptist Health (WFBH), there was a near-complete pause in mammograms in April. From March to June of the pandemic, this health system experienced significant declines in surgical volumes compared with the same period during the previous year, with a 27% reduction in orthopedic surgery cases (from 795 procedures in 2019 to 578 procedures in 2020) and a 34% reduction in breast surgery cases (from 270 procedures in 2019 to 178 procedures in 2020), followed by a gradual recovery, to 434 orthopedic surgery cases and 116 breast surgery cases in July and August 2020.

The long-term effects of widespread delays and their influence on resources, outcomes, and survival may not be apparent for some time. One analysis projected that tremendous effort will be required to clear a surgical case backlog estimated to be nearly 5 million cases (which could take up to 3 months).[3] Another study in England estimated an up to 10% reduction in 5-year survival for breast cancer and a 16% reduction in survival for colorectal cancer when routine screening pathways are suspended.[4]

The emotional toll is also substantial, with patients delaying preventive care or operations after restrictions are lifted because of concern about exposure to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), along with anxiety and apprehension over the safety of returning to health care centers. According to a *New York Times* article, emergency department visits at the University of Rochester Medical Center declined by half, with arriving patients presenting with advanced stages of stroke, myocardial infarction, and other major illnesses, and this situation has been common among many hospitals and health systems.[5] To help allay such concerns for both patients and staff, hospitals and health systems have been required to take an intentional focus on preventive measures, including COVID-19 testing, visitor restrictions, enhanced cleaning procedures, and PPE availability, and to reinforce new social norms and expectations surrounding social distancing and mask wearing.

Economic Burden

The American Hospital Association estimated an average loss of revenues to US hospitals of $50.7 billion per month from March 1 to June 30, 2020.[6] Loss of

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"elective" procedures contributed to these revenue declines, as these procedures typically constitute a substantial part of hospital revenue. Although revenue data vary across hospitals and health systems, at WFBH (a safety-net hospital), for example, such procedures are estimated to account for approximately 31% of net revenue for patient services.

As "elective" procedures contribute substantially to health care system operations and revenue, hospitals and health systems are increasingly "cost shifting" to private payers to offset declines in Medicare and Medicaid payments. Federal and state payments now pay hospitals an estimated average of only 86.8% and 88.1% of costs, respectively, including Disproportionate Share Hospital payments, and government-funded patients may account for more than half of all patients at some medical centers. For instance, at WFBH, government-insured patients comprise 60% to 65% of the patient population, whereas commercially insured patients comprise 28% to 30% of all patients; private payers reimburse at 144.8% of costs on average.[7] Thus, two-thirds of patients are subsidized by one-third of patients—and that one-third is more likely to be undergoing "elective" procedures. This is troubling, as the number and percentage of uninsured individuals has increased substantially with growing unemployment and loss of employer-based health insurance related to COVID-19. This shift is particularly detrimental to hospital and health care center finances in states that have not expanded Medicaid and will potentially create additional financial losses, especially in rural and safety-net hospitals.[8]

Moving Forward

The COVID-19 pandemic has illuminated the critical importance of "elective" surgery and the path to sustaining, not stopping, surgical care based on local conditions of SARS-CoV-2 prevalence and available resources, even during times of crisis or uncertainty. Moving forward requires creativity but also requires structural changes to patient workflows.

At a macro level, aligning reimbursement with the true cost of care for all patients regardless of diagnosis, rather than shifting uncovered costs to patients undergoing "elective" procedures on which the health care safety net relies, would greatly reduce jeopardizing financial fitness of hospitals and health systems in times of national health emergencies. On a more local level, in some systems, triaging "elective" cases to community network hospitals may sustain volumes, while other systems may need redesigns or restructures to care for COVID-19 and non–COVID-19 patients in parallel, as many changes associated with the pandemic are the "new reality" moving forward.[9]

Rapid and accurate presurgical testing for SARS-CoV-2 will continue to be critical to ensure quality and safety, along with guaranteeing sufficient availability of PPE for staff, students, and patients. Culture—the sense of common purpose and accountability that binds individuals to each other—is the undercurrent that will drive commitment to these measures and adherence to preventive practices like masking, social distancing, and frequent handwashing. In the COVID-19 era, it is critical for the health of communities and health care systems and hospitals that nonemergency surgeries continue along with efforts to counteract the pandemic and thrive in the future.

ARTICLE INFORMATION

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