

Expert Opinion

Resuming elective surgeries in Corona pandemic from the perspective of a developing country

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“Acknowledging that sometimes, often at very crucial times, you really have no idea where you are going or even where the path lies. At the same time, you can very well know something about where you are now (even if it is knowing that you are lost, confused, enraged or without hope).” — Jon Kabat-Zinn

In the 57½ years I've been on this planet, I can think of no other time where I have ever witnessed a greater need for hope for so many people simultaneously across the world. Although as of today, India has reached the undesirable 3rd global rank of positive Corona virus cases (>0.7 million), I still keep hoping that soon I would be able to do major pediatric urological reconstructive procedures on my unfortunate but still adorable patients.

Since the COVID-19 pandemic, healthcare facilities have entered into a “crisis mode”. One of the measures used to allow hospitals to surge their capacity and serve the patient population with COVID-19 infection was the suspension of elective activity, most importantly elective surgery and other procedures. American College of Surgeons made the recommendation to cancel all “elective” surgery on March 17, 2020. Similarly, Delhi Government public hospitals were directed to suspend all non-essential elective surgeries on March 20, 2020. Only emergency surgery, trauma, and time-sensitive diseases, for which delay would compromise outcomes, went on uninterrupted in hospitals. Few hospitals were later classified as dedicated COVID hospitals, wherein only COVID-19 positive ‘adult’ patients could undergo emergency surgeries. Societal lockdown was critical to change the prevalence and the incidence of the disease and to decrease its reproductive rate; a lockdown was imposed in India on March 25, 2020 that lasted till May 31, 2020. In the neighboring Pakistan, the

lockdown lasted little less than 6 weeks (April 1, 2020 to May 9, 2020). After approximately 6-8 weeks of “crisis mode” management, societal and financial pressures mounted worldwide, prompting efforts to “re-open” countries, states, communities, businesses and even domestic airlines; schools may take some more time to reopen.

“Nothing will be like before after this pandemic,” this often-heard statement will be especially true for healthcare workers (HCW) and surgeons, as the virus will not completely disappear from our societies once the first wave of the pandemic is over.[1] But yes, it is hoped that the first wave of this pandemic will pass soon. There would be “flattening of the curve”. There would be sustained reduction in the rate of new COVID-19 cases locally for at least two weeks and we would shift our mind set from the “crisis mode” to the “new normal mode”. Then, we would consider a resumption and staged increase of all elective pediatric surgical procedures over a certain period. Of course, any such resumption of services would be first authorized by the appropriate municipal, city, and state and central government health authorities. Also, we should commit to revert to the present status of operating only emergency cases, in case a surge in Corona virus positive cases is ever reported locally.

We need to create guidelines for the hospital administrators, pediatric surgeons and nurses in resuming care in the operation theatres and other procedural areas. Before we embark on this road again, we need to ensure that we have sufficient healthy workforce, facilities (appropriate number of ICU, non-ICU beds, ventilators), supplies (medications, anesthetics, and all medical/surgical supplies), testing capacity, and post-acute care, without jeopardizing surge capacity. Given the known evidence regarding

health care worker fatigue and the impact of stress on them, we need to be sure whether we can perform planned procedures without compromising patient safety, or staff safety and well-being.

General considerations

COVID-19 has added a new dimension to the care of the patients-telemedicine. Maximum use of all telehealth modalities is strongly encouraged. But surgical problems, even if they are non-emergency, usually demand 'in-person' care. So, first and foremost, we need to consider establishing non-COVID care (NCC) zones within the hospital facilities that have strategies to reduce the risk of COVID-19 exposure and transmission; these areas should be separate from other facilities to the degree possible. Within the facility, workflows, administrative and engineering controls should be established to facilitate social distancing processes (e.g., minimizing time in waiting areas, spacing chairs at least 6 ft apart, and maintaining low patient volumes) to create a safe environment for elective surgery. All patients coming here should be screened for symptoms and findings of COVID-19, including temperature checks. Parents/ caretakers accompanying the patients should be prescreened in the same way as the patients; they should respect the masking and social distancing policies of the hospital. Even the HCW should be routinely screened for potential COVID-19 symptoms and should be tested and quarantined, if symptomatic. HCW who shall be working in NCC zones should be limited to working in these areas and not rotate into COVID-19 care zones.

Sanitation protocols

A plan must be established for thorough cleaning and disinfection before facilities are used for patients with NCC needs. Equipment (e.g., anesthesia machines) used for COVID-19 patients must be thoroughly decontaminated.

Testing capacity

We should be able to offer reliable COVID-19 testing to all patients undergoing an elective surgical procedure a day or two prior. Testing is particularly important because available scientific evidence suggests worse postoperative outcomes in patients who test positive for COVID-19, regardless of the presence of symptoms or contact history. Availability, accuracy and turnaround time of the tests are important. When adequate testing capability is established, every patient should be tested before admission to NCC zone. If the test result is positive, the elective surgery should be mandatorily canceled. But in case it is negative, even then the surgical, anesthesiology, and nursing teams in operation theatres and procedure areas would don adequate PPE. And unlike in any recent time in history, risks to HCW from patient as well as risks to the patient from HCW are now thrown

into the equation, so HCW working in these facilities should be regularly screened by laboratory testing as well. There had been instances when the caretakers/parents of surgical children have demanded to know the COVID-19 status of the surgeon and other HCWs involved in the management.

Personal protective equipment (PPE)

Facilities should not resume elective surgical procedures until they have adequate PPE and medical surgical supplies, including supplies required for a potential second wave of COVID-19 cases. HCW should mandatorily wear surgical face masks at all times. Great caution should be observed while performing procedures with a higher risk of aerosol transmission; staff should utilize appropriate respiratory protection in such situations. Every effort should be made to conserve PPE; its extended use and reuse should be encouraged. The patients should mandatorily wear a cloth face covering that can be bought or made at home if they do not already possess surgical masks.

Resuming elective surgeries in a developing country

COVID-19 proved a major embarrassment to the preparedness in facilities even the developed world. We all watched plethora of videos even from the hospitals in New York where the doctors or nurses were complaining against non-availability of PPE. The scenarios in the developing world are undoubtedly worse. Twenty-eight million surgical operations are estimated to be cancelled during last few weeks and low-income and middle-income countries (LMICs) in Africa and parts of Asia will be hardest hit.[2]

Going by the past experience of putting stringent restrictions on elective surgical services during the 2003 severe acute respiratory syndrome-related corona virus (SARS-CoV)-1 outbreak in Toronto [3] and even by our present COVID-19 experience, we have seen only marginal increases in the surge capacity for the outbreak by suspending elective surgeries. The truth is that only very few senior anesthesia and pediatric surgical consultants physically come to the facilities these days. The facilities, systems and personnel are obviously getting wasted. Pediatric surgical training programs have been also hit adversely.

Post-pandemic waiting lists for semi-urgent cases such as pediatric solid malignancies may shoot through the roof immediately in the developed world once elective surgeries are resumed. However, the surgical volumes in the developing countries may not bounce back that rapidly; ironically these are the same countries where there were already long waiting lists.[2] According to an estimate, it may take almost a year to make up the backlog.[2] Pediatric surgical services in the developing countries are characterized

by significant delays in health-seeking and within the referral chain.[4] The lockdowns during the pandemic would result in reduced incomes and restricted mobility and lead to further delays in presentation and resultant adverse outcomes.[5]

'Prioritization' is going to the buzzword after we resume elective pediatric surgical services in any part of the world. For example, children with obstructive uropathy with the risk of loss of renal function should receive priority over other benign diseases in children or adults when the elective surgical schedules are resumed.[6] Then there will be cases of congenital abnormalities where the optimal surgical time point would have passed long before, such as hypospadias and cryptorchidism. These children are at risk for suboptimal outcome or psychological issues due to delayed surgery and should also be relatively prioritized.[6] But then how does one possibly triage the thousands upon thousands of patients whose surgeries were postponed? Instead of the term "elective," the University of Chicago's Department of Surgery chose the phrase "Medically-Necessary, Time Sensitive" (MeNTS). This concept can be utilized to better assess the acuity and safety when determining which patients can get to the operating room in as high benefit/low risk manner as possible.[7] Last few weeks

have witnessed plethora of review articles and meta-analyses about the health services in COVID-19 pandemic. Hojaij et al. emphasized on reducing the surgical staff in operating areas to the essential members and providing them with institutional psychological support.[8] Mazingi et al. have recently identified 7 domains and detailed recommendations for pediatric surgery during the current pandemic that are worth emulating.[4] Kaye et al. representing the Springer Nature and International Society of Aesthetic Plastic Surgery have detailed the flow charts and clinical algorithm to enhance patient safety in elective surgery in the context of COVID-19 and to minimize cross-contamination between HCW and patients.[9] They have proposed new evidence-based guidelines regarding surgical risk stratification, testing, and clinical flow management/contamination management.[9] Continuous development and broad implementation of guidelines on similar lines would equip us better to deal with the elective surgeries in the "plateau period" and during a possible second wave of the pandemic. Let us all continue to strive for excellence, safety, and quality in the delivery of our services in these difficult times.

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