Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Surgery 170 (2021) 1650–1651

Contents lists available at ScienceDirect

Surgery

journal homepage: www.elsevier.com/locate/surg

Challenges in recovery of elective surgery systems

Surgery is being neglected in pandemic recovery plans. The overlapping worldwide problems that already existed, including timely access to surgeons, affordability, and bed pressures, were suddenly magnified by the COVID-19 pandemic. These problems are further exacerbated in the Global South, where limited access and affordability of safe surgery had already been identified as major problems by the Lancet Commission on Global Surgery in 2015. A new global lens needs to be focused on solutions to provide stable surgical systems in all countries over the next decade, considering existing problems, the risks of new COVID-19 variants, and preparedness for another pandemic. Since surgery remains low on governmental and global agendas, if surgeons do not prepare systems, no one else will.

The strengths and weaknesses of current elective surgery systems are elegantly highlighted in the article by Alexandre et al, which uses administrative data from France before and after the pandemic. Although the article focuses on low elective mortality rates, the finding that will be most relevant to the general public is the 37% decrease in surgical volume for digestive resections during the pandemic peaks. This highlights whole system fragility, where patients are unable to flow from community to surgeon in a timely fashion. Affected patients may present later with more advanced disease, or they may never present to a surgeon for cure. These are patterns that were seen across the globe and continue to be repeated today.[1]

Although studies using retrospective control groups have traditionally been seen as weak, this study uses it as a strength. A comparator is needed to understand whether elective surgical volumes were lower than would have been expected, and using national administrative databases is a relatively reliable method to achieve this (versus surgeon estimation, for example).

Alexandre et al also show overall low mortality rates before and during the pandemic. It does confirm a higher postoperative mortality in asymptomatic SARS-CoV-2 carriers and a 10-fold increase in patients with symptomatic COVID-19, in keeping with the COVIDSurg collaborative's international findings.[2] It also demonstrates that elective surgery systems were able to adapt and provide safe surgery, which includes COVID-19 free surgical pathways and routine preoperative testing.[3,4]

If 2020 exposed the lack of resilience of elective surgery to external shocks, the next 5 years represent the era in which surgeons, as changemakers, need to prepare systems for both COVID-19 variants and future pandemics. The global rate of COVID-19 free surgical pathways has increased from 22% to 88%, demonstrating fast change is possible.[3] Maintaining these pathways and planning surgical units that can function independently of surges due to new COVID-19 variants is the next challenge. These are not just related to the physical space, but are related to the provision of whole surgical teams, including theater staff, anesthetic staff, and allied health teams. Such stable and resilient elective surgical services are challenging in both high-income settings and the Global South. Uniting surgical knowledge globally, including national and international surgical associations coming together to harness experience, will better influence global policy makers and funders.

The delivery of universal health coverage and comprehensive non-communicable disease care cannot be achieved without sustainable surgical services. Effective surgery is far more than the physical act of performing an operation, and we should not see it as an isolated set piece. Elective surgery will be at its most effective when it is part of an integrated pathway that joins together communities with hospitals and policy makers. Within such a connected ecosystem, surgery can become a modality for the early treatment of diseases that range from congenital malformities through to local resections of cancers. This would shift it away from a reactive specialty that treats advanced cancers and emergency presentations.

Although we need to ensure that we can provide timely and safe surgery during the coming phases of this pandemic, we must not forget our need to innovate. COVID-19 has shortened the timeline of the research cycle down from years to just a few weeks. This has included fast reviews by ethical review boards and rapid publication by journals. Global communication and dissemination of data-driven messages is transforming with the use of digital platforms. Future patients needing surgery are best served through innovation, and as we recover our essential systems, we should continue to build in high-quality, routine surgical research to as many surgical units as possible around the world.

Funding/Support

NIHR Academy.

Conflicts of interest/Disclosure

None declared.

https://doi.org/10.1016/j.surg.2021.08.012

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Accepted 8 August 2021

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