## The painful cost of cancelling surgery due to COVID-19- can we do anything about it?

*Editor*

We have followed the Coronavirus Disease 2019 (COVID-19) pandemic with great interest since it emerged in early January. All hospitals in the UK were recommended to postpone non-urgent elective operations for at least 3 months in order to prepare for the peak of the outbreak, which has had vast implications, both from the patient and surgeon perspectives.

Estimates suggest that over 40 000 elective operations would be cancelled in the UK per week during the 12-week peak; based on the average cost of £4000 per operation, it will cost more than £2 billion to clear the backlog[1], not accounting for the cost incurred due to increased morbidity associated with longer waiting times.

The move is likely to result in increased delays for non-urgent operations and, in a subgroup of urgent patients, potentially increased morbidity and mortality; this is a particular issue in vascular surgery, where many 'elective' cases are actually urgent (for example aneurysmal disease, critical limb ischaemia). Given that the cancellation period is likely to be protracted, a proportion of elective cases may be pushed into emergency presentations. After the outbreak has been controlled, there will be a need for prioritization of patients within each subspecialty, which highlights a number of ethical concerns. Indicators of quality standards should be adapted to develop guidance that can help inform these decisions[2]. This includes designated operating theatres for COVID-19-positive patients with negative pressure ventilation to minimize the risk of transmission in surgical smoke[3]. Adequate personal protective equipment (PPE), which has been a global issue, is paramount in maintaining the available surgical workforce and the welfare of healthcare personnel. Patients with planned elective surgery will be required to isolate for 2 weeks and wherever possible, test negative for COVID-19 within 72 hours of admission. Procedures will be postponed until full recovery in those with active infection. Every member of the operative team including anaesthetists, surgeon and nurses should be either COVID-19 negative or have immunity assessed based on antibody tests[4].

Furthermore, few have considered the impact on surgical training during these unprecedented times. The segregation of emergency and elective surgical care helps to protect training for surgeons. The cancellation of elective surgery will adversely impact on training opportunities, particularly for elective workload. Conferences, training courses and exams have been cancelled, which further exacerbates the issue of reduced training opportunities. A recent review has proposed a three-stage framework for surgical planning through pandemic phases[5]. A contingency plan for maintaining both emergency and elective services during the ongoing pandemic, with elective operating expanded to include weekends could partially address the issue around delayed operations and reduced training opportunities. Face-to-face teaching sessions can be delivered virtually. Conferences, courses and examinations will need to be tailored to maximize their capacity and give surgical trainees an opportunity to 'catch up'.

These unprecedented times are a challenge but also an opportunity for learning, to maximize efficiency and rethink how we care for our patients.

### Conflict of interest

None to declare.

### Author contributions

AD, SO and AHD conceptualized the article. AD wrote the manuscript, SO and AHD critically read the manuscript. All authors read and approved the final manuscript.


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1 COVIDSurg Collaborative. Elective surgery cancellations due to the COVID-19 pandemic: global predictive modelling to inform surgical recovery plans. *Br J Surg* 2020; https://doi.org/10.1002/bjs.11746 [Epub ahead of print].

2 Ives J, Huxtable R. Surgical Ethics During a Pandemic: Moving into the Unknown? *Br J Surg* 2020; https://doi.org/10.1002/bjs.11638 [Epub ahead of print].

3 Mowbray NG, Ansell J, Horwood J, Cornish J, Rizkallah P, Parker A, *et al.* Safe management of surgical smoke in the age of COVID-19. *Br J Surg* 2020; https://doi.org/10.1002/bjs.11679 [Epub ahead of print].

4 Mayol J, Fernández Pérez C. Elective surgery after the pandemic: waves beyond the horizon. *Br J Surg* 2020; https://doi.org/10.1002/bjs.11688 [Epub ahead of print].

5 Søreide K, Hallet J, Matthews JB, Schnitzbauer AA, Line PD, Lai PBS, *et al.* Immediate and long-term impact of the COVID-19 pandemic on delivery of surgical services. *Br J Surg* 2020; https://doi.org/10.1002/bjs.11670 [Epub ahead of print].