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A multi-centre insight into general surgical care during the coronavirus outbreak in the United Kingdom

Editor

The coronavirus pandemic has had profound implications on general surgical care[1-4]. Local adaptation of Royal College of Surgeons guidelines[5] has differed across hospitals. We describe some measures taken in response to the pandemic in five hospitals across the United Kingdom (UK) – North Middlesex University Hospital in London (NMUH), Broomfield Hospital in Chelmsford (BH), Princess of Wales Hospital in Bridgend (POW), Heartlands Hospital in Birmingham (HH) and William Harvey Hospital in Ashford (WHH).

The day-to-day staffing arrangements were predicated by re-deployment of junior staff. At NMUH the department was staffed by registrars and consultants with the support of generic ward-based junior doctors. At BH and HH a cadre of all grades remained on surgery. At WHH surgical registrars contributed to both surgical and intensive care rotas. Resident medical officers, physician associates and advanced nurse practitioners continued to contribute to the surgical workforce. Rearrangement of shifts meant new working patterns, creation of novel shifts, and minimisation of doctors on site. At HH reorganisation was multidisciplinary, with the creation of mixed medical and surgical "interventional teams", which were also responsible for COVID-19 patients on their ward. Universally a second tier "back-up" rota accommodated staff illness and periods of self-isolation. WhatsApp groups and handover between shifts were used to fill known staffing gaps internally.

There was an extension of existing ambulatory surgical units (ASUs), staffed by senior decision makers, and attended only by symptom-screened low-risk for COVID-19 patients. All sites had direct access to some diagnostic and therapeutic modalities (*e.g.* ultrasound, MRCP, ERCP, CT and interventional radiology). At NMUH and BH patients were streamed directly from A&E to speciality. At POW patients were referred directly to consultants. There was a trend towards seven-day working and maturation of ASU pathways.

Departments and multidisciplinary teams have attempted to safeguard urgent cancer surgery (UCS). Some new diagnostic and treatment algorithms were created (*e.g.* using CT instead of endoscopy for gastrointestinal cancer diagnosis at WHH). At BH and POW, limited UCS has continued throughout the pandemic. Collaboration between the public and private sectors has allowed UCS to be provided at "cold" private sites. At HH and WHH, UCS is consultant-delivered. At BH surgeons continue to offer laparoscopic UCS; in contrast, all colorectal cancer surgery is now performed by open technique by WHH surgeons. The limitation of the partnership with the private sector has been a lack of staffing for inpatient care, and limited ITU resources. Major operations requiring Level 3 care (*e.g.* oesophagectomy or pelvic exenteration) have not been performed at any of our sites during the pandemic. Telephonic and virtual patient consultation have been used ubiquitously to provide outpatient clinic services. At NMUH, BH, POW and HH only suspected cancer referrals are accepted. WHH continues to accept benign referrals.

The coronavirus pandemic has had a profound impact on all aspects of working in general surgery. It has necessitated new and flexible work patterns, maximisation of ambulatory care units, prioritisation of urgent cancer cases and the use of telemedicine. The challenges faced during this unprecedented time have forced us to evolve and innovate new ways of delivering care in surgery. We must identify the positive changes that have occurred as a result of this pandemic and implement these into a new form of surgical working.

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Anokha Oomman Joseph[1], Janso Padickakudi Joseph[2], Haritharan Nageswaran[3], Viswa Retnasingam Rajalingam[4], Amit Sharma[5], Bernadette Pereira[6] and Jasdeep Gahir[7]

[1]North Middlesex University Hospital, Sterling Way, London, N181QX, [2]Broomfield Hospital, [3]Princess of Wales Hospital, [4]Heartlands Hospital, [5]William Harvey Hospital, [6]North Middlesex University Hospital, and [7]North Middlesex University Hospital (@h_nageswaran, @rvrsingam, @Bernade65647929, @gahir_jasdeep, @NorthMidNHS)

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1 Hogan A. COVID-19 and emergency surgery. *Br J Surg* 2020; **107**: e180.
2 Lee J, Choi JY, Kim MS. Elective Surgeries During the COVID-19 Outbreak. *Br J Surg* 2020; https://doi.org/10.1002/bjs.11697 [Epub ahead of print].
3 Spinelli A, Pellino G. COVID-19 Pandemic: Perspectives on an Unfolding Crisis. *Br J Surg* 2020; **107**: 785–787.
4 Soreide K, Hallet J, Matthews JB, Schitzbauer 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].
5 Intercollegiate General Surgery Guidance on COVID-19. https://www.rcsed.ac.uk/news-public-affairs/news/2020/march/intercollegiate-general-surgery-guidance-on-covid-19-update