COVID-19 TOOLKIT

MANAGING ELECTIVE SURGERY DURING THE SURGES AND CONTINUING PRESSURES OF COVID-19

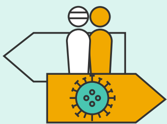
Royal College of Surgeons of England
ADVANCING SURGICAL CARE

SUMMARY OF KEY POINTS

As COVID-19 is still prevalent and cases are fluctuating, the NHS will likely be facing a sustained period of pressure. While the COVID-vaccine is beginning to be rolled out, it will take time for all patients and staff to be protected. Certain circumstances allow surgical services to continue safely with appropriate planning and decision making. This guide provides a series of recommendations for managing elective surgical services during COVID-19, structured under five main areas:

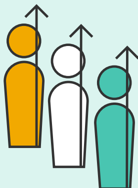
1. Local cooperation for the coordination of resources and surgical care

- Delivery of elective services on a networked basis, via an interconnected system of providers
- Avoiding meeting the demand of local surges by resorting to crisis measures, and engaging in early local and regional cooperation to protect essential resources for elective surgical pathways
- Weekly forecasting of COVID-19 demand on capacity and resources as a baseline for determining the ability to add non-COVID-19 cases



2. COVID-light sites and extended services

- Use of COVID-light sites and physical pathways within and across hospitals, with segregation of both staff and patients from COVID-19 environments
- Extension of core hours of service (including availability of staff, facilities and resources) during the week and at the weekend as a way of securing additional capacity and more balanced staffing levels throughout busy periods. Staff should not exceed recommended weekly working hours.

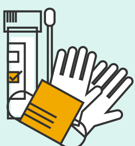


3. What hospitals and healthcare managers can do to support staff, including:

- Establishment of a multidisciplinary prioritisation committee and a prioritisation strategy that meets the needs of patients while making optimal use of existing facilities for elective cases. This includes:
- a proposed approach for prioritising patients and for a phased increase of operating theatre availability
- flexible planning on a weekly basis
- use of day-case facilities
- using local or regional anaesthesia where such options exist
- using a lighter team for simpler procedures
- ensuring length of stay is kept at optimum levels
- use of facilities in the independent sector

4. Workforce

- Revision of job plans to allow more time spent in the operating theatre
- Flexible working patterns across extended working days and weeks



5. Testing and PPE

- Twice-weekly testing for asymptomatic staff and patient testing 24–72 hours before surgery
- Adequate staff training on proper use of personal protective equipment (PPE), including donning and doffing

INTRODUCTION

The suspension of elective surgical services in response to the pandemic earlier in 2020 led to significant delays in the treatment of surgical patients, with waiting lists reaching record highs. Most parts of the country have now begun to resume planned surgery in response to patient needs. It has been estimated by NHS England that elective admissions in September 2020 were at approximately 74% compared with the same month in 2019 although there are wide variations across the regions. Among the lessons learnt over the past few months is that the provision of most elective procedures can be performed safely even during a pandemic surge provided that patients have undergone appropriate risk assessment and testing, and surgical teams have adequate PPE and are tested regularly.

As COVID-19 is still prevalent in society and cases are fluctuating, the NHS will likely be facing a sustained period of pressure over the next few months. While the COVID-vaccine is beginning to be rolled out, we are still identifying the impact on surgical services and it will take time for all patients and staff to be protected. Therefore hospitals will need to take measures to continue their elective services in an environment of uncertainty and fluctuation.

Certain circumstances allow surgical services to continue with appropriate planning and decision making. Examples abound, such as Croydon University Hospital, which created a separate elective pathway, adjusted services for remote provision and provided dedicated team support.[1] We recommend that decisions to adjust services upwards or downwards occur at a local level, taking into account national guidance but also local case incidence, hospital capacity, availability of COVID-light facilities, testing, PPE and other factors.

The following is a series of recommendations that can be adapted to support local decision making. They should be read in conjunction with our guidance and tools on the recovery of surgical services, testing and PPE.[2]

1. LOCAL COOPERATION FOR THE COORDINATION OF RESOURCES AND SURGICAL CARE

Elective services will benefit from being delivered on a networked basis via an interconnected system of service providers. This allows collaborative working (assisted by contractual agreements where required), flexible movement for clinical staff and robust patient transfer arrangements according to clinical need. Collaboration across the network can include remote triage and remote multidisciplinary team support out of hospital as well as specialist support within hospitals.

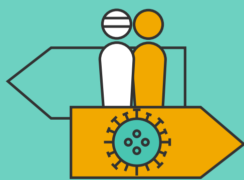
Where possible, hospitals should aim to avoid meeting the demand of local surges by resorting to crisis measures. They should plan in advance and engage early in local and regional cooperation to address capacity and new patient needs, ensuring facilities have an appropriate number of intensive care unit (ICU) and non-ICU beds, PPE, testing supplies, ventilators (where applicable), and trained staff to treat all non-elective patients and avoid using facilities and resources that are essential for elective surgical pathways. With the introduction of integrated care systems in the second half of 2021, this coordination is likely to become more structured.

Well established lines of communication between sites and the use of NHS mutual aid can help manage discrepancies in capacity, equipment and staffing during local surges. This will help avoid early reliance on locations that are key for elective surgery, and will support the provision of care on an equitable basis within and between regions. Transportation teams and transfer processes for patients and equipment should also be put in place by hospitals and regional managers.

1 Continued

Weekly forecasting of COVID-19 demand on capacity and resources should be the baseline for determining the ability to add non-COVID-19 cases. Providers of planned care services should be responsive to local and national information on COVID-19, and adjust services accordingly. This can include:

- COVID-19 surveillance reports[3]
- national and local infection rates updates[4]
- COVID-19 local numbers (testing, positive cases, availability of inpatient and ICU beds, intubated cases, operating theatre/procedural cases, new cases, deaths, healthcare worker positives, location, tracking, isolation and quarantine policy)
- local resources such as hospital beds, PPE, ICU and ventilator availability
- quality of care metrics (mortality, complications, readmission, errors, near misses, other – especially in context of increased volume)

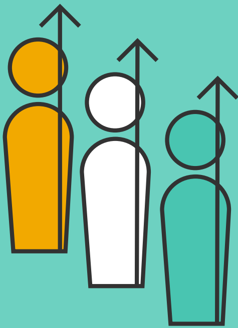


2. COVID-LIGHT SITES AND EXTENDED SERVICES

In a Royal College of Surgeons of England (RCS England) survey from September 2020, surgeons reported that establishing COVID-light sites was the single measure that would have the biggest impact in enabling them to treat more patients.[5] COVID-light sites and physical pathways within and across hospitals or surgical hub sites away from COVID-19 environments are therefore essential for the return to planned surgery. These need to have sufficient segregation of both patients and staff from environments where COVID-19 patients are treated, to protect low risk surgical patients from exposure to nosocomial infection and protect staff who work with them. Use of the independent sector as COVID-light sites in addition to NHS hospitals can help alleviate the backlog on waiting lists if appropriate contracts are put in place.

We recommend extending the traditional core hours of service to secure additional capacity and to ensure more balanced staffing levels throughout busy periods including senior clinician input. Extending the staff, facilities and resources available across a longer period (for example, from 8am to 10pm, including weekend cover) offers the ability to complete more planned elective lists as well as many of the urgent cases that otherwise would compete for a slot on the next day's theatre list. This model allows patients to be treated expeditiously, avoids extended hospital stays, provides efficient use of resources and can reduce pressure on staff working in the hospital at night. Providing adequate staffing and resources at the weekend will also ensure that patients receive good, safe care over this period.

For this model to work, all supporting services (radiology, pathology etc.) and staff in the wider surgical team (e.g. anaesthetists, theatre nurses, recovery and ward staff) need to work in a similar pattern.



3. PATIENT SCHEDULING AND PRIORITISATION

Hospitals should establish a committee consisting of surgery, anaesthesia and nursing leadership to develop a prioritisation strategy appropriate to the immediate patient needs, and the facilities and resources available.

The surgical specialties have developed guidance on the prioritisation of surgery during the pandemic. This guidance provides advice on prioritising patients based on the level of urgency of their clinical need. As elective services gradually return, consideration should be given to how the use of existing facilities can be optimised to support the resumption of planned surgery in parallel with urgent cases to alleviate the waiting list backlog.

Flexible planning on a weekly basis can maximise the use of available facilities and operating theatres, and allows more types of elective surgery (such as hip and knee replacements) to continue without interfering with urgent cases. Day-case surgery should be used wherever possible.

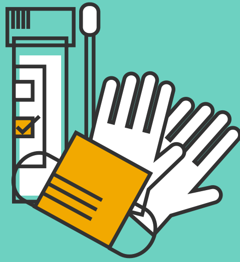
The following factors should be taken into account when prioritising and scheduling patients:

- List of previously cancelled and postponed cases
- Objective priority scoring, where applicable
- Surgical specialties prioritisation guidance (including cancer, organ transplants, cardiac surgery, trauma)
- Strategy for allotting daytime use of operating theatre/procedural time (e.g. block time and prioritise based on case type, such as potential cancer).
- Identification of essential staff per procedure
- Strategy for phased opening of operating theatres, as follows:
  - First step – identify capacity goal prior to resuming (e.g. 25%, 50%, 80%)
  - Second step – start outpatient cases first, followed by inpatient surgery
  - Third step – use all operating rooms
- Strategy for increasing operating theatre/procedural time availability e.g. extended hours before weekends). This includes:
  - staffing availability, including core interdependent services (e.g. diagnostic imaging, pathology, anaesthesia, nursing, sterile processing)
  - supply availability for planned procedures (e.g. anaesthesia drugs, procedure-related medications, sutures, disposable and non-disposable surgical instruments)
  - ensuring adequate availability of inpatient hospital beds and intensive care beds as well as ventilators for the expected postoperative care
  - new staff training
- Potential for expanding capacity by partnering with the independent sector
- Review of patient care pathways to ensure length of stay is kept at optimum levels, avoiding delays due to preventable issues such as package of care at home
- Consideration of using local or regional anaesthesia where such options exist and carrying out procedures in a day-case setting
- Use of a lighter team with fewer theatre staff for simpler procedures, including laparoscopic procedures

4. WORKFORCE

Effective management of the backlog of surgical cases during COVID-19 will require much more flexible working and sufficient planning for an unstable workforce owing to fatigue, illness, self-isolation or personal arrangements (e.g. childcare or care for other dependants). Until vaccination is made available to all staff, some who are more at risk of contracting COVID-19 may need to change their working patterns.
The following considerations should be taken into account:

- Revising clinicians' job plans to allow more time spent in the operating theatre treating patients while delegating non-direct surgical care to other staff
- Establishing extended working days that offer more flexible working patterns to staff. For example, working in the evenings and/or at the weekends might be attractive to those with caring responsibilities during the week. (See also section 3 of this document [COVID-light sites and extended services])
- Where possible, establishing a staged approach to staff redeployment that accommodates surges in critical care activity while preserving planned surgery as much as possible and for as long as possible, including core interdependent services (e.g. anaesthesia, radiology, pathology, nursing). This will require advanced planning, cross-skilling, and an agreed, staged involvement of non-critical care staff in established and expanded critical care facilities
- Appropriate cross-trust indemnity to facilitate flexible working across different hospitals
- Revision of rotas (in terms of pattern and intensity) to deal with COVID-19 surges. The following should be considered:
    - Team-based rotas to encourage staff familiarity and continuity of working practices, and to increase workforce resilience
    - Placing more senior staff on night shifts to lead key decision making in patient care
- Providing adequate support to staff (see RCS England wellbeing guide)[6]
- Supporting surgical training by making plans to mitigate the impact on trainee progression and maximise training opportunities, including identifying opportunities for more clinical exposure providing training on new ways of delivering care (e.g. virtual clinics)



5. TESTING AND PPE

5.1 Testing

Frequent testing is essential to maintain elective surgical services, carry out workforce planning and preserve COVID-light sites. We recommend that staff are tested twice a week, even when asymptomatic. COVID-19 should be sought in all surgical patients via testing, ideally 24–72 hours before their surgery.

Hospitals should have a policy in place on how to respond to COVID-19 positive staff, COVID-19 positive patients (identified preoperatively or postoperatively), staff who are suspected of having the virus and patients who are suspected of having the virus.

Patient protocols should also be developed for the care of COVID-19 positive patients requiring urgent or elective surgery.

5.2 PPE, drugs and disposables

Hospitals should only provide elective surgical services if they have adequate PPE and surgical supplies appropriate to the number and type of procedures to be performed.

Local policies for PPE should account for:

- Adequacy of available PPE (see Public Health England guidance[7] and RCS England good practice guide)[8]
- Staff training on proper use of PPE, including donning and doffing
- Conservation of PPE as well as any extended use or reuse of PPE, as per Public Health England guidance
- Protocols for any resterilisation and decontamination procedures in line with Public Health England guidance

There should be close liaison with regional pharmacy and equipment supply chains to ensure adequate stocks and supply of PPE, drugs and disposables to match the demand. If potential equipment shortages are identified, this should be escalated early to the region and (if necessary) to the National Loan Programme.[9]

REFERENCES

1. Sayburn A. How can surgery be supported to recover safely from COVID-19? *Bull R Coll Surg Engl* 2020; **102**: 236–239.

2. Royal College of Surgeons of England. Recovery of surgical services during and after COVID-19. www.rcseng.ac.uk/coronavirus/recovery-of-surgical-services/ (December 2020).

3. GOV.UK. National flu and COVID-19 surveillance reports. www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports (cited December 2020).

4. GOV.UK. Daily update. coronavirus.data.gov.uk/ (cited December 2020).

5. Royal College of Surgeons of England. *Protecting Surgery Through a Second Wave.* London: RCS England; 2020.

6. Royal College of Surgeons of England. *Supporting the Wellbeing of Surgeons and Surgical Teams During COVID-19 and Beyond.* London: RCS England; 2020.

7. NHS England. Personal protective equipment (PPE). www.england.nhs.uk/coronavirus/secondary-care/infection-control/ppe/ (cited December 2020).

8. Royal College of Surgeons of England. *COVID-19: Good Practice for Surgeons and Surgical Teams.* London: RCS England; 2020.

9. NHS England. Novel coronavirus (COVID-19) standard operating procedure: resource shortage, escalation and National Loan Programme for COVID-19 in England. www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/09/C0709-resource-shortage-and-loan-sop-v2-sept-2020.pdf (cited December 2020).

FURTHER READING

- Royal College of Surgeons of England. Clinical guide to surgical prioritisation during the coronavirus pandemic. www.rcseng.ac.uk/coronavirus/surgical-prioritisation-guidance (cited December 2020).
- Centre for Perioperative Care. Delivering on opportunities for better health and perioperative care in the COVID-19 era. www.cpoc.org.uk/guidelines-resources-resources/future-perioperative-care-and-covid-19-era (cited December 2020).
- Faculty of Intensive Care Medicine. Anaesthesia and critical care: guidance for Clinical Directors on preparations for a possible second surge in COVID-19. icmanaesthesiacovid-19.org/anaesthesia-and-critical-care-second-surge-guidance (cited December 2020).
- National Institute for Health and Care Excellence. COVID-19 rapid guideline: arranging planned care in hospitals and diagnostic services. www.nice.org.uk/guidance/ng179/ (cited December 2020).
- NHS England. Advice on acute sector workforce models during COVID-19. https://www.england.nhs.uk/coronavirus/publication/advice-on-acute-sector-workforce-models-during-covid-19/ (cited December 2020).
- NHS England. Asymptomatic NHS staff testing. www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/11/Lateral-flow-testing-Trust-Letter-09.11.20.pdf (cited December 2020).
- General Medical Council. Joint statement: Supporting doctors throughout the second COVID-19 wave. www.gmc-uk.org/news/news-archive/supporting-doctors-throughout-the-second-covid-19-wave (cited December 2020).