

# Position Statement

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Royal College  
of Surgeons  
ADVANCING SURGICAL CARE

## Reconfiguration of surgical services

### Introduction

It is widely recognised in the surgical community that concentrating certain specialist surgical services into fewer, larger centres of excellence would improve patient outcomes, patient experience and the delivery of care, while also ensuring the sustainability of services in the long term. When teams are seeing a greater number of patients, they become better at dealing with complex cases, expertise and equipment is pooled, and training and research is improved.

The Royal College of Surgeons (RCS) supports the reconfiguration of surgical services as long as certain principles are met. In particular, any decisions must be underpinned by strong clinical evidence and a genuine public consultation exercise that happens at an early stage of the process. We have publicly backed a number of reconfigurations, including recently for congenital heart disease services. Moreover we recently recommended the reconfiguration of general and emergency general surgical services in East Kent, vascular surgery in North Wales and thoracic surgery in South Wales, following their requests for a formal RCS review.

### Specialties that could benefit from reconfiguration

#### Overview

In conjunction with the RCS Council and surgical specialty associations, we have outlined below the surgical specialties that would benefit most from the reshaping of

services and development of a network approach. While we have in some cases specified the number of procedures surgeons or hospitals should be undertaking to ensure the retention of skills, expertise and resources, we stress that numbers should only be considered as guidance and appropriate metrics for results in general should carry much more weight.

#### Complex cancer surgery

There is strong evidence that for many major cancer operations involving the oesophagus, stomach, pancreas, liver, colon and rectum, high volume centres have better outcomes. Indeed best practice and NICE guidelines recommend minimum patient volumes for specialist cancer centres and minimum numbers of surgical procedures that should be carried out each year. The most complex clinical cases also require a range of diagnostic and treatment equipment to be available in one place to provide effective treatment.

Across the London Cancer and Manchester Cancer networks, specialist surgical pathways have been centralised for several cancers including prostate, bladder, kidney, and oesophago-gastric cancers, increasing the specialisation of centres and providing surgery in fewer hospitals.

In London, UCLH, working within a system of hospitals including The Royal London, St Bartholomew's, The Royal Free and Queen's in Romford, has become a centre for the specialist treatment of five types of cancer – brain, prostate and bladder, head

and neck, oesophago-gastric and blood cancers. The Royal Free Hospital has become a centre for the specialist treatment of kidney cancer. The vast majority of other cancer services, including radiotherapy and chemotherapy for these and other cancers, are still available in local hospitals. The changes have made a significant difference to patient outcomes, with more people now able to have surgery that spares their kidneys (20% more than the national average); and over half of patients with small mass kidney/urological cancers avoid the need for any surgery at all.

### **Congenital heart disease services**

The Royal College of Surgeons (RCS) and the Society for Cardiothoracic Surgery (SCTS) have long championed the need to reconfigure congenital heart disease services. Such changes should have happened decades ago following the Bristol heart scandal but have been blocked by various legal challenges. We have been seriously concerned that some smaller teams are very stretched in their ability to provide a comprehensive 24/7 service and to develop sustainably. It is fundamentally important that specialist surgical heart disease centres are large enough and treat patients regularly enough to develop full expertise to treat all conditions. It is vital that centres have adequate resources to support patients with increasingly complex needs, especially access to paediatric intensive care beds.

The RCS and SCTS fully support NHS England's standards on congenital heart disease services and we have been crucial in helping NHS England design these. The latest review was carried out by NHS England last year and reiterated the clinical benefits of having high volume congenital cardiac surgical centres:

- Hospitals caring for people with CHD will have the right staffing and skills mix, with minimum staffing and activity levels, which support the maintenance of skills and expertise

- Improved resilience and mutual support provided by a networked model of care
- Enhanced opportunities for developing sub-specialisation
- Enhanced training and mentorship; sharing learning and skills; quality assurance and audit
- Elimination of isolated and occasional practice – this is when small volumes of surgery and interventional cardiology are undertaken in hospitals that do not offer specialist expertise in this field

Notably, NHS England's standards require each congenital heart surgeon must perform a minimum of 125 first operator congenital cardiac surgical procedures each year (the equivalent of about three operations a week) averaged over a three-year period to ensure they acquire the skills they need across the differing surgical techniques. The standards also require that surgical teams consist of a minimum of four whole time equivalent consultant congenital cardiac surgeons by 2021. The NHS England approach is currently making more headway than previous reviews.

### **Emergency general surgery**

In 2016, the RCS commissioned the Nuffield Trust to explore the challenges facing emergency general surgery (EGS) and to identify opportunities to overcome those challenges. This report noted the following pressures to centralise EGS services to reduce variation in outcomes<sup>1</sup>:

- The shift from generalist to more specialist practice in surgery
- Providing access to consultant-delivered care 24/7
- Reductions in the number of doctors in training
- Providing EGS services with the necessary diagnostic and other support services
- Ensuring high-quality training

- Increasing constraints on NHS finances

However the Nuffield Trust's analysis did not find a clear relationship between volumes and outcomes as with other surgical specialties. Instead the report recommends the development of managed clinical networks following the models set by trauma and stroke.

Nevertheless there are certain regions where reconfiguration of emergency general surgery would be beneficial. As highlighted above, the RCS supported the reconfiguration of high and medium risk surgical services in East Kent.

### General surgery

The 2017 *Getting It Right First Time (GIRFT) General Surgery Report* showed a wide variation in general surgery activity levels across NHS hospitals. Some hospitals undertake over 22,000 procedures a year; others undertake fewer than 4,000. When specific types of procedures are considered, the variation is even greater. There are many hospitals where more complex procedures are carried out just a handful of times a year, which means some clinical teams may have comparatively little experience in these often higher risk operations.

The West Midlands Research Collaborative Study on clinical variation in the practice of laparoscopic cholecystectomy and surgical outcomes (CholeS) has shown significant variation in the way that **acute gallbladder disease** is treated, often neglecting resource limitations in smaller units.<sup>2</sup> The Association of Upper Gastrointestinal Surgeons (AUGIS) has recommended that surgeons should undertake a minimum of 10 laparoscopic cholecystectomies per year.

The Association of Coloproctology of Great Britain and Ireland has advised that certain **colorectal services** would merit consideration of reconfiguration. They have suggested establishing colorectal units in each region, with 24/7 colorectal

on call for management of complex urgent cases, cancer resections, stenting and difficult urgent Inflammatory Bowel Disease cases. In particular, they suggest bowel cancer surgeons should be undertaking at least 20 curative resections per annum, while pouch surgery (removal of the colon and rectum) and intestinal failure surgery should be performed in high volume specialist institutions. The ACPGBI recently wrote to low volume pouch surgery centres in the UK, some of which are doing less than one procedure per year, to encourage them to transfer patients to the nearest high volume unit. They also recommend that complex colorectal cancer services – recurrent cancer, pelvic clearance, HIPEC, synchronous colon and liver resection – would benefit from further clarity around where these services are performed.

With regards to **hernia surgery**, the Hernia Outcomes Campaign has stated that more than 50% of surgeons carrying out inguinal hernia repairs undertake fewer than 12 operations per annum. They argue that results would be improved by fewer surgeons carrying out larger numbers of operations.

### Orthopaedic surgery

The 2015 *GIRFT Orthopaedic Surgery Report* recommended the establishment of networks for complex orthopaedic procedures to ensure best outcome and best value. In particular, they found widespread evidence of the need for a more formalised network approach in spinal care. Disinvestment in local spinal services has caused problems when spinal emergencies are admitted, particularly in the case of suspected cauda equina syndrome. Patients admitted to local trusts that have no dedicated spinal service out of hours or at weekends very often do not have access to emergency MRI scanning services. This can delay the transfer and treatment of the patient to a hospital with a dedicated spinal team, despite the existence of a contracted pathway.

For regions seeking to bring waiting times under control, the GIRFT report

recommended that commissioners and providers develop elective orthopaedic services on 'cold sites', or within existing hospitals that have a robust 'ring-fenced policy' that can function separately from the main hospital.

However, there has been strong public and political opposition to the reconfiguration of orthopaedic services. For example, the 2016 'Our Healthier South East London' STP proposed to reduce the number of elective orthopaedic service sites across the region from seven to two. The two sites would be ring-fenced facilities working in a single Orthopaedic Clinical Network with existing providers and community based services. However, following a public campaign against the plan, particularly with regard to the potential loss of orthopaedic surgery at Lewisham Hospital, the proposal for a two-site option was dropped in 2017 and a three-site option is now being proposed that will include Lewisham Hospital.

Nevertheless, the South West London Elective Orthopaedic Centre (SWLEOC) is widely cited as an example of best practice for reconfiguration. Established as an informal joint venture between the four local acute trusts in 2004, it has earned a reputation as a centre of excellence for elective orthopaedic surgery with outstanding outcomes, low complication rates and high patient satisfaction. Performing around 5,200 procedures a year, SWLEOC is recognised as the largest joint replacement centre in the UK and one of the largest in Europe, and was rated as outstanding by the Care Quality Commission in November 2015.

## Urology

The 2018 *GIRFT Urology Report* acknowledges that urology services are provided in 147 different NHS hospital trusts in England yet the volume of activity undertaken varies considerably between providers. In many areas, the number of patients admitted for a surgical procedure or as an inpatient is a small percentage of the overall number who receive treatment from the urology service, with the vast majority of patient appointments covering

outpatient consultations or diagnostic services.

While some hospitals undertake fewer than 200 urology procedures a year, there are others carrying out almost 10,000. These include sub-specialist procedures such as laparoscopic surgery on the kidneys and shock wave treatment to break down urinary tract stones, as well as major cancer surgery to remove the bladder, prostate or a kidney. Many of these procedures require the use of high-cost innovative specialist equipment such as robotics.

Therefore the GIRFT report recommends that reorganisation of the way urology services are provided offers opportunities to make the best use of the specialty's resources and improve the quality of patient care. There are already established networks for urology cancer care, with certain providers acting as regional centres for particular types of cancer. These existing networks could form the basis for a more comprehensive model where several urology departments would provide comprehensive coverage of urological services to optimise quality and efficiency.

## Vascular surgery

The recent *GIRFT Vascular Surgery Report* recommended the creation of central specialist vascular surgery hubs, a model the Vascular Society has advocated for some time. The GIRFT report suggested that reconfiguring vascular care as 'urgent', and centralising resources and expertise at the hub would have a number of benefits:

- It should mean there are more surgeons available in one location – so it becomes easier for the hub to undertake vascular surgery seven days a week.
- It means budgets can be pooled to invest in facilities such as CT scanners, hybrid theatres, where both endovascular and open surgery can be carried out (thus avoiding the need for a patient prepared for one technique to wait

for the 'specialist' theatre to be ready) and larger, better equipped vascular wards.

- With a larger surgical team and a full range of facilities, it becomes easier to give patients a choice in the type of procedure they undergo and clinicians a choice in the type of procedure they recommend.
- At a hub with a higher number of patients, there will be a greater overlap with other medical disciplines, such as cardiology, radiology and care of the elderly. Building on this, it becomes easier to adopt a multidisciplinary approach, with standard protocols and processes for referral and post-operative care. On a practical level, it can mean working together to ensure that where surgery is provided seven days a week, relevant support from these other departments is available

In addition, Vascular Society/RCS audits<sup>3</sup> have shown that reconfiguration would particularly improve outcomes for patients undergoing elective abdominal aortic aneurysm (AAA) surgery. Hospitals treating the highest volumes of patients for the procedure have mortality rates that are under half of those seen in hospitals undertaking the lowest volume of AAA procedures. Evidence also suggests larger volume units have a lower turndown rate for treating patients with ruptured AAA, lower complication rates after carotid surgery (an operation to prevent stroke) and higher rates of revascularisation in patients with limb-threatening ischaemia (reduced blood supply). The Vascular Society has advised commissioners that AAA repair should only be undertaken in hospitals that perform at least 100 elective procedures over any three-year period.

### Principles for reconfiguration

The RCS report, *Reshaping surgical services: principles for change*<sup>4</sup>, set out the principles below that any proposals to reshape surgical services must meet. These principles are generally supported by the RCS's Patient and Lay Group, who have also stressed that "planning and

appropriate action is required *before* reconfiguration takes place in order to mitigate issues that might be relevant for patients (e.g. transport)".:

1. Reshaping of services should be based on sound clinical evidence, rather than it being considered for purely economic or administrative reasons.
2. Reshaping of surgical services should only take place where improvements in the quality of care are needed and can be realised. In some cases, there will be an evidence base that suggests service change will produce better outcomes for patients; in other cases, the reshaping of services might need to occur because surgical units are unable to meet minimum standards for safe service provision.
3. More consideration needs to be given to how to support communities in rural areas who need access to good emergency surgery. Strengthening of ambulance services and emergency care networks will ensure that patients needing immediate access to emergency surgery or other specialised services can be routed appropriately and promptly.
4. The requirement for, and implications of, service change needs to be thoroughly and exhaustively researched. If services are to be changed, the whole pathway of care for patients with specific conditions must be considered, including whether parts of the pathway can still take place locally. This should encapsulate how a patient would access services from primary care, to initial secondary care referral, diagnostic tests, hospital treatment, discharge, follow-up and rehabilitation.
5. The views of patients and their relatives must be sought via a robust process early on. Patients must be involved not just in responding to a consultation about service change, but in understanding and building the case for change and putting together the potential options for consultation. There

should also be a proper equality impact assessment to assess the impact of the change on all potential patients, particularly those from vulnerable groups.

6. Patient transport is key to the public's sense of security and belief in the reshaping of services. The most common cause for concern is transport links between the 'local' hospital and an element of the service that may be moved to another location. It is important that a transport infrastructure is in place for any reshaped service and there is consideration of other associated costs, such as accommodation and childcare.
7. Commissioners and providers involved in service change need to ensure that

the quality of service and training for NHS staff is maintained before, during and after this process. . This may necessitate the provision of services and training in parallel at more than one location. Where quality is not maintained, there should be a plan for prompt and decisive action. Commissioners also need to ensure that any removal of services brought about by reshaping does not affect the stability of related services.

8. For reconfigurations that involve emergency and urgent services, a programme of on-going support, modification of protocols, education and feedback may help NHS staff in the area "left behind".

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<sup>1</sup> Nuffield Trust, *Emergency general surgery: challenges and opportunities*, April 2016

<sup>2</sup> West Midlands Research Collaborative, *Clinical Variation in Practice of Laparoscopic Cholecystectomy and Surgical Outcomes: a multi-centre, prospective, population-based cohort study*, 2013

<sup>3</sup> Royal College of Surgeons, Vascular Society, Healthcare Quality Improvement Partnership, *National Vascular Registry 2017 Annual Report*, November 2017

<sup>4</sup> Royal College of Surgeons, *Reshaping surgical services: principles for change*, January 2013