Department of Health
www.health-ni.gov.uk

# Review of General Surgery Standards Evidence Paper

# General Surgery – Review of Evidence and Guidelines

## Introduction

The review of General Surgery has sought to review guidelines that outline the standards required for a safe and effective surgical service, as well as reports pertaining to the restructure of general surgical services in health trusts in the UK. The purpose of this document is to establish what evidence is available across the UK that may inform our own work locally. It is worth noting that many of these guideline and reviews are from several years ago, however, this demonstrates the urgent need for a review of general surgery in Northern Ireland and timely response to recommendations.

This is by no means an exhaustive appraisal of the evidence but seeks to highlight relevant guidance, standards and reviews in relation to emergency and elective adult and paediatric general surgery, and general service provision. Secondly the review project team enlisted the support of an expert witness (Mr Simon Patterson Brown, Consultant Surgeon, Edinburgh) who led change in General Surgical Services in Scotland.

## Executive Summary

Emergency General Surgery (EGS) is fast evolving and changes in training have meant that surgeons have become more sub-specialised with less exposure to the general training required to be competent in independent delivery of EGS. As well as this, the increasing emergency workload can place a burden on the provision of elective services and a better balance is needed to serve both groups of patients.

The Royal College of Surgeons (RCS) first published recommendations in 2007 on how this issue might be tackled and updated this in 2011. The Association of Surgeons of Great Britain and Ireland (ASGBI) published a commissioning guide in 2014 along with a joint statement in 2015 on how best to further improve emergency surgical care. While some of these recommendations have been applied locally such as consultant-led care, Surgeon of the week models and increased used of ambulatory assessment, there remains variation across surgical units leading to potential inequity of services.

Data is a key driver to change and from this review of evidence there is a clear recognition of this with visible outputs and changes. Most notable of this being the National Emergency Laparotomy Audit (NELA) which has seen year on year improvements in patient outcomes and areas for continued work.

The backlog of elective work – outpatients, endoscopy and surgery – has only worsened in light of the COVID-19 pandemic. Changes are needed to not only tackle this but build a system that works and provides sustained improvements for the future. Getting it Right First Time (GIRFT) highlights the gains that can be made through in-depth review of services, benchmarking, and data-driven evidence to support change. Novel ways of working, such as Active Clinical Referral Triage, have also proven to be effective in reducing the burden for outpatient departments.

Paediatric general surgery is another key area that needs to be taken into consideration. There has been a drift over the years of more children being treated by specialist paediatric surgeons and this is the picture seen in Northern Ireland. The British Association of Paediatric Surgery (BAPS) in 2014

highlighted the need for development of robust clinical networks and this is mirrored in the Regional and Quality Improvement Authority (RQIA) 2019 review of paediatric surgery in Northern Ireland.

# 1. Emergency General Surgery

## 1.1 Separating Emergency and Elective Surgical care: Recommendations for practice, RCS 2007

Separating Emergency and Elective Surgical Care: Recommendations for practice — Royal College of Surgeons (rcseng.ac.uk)

Following the introduction of the European Working Time Directive and reforms outlined by the government at the time RCS England established a working group to ascertain best practice and what good surgical care might look like moving forward. A survey in 2006 found that 35% of respondents had achieved some sort of separation of elective and emergency workloads.

The general findings were that:

- A physical separation of services, facilities and rotas works best although a separate unit on the same site is preferable.
- The presence of senior surgeons for both elective and emergency work was essential.
- The separation of emergency and elective surgical care can facilitate protected and concentrated training for junior surgeons.
- Creating an 'emergency team', linked with a 'surgeon of the week'.
- Separating emergency and elective services can prevent the admission of emergency patients (both medical and surgical) from disrupting planned activity and vice versa.
- Hospital-acquired infections can be reduced by the provision of protected elective wards.
- The improved use of IT solutions can assist with separating workloads.

## 1.2 Emergency Surgery Guidance for providers, commissioners and service planners - Standards for unscheduled surgical care, RCS 2011

Emergency Surgery: Standards for unscheduled care — Royal College of Surgeons (rcseng.ac.uk)

This document from RCS outlined standards for the care of unscheduled adult and paediatric surgical patients and supersedes the 2007 advice. It describes how a safe, responsive and high quality surgical service can be provided by prioritising the care of this group of patients. The guide itself provides a comprehensive list of standards across multiple specialty areas. A summary of the key elements were as follows:

- Dedicated clinical and managerial leadership and effective multidisciplinary team working.
- The prioritisation of acutely ill patients over elective activity.
- A defined governance structure with a focus on outcomes, audit and regular review of practice.
- A consultant-led service across all specialties.
- Acknowledgement that care of acutely ill patients should be prioritised in the training of surgeons and other clinicians involved in unscheduled care.
- The availability of sufficient, suitably trained and competent staff throughout the patient's pathway.
- The presence of agreed protocols to assess and manage risk, matching the seniority of the attending clinician with the clinical needs of the patient.

- Timely input of senior decision makers (Certificate of Completion of Training holders (CCT holders)) according to the needs of the patient.
- Appropriate and adequate facilities, laid out in such a way as to provide safe and expeditious patient care in the acute setting.
- Careful planning and provision of adequate resources to enable sufficient and timely access to emergency theatres.
- Appropriate pre- and post-operative care arrangements, including the early involvement of anaesthetists and critical care specialists and resources where required.
- A focus on patient-centered care, which involves consultant-led communication with patients and their supporters
- Models of care to be considered including; consultant-delivered care, separating elective and emergency care, surgical assessment units, clinical networks and extension of the working day e.g. 8am-10pm with weekend cover.

## 1.3 National Emergency Laparotomy Audit 2013

NELA - National Emergency Laparotomy Audit

NELA is a National Clinical Audit commissioned by the Health Quality Improvement Partnership (HQIP). NELA is part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). NCAPOP is a closely linked set of centrally-funded national clinical audit projects that collect data on compliance with evidence based standards, and provide local trusts with benchmarked reports on the compliance and performance. They also measure and report patient outcomes. NELA looks at structure, process and outcome measures for the quality of care received by patients undergoing emergency laparotomy and compares these against standards of care such as those detailed in recent NCEPOD reports, and the Department of Health/Royal College of Surgeons of England's "Higher Risk General Surgical Patient (2011)"

NELA is on the list of national audits for inclusion in Trusts' Quality Accounts. They issue annual reports that include key outcome data, identifiable at hospital level, adjusted for risk. NELA also provide comments on whether relevant standards are being met and issue Quarterly Reports of hospital data to allow hospitals to make use of their most recent NELA data and to track their performance over time.

Patient data collection began in 2013 and the first NELA audit report was published in 2015. NELA continues to report yearly and published the 7th annual report in November 2021 (Appendix 1). This highlights improvement in 30-day mortality, reduced length of stay and increased consultant presence for out-of-hours laparotomies. They also state ongoing areas for improvement such as time to antibiotics, theatre delays for the most urgent cases and need for geriatric input in an ageing population. They are able to compare outcomes to previous years and share results both locally and nationally. Northern Ireland does not currently participate in data collection for NELA due to the present funding arrangements.

## 1.4 ASGBI Emergency General Surgery Commissioning Guide 2014

Commissioning guide: emergency general surgery (acute abdominal pain) | Document summary | Evidence search | NICE

This guide was put together primarily for commissioners following the publication of a number of standards and guidelines for EGS such as the above RCS paper.

Key messages from this paper include:

- Management of sub-acute conditions such as biliary colic and NSAP in ambulatory units could reduce admissions by 30%.
- Early cholecystectomy during index admission avoids a 10-15% readmission rate.
- A "High Value Care Pathway" which outlines pathways for assessment and management of a number of common EGS presentations e.g. RIF pain, LIF pain, SBO.
- Use of data to evaluate performance and drive change – in NHS England the Procedures Explorer and Quality Dashboard derived from hospital episode statistics.
- Use of key quality indicators to assess service delivery such as time to imaging, time to theatre and readmission rates.

## 1.5 The Future of Emergency General Surgery: a Joint Statement from ASCPBGI, AUGIS and ASGBI 2015

The-future-of-emergency-general-surgery-Mar-2015-Association-of-Surgeons-of-Great-Britain-and-Ireland.pdf (wnecumbria.nhs.uk)

Increased sub-specialisation has improved elective care but left a gap in EGS services and this needed to be taken into consideration for future training and consultant posts in this area. 16 key recommendations are outlined which centre on the need for senior led front-of-house decision making, improved acute biliary services, hospital infra structure that is able to meet the demands of EGS patients in terms of radiology support, theatre capacity and critical care support. Dedicated networks for access to sub-specialist care in smaller units and establishment of agreed transfer protocols.

They also emphasise the need to enhance EGS training and support of new consultant roles given the limitations seen in the current training system. The development of a fully separate EGS role has advantages and disadvantage and ultimately EGS will need to be delivered by all general surgeons. Consultant posts will need to have more defined EGS roles alongside improved rota design, free from elective duties, for sub-specialists (colorectal and UGI surgeons) that cover emergency patients.

## 1.6 Nuffield Trust – Emergency General Surgery Challenges and Opportunities 2016

[Emergency general surgery: challenges and opportunities | The Nuffield Trust]

This piece of work was commissioned by RCS England to assess challenges faced in EGS and ways these may be overcame. Two main issues outlined included desire to reduce variation in outcomes for EGS and desire to centralise EGS services when sustaining local access is on the political agenda. They identified four important opportunities to address the challenges:

| Opportunities | |
|---|---|
| Protocols and pathways | ELPQuiC bundle |
| | Surgical ambulatory care pathway |
| | Direct telephone access to senior decision-maker |
| | Closer integration with medical teams |
| | Improved access to theatres |
| Networks | Managed networks |
| | Learning networks |
| New roles | Introduction of new roles (e.g. ANP, physician associate) |
| New models of training | Increasing exposure to generalist skills |
| | Separate training and service contracts for trainees |
| | Overlap surgical training with radiology / anaesthetics |

1. **Systematic use of protocols and pathways** – ambulatory pathways, theatre access, direct access to senior decision makers, Emergency laparotomy pathway quality improvement care (ELPQuiC), NELA.
2. **Increased use of network based approaches** – managed clinical networks and learning networks
3. **Development of new non-medical roles** e.g. nurse practitioner, physician associates. RCS England have published Surgical Care Teams Guidance which outlines these roles in more depth.
4. **New training models** – separate training and service contracts for trainees.

## 1.7 Emergency General Surgery – a review of trusts in the South West 2016

Cornwall-Review-FINAL.pdf (swsenate.nhs.uk)

A review of 14 trusts in the South West of England to attain if they were meeting 22 EGS standards as outlined by RCS 2011, London Health Audit 2012 and 2016 NHS England 7 day standards. A copy of these standards can be found at Appendix 2.

The review highlighted 6 areas for improvement:

1. The provision of a protected Surgical Assessment Unit (SAU).
2. The provision of 24/7 CEPOD or Emergency Theatre.
3. A 'South West' standardised, rolling audit of EGS.
4. The appointment of an EGS lead and an Emergency Nurse lead in each Trust.
5. Delivery of 2 consultant led ward rounds per day of EGS patients.
6. Development of a fully integrated ambulatory EGS service.

## 1.8 The High Risk General Surgical Patient – Raising the Standard, RCS 2018

RCS Report The HighRisk General Surgical Patient Raising the Standard December 2018.pdf

A high risk patient is defined as those with a >5% risk of dying, with understanding that those with a lower mortality risk are not 'low risk' and may benefit from some of the recommendations. RCS published the first version of this document in 2011 to draw attention to the high rate of mortality in a readily recognisable group of high risk patients undergoing high risk emergency and elective abdominal procedures. The importance of estimating perioperative risk, recognising sepsis and understanding the impact of frailty had all evolved since the original report.

The 2018 publication is a review of progress and revision of the standards to ensure these high risk patients receive prompt multidisciplinary consultant delivered care and perioperative critical care admission. There were 12 key recommendations which included risk scoring in terms of frailty and

mortality using appropriate risk prediction tools, senior led discussion of imaging pre and post op, comprehensive links with interventional radiology and a programme of continuous quality assurance and improvement. Key pathways were to include sepsis source control within 3-6 hours, consultant presence and critical care admission for operatively managed patients and consideration of advanced planning with senior input for patients managed non-operatively. The full list of recommendations, along with an example of a High Risk Surgical Bundle can be found at Appendix 3.

Underpinning all of this work is the recognition that data drives change and the need for regular and consistent audit of outcomes for not only high risk groups but all patient groups. The 2011 edition of this paper was a driver for NELA and this has led to improved outcomes for those patients undergoing emergency abdominal surgery.

## 1.9 Same Day Emergency Care – Ambulatory Emergency Care Network 2021

Sample dcument header line two (ambulatoryemergencycare.org.uk)

Principles of Same Day Emergency Care:

1. Senior clinical input is needed at the point of referral to SDEC services to ensure accurate identification of patients and rapid streaming direct to the SDEC unit.
2. Clear inclusion criteria including NEWS2 should be agreed to maximise patient flow and avoid duplication of services. Some high-volume presentations may be pathway based but ownership must be clearly understood and consistently applied within the system.
3. The SDEC service should be located close to the Emergency Department (ED) and assessment units to facilitate collaborative working and simplify the transfer of patient care.
4. Staffing and resources should be organised to provide rapid assessment, diagnosis and treatment on the same day.
5. The time standards in SDEC should match the clinical quality indicators for ED to ensure care is delivered at an appropriate pace to support same day discharge i.e., time to initial assessment – 15 minutes; time to medical assessment – 60 minutes.
6. Patients should be informed early in their journey (ideally in the ED or by the GP) that they are likely to receive treatment that day and are unlikely to be admitted overnight, to manage their expectations and those of their family.
7. Secondary and primary care services should be geared around patient needs and work together to provide ongoing care outside of hospital to avoid a full admission. This could be supported by a virtual ward.
8. Ongoing staff education and training is needed across the local healthcare system to ensure that appropriate patients are streamed to SDEC.
9. A clear clinical plan as part of a comprehensive record must be in place to enable same day discharge, including a discharge summary provided to the patient and sent to primary care within 24 hours.
10. Providers must work with commissioners to agree how SDEC will be recorded, reported and funded and clear measures must be adopted and monitored to access the impact, quality and efficiency of SDEC services

Further guidelines on operationally how to set up a SDEC can be found here: Health Building Note 15-02: Facilities for same day emergency care/ambulatory emergency care (england.nhs.uk)

# 2. Elective Surgery

## 2.1 Getting It Right First Time – 2017

Getting It Right First Time - GIRFT Layout 1 (gettingitrightfirsttime.co.uk)

Getting It Right First Time (GIRFT) is a national programme designed to improve the treatment and care of patients through in-depth review of services, benchmarking, and presenting a data-driven evidence base to support change. GIRFT was first established in 2012 to tackle the variations in delivery and outcomes in orthopaedic surgery and has now expanded to 40 medical and surgical specialities. The GIRFT national report for general surgery in England was published in August 2017.

There were 5 key themes:

1. Data and performance measurement
2. Procurement
3. Choice, commissioning and care pathways
4. Surgical performance
5. Efficiency and emergency provision

Across the 5 themes there are 20 recommendations, Quantifiable impacts could include: improved patient outcomes, savings in bed days, lives saved, reduced number of admissions and actual cashable savings in the region of £5-12 million.

GIRFT have outlined a summary of standards in general surgery to include sentinel metrics as well as more procedure specific outcomes. They have also developed a "best practice library" through their hospital visits and clinically led national reports. For general surgery this includes pathways for inguinal hernia repair, laparoscopic cholecystectomy and paraumbilical hernia repair, an example of this can be found in Appendix 4. GIRFT also provides more comprehensive guidance on the delivery of day surgery and high volume, low complexity cases.

## 2.2 Transforming elective care services general surgery - Learning from the Elective Care Development Collaborative. NHS England 2019

general-surgery-elective-care-handbook.pdf (england.nhs.uk)

This handbook is for commissioners, providers and those leading the local transformation of general surgery elective care services. It describes what local health and care systems can do to transform general surgery elective care services at pace, why this is necessary and how the impact of this transformation can be measured. It contains practical guidance for implementing and adopting a range of interventions to ensure patients see the right person, in the right place, first time.

As part of this programme, the Elective Care Development Collaborative has been established to support rapid change led by frontline teams. In Wave 4 of the Elective Care Development Collaborative, local health and care systems in Preston, Chorley and South Ribble, Chelsea and Westminster, Lincolnshire, and Hertfordshire and West Essex formed teams to develop, test and spread innovation in delivering elective care services in just 100 days. The three main areas for development included rethinking referrals, shared decision making and transforming outpatients.

## 2.3 Guidelines for the Provision of Anaesthetic Services for Postoperative Care, Royal College of Anaesthetists, 2019

Chapter 4: Guidelines for the Provision of Anaesthetic Services for Postoperative Care 2019 | The Royal College of Anaesthetists (rcoa.ac.uk)

All patients who have undergone anaesthesia are at risk of postoperative complications including compromise to the airway, breathing and circulation. Every patient should be recovered in a designated area or PACU (Post Anaesthesia Care Unit). It is an area, normally attached to theatres, designed to provide care for patients recovering from general anaesthesia, regional anaesthesia, or local anaesthesia.

The Royal College of anaesthetist outlined guidance on the management of post-operative patients including required staffing, facilities and training to run a PACU. They also outline management for patient groups that may require specialist consideration such as children, frail patients and the critically unwell. Protocols and equipment should be available for the postoperative management of various symptoms, signs and conditions deemed locally appropriate. Training should be tailored to meet the needs of the individual staff member and the PACU. Clinical pathways that encompass the entire perioperative period from the preoperative evaluation to the post discharge disposition should be considered, with the aim of reducing healthcare cost while improving outcomes

## 2.4 Active Clinical Referral Triage (ACRT), NHS Scotland

Active Clinical Referral Triage (ACRT) | Turas | Learn (nhs.scot)

This is an initiative being undertaken in NHS Scotland to modernise the outpatient system and reduce the number of unnecessary face to face consultations and need for use of waiting list initiatives. In ACRT a senior clinical decision maker (a consultant in this context) reviews all electronic records and triages using clear, evidence-based locally agreed pathways. The options include virtual attendance, giving patients clinical information, opt-in pathways, ordering investigations, placing them on a waiting list for procedure/surgery and face to face appointments. Early data from the 58 pilot sites underway have indicated that ACRT can reduce the need for face-to-face appointments by between 15 and 35%

## 2.5 Impact of Perioperative Care on Healthcare Resource Use, Centre for Perioperative Care 2020

Impact of perioperative care - rapid review FINAL - 09092020MW.pdf (cpoc.org.uk)

A rapid research review carried out by the Centre for Perioperative Care to bring together a wide range of evidence about the effectiveness of perioperative care. UK and international studies were included in this body of evidence.

Research found that the components of perioperative pathways most likely to improve healthcare resource use were multidisciplinary working; communication across primary, secondary and community care; clear pathways; shared decision-making; prehabilitation and rehabilitation; discharge planning; clear discharge information and proactive follow-up after discharge.

In general, perioperative care pathways and their components have been found to be safe and effective to implement, reducing people's stay in hospital by an average of 1-2 days without extra complications, unplanned readmissions or extra burden on primary care or social services. Both

adults and children and those having surgery of many different types can gain benefits. However, while there are positive UK examples, much of the most robust research is drawn from outside the UK. It remains uncertain which components of care pathways would be most effective, acceptable and easy to implement within current NHS structures and priorities

## 2.6 Delivery plan for tackling the COVID-19 backlog of Elective Care 2022

C1466-delivery-plan-for-tackling-the-covid-19-backlog-of-elective-care.pdf (england.nhs.uk)

An NHS England delivery plan to tackle the backlog to elective services in light of the COVID-19 pandemic. Elective care covers a broad range of non-urgent services, usually delivered in a hospital setting, from diagnostic tests and scans, to outpatient care, surgery and cancer treatment. There are four key aims:

1. **Increasing health service capacity**
    - expansion and separation of elective and diagnostic service capacity from urgent and emergency services
2. **Prioritising diagnosis and treatment**
    - a return towards delivery of the six-week diagnostic standard and reducing the maximum length of time that patients wait for elective care and treatment.
3. **Transforming the way we provide elective care**
    - reforming the way we deliver outpatient appointments and increasing activity through dedicated and protected surgical hubs.
4. **Providing better information and support to patients**
    - supported by better data and information and in time increased use of the NHS app to help inform patient decisions.

# 3. Paediatric Surgery

## 3.1 Commissioning Guide: Provision of General Children's Surgery, BAPS 2014

BAPS RCSEng Commissioning guidance for the provision of childrens surgery Published v5.pdf

The British Association of Paediatric Surgery published this guidance in relation to non-specialist elective paediatric surgery and anaesthetic services. They state children should be treated locally were safely possible and centrally where necessary. However, there are problems with increased referrals to specialised centres and insufficient surgical staff retained to provide 'routine' children's surgery at local level. Therefore children's services need to be commissioned and networks put in place that are appropriately funded and resourced.

Clinical provider networks are vital in delivering safe services locally and enabling units to share resources, services and expertise. These networks are interconnected systems of service providers that enable:

- Collaborative working
- Development and implementation of standards and outcomes of care
- Routes of communication
- Agreed thresholds for patient transfer through an effective transfer system

Other recommendations included:

- Creating new and converting existing paediatric general surgery clinical networks in Operation Delivery Networks.
- Strengthen links between paediatric general surgery clinical networks and paediatric anaesthetics networks.
- Access to community based children's nursing team
- Development of APLS/EPLS courses that are area and discipline specific.

## 3.2 Standards for non-specialist emergency surgical care of children, RCS 2015

Service-standards-for-non-specialist-emergency-childrens-surgery-2015.pdf (baps.org.uk)

This document provides a summary of guidance and standards expected for the delivery of emergency surgical care to children (age 0-18). Below are general surgical procedures which are deemed to be within the remit of an emergency general surgeon.

| Procedures within the scope of emergency non-specialist surgery for children | |
|---|---|
| General paediatric surgery | Abdominal pain/appendicitis<br>Acute scrotum/torsion of testis<br>Soft-tissue injuries and laceration<br>Abscesses (subcutaneous)<br>Surgery for trauma including haemorrhage |

These standards cover all aspects of non-specialist emergency surgery for children and young people up to the age of 18 years that should be managed within a local secondary care hospital and include: (Appendix 5 provides an illustrative paediatric pathway)

- **Pre-hospital care** - potentially critically ill children require early identification and referral for treatment.
- **Networks** - all surgical services for children should aim to work within a regional network made up of specialist and local services.

- **Locally delivered care** - This guidance follows the principle that children presenting with common emergency surgical conditions should be treated locally and not transferred to specialist centres, unless this is necessary for safe treatment.
- **Collaboration between paediatric and surgical services** - Emergency surgical care of children should be managed in children's wards, but there must be access to both senior surgical and paediatric clinicians and registered children's nurses.
- **Transfers** - each hospital must have clear policies on the requirements for transfer of children between hospitals.
- **Education and training** - all staff caring for children must have key paediatric competencies in recognition and resuscitation of a critically ill or deteriorating child, as well as up-to-date training in safeguarding and pain management. Surgeons and anaesthetists managing children must ensure that their paediatric caseload and related outcomes are included within annual appraisal.

## 3.3 Review of Paediatric General Surgery, RQIA 2019

93721 RQIA Coloured Report Template (Reviews Directorate).indd

This was undertaken as part of RQIA's Three Year Review Programme 2015-2018. This Review assessed arrangements for the provision of general paediatric surgery in Northern Ireland against the 2010 Standards and it proposed a future service model aligned to the 2016 strategy published by DoH.

The 2010 standards had not been met and consequently the majority of paediatric surgery was being performed by specialist paediatric surgeons based in Royal Belfast Hospital for Sick Children (RBHSC). A hub and spoke model is in place in South Eastern and Western Health and social care trusts. However, there remained inequity of access to elective paediatric services and the review made a total of 13 recommendations including the development and implementation of a centralised waiting list, regional staff training programmes and managed clinical networks.

# 4. General Service Provision

## 4.1 Seven Day Consultant Present Care 2012

Seven_Day_Consultant_Present_Care_1212.pdf (aomrc.org.uk)

The Academy of Medical Royal Colleges developed three patient-centred standards to deliver consistent inpatient care irrespective of the day of the week. These standards reflect the importance of daily consultant review, and the consequent actions, to ensure progression of the patient's care pathway.

1. Hospital inpatients should be reviewed by an on-site consultant at least once every 24 hours, seven days a week, unless it has been determined that this would not affect the patient's care pathway.
2. Consultant-supervised interventions and investigations along with reports should be provided seven days a week if the results will change the outcome or status of the patient's care pathway before the next 'normal' working day. This should include interventions which will enable immediate discharge or a shortened length of hospital stay.
3. Support services both in hospitals and in the primary care setting in the community should be available seven days a week to ensure that the next steps in the patient's care pathway, as determined by the daily consultant-led review, can be taken.

## 4.2 Acute and emergency care: prescribing the remedy 2014

Acute and emergency care prescribing the remedy.pdf

This was a joint paper release by the Royal College of Physicians, College for Emergency Medicine, Royal College of Paediatrics and Child Health and Royal College of Surgeons. This set out 13 recommendations to build a safer, more effective and efficient emergency care service. Outlined below are those that may apply to general surgery either directly or indirectly:

- Best practice that directs patients to the right care, first time, should be promoted across the NHS so as to minimise repetition of assessment, delays to care and unnecessary duplication of effort
- Senior decision-makers at the front door of the hospital, and in surgical, medical or paediatric assessment units, should be normal practice, not the exception
- Community and social care must be coordinated effectively and delivered and communities 7 days a week to support urgent and emergency care services
- The delivery of a seven-day service in the NHS must ensure that emergency medicine services are delivered 24/7, with senior decision makers and full diagnostic support available 24 hours a day, including appropriate access to specialist services
- Delivering 24/7 services requires new contractual arrangements that enable an equitable work–life balance
- It is essential that each emergency department and acute admissions unit technology has an IT infrastructure that effectively integrates clinical and safeguarding information across all parts of the urgent and emergency care system

## 4.3 NCEPOD Time to Get Control 2015

TimeToGetControlSummary.pdf (ncepod.org.uk)

A National Confidential enquiry into patient outcome and death review of care received by patients who had severe gastrointestinal haemorrhage.

Principle recommendations:

- Patients with any acute GI bleed should only be admitted to sites with 24/7 access to on-site endoscopy, GI bleed surgery, anaesthesia and critical care, as well as access to interventional radiology. If these are not available a formal network should be in place for transfer of these patients to an appropriate unit.
- Traditional separation of upper and lower GI bleeding should stop- a lead consultant, ideally gastroenterologists, would be responsible for on-going care of all major GI bleeds.
- Any patient presenting with major GI bleed should be discussed with consultant responsible for major GI bleeds within one hour of diagnosis.
- All patients should have a clearly documented re bleed plan.

## 4.4 Intercollegiate Surgical Curriculum Programme (ISCP), General Surgery Curriculum, 2021

general-surgery-curriculum-2021-minor-changes-for-august-2022.pdf (iscp.ac.uk)

The purpose of the General Surgery curriculum is to produce, at certification, consultant-level general surgeons able to manage patients presenting with the full range of emergency general surgery conditions and elective conditions in the generality of General Surgery. Trainees will also be expected to develop a special interest within General Surgery in keeping with service requirements. They will be entrusted to undertake the role of the General Surgery Specialty Registrar (StR) during training and will be qualified to apply for consultant posts in General Surgery in the UK after successful completion of training.

In the past ten years there has been increased emphasis on emergency general surgery care, the development of an oncoplastic philosophy of care in breast surgery, the establishment of major trauma centres, increased specialisation in the management of upper gastrointestinal conditions and rationalisation of transplant services. Nevertheless, Employers have identified a need to train some individuals in a broader range of skills. General Surgery of Childhood (GSoC) is recognised as an area requiring training and expansion to allow children to be treated in hospitals close to home. In addition to service changes, there has been scrutiny of individual surgeon outcome data and associated increased patient expectations. These workforce and service demands together with patient expectations have been some of the drivers for change to the General Surgery curriculum. Appendix 6 provides an outline of the curriculum structure and outcomes.

# Appendix 1 – NELA 2021 Executive Summary

## Executive Summary

**Results from 2019–2020 – the Seventh Year of the National Emergency Laparotomy Audit**

(For data about the impact of COVID-19 please refer to the Impact of COVID-19 on Emergency Laparotomy interim report).

Principal performance statistics are available here.

1. **21,846** patients who had emergency bowel surgery in England and Wales were included in the Year 7 audit

   National **30-day mortality rate** has fallen to **8.7%** (11.8% in Year 1)

2. Improvements in care have reduced patients' average hospital stay from **19.2 days** in **Year 1** to **15.1 days** in **Year 7**

**19.2 days**
**15.1 days**

3. **85% of patients** now receive a preoperative assessment of risk (up from 84% last year, and 56% in Year 1)

4. **94.0%** of patients with a high documented risk had **consultant surgeon** input before surgery

**75.5%** of patients with a high documented risk had **consultant anaesthetist** input before surgery

5. **82.3%** of high-risk patients were admitted to critical care (85.2% in Year 6)

6. **92.5% of patients** received a preoperative CT scan (90.5% in Year 6)

   **65.9% of these patients** had their scan reported by a **consultant radiologist** (62.3% in Year 6)

7. Both **anaesthetic and surgeon consultant presence** during surgery is at 90.1%, and **increased from 77.4% (Year 6) to 85.2% out of hours** (00:00 to 08:00)

8. **Almost 1/3 of patients** needing **immediate surgery** did not get to the operating theatre in the **recommended time frame**

9. **Time to antibiotics in patients with suspected sepsis** remains poor with **78.3%** not receiving antibiotics **within one hour**

10. **55.4% of patients** are over the age of 65 and **18.1% of patients** are over the age of 80.

    **Only 27.1% of patients** 80 or over or 65 and frail had geriatrician input

# Appendix 2 – South West Review Surgical Standards

## Table 1: Summary of compliance with the Emergency General Surgery standards

| No. | Standard | Week | Weekend |
|---|---|---|---|
| 1 | Two consultant led ward rounds of all acute admitted patients, 7 days a week, with the timing of the ward rounds such that patients are generally seen within 14hrs from arrival. There is evidence of continuity of care .....(cont) | Met | Met |
| 2 | Clearly agreed escalation policies based around an Early Warning System (EWS), are in place to deal with a deteriorating patient. Continued monitoring of the patient is carried out. If patient is not seen within 1 hour (escalation failure), the consultant is contacted. | Met | Met |
| 3 | All hospitals admitting surgical emergencies to have scheduled access to diagnostic services such as plain x-ray, ultrasound, computerised tomography (CT) and pathology 24 hours a day, seven days a week to support clinical decision making: Emergency imaging reported real time. Urgent imaging reported within 12 hours. | Met | Met |
| 4 | All hospitals admitting surgical emergencies to have access to interventional radiology 24 hours a day, seven days a week, either on site or through a formalised network with an agreed SLA (Service Line Agreement). Critical patients - within 1 hour if IR on site, within 3 hours if networked, Non-critical patients - 12 hours. Interventional facilities are safe for emergency patients. | Met | Met |
| 5 | Rotas to be constructed to maximise continuity of care for all patients in an acute surgical environment. A single consultant is to retain responsibility for a single patient on the acute surgical unit. Subsequent transfer or discharge must be based on clinical need. There is a clear policy for handover and for transfer of care to another team or consultant, and for safe discharge. | Met | Met |
| 6 | A unitary document to be in place, issued at the point of entry, which is used by all healthcare professionals and all specialities throughout the emergency pathway. | Partially Met | Partially Met |
| 7 | All acute surgical units have provision for formalised ambulatory emergency care delivered by senior decision maker (ST3/SpR & above). Ambulatory emergency care to include a dedicated hot clinic, dedicated day case pathway and dedicated area. | Partially Met | Partially Met |
| 8 | Access to fully staffed emergency theatre, consultant surgeon and anaesthetist within 30 minutes, 24/7 | Met | Met |
| 9 | All patients considered 'high risk' (predicted mortality greater than or equal to 10% based on P-Possum/SORT) should be admitted to a level 2/3 area and have their operations carried out under the direct supervision (in theatre) of a consultant surgeon and consultant anaesthetist; early referral for anaesthetic assessment is made to optimise peri-operative care. .....(cont) | Partially Met | Partially Met |
| 10 | All emergency general surgical operations are discussed with the consultant surgeon and the discussion is documented | Partially Met | Partially Met |
| 11 | The majority of emergency general surgery to be done on planned emergency lists on the day that surgery was originally planned. The date, time and decision makers should be documented clearly in the patient's notes and any delays to emergency surgery and reasons why recorded. The WHO Safety Checklist (or local variant thereof) is used for all surgical procedures in emergency theatre | Met | Met |
| 12 | Handovers must be led by a competent senior decision maker (ST3/SpR & above) and take place at a designated time and place, twice a day. These arrangements to be in place for handover of patients at each change of responsible consultant/surgical team/shift or block of on-call days where it should be consultant led. Changes in treatment plans to be communicated to nursing staff and therapy staff .....(cont) | Met | Met |
| 13 | Patient experience data to be captured, recorded and routinely analysed and acted on. Review of data is a permanent item, on-board agenda and findings are disseminated. There has been an in-house audit within the last 5 years related to emergency surgery. The service has participated in national audits (e.g., NELA, EPOCH - list those known) .....(cont) | Partially Met | Partially Met |
| 14 | Hospitals admitting emergency patients have access to comprehensive (Upper/Lower) 24 hour endoscopy service, that has a formal consultant rota 24 hours a day, seven days a week covering GI bleeding. | Met | Met |
| 15 | Training is delivered in a supportive environment with appropriate, graded, consultant supervision. | Partially Met | Partially Met |
| 16 | Sepsis bundle/pathway in emergency care. | Met | Met |
| 17 | There is a policy for review of all Emergency general surgery patients by a consultant, every day, 7 days a week, whilst they remain under the care of the emergency team. | Partially Met | Partially Met |
| 18 | Emergency surgical services delivered via a network (e.g. vascular surgery, IR, Plastics,/Burns and Paediatrics.) have arrangements in place for image transfer, telemedicine, and agreed protocols for ambulance bypass/transfer and a formal SLA. Standards for the transfer of critically ill patients are adhered to and regularly audited. | Partially Met | Partially Met |
| 19 | For emergency surgical conditions not requiring immediate intervention, children do not normally wait longer than 12 hours from decision to operate to undergoing surgery. Children receive adequate hydration and symptom control during this time. Surgeons and anaesthetists taking part in an emergency rota that includes cover for emergencies in children have appropriate training and .....(cont) | Met | Met |
| 20 | As a minimum, a speciality trainee (ST3/SpR or above) or a trust doctor with equivalent ability (i.e., MRCS, with ATLS provider status), is available at all times within 30 minutes and is able to escalate concerns to a consultant. Juniors qualifications - i.e., experience level of team. | Met | Met |
| 21 | Do you have clear protocols for senior speciality review of all general surgical in-patients to include GI surgery (Colorectal, Upper GI, Hepato-billary), Vascular, Breast & Urology) every day, seven days a week. | Not Met<br>Met | Not Met<br>Met |
| 22 | Do you have clear protocols, including a standard for timing, for senior medical speciality review by a physician of emergency general surgical admissions? | Not Met | Not Met |

# Appendix 3 – Recommendations from RCS The High Risk Surgical Patient: Raising the Standards Paper and High Risk Surgical Patient Care Bundle example

1. Adult patients admitted or transferred under the care of a general surgeon, for operative or non-operative management, should be managed in accordance with a unit protocol led by general surgery and agreed by other relevant acute specialties such as ED, acute medicine and radiology.

2. Patients aged over 65 years and other patients who appear frail for their age should have their level of frailty assessed and recorded within four hours of admission or transfer, using a recognised assessment tool e.g. Clinical Frailty Scale.

3. Patients should have their risk of morbidity and mortality assessed and recorded in the medical records by a senior surgeon (Specialty Trainee Year 3, ST3 and above) within four hours of admission/transfer, using appropriate risk prediction tools and clinical judgement.

4. Where any of the recognised appropriate risk prediction tools, frailty assessment or clinical judgement results in an assessment of predicted hospital mortality of ≥ 5%, the patient should be treated as high risk.

5. All patients admitted or transferred under the care (or joint care) of a general surgeon should be screened and monitored for sepsis using the National Early Warning Score (NEWS) 2 score.

6. For high-risk general surgery patients being considered for major surgery, there should be joint preoperative discussion between senior surgeon (ST3 and above) and senior radiologist (ST3 and above), either in person or by telephone, followed by postoperative comparison of imaging and operative findings.

7. Comprehensive interventional radiology services should be available ideally on site or through a defined and effective network arrangement for general surgical patients.

8. Key pathway components for High-risk patients undergoing surgery should include the following:

- a patient requiring operative source control of septic shock should be underway within a maximum of 3-6 hours
- surgery conducted in the presence of a consultant surgeon and consultant anaesthetist
- immediate postoperative admission to critical care

9. Key pathway components for high risk non operative patients should include:

- consideration of admission to critical care with the decision and rationale recorded in the medical records by a senior doctor (ST3 and above) within four hours of admission
- consideration of advance care planning and ceilings of care.

10. Commissioners and hospital service managers should incentivise delivery of care for high-risk general surgical patients that complies with these key pathway components.

11. Units should review the number and complexity of both high-risk general surgical patients and general surgical patients overall at least annually to assess if adequate resources are in place. Taking note of the detailed guidance given here and elsewhere, units should formally consider, at least annually, the resources required for safe general surgical care.

12. Units should adopt a programme of continuous quality assurance and quality improvement for the care of high-risk general surgical patients that embeds a bundle of high impact interventions into daily practice.

Department of Health
www.health-ni.gov.uk

# High-Risk Surgical Patient Care Bundles

**CLINICAL ASSESSMENT TO INCLUDE:**
+/- Presence of sepsis or septic shock*
+/- NEWS 2 total ≥ 5 or ≥ 3 in any one variable
Risk-predictor/frailty/judgement=predicted mortality ≥ 5%.
Assess presence and post-operative risk of PONCD
+/- Age >65, dialysis dependency, ASA>3, immunosuppression, IDDM
Disease severity score where appropriate e.g. acute pancreatitis

## Immediate Surgery

**e.g. SUSPECTED DIAGNOSES**
Generalised purulent or faeculent peritonitis
GI or gallbladder perforation or infarction
Uncontrolled Haemorrhage: GI or intra-abdominal
Strangulated hernia
Necrotising fasciitis

**INITIAL MANAGEMENT:**

**SEPSIS:** treat as per Sepsis 6/SSC
**1st SURGICAL REVIEW ST3 OR ABOVE:** within 30 mins of admission/referral
**SURGICAL REVIEW BY CONSULTANT:** review / discussion within 1 hr hour of admission / referral
**CT SCAN:** immediately, arranged by ST3, if applicable
**CT REPORT:** by radiologist within 1 hour
**ACCESS TO:** interventional endoscopy or radiology in the event of uncontrolled GI bleeding

**PERIOPERATIVE CARE:**

**TIMING:** Immediate surgery for uncontrolled bleeding. To control sepsis; underway < 3 hours (septic shock) or < 6 hours (otherwise)
**CONSULTANT PRESENCE:** surgeon & anaesthetist present in theatre
**OPTIMISATION** of cardiovascular and respiratory function

## Non-Immediate Surgery

**e.g. SUSPECTED DIAGNOSES**
Non-tender small or large bowel obstruction
Infection without sepsis e.g.
- Diverticulitis
- Cholecystitis
- Appendicitis
- Perianal or soft tissue abscess

**INITIAL MANAGEMENT*:**

**1st SURGICAL REVIEW ST3 OR ABOVE:** within 1 hr of admission/referral (30 mins if septic)
**SURGICAL REVIEW BY CONSULTANT:** review / discussion within 4 hrs of admission / referral if plan uncertain
**CT SCAN:** within 6-12 hours, if applicable
**CT REPORT:** by radiologist within 1 hour
**ACCESS TO:** interventional endoscopy or radiology or ERCP for stenting, drainage etc.

**PERIOPERATIVE CARE:**

**TIMING:** timely surgery following decision to operate; underway < 18 hours for infection without organ dysfunction
**CONSULTANT PRESENCE:** surgeon & anaesthetist present in theatre
**OPTIMISATION** of cardiovascular and respiratory function

## Non-Operative

**e.g. SUSPECTED DIAGNOSES**
Pancreatitis
Diverticulitis
Adhesional small bowel obstruction
Self-limiting lower GI bleeding
Cholangitis
"Surgical" diagnoses in a severely unfit patient

**INITIAL MANAGEMENT:**

**SEPSIS:** treat as per Sepsis 6/SSC
**1st SURGICAL REVIEW ST3 OR ABOVE:** within 1 hr of admission/referral (within 30 mins if septic)
**SURGICAL REVIEW BY CONSULTANT:** review / discussion within 4 hrs of admission / referral if plan uncertain (within 1 hour if septic shock)
**CT SCAN:** immediately, arranged by ST3, if applicable
**CT REPORT:** by radiologist within 1 hour
**ACCESS TO:** interventional endoscopy or radiology or ERCP for stenting, drainage etc.

**INITIAL MANAGEMENT:**

**TIMING:** To control sepsis; underway < 3 hours (septic shock) or < 6 hours (otherwise); underway < 18 hours for infection without organ dysfunction
**CRITICAL CARE:** Consider the risks, burdens and benefits of critical care or enhanced-level care, if not on a palliative pathway; ST3 to document the decision and rationale within 4 hours of admission. Consider ceilings of Care

**DECISION MAKING MUST BE CONSULTANT-LED:**
Guided by risk and frailty assessment
MDT decisions (surgery/anaesthetics/critical care/others) regarding operative and non-operative care.
Discussions about ceilings of care and benefit of critical care admission.
Consent process informed by risk of death, life-limiting morbidity, QOL and dependency.

**POSTOPERATIVE CARE (THEATRE/CRITICAL CARE):**
End of surgery bundle:
Repeat risk prediction/frailty/judgement
Repeat ABGs and lactate,
Reversal of hypothermia & muscle relaxant
Fluid management plan
Admission to critical care for all with ongoing predicted mortality ≥ 5% by any criteria, unless palliative

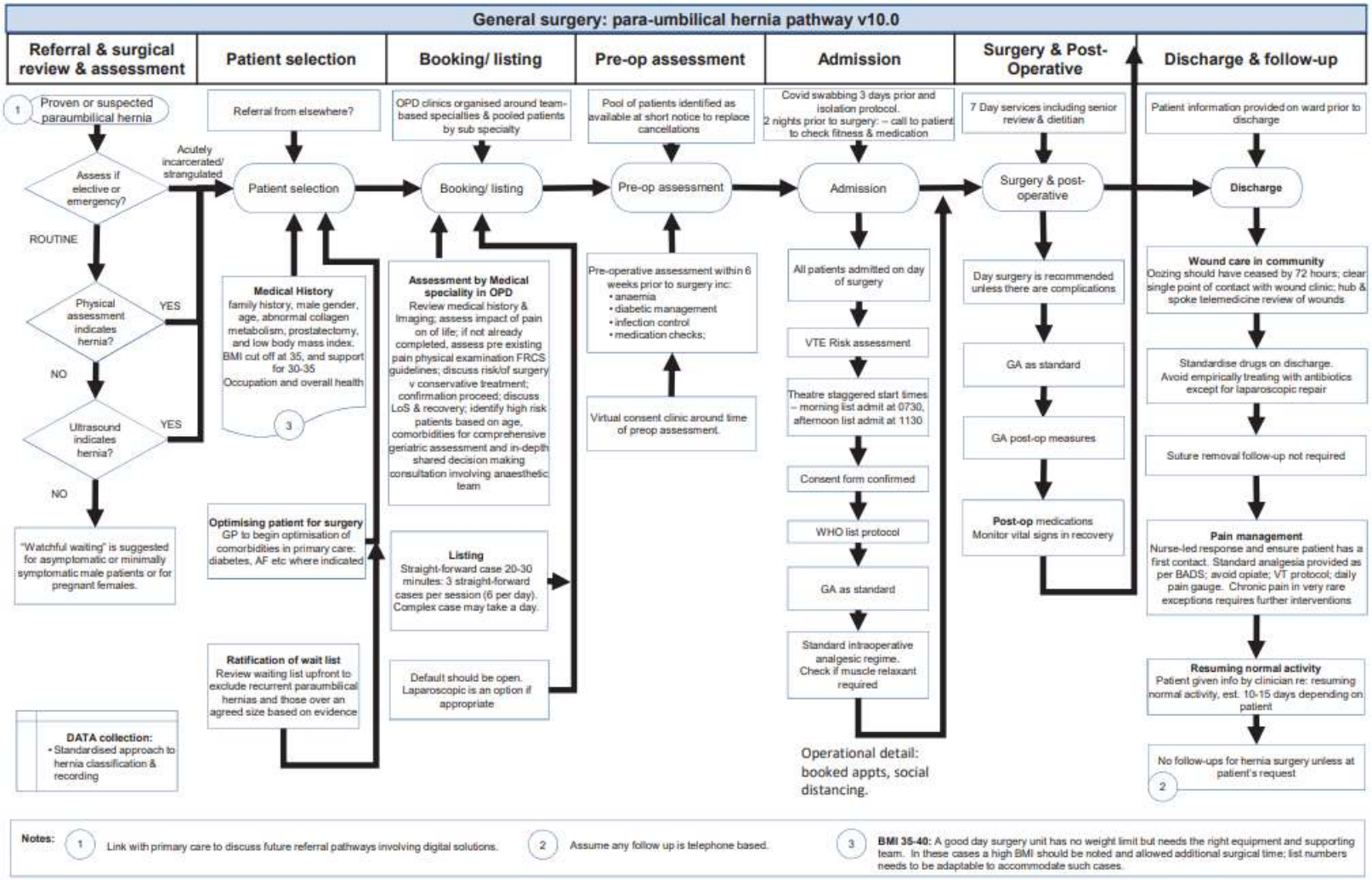
**PERIOPERATIVE OR NON-OPERATIVE CARE:**
Early COTE review in age >65
Screen for, prevent and treat PONCD
Enhanced recovery interventions
Nutritional assessment and support
Discharge planning

*high risk patients needing source control for sepsis should receive it immediately upon that decision.

# Appendix 4 - GIRFT Surgical Pathway Example

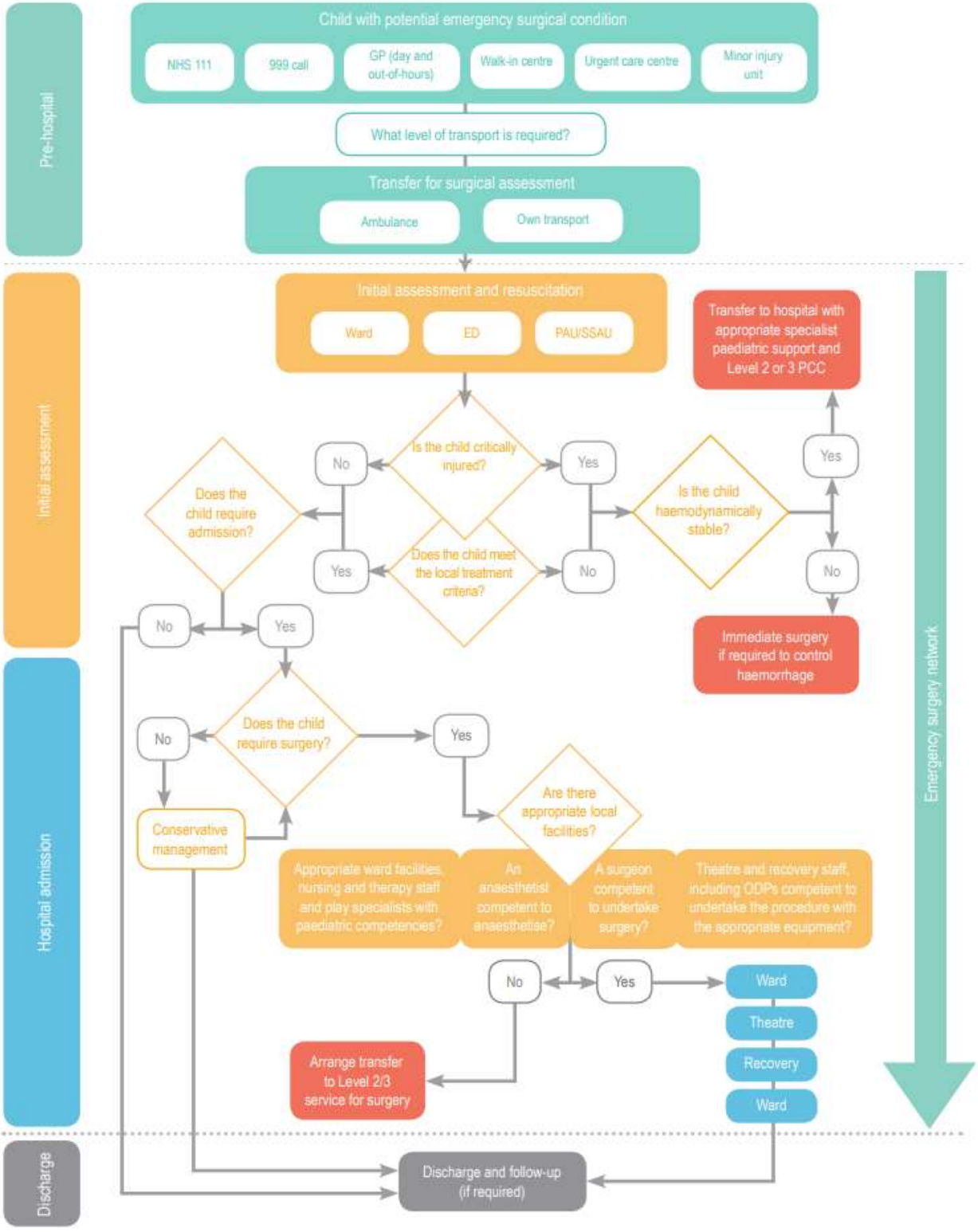
Review date: 31 Oct 2021

## General Surgery: Para-umbilical hernia

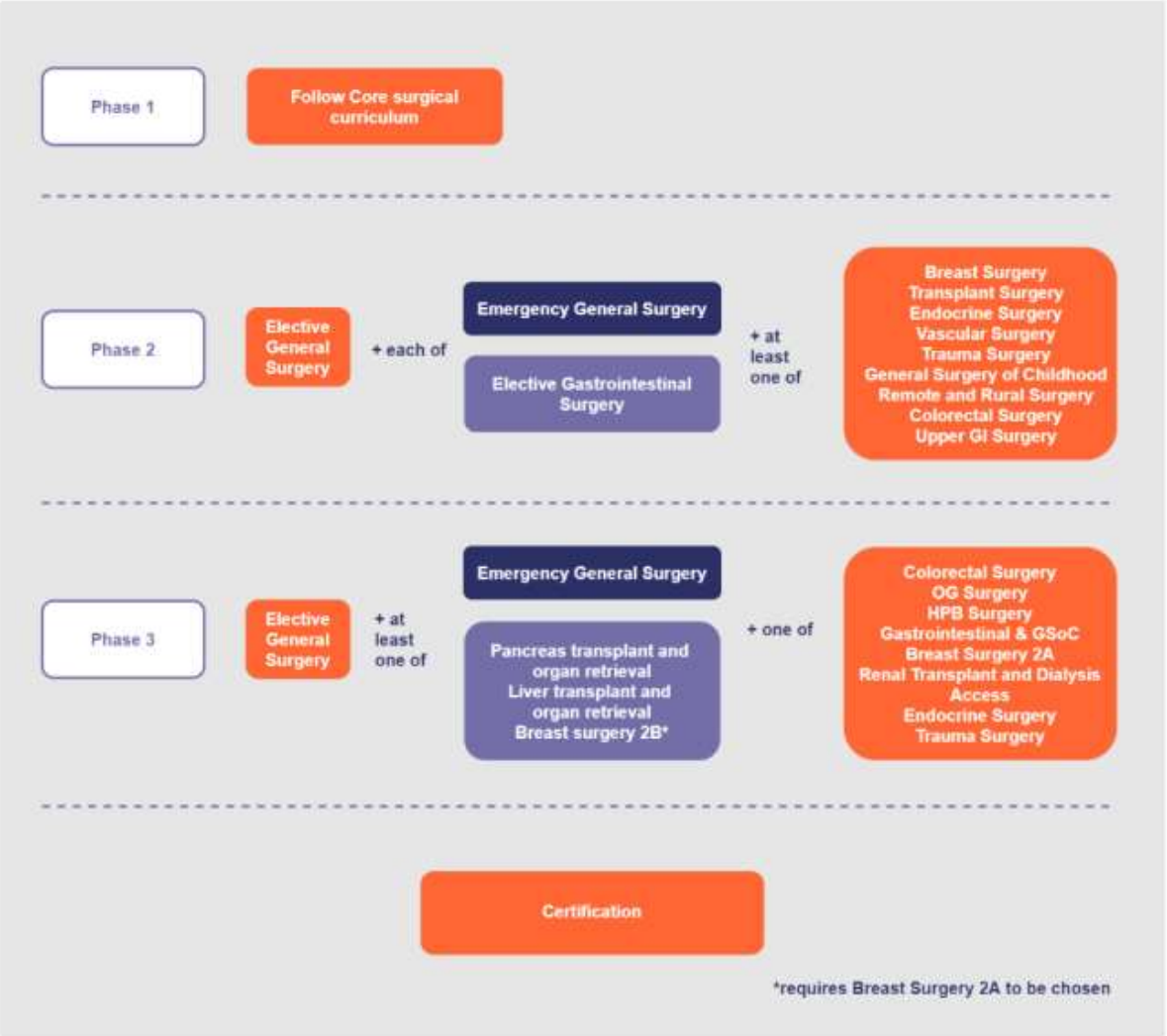


## Appendix 5 – Illustrative Paediatric Surgical Emergency Pathway

# Illustrative patient pathway for a child with an emergency surgical presentation



# Appendix 6: General Surgical 2021 Curriculum structure and outcomes




On completion of training all trainees will have elective general surgical competencies and EGS knowledge and clinical skills. In addition, the curriculum will offer development of the following skill sets within General Surgery:

- Emergency General Surgery and Colorectal
- Emergency General Surgery and Oesophagogastric (OG)
- Emergency General Surgery and Hepatopancreaticobiliary (HPB)
- Emergency General Surgery and Breast Surgery
- Emergency General Surgery and Gastrointestinal (GI) with General Surgery of Childhood (GSoC)
- Emergency General Surgery and Endocrine Surgery
- Emergency General Surgery and Renal Transplant with Dialysis Access
- Emergency General Surgery and Trauma Surgery
- Breast Surgery with Oncoplastic Reconstruction
- Multiorgan Transplantation and Retrieval
- Hepatopancreaticobiliary and liver / pancreas transplant