
Guideline for pre-anaesthetic work-up for surgical residents and interns -
Department of Colorectal Surgery

Introduction:

The Department of Anaesthesia and Acute Pain Medicine can provide important guidance on the perioperative care of your patients. In addition to providing anaesthesia, we have specific expertise in:

- assessing perioperative risk
- optimisation of medical conditions prior to surgery
- planning post-operative care including acute pain management

The Department of Anaesthesia and Acute Pain Medicine is able to offer the following services in order to help with appropriate pre-anaesthetic work-up and optimisation of your surgical patients:

- Review in PAC-Anaesthesia for elective surgical patients (often possible at short-notice)
- Review on the ward for in-patients or urgent cases
- Contribution to and presentation at case-conferences or MDM's
- Phone advice where appropriate
- Review of notes and phone-consult with patient (especially for country patients) to help work out the best course of action

Below is a guide for pre-anaesthetic work-up for patients having elective surgery. It should be used to help guide the following situations:

- When to refer to PAC-Anaesthesia
- When to notify the Colorectal Surgery Clinical Lead Anaesthetist (Dr Louisa Bhanabhai, Dr Chris Scarff) or the Anaesthetist In-Charge (14471) if a patient is scheduled for surgery
- What investigations to order pre-operatively (that are in addition to the investigations required by the surgical unit)
 - o Basic blood tests, including FBE, U&E and Gp & hold may be indicated depending on the nature of the procedure and patient factors. They are not considered here.
- When to book an HDU/ICU bed

This is intended to be a guide only, and not all patients or operations will fit neatly in to this approach. The Anaesthetic Department is always available to offer advice and help.

Referral Guidelines:

Low-risk and Intermediate-risk Operations:

- Endoscopy
- Peri-anal procedures
- Most hernia repairs
- Ileostomy reversal
- Straightforward bowel resection (open or laparoscopic)

Patients having low-risk or intermediate-risk operations do not often need referral to PAC-Anaesthesia, complex pre-operative investigations or an HDU bed. Exceptions to this include:

- Patients with confirmed or likely significant cardiac disease, in particular moderate or severe aortic stenosis, moderate or severe pulmonary hypertension, or symptomatic cardiac failure or symptomatic or unstable ischaemic heart disease
- BMI > 50
- Moderate or severe OSA
- Patients unable to achieve 4 METS (eg. Climb a flight of stairs)

Patients who fit in to any of these categories should be treated as for “high-risk operations” below.

High-risk operations:

- Complicated bowel resections, including revision surgery
- Abdomino-perineal resection (APR)
- Other major intra-peritoneal procedures, including cases involving surgeons from other units

Patients having high-risk operations are more likely to need pre-anaesthetic investigation and/or review in PAC-Anaesthesia. They may also need an HDU bed booked. Below is a guide to investigations that may be appropriate (adapted from Up to Date):

Investigations:

- ECG
 - indicated only for patients > 60 years old and those with cardiac disease, peripheral vascular disease, cerebrovascular disease and/or vascular risk factors
- CXR
 - should not be routine
 - not useful for assessing severity of CCF or COPD, or for predicting the risk of post-operative respiratory failure above and beyond clinical assessment
 - may be useful if there is clinical suspicion of undiagnosed respiratory disease
- TTE
 - Indicated if the patient has had an abnormal TTE or confirmed cardiac disease (eg cardiac failure, pulmonary hypertension, aortic stenosis) and no TTE in the last 2 years
 - May also be indicated if the patient has undiagnosed shortness of breath or clinical evidence of undiagnosed cardiac disease (eg a new murmur, new atrial fibrillation, signs of cardiac failure)
- Spirometry
 - Not useful for risk stratification above and beyond clinical assessment
 - Unlikely to be useful in patients who already have a diagnosis of COPD or other respiratory disease
 - Should not be routine
 - Occasionally useful for assessing response to treatment or diagnosing the cause of dyspnoea
- Non-invasive cardiac stress tests (dobutamine or exercise stress-echo or thallium stress test)
 - May be considered if the patient has symptoms suggestive of myocardial ischaemia, especially if pre-operative revascularisation (CABG or PCI) could be considered; May also be indicated if the patient cannot achieve 4 METS and is having intermediate or high risk surgery
 - If you are considering ordering a non-invasive cardiac stress test based on clinical suspicion then please also discuss these patients with the anaesthetist doing the list (via ext 4471) or the Colorectal Surgery Clinical Lead Anaesthetist. The Department of Cardiology or Perioperative Medicine will also need to be involved to ensure appropriate follow-up.

Other situations:

Specific situations in which referral to PAC-Anaesthesia or discussion with the anaesthetic department should occur:

- Past-history of anaesthetic complication/difficulty
- Severe chronic pain or significant opiate tolerance – this is not uncommon in patients with inflammatory bowel disease
- Severe renal or liver disease

- Significant pre-operative malnutrition or anaemia. Iron deficiency should be treated with iron supplementation. Where possible, surgery should be delayed until an increase in haemoglobin concentration has been confirmed.
- Patients with severe mental health or behavioural issues which would make theatre management problematic (eg severe anxiety, disruptive behaviour)

Mandatory referral to PAC-Anaesthesia:

All patients having the following operations should be referred to PAC-Anaesthesia:

- Pelvic exenteration
- Abdominoperineal resection

ICU/HDU beds:

HDU beds:

- Major colorectal procedures in high-risk patients may require an HDU bed.
- A high-risk patient having low or intermediate risk procedures may also need an HDU bed
- HDU/ICU bed referrals can be suggested by any of the treating teams
 - o The Surgical Unit
 - o Perioperative Medicine
 - o Anaesthesia
- However, the surgical team, as the home unit, remains responsible for organising and confirming HDU/ICU requests.
- The treating team on the day including surgeon, anaesthetist and intensivist will make the final decision about the need for critical care support
- If in doubt, please discuss specific cases with the Colorectal Clinical Lead Anaesthetist