Department of Surgery (Endocrine and Breast Surgery) - Guideline for pre-anaesthetic work-up by surgical residents and interns

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 telehealth 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 neurosurgery. It should be used to help guide the following situations:

- When to refer to PAC-Anaesthesia
- When to notify the DOS Clinical Lead Anaesthetist (Dr Claire Garratt, contactable via switch) 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)
    - 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:

- Straightforward thyroidectomy or parathyroidectomy
- Breast surgery
- Most hernia repairs
- Lap chole
- Other superficial surgery (eg lipoma removal)
- Endoscopy

Patients having low-risk or intermediate-risk operations rarely 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.

Higher-risk operations:

- Complex thyroid surgery where there is either symptomatic tracheal compression or a large retrosternal component requiring sternotomy
- Surgery for phaeochromocytoma (non catecholamine-secreting adrenal tumours are generally not considered high-risk)
- Very large hernia repairs
- Major intra-abdominal procedures, especially those involving retroperitoneal structures

Patients having higher-risk operations are more likely to need pre-anaesthetic investigation and/or review in PAC-Anaesthesia. They may also need an HDU bed booked, although this is rare. 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
    - may be useful if there is clinical suspicion of undiagnosed respiratory disease
    - not useful for assessing severity of CCF or COPD, or for predicting the risk of post-operative respiratory failure above and beyond clinical assessment
- 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
    - Occasionally useful for assessing response to treatment or diagnosing the cause of dysponea
- Non-invasive cardiac stress tests (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 14471) or the General Surgery Clinical Lead Anaesthetist

Other situations:

Other situations in which referral to PAC-Anaesthesia or discussion with the anaesthetic department will be useful:

- Past-history of anaesthetic complication/difficulty
- Severe chronic pain or opiate tolerance
- Severe liver or renal disease
- Significant pre-operative malnutrition or anaemia

ICU/HDU beds:

- Elective General Surgery patients rarely require an ICU or HDU bed unless there are specific patient factors, or complex pathology (eg phaeochromocytoma)

Mandatory referral to PAC-Anaesthesia:

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

- Surgery for phaeochromcytoma
- Surgery for other endocrine tumours which haven't been controlled preoperatively
- Surgery for large goitres where there is mass effect and symptomatic airway obstruction and/or need for sternotomy