Department of Urology - 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 clinic 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 patients (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 urological surgery. It should be used to help guide the following situations:

- When to refer to PAC-Anaesthesia
- When to notify the Urology Clinical Lead Anaesthetist (Dr Sam Costello, 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. When in doubt, ask.

Referral Guidelines:

Low-risk and Intermediate-risk Operations:

- Flexible cystoscopy (typically performed with local anaesthetic only)
- Rigid cystoscopy, including most stone procedures
- ESWL
- TURP
- TURBT
- Penile, scrotal and other superficial surgery

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, symptomatic cardiac failure or symptomatic or unstable ischaemic heart disease
- BMI > 50
- 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:

- Nephrectomy
- Cystectomy
- Other major intra-peritoneal or retro-peritoneal procedures
- Prostatectomy (open or laparoscopic)

Patients having high-risk operations are more likely to need pre-anaesthetic investigation and/or review in PAC-Anaesthesia clinic. They may occasionally 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
    - rarely indicated and should not be routine; occasionally 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
- 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 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 (dobutamine 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 Urology Clinical Lead Anaesthetist. If these patients are under the care of a cardiologist, then their cardiologist should also be consulted prior to surgery.

Other situations:

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

- Other major operations that do not fit in to the above classification system
    - Eg Surgery involving the IVC or aorta (eg some retroperitoneal lymph node dissections)
- 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 urology patients rarely require an ICU or HDU bed unless there are specific patient factors
- Exceptions include cystectomy with ileal conduit and surgery for phaeochromocytoma

Mandatory referral to PAC-Anaesthesia:

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

- Nephrectomy *involving IVC thrombectomy* (partial nephrectomy, lap nephrectomy or otherwise straightforward nephrectomy is not a mandatory referral)
- Major retroperitoneal lymph node dissections
- Cystectomy
- Major procedures involving multiple surgical units, especially if the Vascular or Cardiac units are involved (this implies complex surgery that requires planning)
- Robotic cases