

PREOPERATIVE RENAL FUNCTION ASSESSMENT

The Department of Renal Medicine has requested that all anaesthetists at the Preanaesthetic Assessment Clinic formally assess renal function in **high-risk patients**.

The aim is to identify preoperatively those patients at risk of postoperative renal failure. Such patients should be considered **for preoperative overnight IV saline**. The stronger their risk factors, the more anaesthetists should insist on admission the evening before surgery.

Anaesthetists should also consider withholding the following medications on the day of surgery:

- NSAIDs
- ACE inhibitors
- Diuretics

The aim is to **avoid volume depletion** prior to major surgery.

High risk patients include those booked for:

- Major vascular operations (esp. open aortic surgery)
- Major orthopaedic operations (knee and hip replacement)

AND one or more of the following:

- Age > 70
- GFR < 40 mL/min
- Concurrent use of ACE Inhibitors or NSAIDs
- Diabetes

GFR can be estimated from the following formula:

$$\text{GFR (females)} = \frac{(140 - \text{Age}) \times \text{Weight (kg)}}{\text{Creatinine } (\mu\text{mol/L})}$$

X 1.233 for males

Urea and electrolytes (U+E) results should be accessible via the computer before the clinic finishes. If you decide that a patient is at high risk, the surgical team should be asked to arrange:

- admission on the evening before surgery
- preoperative IV hydration.

Alternatively, consideration can be given to the avoidance of volume depleting medications on the day before surgery.