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:

\[
GFR \text{ (females)} = \frac{(140 - \text{Age}) \times \text{Weight (kg)}}{\text{Creatinine (µmol/L)}} \times 1.233 \text{ for males}
\]

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.

Dr Simon Maclaurin 7/5/01