

Reducing Post Operative Acute Kidney Injury

Even mild transient rises in creatinine are associated with increased mortality long-term and increase the risk of developing chronic kidney disease in future.

All patients should have their pre-operative risk of AKI assessed using the AKI risk score app available by scanning the QR code or by going to <https://connect.calcapp.net/?app=onmtph>



What to do for patients found to be at high risk (over 10%) of developing an AKI?

1. Ensure patient keeps well hydrated

- Accurately record fluid input and output on the fluid balance chart
- Ensure nausea and vomiting are controlled with anti-emetics to allow adequate oral intake of fluids
- Consider IV fluid if oral intake is poor or there are any signs of dehydration

2. Withhold certain medications around the time of surgery

- ACE inhibitors and Angiotensin Receptor Blockers (ARBs) should be withheld on the day of surgery and for 2 day post operatively
- Withhold diuretics on the day of surgery and monitor fluid balance closely when restarting post-operatively
- Stop non-steroidal anti-inflammatory drugs (NSAIDs) 3 days before surgery and use with caution post-operatively

3. Monitor Renal Function

- All patients should have their bloods checked on day 1 and day 3 post operatively (check bloods on day 2 if being discharged then)
- Additional monitoring of renal function will be required in patients who develop renal impairment

Assessing fluid status by clinical examination should take account of:

- Pulse, Blood Pressure, capillary refill time, jugular venous pressure
- Presence of pulmonary or peripheral oedema

Urgent fluid resuscitation

may be indicated if any of the following:

- Systolic blood pressure is less than 100mmHg or there is a significant drop from their pre-operative blood pressure (e.g. greater than 25%)
- Heart rate is more than 90 beats per minute
- Capillary refill time is more than 2 seconds or peripheries are cold to touch
- Respiratory rate is more than 20 breaths per minute
- NEWS score is 5 or more

If the patient develops an AKI – see AKI guideline on intranet: Our websites > Renal Services > Clinical protocols/Guidelines > **AKI Guidelines for Secondary Care**