Anaesthetic Protocol

Pre-op assessment

- Clinical assessment including current weight and usual post-dialysis weight FBC, U&Es.
- Check that blood has been grouped and saved.
- Check immunosuppression regime has been discussed and prescribed.
- All patients require basiliximab pre-operatively.

Fasting

Patients should be fasted as per Lothian guides (Solids 4-6 hrs Clear Fluid 2hrs).

DVT prophylaxis

The hospital policy should be followed. This includes subcutaneous heparin and compression stockings.

Potassium control

Many patients are chronically hyperkalaemic and tolerate this well

In general, aim for $[K^+] < 5.0$ mmol/l^{-1}
Mild hyperkalaemia may be treated with dextrose/insulin but K >5.5 is an indication for dialysis. See transplant work up protocol for more detail.

Pre-medication

- Usual medication (except NSAIDs , diuretics and ACE – inhibitors)
- If gastro-oesophageal reflux, oral ranitidine.

Diabetic patients

Diabetics are given 10% dextrose and insulin infusion throughout the peri-operative period with hourly blood sugar measurements. Good glycaemic control should be ensured. See Inpatient protocol, page 12.

Anaesthetic room

Do NOT use limbs with AV dialysis access for monitoring or IV access.

Monitoring

ECG, SpO2, NIBP pre induction
Triple lumen central line inserted after induction
Arterial line not usually required: insert only if clear indication
(Minimise damage to vessels which may be required for shunts)

IV access

peripheral cannula 14G or 16G dorsum of hand or forearm

Induction

Propofol or thiopentone
Atracurium for muscle relaxation (Suxamethonium may be indicated, but this is unusual and carries risk of hyperkalaemia)

Antibiotics

Piperacillin/tazobactam 4.5 G at induction
For patients allergic to penicillin: Vancomycin 1 gram IV in Normal saline infused over 2 hours and Ciprofloxacin 400 mg infused over 60 mins.
If Piperacillin/tazobactam not available (supply issue in 2017), we will use Metronidazole 400mg, Temocillin 1g and Amoxicillin 1g

DVT prophylaxis

Minihep 5000U s.c. unless given on ward.

Theatre

Maintenance

IPPV Isoflurane in oxygen/air or oxygen/nitrous oxide.
Morphine/Fentanyl for analgesia. Atracurium for muscle relaxation.

Temperature

All patients should have HME and warming mattress.
All fluids should be given through a warmer.

Fluid and haemodynamic management

- Avoid hypotension (relative to patientâ€™s normal BP) and hypovolaemia.
- In general, aim for CVP ~ 10 mmHg.
- 0.9% saline is used for basal fluids, with colloids as required.
- Treat hypotension with fluid challenge. Try to avoid use of

vasoconstrictors.
- Blood is not generally required.
- Intravenous heparin approx. 3000 units may be given after discussion with the surgeon.

Reperfusion

- Methylprednisolone 500 mg i.v. prior to removal of clamps (to be given again 24 hour post transplant).
- It is particularly important to avoid hypovolaemia or hypotension at the time of reperfusion: fluid bolus may be required.

Recovery

Neuromuscular block is reversed at the end of the operation and the patient extubated.
Analgesia: I.V. Fentanyl boluses as required, followed by PCA Fentanyl.
Ensure minihep is prescribed.

Return to transplant unit

The renal physician on call should be notified when the patient is leaving theatre and will meet the patient on return to the Transplant Unit or in recovery…

Potassium is checked on return to the transplant unit/recovery.
Initial fluid replacement as per inpatient protocol

Note: Diuretics (dopamine, mannitol, furosemide) are not given routinely intra or post-op.