

***Guidelines for the post-operative care of Abdominal Aortic Aneurysm(AAA)repair:
ITU Clinical Guideline***

Reference No:

Purpose

The purpose of this guideline is to improve post-operative care of patients following Abdominal Aortic Aneurysm (AAA) Repair. This applies to both open and Endovascular Aortic Repair (EVAR) whilst on the Step Down Unit (SDU).

Patients undergoing open AAA repair will routinely be admitted to the Intensive Care Unit initially before being transferred to SDU. Patients undergoing EVAR should routinely go directly to SDU post operatively, though may come directly to ICU if required.

This guideline applies to patients during their stay on ICU/SDU. Always read the surgical and anaesthetic notes for specific postoperative instructions.

Re-escalation of care may be appropriate back to ICU in the event of deterioration.

Management Principles

Blood Pressure Management

Invasive monitoring of blood pressure allows quick response to hemodynamic changes.

Aim for a systolic >100 and a MAP >65. Fluid challenge with boluses of crystalloids if necessary. Patients undergoing open AAA routinely have a central venous line which may help in assessing fluid status. Monitor urine output and other markers of end organ perfusion.

If MAP remains <65, or there are signs of inadequate end organ perfusion despite adequate fluid boluses, the patient may require inotropic support and re-escalation of care.

Open AAA repair patients often have an epidural in situ. Be aware that although a working epidural can cause low blood pressure, you must exclude haemorrhage as a cause first. If there is any doubt involve the surgeons early.

Haemoglobin

Ensure post operative Hb and Clotting have been checked and documented in the notes. There is often a consumption of platelets and other clotting factors following EVAR. Regular arterial blood gases are a good way of monitoring Hb level trend. Aim for an Hb >8, or >10 if the patient has severe ischaemic Heart Disease.

Ensure the patient is group and saved as a minimum in case of the need for further transfusions.

Renal Failure

Due to the position of the aneurysm, as well as the operational procedure, post AAA repair patients can develop acute renal failure. Monitor closely looking in particular for

Persistent metabolic acidosis pH < 7.25

Blood urea > 20mmol/l

Symptomatic K > 6.0mmol/l

Persistent UO < 0.5ml/kg/hr despite adequate fluid resuscitation

Contrast induced nephropathy is a specific risk following EVAR and peaks at around 72 hours. Omit metformin for 48 hours following contrast and check electrolytes at 72 hours for higher risk patients.

If this is the case they may need referring to ICU.

Analgesia

Adequate analgesia is important to help prevent postoperative chest infections. This is especially important following open AAA repair. Follow the usual pain guidelines on SDU.

If there is an epidural in situ following EVAR then it should be removed at least 8 hours postoperatively bearing in mind the patient will have received heparin during the procedure, and at least 4 hours prior to further LMWH administration. Check clotting prior to removal of the epidural catheter.

Morphine PCA is acceptable so long as the patient is able to cough, deep breathe and perform physiotherapy exercises post operatively.

Bowel/Feeding

Due to handling of the bowel intraoperatively, electrolyte disturbances and potential clamping of mesenteric arteries, postoperative bowel ileus and ischaemic bowel can occur.

Cautiously introduce NG feed as per surgical advice, and monitor for absorption. If there are excess quantities of bile draining or lack of absorbing NG feed, consider TPN early.

Often patients undergoing open AAA will not have a nasogastric tube and will be commenced on light diet the following day.

Post EVAR patients will often eat and drink the following day following the surgical ward round.

Limb/Spinal Ischaemia

Ensure arterial pulses are felt on a regular basis. Contact surgeons if previously palpable peripheral pulses disappear or the peripheries become ischaemic.

Rarely spinal ischaemia can occur following both open AAA and EVAR.

Monitor for signs of cord injury.

Infection

As per any post operative patient, monitor for signs of chest sepsis, wound sepsis, and graft sepsis. Post-operative pyrexia is often experienced within 72 hours and is attributable to pyrogens from haematoma formation. This should be expected following EVAR in particular and can be persistent.

Consult the surgical notes as the antibiotics can vary according to the situation. They will often have received a dose of teicoplanin 400mg on induction and 2 further doses at 12hour intervals will often be prescribed post-operatively.

Haematoma formation

Check groin incisions used for the insertion of the stents during EVAR. In the event of haematoma formation or bleeding inform the surgical team.

DVT Prophylaxis

Routinely post AAA repair patients are not to have TEDS, but should receive enoxaparin 40mg s/c OD as per trust guidelines on the first day postoperatively. Consult the surgical notes for any other instructions.

Documentation Control

Development of Policy:	Dr Naresh Nandwani (Consultant Intensivist)
Consultation with:	Vascular Surgeons, Vascular Anaesthetists, Step Down Lead Clinician, Intensivists
Approved by:	Lead Intensivist
Signature:	
Print name and Position:	
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Key Contact:	Dr Naresh Nandwani (Consultant Intensivist)
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