Appendix 4: RBH Anaesthetics Major Amputation Guidelines

Suggested pathway for management of major amputation at Royal Bournemouth Hospital

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[Update required 2017]

Introduction & Background:

(& Please see references for further details)

Note:

- Recent drive to improve outcome and quality in perioperative care of patients undergoing major amputation. [1, 3]
- High Mortality – 17% 30 day mortality; with 50% at 2 years.
- Median Length of stay 34 days.
- High Pain Service demand and often complex patients.

These can be very ill patients with multiple comorbidity including advanced cardiovascular disease and diabetes, often smokers.

Medical disease advanced & 'unstable'.

Regional analgesia can provide excellent preop analgesia in patients often 'intolerant' of opioids & certainly at risk of opiate side effects.

Intra-op anaesthesia could be provided with topped up lumbar epidural.

Improved post-op analgesia can be provided with Regional Anaesthesia.

New evidence showing a reduced incidence of persistent pain with Epidural over GA / PCA.[2]

At RBH: 45-50 patients / year.

Increased drive to more peripheral amputation – last 5 years 50:50 AKA/BKA.

All day CEPOD lists and cover should allow management during normal hours including formal pre-op assessment, siting of a preoperative epidural catheter and management of pain relief.

OBJECTIVES

Guidelines / suggested pathway for major limb amputation at RBH:

PRE OP:

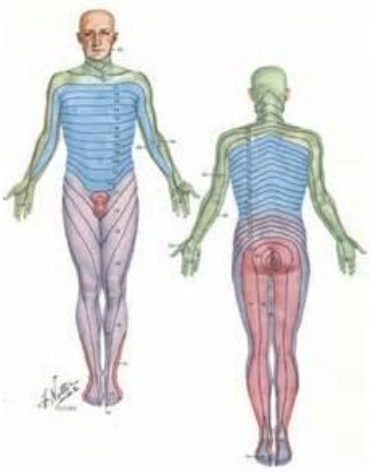
SEEK EARLY REVIEW BY ACUTE PAIN TEAM (within 24-36 hours of admission)

Once decision made for amputation (perhaps by way of vascular MDT discussion) – seek anaesthetic review within 8 hours – so a planned operation can occur.

Inform theatres of booking and CEPOD classification would initially be "3" – i.e. operation within 48.

BUT should any delay occur – theatres will automatically change the classification as such:

- Delay of 24 hours – increase to CEPOD 2 (operation with 24 hours)
- Delay of over 24 hours – increases priority to CEPOD 1a (operation **has to be done** that day)



Called 'named' Anaesthetist to discuss (bleep 2505):

- Preferably - a 'planned' preop lumbar epidural will be inserted for analgesia – book this on the CEPOD list, ~24 hours pre-amputation.
- Systemic sepsis (for example from infected feet) is only a *relative contraindication* to epidural use; please d/w named Consultant.
- Concurrent use of anticoagulants and antiplatelet agents [especially warfarin & clopidogrel] make timing of interventions like insertion of an epidural important; please d/w Consultant Anaesthetist (used named Consultant bleep). *NOTE: removal of epidural catheters also needs consideration of coagulation status/platelet count/dual antiplatelet therapy etc.*
- Commence Gabapentin* 600-900mg, start with 200mg tds (*consider pregabalin [50mg tds] if significant side effects with gabapentin).
- Paracetamol 1g qds.
- Use opiates for breakthrough pain if required.

ALSO

- Medical review of any unstable medical conditions.
- If diabetic – monitor BMs 4hourly during first 48 hours of admission & if blood sugars uncontrolled with usual diabetic medication – start variable rate intravenous insulin infusion (a "sliding scale").
- Start empirical use of a statin (e.g. Simvastatin 20mg nocte) -& to continue for 3 moths post

op.

- *Seek diabetic team review if BMs still uncontrolled, ketosis occurs or preop HbA1c is above 64mMol.*
- Consider monitoring of fluid balance including urine output and use of IV fluids if poor intake.
- Check preop bloods as per current Trust guidelines including G&S (& consider checking clotting status); ECG if not done within last 3 months; and other tests as indicated.

NB: ONCE EPIDURAL IS IN SITU – OPERATION MUST PROCEED WITHIN 24-36hrs & PRIORITY WILL BE GIVEN TO THESE CASES OVER OTHER NON-URGENT 'CEPOD' CASES.

INTRA OP:

A single dose of antibiotic is required, as per trust guidance.

If already on antibiotics (for presumed sepsis) – consider stopping at 24 hours when afebrile.

IN THEATRE:

1. Epidural Top up to surgical block
2. Spinal + Sciatic nerve catheters* an alternative
3. *(surgeons can place sciatic catheter in theatre)
4. or GA + Sciatic nerve catheter; +/- femoral nerve block - which may provide additional pain relief, if suitable.
5. Post Op femoral nerve catheters are an additional option for those at significant risk of phantom pain such as the younger patients. Care will be required with 2 LA infusions!
6. Sedation - TCI Propofol if required

POST OP CARE:

- Epidural Infusion for 48-72, & consider "opiate free" epidural mix if side effects causing problems (e.g. excessive sedation, puritis)
- Alternative is PCA & nerve catheter infusion (cont for 48-72hrs).
- Continued Gabapentin* (*for 7days, or as per Acute Pain Service)
- Regular Paracetamol for next 72 hours.
- APS Daily review (consider Lignocaine Patch/Ketamine).
- Take care with wounds, pressure sores and nutritional status.
- Ongoing referral to rehab services / prosthetics / physio & OT

etc.

- Ongoing management of medical issues including DM with support of appropriate medical teams.

References

1. Vascular society – QIP For Major amputation 2012
2. Optimized Perioperative Analgesia Reduces Chronic Phantom Limb Pain Intensity, Prevalence, and Frequency Menelaos Karanikolas,et al Anesthesiology, V 114 • No 5 May 2011
3. NCEPOD – "Lower Limb Amputation: Working Together". A report by the National Confidential Enquiry into Patient Outcome and Death (2014).
4. Neuraxial blockade for the prevention of postoperative mortality and major morbidity: an overview of Cochrane systematic reviews (Review). Guay J, Choi P, Suresh S, Albert N, Kopp S & Pace NL. The Cochrane Collaboration and published in The Cochrane Library 2014, Issue 1. (http://www.thecochranelibrary.com)