NHS
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Critical Limb Ischaemia Pain Management Pathway

For all RSCH patients admitted with Critical Limb Ischaemia (CLI) please follow this management plan*

Admitting Vascular Team

- ☐ Prescribe regular and as required analgesia, naloxone and antiemetics (as per Vascular Analgesia Prescribing Guideline)[1]
- ☐ Ensure the following blood tests are completed[2] ○ FBC[3] ○ U+Es[4] ○ clotting studies[5]
- ☐ [6]Review and consider stopping clopidogrel if surgical revascularisation or amputation anticipated within 5 days [do not stop aspirin[7]]
- ☐ [6]Review and consider stopping novel oral anticoagulants (NOACs, e.g. rivaroxaban, apixiban, dabigatran) in view of anticipated surgery

Vascular Analgesia Prescribing Guidelines[1]

On admission prescribe **all usual analgesia** (including opioid patches) – unless contraindicated (e.g. AKI, acute confusion, sepsis)
Avoid PCA (unless oral route not available), **avoid NSAIDS**
Paracetamol 1 gram 4–6hrly (PO/IV) max 4 grams in 24 hrs - reduce dose to 500mg QDS if patient weighs <50kg
Epidurals/Local anaesthetic catheters as indicated and managed by anaesthetists/Acute Pain Team

Patients less than 65 years age who have normal renal function	**Patients greater than 65 years age who have normal renal function**	**Patients with renal impairment**
Oral morphine solution 5 – 20 mg 2 hrly PO PRN lowest effective dose - monitor renal function Switch to **Oxycodone immediate release (IR) 2.5 – 10mg 2 hrly PO PRN** if intractable side effects* with Oramorph	**Oral morphine solution 2.5 – 10 mg 2 hrly PO PRN** lowest effective dose - monitor renal function Switch to **Oxycodone (IR) 1.5 – 5 mg 2 hrly PO PRN** if intractable side effects* with Oral morphine solution	**eGFR 30 - 60** **Oral morphine solution 2.5 – 5mg 4 hourly PO PRN** Switch to **Oxycodone (IR) 1.5 – 2.5mg 4 hourly PO PRN** if intractable side effects* with Oramorph **eGFR < 30** **Oxycodone (IR) 1.5 – 2.5mg 4 hourly PO PRN**
Naloxone 100 - 400 micrograms iv stat prescribed for opioid toxicity: following algorithm (Naloxone delivery)		
Gabapentin 300mg PO TDS Monitor renal function Stop if side effects** not tolerated	**Gabapentin 100 to 300mg PO TDS** Lowest effective dose Monitor renal function Stop if side effects** not tolerated	**eGFR 30-60 Gabapentin 100mg to 200mg PO TDS** Lowest effective dose - monitor renal function **eGFR <30 Gabapentin 100mg PO BD** stop if side effects** not tolerated
Anti-emetics: Ondansetron 4 mg BD PRN PO/IV/IM; Cyclizine 50mg TDS PRN PO/IV; Prochlorperazine 3-6 mg BD Buccal **Laxatives**: Senna 15mg BD PO PRN; Macrogol 3350 up to 3 sachets per day PO PRN https://viewer.microguide.global/BSUH		
Review analgesic requirements daily - if after following this protocol pain is still an issue contact the **Acute Pain Team (bleep 8102)** or **on call anaesthetist out of hours (bleep 8235)**		
*Oral morphine solution s/e: confusion, hallucinations, sedation, N+V, itching, constipation		**Gabapentin s/e: sedation, hallucinations, dizziness, tremor
CRITICAL LIMB ISCHAEMIA: If despite optimal analgesia, pain is not controlled, consider a **local anaesthetic nerve block and infusion catheter**		

If **pain not controlled** or if patient not comfortable with leg elevation (preferring to sit in chair or hang leg out of bed) 24 hours after admission analgesia having been administered as per the Vascular Analgesia Prescribing Guideline

consider a Continuous Peripheral local anaesthetic Nerve Block (CPNB)

Surgeons

- ☐ Document in medical notes the reason for a CPNB including which limb[8]
- ☐ Discuss with vascular anaesthetist[9]
- ☐ Registrar to book the CPNB procedure [ideally first[10]] on most **appropriate** of the next day's routine vascular operating list(s) and confirm Bluespier is updated[11, 12, 13]
- ☐ Omit any low molecular weight heparin which would otherwise be given on the morning of the procedure[14]
- ☐ Give a CPNB information leaflet to the patient[15]

Ward Nursing Staff

- ☐ Complete theatre care plan [no need to keep NBM]
- ☐ Have patient ready by 08:15hrs

Anaesthetists

- ☐ To explain procedure, receive and document consent [patient to sign if able][16]
- ☐ Perform procedure on next operating list [ideally 1st][10-13]
- ☐ Prescribe local anaesthetic infusion on medication chart
- ☐ Document Procedure, Type of Block (catheter) & Indication in **medical notes** not anaesthetic chart[17]
- ☐ Enter onto APS database[18]
- ☐ Document procedure in theatre register[19]
- ☐ If postponing on the day, is a single shot block possible?[20]

Theatre Staff

- ☐ Confirm case and procedure recorded in theatre register[19]
- ☐ Complete Bluespier and care plan as standard[19]

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RATIONALE

*This is for patients admitted with pain secondary to Critical Limb Ischaemia (CLI). They may or may not come to theatres for a surgical procedure. The primary aim is to provide relief for pain refractory to usual analgesia to allow optimal medical management, rest, mobilisation and interventional radiology procedures if required. These cases should be discussed directly with the vascular anaesthetists and managed as booked cases on existing vascular surgery theatre lists. Follow up is provided by the Acute Pain Service (APS). Patients with post-amputation or other surgery pain will be managed by the APS and referred for advanced management (rescue nerve blocks and catheters) as required. The anaesthetist retains the right to cancel at any time.

1. Created by APS, approved by Trust guideline committee, already in use on ward Level 8 Tower
2. These are the blood tests specific to pain management. Other relevant/appropriate blood tests may/will be required
3. For the WCC and platelet count
    - Consideration for anaesthetists
    - Consider indwelling catheter placement in context of sepsis
    - Consider platelet count in view of proposed procedure and any anticoagulation
4. For renal function to guide safer opioid and gabapentin prescribing
5. Consider procedure in view of any coagulopathy
6. Clopidogrel, other antiplatelet drugs, and NOACs impact on the ability to perform neuroaxial anaesthesia and there may be a lower risk with nerve blocks and catheters. Anticoagulants and antiplatelet drugs should be reviewed on a patient by patient basis and not stopped without senior review
    - The general consensus amongst anaesthetists that perform nerve catheters is that it is a risk vs. benefit decision
    - The procedure site (i.e. the popliteal sciatic nerve) is readily compressible and blood vessels are visible on ultrasound
    - The risk of stopping these drugs in vascular patients may be significant
7. There is no indication to stop aspirin
8. Cross check for anaesthetist when consenting and ‘Stop Before You Block’ (SBYB)
9. There is a vascular anaesthetist working in RSCH main theatres Monday to Friday:
    - Cases must be booked onto a routine vascular list (not CEPOD list)
    - If the anaesthetist in the vascular theatre is unable to place the catheter, they should liaise with the starred consultant to work out who is best placed to perform the procedure.
10. These patients should be booked first on the list to minimise the delay in providing analgesia, make time for trouble shooting and allow the APS to review if required. It may be that going first is not appropriate, this is a team decision.
11. For patients admitted on Friday and Saturday, Monday may be the first opportunity to go to theatre. We do not have the skill mix to offer a catheter service over the weekend or out of hours. If indicated, weekend cases can be discussed with the CEPOD team for single shot blocks (or catheters if time and skill mix allow)
12. There are vascular lists every day at RSCH except Monday. There are often two lists running concurrently e.g, Wednesdays and Tuesday/Thursday afternoons
13. For patients on treatment dose low molecular weight heparin (LMWH), <u>hold</u> the morning dose on the day of the procedure. If twice daily dosing: give the dose the night before, omit on the morning and restart that evening
14. These can be sourced on the Trust intranet
15. The procedure(s) must be recorded in the medical notes <u>not</u> on an anaesthetic chart. There are no OPCS codes for nerve catheter placement). Clinical coding have suggested the proceduralist enters the following text:
    - Procedure: e.g. *peripheral nerve block & catheter*
    - Type of block: e.g. *popliteal sciatic nerve*
    - Indication: e.g. pain relief for *CLI*
16. The APS database ensures APS follow up and an audit trail.
17. Formal log of activity
18. Consider discussing with the starred anaesthetic consultant as a single shot block may be possible to provide immediate analgesia whilst waiting for a theatre list or appropriate skill mix to become available

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