**Perioperative pain management in the ICU setting**

**Trouble shooting Patient Controlled Analgesia (PCA)**

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| **Problem** | **Suggested action** |
| Nausea & vomiting | Prescribe an antiemetic on a regular basisChange the opioidAdd an antiemetic to the PCA (ondansetron 4mg, cyclizine 50-100mg, haloperidol 2mg) |
| Breakthrough pain | Add regular NSAID and paracetamol, if not contraindicatedIncrease the bolus dose, or consider a background infusion if severe |
| Respiratory depression  | Opioid dose reduction If RR<8/min, consider reverse with IV naloxone 100–400 micrograms (rare) |

**Trouble shooting Epidural Analgesia**

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| **Problem** | **Findings** | **Suggested action** |
| Global failure | No detectable block to cold | Patient in pain?- if yes- bolus of 6ml low dose mixture; repeat  |
| Low block | Inadequate analgesia | Lie flatter & bolus of LA |
| High block | Hypotension/bradycardia Digital tingling | Turn down/off epidural infusionSupport BP with fluid/vasopressorSit up (when BP allows) |
| Missed segment | Single dermatomal absence of block (often pain in groin & one-sided) | Roll patient so missed side is downwards – lie lateral position, painful side down, for 20min following top-upWithdrawing catheter 1-2cm if sufficient catheter length in epidural space, leaving at least 3cm in spaceFurther bolus of LA – consider 5-10ml 0.25% bupivicaineConsider fentanyl (50-100mcg) or diamorphine (2.5mg) bolus via epidural (acts via intrathecal action)If no success -> resite or use alternative analgesia |
| Unilateral block | Unilateral pain, absent block down 1 entire side, often foot warm and dry while foot on painful side cold  |
| Patchy block | Variable spread & density of block throughout; possible subdural catheter (has migrated to lie between the dura mater and the arachnoid space) | Do not useStop infusionRemove catheterConsider resite at another level |
| Motor block |  | Reduce/stop infusion rate – follow local protocolRestart when motor power improving & consider reducing LA concentration |
| Hypotension/bradycardia | Nausea/presyncopeVasodilatation | Check fluid status – patient probably relatively hypovolaemicCheck block heightReduce/stop infusionElevate legsSupport BP with fluid/vasopressorConsider antiemeticExclude other causes of hypotension after surgery e.g. bleeding, myocardial insufficiency, sepsis, PE  |
| Severe itching | Opioid-related | Antihistamines may give some relief - ChlorphenamineNaloxone 50-100mcg IV & consider infusionOndansetron 4-8mg IVPromethazine 25-50mg IMRemove opiate – plain bag |