Post-operative Analgesia in the General Surgical Setting

NON-opiates:
Injury causes the release of inflammatory mediators (e.g., prostaglandins and leukotrienes) which sensitize the nociceptive nerve fibres, i.e., producing a state of HYPERALGESIA where the area becomes more tender and sensitive than it ought to be.

THUS: want to inhibit the cyclo-oxygenase enzymes.

BUT: prostaglandin also needed @ the vascular endothelium:

to counteract thromboxane A2 (which is prothrombotic)

THEREFORE: selective COX2 inhibitors convey an increased risk of coronary events. Only use non-specific NSAIDS, regular doses, review with pain scale

- Indomethacin 25mg Q6H PO or 200 BD PR
- Naproxen 500mg BD PO
- Rofecoxib 12.5-25mg BD PO
- Diclofenac (Voltaren)

⇒ 50mg BD PO, 100mg BD PR

For smooth muscle spasm, NSAIDS are more effective than antispasmodics (that spasm is prostaglandin-mediated) ⇒ YES THIS MEANS RENAL COLIC

ALL NSAIDS impair platelet function EXCEPT PARACETAMOL

OPIATES:

Anyone over 5 years old is a candidate for PCA. Its adequate if the pt. uses it fewer than 3 times per hour.

- Morphine IS KING OF POST-OP ANALGESIA
  - good subcutaneously, 2-3mg PRN Q2 (i.e no more frequent than 2 hourly)
  - People may be apprehensive regarding bad street reputation of opiates
  - This is bad: reluctance to use your PCA will lead to pneumonia and awful suffering
  ⇒ so say "only 1 in 5000 chance of addiction"

Side Effects
- Respiratory drive depression ⇒ monitor
- Cough suppression ⇒ regularly auscultate chest /check sats
- Constipation ⇒ laxatives eg. Coloxyl
- Allergic reaction (itchy vein! very uncomfortable)
- Nausea (esp. young women, non-smokers, motion sickness sufferers)

  Managed with antidopaminergic drugs
eg. metaclopramide or prochlorperazine

Other choices:
- Codeine (~10% is converted to morphine)
- Oxycodone is the next step up from Panadeine Forte
  - commonly used; normal dose = PO 10mg Q4
  - also available in sustained release formulation (oxycontin)

Hydromorphone (5x as powerful as morphine)

Pethidine is no longer used partially due to abuse potential and partially because of a toxic metabolite (norpethidine) which causes CNS problems

Fentanyl (very potent, short acting in small doses)

At risk of getting constipated and not on SSRIs = candidate for TRAMADOL

⇒ weak opiate and serotonergic effect
ACUTE NEUROPATHIC PAIN

Antidepressants
- Tricyclics better than SSRIs for neurpathic pain
- Low doses are best (eg. amitryptiline 5-10mg nocte)

Anticonvulsants
- Gabapentin is good – reduces post-op opiate requirements

Membrane stabilisers
- Lignocaine is useful intravenously and in the wound

Wound Analgesia:
Use long-acting local anaesthetic rather than a continuous lignocaine infusion