

# POST-OP PAIN RELIEF

RE-VISITEDD

Dr Christine Amakye

Motec Life - UK

June 2009

# POST-OPERATIVE PAIN RELIEF

- Pre-operative/Pre-emptive analgesia
- Intra-operative analgesia
- Post-operative analgesia

# Pre-emptive analgesia

- Oral
- Intravenous
- Intramuscular
- Local analgesic blocks
- Peripheral nerve blocks
- Nerve plexus blocks
- Regional anaesthesia – spinals, epidurals

# Intra-operative analgesia

- Intravenous opioids, NSAIDS
- Epidural top-ups and infusions
- Local infiltrations
- Peripheral nerve blocks
- Per rectum suppositories

# Post-operative analgesia 1

- Regular oral tablets, capsules
- Intravenous opioids – bolus, infusion, patient controlled analgesia pump (PCA)
- Regular intramuscular injections
- Prn or regular suppositories rectally

# Post-operative analgesia 2

- Epidural top-ups and infusions
- Patches
- Lingual/sublingual melts or tablets

# Causes of mild pain

- Minor O&G procedures: EUA, hysteroscopies, D&Cs
- Lumps and bumps
- Joint manipulations
- Dental extractions

# Causes of moderate pain

- Abdomen: Laparoscopies especially with clipping ie: sterilizations and mesh insertion ie: hernias
- Dental extractions – multiple, molar and premolars
- Orthopaedics; DHS, ACL reconstruction



# Causes of severe pain

- Abdomen: Laparotomies,
- Orthopaedics: Joint replacements esp knees, foot operations and shoulder arthroscopies
- Thoracic operations
- Cardiac operations involving sternotomies

# Aims of analgesia

- Eradicate post-operative pain
- Improve mental attitude to surgery
- Improve ability to mobilise, get out of bed and do physiotherapy
- Reduce risk of DVT and PE from immobility
- Reduce breakdown of skin and bed sores

# Aims of analgesia

- Improve respiratory function and reduces basal lung collapse and hypostatic pneumonias
- Reduce length of hospital stay
- Reduce cost of hospital stay

# Description of pain intensity

- Mild moderate or severe
- Scale of 0 – 10. 0-None, 1-3 mild, 4-6 moderate and 7-10 severe
- Visually using drawings of range of facial expressions . From smiles to tears
- Descriptive using patients own adjectives

**ADULT ANALGESIC LADDER**  
(Not for neuropathic pain)

**Beware of medicine contraindications, cautions or interactions**

		<b>STEP III<sup>3</sup></b> <b>Severe Pain</b> <b>Pain Score 7 – 10</b> <b>(For cancer pain, consider referral to Palliative Care Team)</b>
		<b>STEP II<sup>3</sup></b> <b>Moderate Pain</b> <b>Pain Score 4 – 6</b>
<b>STEP I</b> <b>Mild Pain</b> <b>Pain Score 1 – 3</b>	<b>Regular</b> Paracetamol 1g qds po/IV Ibuprofen 400mg tds po <b>or</b> (if pr route is considered) Diclofenac 50mg tds pr Codeine 30 or 60mg qds po <b>or</b> as 2 <sup>nd</sup> line <sup>2</sup> Tramadol 50 or 100mg qds po <b>PRN</b> Morphine Sulphate Mixture 10-20mg 2 hourly po <sup>1</sup>	<b>Regular</b> Paracetamol 1g qds po/IV Ibuprofen 400mg tds po <b>or</b> (if pr route is considered) Diclofenac 50mg tds pr Morphine PCA <sup>1</sup> Epidural infusion <sup>1</sup> <b>PRN (not with epidural or PCA)</b> Morphine 2-10mg IV titrated (max 10mg/2 hourly) <sup>1</sup> <b>or</b> Morphine 10mg IM 1-2 hourly <sup>1</sup> <b>or</b> Morphine Sulphate Mixture 10-20mg 1 hourly po <sup>1</sup>
<p><sup>1</sup> Ensure 'Naloxone 400mcg/10ml 0.9% sodium chloride, 2-3ml every 2-3 minutes for respiratory rate &lt; 8' is prescribed PRN if strong opioids are prescribed.</p> <p><sup>2</sup> The use of Tramadol as 2<sup>nd</sup> line is only if Codeine is not tolerated or appropriate</p> <p><sup>3</sup> For patients on Step 2 or 3, consider regular laxatives, eg Senna 2 tabs nocte</p> <p><b>NB</b> For nausea and vomiting refer to Nausea and Vomiting Guidelines</p> <p>This Analgesic Ladder is to be used as a guideline only, if you require further guidance please contact the doctor on call .</p>		

# OTHER MODES OF ANALGESIA

- Central neuro-axial block – epidural, spinal and caudals
- Peripheral nerve block
- Local infiltration into site of incision

# RECOMMENDED DOSES

- Bupivacaine – 2mg/kg ( same with adrenaline)
- Lignocaine – 3mg/kg ( 6mg/kg with adrenaline)
- Prilocaine – 6mg/kg (8mg/kg with adrenaline)

# RECOMMENDED DOSES

- Ropivacaine – 3mg/kg (same with adrenaline)
- Cocaine – 1.5-3mg/kg
- Remember do not use any local anaesthetic with adrenaline in areas of the body with end arteries : digits, nose, penis, clitoris, ears.



# ANALGESIA AT AKOSOMBO

- Dihydrocodeine – 30mg (max 60mg qds given PO)
- Paracetamol – 500mg (max 1gm qds given PO,IV or PR)
- Morphine – 15mg (10mg 2hrly given IM or small boluses IV under direct medical supervision and monitoring )

# ANALGESIA AT AKOSOSMBO

- Pethidine - 50mg/ml(100mg 2hrly IM,given small boluses IV 10-20mg under direct medical supervision and monitoring)
- Ibuprofen – 200mg,400mg (max 400mg tds given PO)
- Diclofenac – tab 50mg ( max 50mg tds given PO)
- Diclofenac – 100mg supp(max 100mg bd PR)

# ANALGESIA AT AKOSOSMBO

- Tramadol – caps 50mg ( max given 100mg tds PO, IV, IM)
- Aspirin – 300mg, 75mg
- Piroxicam – caps 20mg
- Naprosyn – 500mg

# PRECAUTIONS

- Age – children and the elderly
- Alcoholism -
- Current analgesia use
- Kidney function and NSAIDS
- Liver function and paracetamol, opioids
- Respiratory function - asthma

# PRECAUTIONS

- GI function – PUD, indigestion, hiatus hernia, constipation
- Prior addictions
- Prescribing and combining of analgesics
- Maximum doses and patient education
- Naloxone and oxygen

# EFFECTIVE POST-OP ANALGESIA



# QUESTIONS FOR AUDIENCE

- Is morphine being tried instead of pethidine?
- How often are anti-emetics prescribed?
- There is no prn section on drug chart
- Is there any place for IV opioid infusions in this hospital?
- Do the wards have arrest trolleys or bags?

THE END

