

PAIN MANAGEMENT IN A TERMINALLY ILL PATIENT

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ST CLARE
HOSPICE

PALLIATIVE MEDICINE

- Assessment
- Symptom Management
- Rehabilitation
- Respite
- Psychological, Social and Emotional Support
- Terminal care
- Bereavement

TYPES OF PAIN

- NOCICEPTIVE

Associated with tissue distortion or injury

- NEUROPATHIC

Nerve compression or injury

- MIXED

- NON-PHYSICAL (*Total*)

CAUSES OF PAIN IN CANCER

- Cancer itself e.g., soft tissue, visceral, bone, Neuropathic
- Anti-cancer or other treatment e.g., chemotherapy related mucositis
- Cancer related debility e.g., constipation, muscle related spasms
- Concurrent disorder e.g., Arthritis
(15% in advanced cancer – non cancer related)

PAIN

- 5% at the time of diagnosis of Cancer
- 50% at death

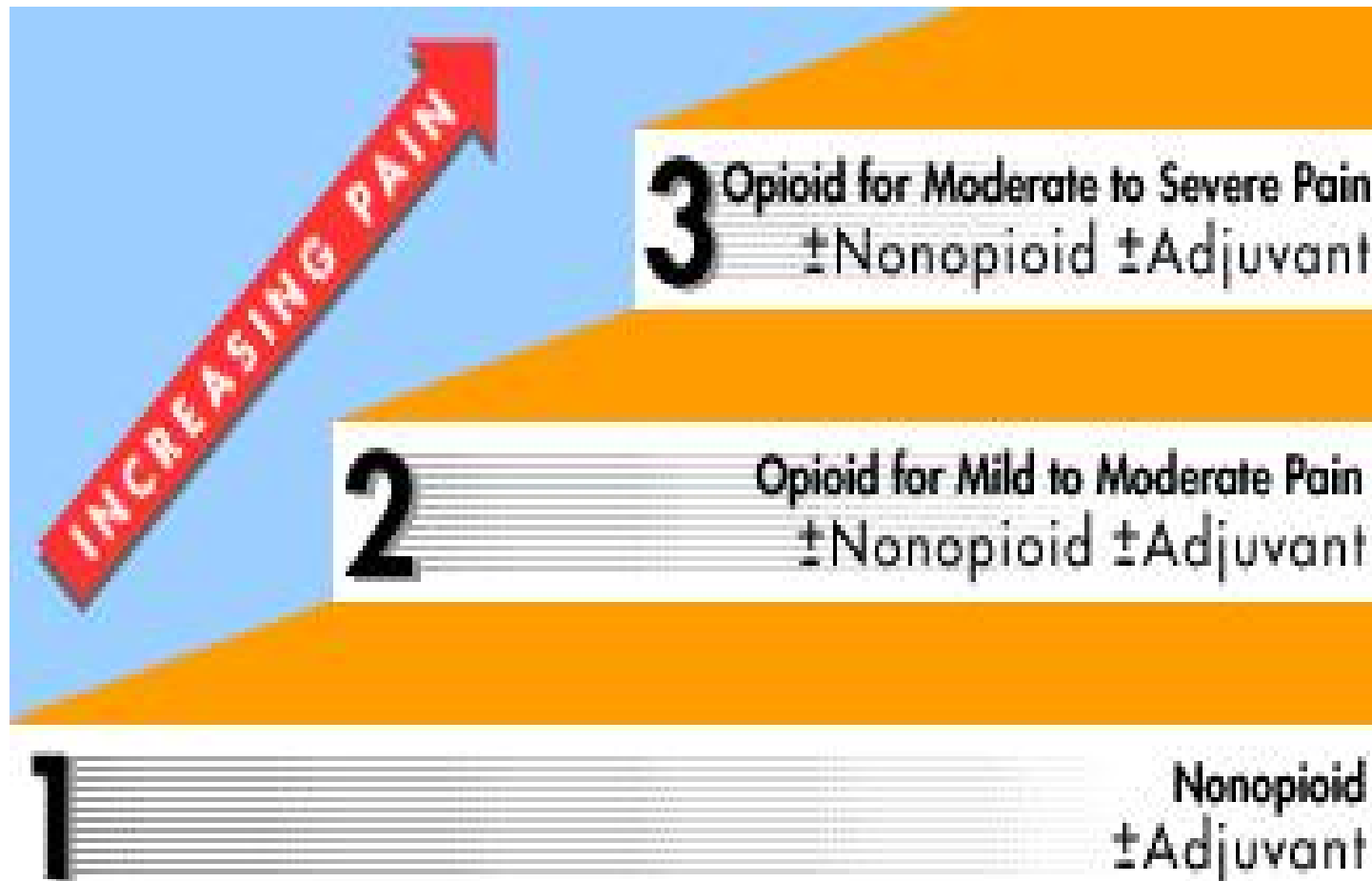
ASSESSMENT

- Site
- Severity (1-10)
- Type (discuss stimuli, Opioids can make some pains worse)
- What works?
- What does not work?

PRINCIPLES

- By the clock
- By the mouth
- By the ladder
- By the individual

WHO LADDER



STEP 1

- PARACETAMOL:
 - Synthetic non-opioid, inhibits COX, and therefore prostaglandins in brain
 - No peripheral action
 - fairly safe drug
 - 1 gm 4-6 hourly (max. 4 gm a day)
- +/- Adjuvant

STEP - 2

- CODEINE:
 - Prodrug of Morphine
 - 1/10 time as potent as Morphine
 - 10% of population can not convert Codeine to Morphine
 - Side-effects: Nausea, Constipation
 - Dose: 16 mg – 60 mg QDS

STEP - 2

- TRAMADOL:
 - Centrally acting opioid and Non- opioid
 - 1/10 of Morphine as injection, 1/5 as oral
 - Less constipation, emesis and respiratory depression
 - Dose: 50 – 100 mg QDS

STEP - 3

- **MORPHINE**

Opioid of choice orally

Common side-effects:

- * Constipation
- * Nausea & Vomiting
- * Sedation (also insomnia!)
- * Hallucinations
- * Pruritus
- * Rarely respiratory depression

DIAMORPHINE

Opioid of choice parenterally

MORPHINE PRESCRIPTION

- Commence with short acting Morphine (Oramorph, Sevredol) 2.5 – 5 mg 4 hourly
- Can take double dose at night
- Record intake and convert to long acting Morphine (Zomorph, MST, MXL)
- Commence Laxatives (Stimulant and Softener)
- Give anti-emetic (Haloperidol 3 mg OD for 1 week)

DIAMORPHINE

- Drug of choice parenterally
- Equivalent dose 1 mg Diamorphine = 3 mg Morphine
- Same side-effect profile
- Useful for Syringe drivers e.g., with persistent nausea and vomiting, dysphagia and inability to take oral medications even before final stages, managing pain during terminal phase.

FENTANYL

- **Less Constipation (Beware of *Gastric Flu*)**
- **Dose: 25 mcg / 72 hours (equivalent roughly to 90 mg of Morphine)**
- **Not appropriate to start before dose of Morphine build-up**
- **Can cut Detrans patches**
- **Use SA Morphine for rescue and build-up**
- **Lozenges: Quicker action**

OXYCODONE

- Equivalent dose: 1mg = 2 mg of Morphine
- Less nausea
- Some evidence for Neuropathic pain
- Suppositories / injectable available
- Useful for opioids rotation

CAUSES OF PAIN CONTROL FAILURE

- Use of inadequate dose or wrong drug
- Failure to assess different types of pain
- Failure to identify degree of suffering

(ABC of Palliative care – BMA books)

TERMINOLOGY OF PAIN

- INCIDENT PAIN: Pain where background pain is under control but patient gets spasms of pain, which may be in response to a stimuli. May need PRN analgesia only
- BREAKTHROUGH PAIN: where patient has a minimal background pain, but gets severity of pain at times
- END-OF-DOSE PAIN: same pain worse towards the end of analgesic duration

MANAGEMENT OF 'PRN' ANALGESIA

- 1/6 of strong oral opioids (e.g., Oramorph ® 20 mg for Zomorph ® 60 mg BD or Oxynorm ® 10 mg for Oxycontin ® 30 mg BD)
- PRN analgesia can be repeated within 2 hours esp. if it is end-of-dose pain but not more than 6 doses in 24 hours
- Actiq ® can be repeated within one hour
- Methadone should be given cautiously as PRN drug

'OTHER' DRUGS

- NON-OPIOIDS

- Paracetamol
- Non-steroidal Anti-inflammatory Drugs

- ADJUVANTS

- Corticosteroids
- Antidepressants
- Muscle-relaxants
- Anti-epileptics
- NMDArec blockers
- Anti-spasmodics
- Bisphosphonates
- Other treatments

BONE PAIN

- WHO Ladder
- Radiotherapy early
- Non-steroidal Anti-inflammatory drugs
- Corticosteroids
- Bisphosphonates
- Calcitonin
- Radiopharmaceuticals

BONE PAIN – 2 (NSAIDs)

- Pain with Soft tissue inflammation, Bone metastasis
- Inhibit Cyclo-oxygenase and therefore Prostaglandins
- COX-1 present in all normal tissues
- COX-2 only in inflammation

BISPHOSPHONATES

- Osteoclast inhibitors
- Published data on Breast cancer, Prostate Cancer and Myeloma
- 50% benefit
- Pamidronate 90-120 mg 4 weekly
- Oral Clodronate ?
- Zoledronate (expensive)
- Ibandronic Acid 50 mg OD

NEUROPATHIC PAIN

- WHO Ladder
(Oxycodone proven in Post-herpetic neuralgia,
Methadone due to NMDArec Blocking)
- Agreed systemic approach necessary
- Consider Nerve Block early
- Corticosteroids only for nerve root
compression/spinal cord compression

Neuropathic Pain Ladder (Twycross - 1997)

Corticosteroid

Step 1

Tricyclic antidepressant or anti-epileptic

Step 2

Tricyclic antidepressant and anti-epileptic

Step 3

NMDA-receptor channel blocker

Step 4

Spinal Analgesia

Step 5



SUGGESTED DOSES

- Dexamathasone 8-16 mg a day
- Tricyclic Antidepressant:
 - Amitriptyline 25-150 mg a day
 - Lofepamine 70-210 mg a day
- Anti-epileptics:
 - Gabapentin 300-2400 mg a day
 - Sodium Valproate 0.2-1 gm a day
 - Pregabalin 75 mg BD to 150 mg BD
- NMDA receptor blocker:
 - Methadone 1/10 of Morphine
 - Ketamine 25 mg QDS to 1 gm a day

DIFFERENT TYPES OF PAIN

- Specific treatment needed
 - Bone metastasis → Radiotherapy
 - Smooth muscle colic → Antimuscarinic
 - Infection → Antibiotics
 - Pathological Fracture → Radiotherapy or surgical fixation
 - Raised intracranial pressure → Steroids
 - Neuropathic pain → Difficult....