PAIN MANAGEMENT

ANALGESICS FOR PAIN

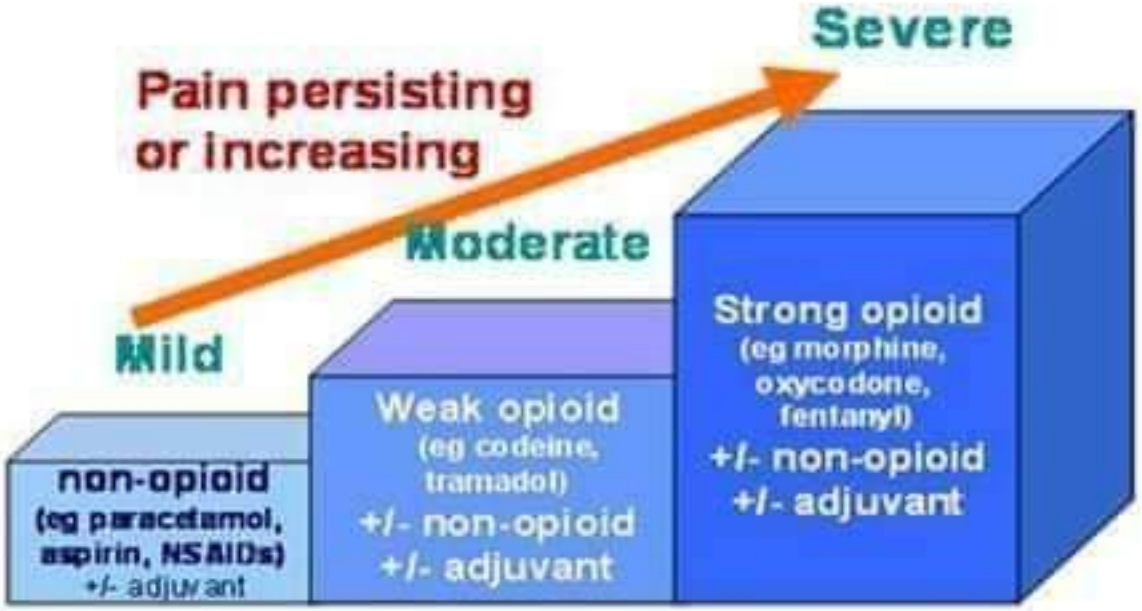
- Pain is commonly one of the reasons on why patient always seek medical treatment.

TYPES:

- Acute
- Chronic

- Mild
- Moderate
- Severe

THE PAIN LADDER



Acetylsalicytic acid (aspirin)

- Uses:

Analgesic
Antypiretic
Anti – inflammatory
Antiplatelet

Side – effects:

Bleeding
Reye`s syndrome

- Mechanism of action:
- Posology:

1 comprimido (500 mg de ácido acetilsalicílico) cada 4 – 6 horas, si fuera necesario. No se excederá de 4 g en 24 horas.

Contraindication:

- Asthma, rhinitis, and nasal polyps
- Children

Paracetamol

MECHANISM OF ACTION

- inhibition of cyclooxygenase (COX) in CNS (ANALGESIC)
- there isn't inhibition of COX in peripheral tissues, (NO ANTIINFLAMMATORY)
- hypothalamic centers regulating the temperature (ANTIPYRETIC)

POSOLOGY

Adults: Not exceed 4gr every 24 hours
Children: Not exceed 720mg every 24 hours
Alcoholic Chronic: Not exceed 2gr every 24 h

INDICATIONS

- *Oral or rectal*:

  Fever, mild to moderate pain

- *IV*: Propacetamol ---- Paracetamol

  Moderate pain and fever in the short term, when there is an urgent need or are not possible in other ways.

  In patients where excessive gastric acid secretion or prolongation of bleeding

  ANTIPYRETIC AND ANALGESIC OF CHOICE IN CHILDREN

- **INTERACTIONS**

  ORAL ANTICOAGULANTS, ALCOHOL, CARBAMAZEPINE, ANTICHOLINERGIC

- **PRECAUTIONS**

- **CONTRAINDICATIONS**

  - Viral hepatitis
  - Liver failure
  - Chronic kidney disease
  - Deficiency of G6PD
  - Hypersensitivity

- **SIDE EFFECTS** : VERY SAFE

  - **GI**: Hepatotoxic (hepatic necrosis, jaundice, bleeding, encephalopathy)
  - **RENAL**: Renal tubular necrosis (interstitial nephritis, papillary necrosis)
    Sterile pyuria
  - **HEMATOLOGIC**: Methemoglobinemia (hemolysis, hemolytic anemia, cyanosis)
    Neutropenia, leukopenia, thrombocytopenia, pancytopenia
  - **GENERAL**: Hypersensitivity reaction (fever, rash, urticaria, erythema)

MORPHINE

- Opioid Analgesic
- Modify Conscious State
- Dependency
- Tolerance
- Narcotic

Indications:

- Treatment of severe acute and chronic pain
- Important rule in oncology processes

Route of Delivery:

Emergency: Parenteral
No Urgency: By Mouth

Posology:

SC or IM:
5-20mg q 4h

IV:
2,5mg - 15mg disolved and administrated slowly for 4-5min

Pills:
60mg q 12h

Interaccions:

- Tricyclic Antidepressants
- Benzodiazepines
- Phenothiazines

Contraindications:

- Liver failure → hepatic encephalopathy
- Pancreatitis (contraction of the Oddi`s sphincter)

Side-Effects:

- Constipation (major problem)
- Respiratory Depression (rare)
- CNS depression
- Miosis
- Vomiting, Nausea...

Why people fears morphine ?

- Because people asociate morphine with terminal patients.
- Because morphine and heroin are derivated from the same plant – *Papavera Somniferum*

Adjuvant analgesics

(used together with oral or parenteral anelgesicos, with an intrinsic analgesic effect, potentiating the action of opioids, improve mood, anxiety and sleepiness)

- **ANTIDEPRESSANTS**: *Amitriptilina*
  - Neuropathic pain
  - Tension headaches and migraine prophylaxis

  Adverse effects: cardiotoxic (arrhythmias)
- **ANTIEPILEPTICS**: *Carbamazepine, Gabapentin*
  - Trigeminal neuralgia
- **NEUROLEPTICS**: *Haloperidol , Thioridazine*

  Adverse effects: extrapyramidal syndrome
- **CORTICOSTEROIDS**: *Cortisone, Methylprednisone*
  - Spinal cord compression
  - Bony metastases
- **LOCALS ANESTHETICS**: *Lidocaine, Capsaicin*
  - Neuropathic pain
  - Musculo-skeletal pain
- **ANTIHISTAMINE** : *Difenhidramina*
  - Musculo-skeletal pain

CANCER AND PAIN

- Usually we use weak or strong painkillers due to the intensity of pain.

Mild to Moderante Pain: NSAIDs +/- adjuvants

Moderate Pain: (who did not feel relief after using only non-opioids):

Opioids +/-NSAIDs +/- adjuvants

Moderante to Severe Pain:

Strong Opioids +/-NSAIDs +/- adjuvants

POSTOPERATIVE PAIN

The aim of postoperative pain treatment is

- provide subjective comfort
- inhibiting trauma-induced nocioceptive impulses in order to blunt autonomic and somatic reflex responses to pain and subsequently to enhance restoration of function by allowing the patient to breathe, cough and move more easily

TERMINAL PATIENT

- Usually, doctors use morphine because it is a powerfull analgesic and the therapy aim is to relieve the patient`s pain and to have a good life quality.
- In these kind of situations, doctors don´t care about the secondary effects.

THE PAIN LADDER