**Analgesics**

- 4 types
  - Non-opioid Analgesics
  - Opioid Analgesics
  - Trigeminal Neuralgia Drugs
  - Antimigraine Drugs

Non-opioid analgesics are particularly suitable for musculoskeletal pain. Many are available OTC but some of the stronger analgesics are only available on prescription.

**Generic Names**
- Paracetamol, Co-Codamol, Co-Dytromol, Co-Proxamol,
- Aspirin

**Trade Names**
- Migravess
- Sumatriptan (Imigran)

**Indications**
- Symptomatic relief of pain.

**Side Effects**
- Constipation, rash, blood disorders, acute pancreatitis.

**Caution**
- In patients with renal or liver impairment or those who are alcohol dependent

**Interactions**
- Anticoagulants (may enhance action of warfarin).

**Opioid Analgesics**

- These drugs are used to relieve moderate to severe pain particularly of visceral origin.
  - Prolonged use may lead to dependence and tolerance but this should not contra-indicate prolonged therapy in terminal illness.

**Side Effects**
- Nausea, vomiting, constipation, diarrhoea. Large doses may cause respiratory depression & hypotension, difficulty with micturition, urinary dribbling, sweating, headache, facial flushing, vertigo, bradycardia, tachycardia, palpitations, hypertension, hallucinations, hypo/hyperthermia, mood changes, dependence, decreased libido and potency.

**Generic Name**
- Morphine, Diamorphine, Rupinmorphine, Codeine Phosphate, Dihydromorphine, Methadone, Patidine Hydrochloride, Tramadol Hydrochloride.

**Trade Names**
- Morphine – Opioanalgesic – Liquid morphine
  - Diamorphine – CS (Sustained release)
  - Morphone succinate
  - Buprenorphine – Tangens 200mg, 400mg
  - Diamorphine – OD (Sustained release – OD Diamorphine Linctus

**Antimigraine Drugs**

- Most migraine headaches will respond to paracetamol or aspirin based analgesics. However, in some cases, paracetamol may be replaced which inhibits the absorption of the analgesic in which case, suitable forms should be given.

- Analgesics used as Anti-convulsants (anti-vomiting)

- Anti-migraine Drugs

- Analgesics used as Anti-nausea

**Aspirin-Like Drugs**

- Salicylates
  - Less likely to cause GI bleeding and tinnitus, but may cause acute interstitial nephritis.
  - Phenylbutazone (Butozacin), Phenylbutazone (Butozacin)

- Propionic Acid Derivatives
  - Better tolerated by most patients than aspirin. Some have a more potent action than aspirin. Some produce less GI side effects but may produce more GI side effects.
  - Ibuprofen, Naproxen, Suprofen, Fenoprofen

- Indoles
  - Can be used in patients with GI bleeding. May Worsen pre-existing depression, epilepsy or Parkinson’s disease. Most likely to be nephrotoxic. Indicated to close patent ductus arteriosus in newborns. (Indomethacin)

- Oxizac
  - In addition to inhibiting prostaglandin synthesis, these drugs can also prevent neutrophil aggregation and the release of lysosomal enzymes. (Peroxacinum (Feldene)

**Non-Steroidal Anti-Inflammatory Drugs**

- NSAID’s work by inhibiting PROSTAGLANDIN synthesis.
  - Prostaglandins are a family of potent endogenous lipid metabolites, which effect the action of relieve pain, fever, inflammation, pain transmission and many other activities.

- These drugs are particularly useful in patients who do not respond to simple analgesic treatment. It is felt that they reduce the cranial arteries and should therefore be used in patients with migraine headaches.

- Contra-indications
  - Ischaemic heart disease, previous heart attack, coronary vasospasm.
  - Nephritis disease, Raynauds phenomenon, hepatic or renal impairment, severe or inadequately controlled hypertension.

- Contraindications
  - Caution
  - Oxicam

**Ant-Arthritic Drugs**

- Anti-arthritic drugs have two main properties, they have to have an anti-inflammatory effect and also have the ability to reach therapeutic levels in the joint capsule without reaching toxic levels within the serum. The drugs mentioned above are the primary anti-arthritic drugs. Other field of anti-arthritic drugs are outlined below.

- Rofecoxib (Vioxx)
  - These drugs selectively inhibit cycloxygenase-2 (COX-2) to prevent Prostaglandin synthesis. They can still cause GI intolerance and GI symptoms but are usually fewer at levels required for arthritic control.

- Celecoxib (Celebrex)
  - Action is the same as that for Rofecoxib

- Hydrixorurephrine
  - This drug is used for the treatment of RA and juvenile RA. Side effects can include reduced accommodation, bullous retina, dizziness & headaches.

- Sulfaalazine
  - Acts by reducing prostaglandin synthesis and so exhibits an anti-inflammatory property. It can cause GI intolerance.