Opioid Medication in the Management of Pain
Cancer Pain

• Half of all cancer patients will have pain at the time of diagnosis
• Patients with advanced cancer, two-thirds suffer moderate to severe pain
• In 75% of cases the pain is related to underlying disease
• 20% of pain related to treatments
• 5% unrelated
WHO Analgesic Ladder

Bottom rung of ladder (mild pain) non-opioid +/- adjuvant

Middle rung of ladder (moderate pain) weak opioid +/- non opioid +/- adjuvant

Highest rung of ladder (severe pain) strong opioid +/- non opioid +/- adjuvant
WHO Analgesic Ladder

• Between 70-90% of patients with cancer pain, treated according to the three step ladder, achieve effective analgesia.

• The use of non-opioids for step 1 and “strong” opioids for step 3 is widely accepted.

• The clinical usefulness of the “weak” opioids in the management of cancer pain has been challenged.
WHO – Analgesic Ladder

• Two systemic reviews comparing the efficacy of NSAIDS versus a weak opioid.

• The results suggest that the transition from step 1 to step 2 drugs does not necessarily improve analgesia.

• The transition may delay achieving optimal pain control—especially in patients with rapidly progressive pain or in those who require quick titration of analgesic therapy.
Strong Opioids

- Opioid analgesics remain the most effective available therapy.
- Side effects = limit use?
- Advances in the pharmacology – new formulations / delivery systems.
Morphine

- Remains gold standard among strong opioids
- First line treatment in moderate to severe cancer pain
- Absorption is well achieved through GI tract, bioavailability is variable depends of the speed of metabolism in the liver
- Serum levels have a peak at approx one hour, clearance is variable – elimination half life ranges from 3-4 hours
Morphine..

- Dosing needs to be individualised, based on every single patient’s pain baseline and previous analgesic requirements.
- 5-10mg immediate release - once every 4 hours (oramorph, sevredol).
- Convert to total daily dose controlled release twice daily every 12 hours – MST.
- Breakthrough pain control 1/6 total dose.
Oxycodone

• Acts as a pure agonist with activity at opioid receptors located inside the brain and spinal cord
• Therapeutic effect as analgesic, anxiolytic and sedative drug
• Serum half life time is double that of morphine
• Current indication is in treatment of severe pain
Oxycodone..

- Controlled release oxycodone, administered every 12 hours
- Immediate release = oxynorm, administer as a rescue treatment
- 1mg oxycodone = 1.5mg morphine
Targin

- **Targin** = oxycodone + naloxone hydrochloride
- **Dosing** = 5/2.5, 10/5, 15/7.5 etc
- The opioid antagonist naloxone is added to counteract opioid-induced constipation by blocking the action of opioid receptors locally in the gut
- **Maximum daily dose is 80/40**
Targin is contraindicated in patients with moderate and severe hepatic impairment.
Hydromorphone / Palladone

- Opioid analgesic approx 5 times stronger than morphine
- 10mg morphine = 2mg palladone
- Hydromorphone is a potent analgesic similar to other strong opioids in terms of analgesic efficacy and tolerability
Transdermal Fentanyl

- Opioid for moderate to severe pain
- Should be used in patients with
  - stable pain
  - Patients who experience significant S/E to morphine
  - Compliance is poor with oral medications
  - Unsuitable for patients with unstable pain
Transdermal Fentanyl

- Potent opioid – should be used in patients who have previously tolerated opioids
- Risk of respiratory depression in opioid naïve patients
- 12-24 hours for patch to begin to work
- Pain control erratic initially
- Oral morphine for breakthrough
Breakthrough cancer pain

• Steady, background pain with intermittent exacerbations
• The intermittent pain has been termed as “breakthrough” pain
• May occur frequently and is typically moderate to severe with rapid onset and short duration
Pain Control..

• Background pain can be treated prophylactically with around-the-clock analgesics
• Lowest possible dose in order to avoid side effects
• Individualisation of treatment
Pain Control..

- Treatment of underlying cause
- Avoidance of precipitating factors
Important!

- Be able to identify signs of opioid toxicity
- Safe prescribing, storage and management of opioid medications
Adjuvant

- Radiotherapy
- Bisphosphonates
- Steroids
- Tricyclic antidepressant
- Pregablin
Conclusion

• Safe and effective administration of opioid analgesia to patients with acute or chronic pain depends on
• A comprehensive assessment of the patient
• The nature of the pain – severity, frequency, etiology, pathophysiology
Thank You

Questions?