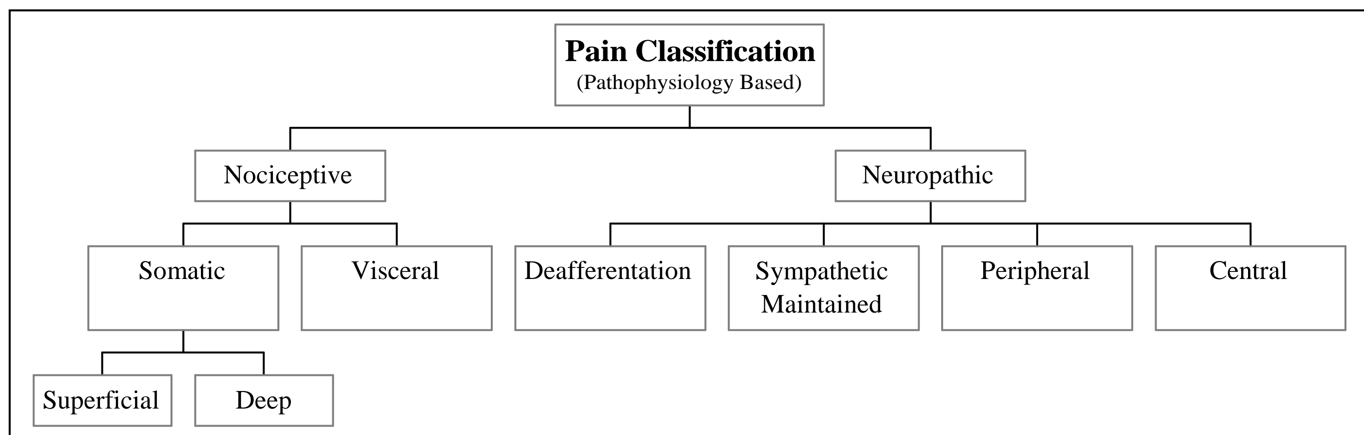
PAIN CARD



WHO 3- Step Ladder

- **Step 1 - mild pain** Non opioids +/- adjuvants
- **Step 2 - moderate pain** Weak opioids +/- non opioids +/- adjuvants
- **Step 3 - severe pain** Strong opioids +/- non opioids +/- adjuvants

Opioids - Pharmacokinetics

- **Cmax**: 1hr po, 20-30 min sc, 5-10 min iv ♥ determines breakthrough frequency
- **Half life**: 4hr po (both IR and SR), 3hr sc ♥ determines dosing interval of standing opioid
- **Steady state**: after 5 half lives ♥ determines when it is safe to make changes in dosing

Opioid Prescription: every opioid order has 4 parts:

1. **Opioid for continuous pain** – regular dosing
2. **Opioid for breakthrough pain** – prn dosing
3. **Laxative** – regular dosing
4. **Antiemetic** – prn dosing

Equianalgesic Table

	PO	SC/IV
Codeine	100 mg	---
Morphine	10 mg	5 mg
Oxycodone	5 mg	---
Hydromorphone	2 mg	1 mg

Transdermal Fentanyl

- to be used when patients cannot or will not take drug orally and have a **Consistent Opioid Dose Requirement** (i.e. relatively stable pain) – Not safe in opioid naïve patients
- it takes~17 (12-24) hrs to achieve clinically relevant serum level= **Does not permit rapid dose titration**
- same applies when a patch is removed: fentanyl stays in the body for another 12-24 hours
- steady-state serum levels are approached by the end of the second dose and remain stable
- equianalgesic conversions based on: Duragesic 25/hr ~ 45-135mg (50mg) po Morphine /24hrs
  *__helpful tip__: Duragesic 25mcg/hr ~ 25mg sc Morphine /24hrs

Opioid Titration

Regular dosing - for continuous pain:

- with IR oral preparations: dose q4h, adjust daily
- with SR oral preparations: dose q8, 12,24h, may adjust daily
- **in unstable pain**: use IR preparations, it gives you more flexibility

PRN dosing - for breakthrough pain:

- use IR preparations only
- initial dosing based on a percentage 10% of total daily opioid dose or 50% of q4h opioid dose
- thereafter titrate to effect

Breakthrough pain cannot be assessed in patients with uncontrolled pain!

Opioid Toxicity

- sedation, drowsiness, lethargy
- confusion, hallucinations, agitation
- myoclonus, seizures,
- respiratory rate decline

4 Frequent Causes:

- conversion mistakes
- opioid dose changes made too frequently within 5 half life periods
- decreased pain due to new adjuvant therapy, radiotherapy, chemotherapy…
- sepsis

Etiologies Mistaken for Opioid Toxicity:

- cancer progression
- metabolic abnormalities: hypercalcaemia, hyponatraemia, hyperglycaemia, etc.
- other drugs, other diseases

Opioid Side Effects

Common:

- constipation, dry mouth, nausea ♥, vomiting ♥, sedation ♥

Less common:

- confusion, hallucination, myoclonus, seizures, pruritus, urticaria

Very rare:

- respiratory depression ♥

♥ tolerance develops

Management of Opioid Side Effects

Four different approaches:

- dose reduction of systemic opioid
- symptomatic management of the side effect: Ritalin- sedation, Clonazepam- myoclonus, Haldol- hallucinations…
- opioid rotation: do not use Morphine in renal failure, refer for Methadone…
- switching route of systemic administration