Opioids (Not including Tramadol & Tapentadol)

Opioid toxicity produces CNS and respiratory depression. Respiratory failure may lead to death. Good supportive care (+/- naloxone) ensures survival.

Toxicity / Risk Assessment

Produce life-threatening ↓GCS, ↓respiration and apnoea

The duration of effect depends on:

- Tolerance, amount ingested, pharmacokinetics
- Short-acting opioids (usually last <6 hours)
- Long acting opioids (can last >12-24 hours)

↑ Toxicity in:

- Opioid naïve, CNS sedative co-ingestion, elderly
- Children: small amounts of methadone can cause death

Clinical features:

- Triad of ↓GCS, ↓respiration (↓RR and depth), miosis*

** Lack of miosis does not exclude opioid toxicity*

Other:

- Non-cardiogenic pulmonary oedema, aspiration pneumonitis
- Prolonged QT (methadone, oxycodone, loperamide)
- Serotonin toxicity (tramadol, oxycodone, pethidine)
- Dextropropoxyphene: seizures, Na^+ channel blockade
- Fentanyl: chest wall rigidity

Management: Attention to ABCs. Continuous SpO2 monitoring on **room air** to detect early resp depression

Decontamination: Offer activated charcoal to alert patients within 2 hours of ingestion of short-acting opioids, and within 4 hours of ingestion of long-acting opioids

Naloxone: If IV access unavailable, can be administered IM, IN, Neb, SC (see separate *Naloxone* guideline)

- Aim to restore respiration, without provoking withdrawal, and then observe for re-sedation
- Avoid in opioid-dependence unless not maintaining SpO2 (92%) on room air
- Avoid large naloxone boluses as can precipitate acute withdrawal

Dosing: place 400 mcg naloxone in 10 mL syringe and make up to 10 mL with N/saline (40 mcg per mL)

- Titrate IV every 60 seconds to response – 1 mL, 2 mL, 3 mL, 4 mL (40, 80, 120, 160 mcg)
- Further 200 mcg increments may be required up to a total dose of 2000 mcg (then consider other DDx)
- Paediatric naloxone dose – bolus 10 mcg/kg up to 400 mcg, repeat as required

Naloxone dose to restore respiration does NOT correlate with severity of intoxication

End point of Naloxone Rx: - Opioid-dependent – maintaining SpO2 (92%) on room air but not full reversal

- Non-opioid dependent – restoration of normal conscious state and respiratory function
- If re-sedates: - Administer total naloxone bolus dose required to initially restore respiration
  - Commence naloxone infusion at 2/3 of this dose per hour

Disposition: (DO NOT DISCHARGE AT NIGHT)

- Adult: observation for minimum of 4 hours (short-acting) / 8 hours (long-acting)
- Children: observation for minimum of 12 hours (short-acting) / 24 hours (long-acting)
- Observe ≥2 hours post IV naloxone bolus (4 hours for IM) & at least 4-6 hours post naloxone infusion