Tramadol and Tapentadol

The main feature of clinical toxicity is delayed-onset seizures. An opioid toxidrome may also occur (Tapentadol > Tramadol)

Toxicity / Risk Assessment

Tramadol (weak opioid + ↓ norepinephrine and serotonin reuptake)

- Adults: >2 g = significant risk of seizures (can occur at lower doses if predisposed to seizures)
- Children: >10 mg/kg = risk of CNS depression & seizures

Tapentadol (stronger opioid + ↓ norepinephrine reuptake)

- Toxic dose is poorly defined and children more susceptible

Clinical features: (delayed > 6 hours with SR preparations

- Nausea & vomiting are common
- Agitation and autonomic hyperactivity
- Seizures often delayed, may be >6 hours post-ingestion and up to 24 hours if SR preparation
- Opioid effects (CNS and respiratory depression) not prominent with tramadol unless high doses
- Opioid effects more common with tapentadol
- Serotonin toxicity (tramadol) is only expected with co- ingestion of other serotonergic agents or MAOI
- Tramadol can cause hypoglycaemia (rarely)

Management - Attention to ABC and termination of seizures is main priority

Decontamination:

Activated charcoal is not routinely indicated due to potential for seizures and CNS depression

May be considered in alert cooperative patient <2 hours post ingestion of > 2 g

Seizures

Benzodiazepines: Diazepam 5 mg IV every 5 minutes as necessary

Naloxone: Seizures are not responsive to naloxone, which may increase risk of further seizures

Agitation & Autonomic hyperactivity

Benzodiazepines*:* Diazepam 2.5-5 mg IV q10 minutes or 5-10 mg PO q30 minutes until sedated

CNS and Respiratory Depression

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

- Titrate IV q60 seconds to response – 1 mL, 2 mL, 3 mL, 4 mL (40, 80, 120, 160 mcg)
- Further increments of 200 mcg 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

Disposition

- Observe for at least 12 hours if immediate release preparation
- Observe for at least 24 hours if slow release preparation
- Do not discharge at night. Observe all patients until asymptomatic