

**Overdose causes cardiovascular and neurological toxicity within 1-3 hours of ingestion. Supra-therapeutic dosing can lead to cardiac arrhythmias.**

## Toxicity / Risk Assessment

*Clinical toxicity is possible if > 10 mg/kg is ingested*

*Severe toxicity is expected with doses > 30 mg/kg*

*Ingestion of > 5 g is likely to be fatal without intervention*

*Average dose in reported fatalities is 8 g*

### **Clinical features:**

Toxicity normally occurs within 1-3 hours of ingestion

Onset of toxicity may be precipitous, including arrest

**CVS** – hypotension, QRS & QT prolongation, ST depression,

U waves (hypo K<sup>+</sup>), AV block, ventricular arrhythmias

**Hypokalaemia** – intracellular shift (degree relates to severity of poisoning)

**Neurological** - visual disturbances, diplopia, photophobia,

CNS depression, seizures and coma can occur pre-arrest.

Blindness can occur, but resolves spontaneously

Myopathies and neuropathies have been reported

Deaths usually occur within 12 hours, but delayed deaths up to 48 hours has been reported after large ingestions

**Management** *Discuss ALL symptomatic patients and deliberate self-poisoning with a clinical toxicologist*

Resus area: clinical instability can occur rapidly. Consider intubation at the earliest sign of deterioration

**Decontamination:** Patients presenting within 2 hours of ingestion of:

> 10 mg/kg - administer 50 g (1 g/kg in children) of activated charcoal (AC) if airway protected

> 5 g - consider early intubation and administration of AC via naso-gastric tube

All intubated patients should be administered 50 g of activated charcoal via a naso-gastric tube

### **Hypokalaemia:**

Acute OD: Aim to maintain K conc. 3.0-3.5 mmol/L (do not overcorrect due to risk of rebound hyper K<sup>+</sup>)

Toxicity that occurs in the setting of therapeutic dosing related toxicity: maintain K<sup>+</sup> in high normal range

**Hypotension:** IV fluid 20 mL/kg. Adrenaline is the inotrope of choice (aim for a systolic BP > 90 mmHg)

*Patients may benefit from high dose diazepam combined with adrenaline (please discuss with toxicologist)*

### **Ventricular arrhythmias**

- QT prolongation - correct electrolyte abnormalities (see QT prolongation guideline)

- QRS prolongation - Na bicarbonate may be considered, but can exacerbate hypo K<sup>+</sup>

**Seizures:** treat with intravenous benzodiazepines (diazepam 5 mg)

**Haemodialysis:** there is no role for extracorporeal elimination techniques as chloroquine has a large VD

**Other:** Consider ECMO in patients with refractory shock

### **Disposition:**

- Patients with evidence of significant clinical toxicity should be admitted to a critical care area for 48 hrs

- Clinically well, asymptomatic 6 hrs post ingestion + normal ECG = clear for mental health assessment