

## Venlafaxine and desvenlafaxine overdose can cause life-threatening seizures and cardiovascular toxicity

### Toxicity / Risk Assessment

*Toxicity is dose-dependent and can be delayed up to 16 hours post ingestion (current formulations are extended release)*

#### Clinical features:

- **Seizures** (risk increases with greater ingested dose)
  - Likely in all ingestions >5 g venlafaxine
  - Can be delayed up to 16 hours post ingestion
  - Usually short duration and self-limiting
- **Serotonin toxicity:** increased risk with ingestions > 5 g or co-ingestion of other serotonergic agents  
e.g. SSRI, MAOIs, some TCAs
- **Cardiotoxicity** (rare unless ingestion >8 g)
  - **Left ventricular dysfunction** causing severe ↓BP, tachyarrhythmias (↑QT, ↑QRS)
- **Others:** ↑HR, mydriasis, sweating, agitation
- *Coma is **NOT** a feature of toxicity (consider other causes)*

**Desvenlafaxine:** the toxic dose is not known but appears to be less toxic than venlafaxine.

*In therapeutic dosing, 50 mg of desvenlafaxine is considered equivalent to 75mg of venlafaxine (factor of 2/3)*

### Management

Supportive care is the mainstay of management

Consider early intubation and ventilation in large ingestion (>8 g venlafaxine) to facilitate decontamination

#### **Decontamination:**

**Activated charcoal 50 g** should be given to alert and co-operative patients who have ingested >2 g up to 4 hours post ingestion

Consider **whole bowel irrigation** following large overdose (>8 g) (*Discuss with Clinical Toxicologist*)

#### Seizures

**Benzodiazepines:** Diazepam 5 mg IV every 5 minutes as necessary

#### Agitation & Autonomic hyperactivity

**Benzodiazepines:** Diazepam 2.5-5 mg IV 10 minutely PRN or 5-10 mg PO 30 minutely until sedated

**Serotonin Toxicity** – (*see separate serotonin toxicity guideline*)

#### Cardiotoxicity

- Inotropic support in ICU as required

#### **Disposition**

- Observe all patients who have ingested >1 g for a minimum of 16 hours
- Ingestion >5 g: observe with cardiac monitoring and IV access for 24 hours
- Ingestion >8 g: anticipate need for critical care bed admission