

Can cause prolonged and profound coma in overdose. Good supportive care in a critical care environment is the mainstay of management.

## Toxicity

*Toxicity varies between individuals considerably.*

*> 3 g can produce coma and life-threatening toxicity.*

### **Clinical features:**

- Rapid onset CNS & CVS depression within 1-2 hours
- Can be profound and prolonged (days)

#### ***Clinical toxicity can mimic brain death***

- Early deaths occur from respiratory arrest and CVS collapse
- CNS: coma, hypotonia, hyporeflexia, apnoea
- CVS: tachycardia, hypotension, shock, cardiac arrest
- Other: respiratory depression, hypothermia
- Complications: cerebral oedema, AKI, rhabdomyolysis

**Withdrawal:** May develop 48-72 hours after withholding phenobarbital and can present with delirium or seizures in patients using phenobarbital therapeutically

### **Investigations:**

*Measurement of phenobarbitone concentrations provide information regarding duration and severity of toxicity.*

## Management

Good supportive care is the cornerstone of management, and may be required for more than 7 days

Early intubation if significant CNS &/or CVS effects

### **Decontamination:**

MDAC via NGT after intubation increases elimination and may reduce length of coma

- refer to Activated Charcoal (multiple dose) guideline in enhanced elimination section

### **Hypotension**

- Fluid: initially load with 10-20 mL/kg IV crystalloid
- Echocardiography to characterise shock will guide inotrope / vasopressor use if required

### **Enhanced Elimination**

Urinary alkalinisation is NO LONGER considered effective and is not recommended

### **Extracorporeal elimination** (haemodialysis, haemoperfusion)

#### ***Indications: Discuss with a clinical toxicologist if considering***

- refractory hypotension
  - severe toxicity and MDAC not feasible or ineffective
  - phenobarbital concentration rising, despite MDAC, especially if > 80 mg/L (344 umol/L)
- Measurement of phenobarbital concentration must be undertaken prior to diagnosis of brain death

### **Disposition:**

- Can be discharged pending mental health assessment if asymptomatic at 6 hours post ingestion
- Advise patient not to drive for at least 72 hours post exposure