# Management of Snakebite Envenomation in Victoria



This guideline applies to defined snake bites from venomous snakes found in Victoria (Brown, Tiger and Red-Bellied Black snakes)

# **Toxicity / Risk Assessment**

Patients with no bite mark or no symptoms may be envenomed.

All SUSPECTED snake bite victims require admission for lab investigations/ neuro exam until a time point at least 12-hours post-bite.

Snakes causing human envenoming in Victoria: Tiger snake, Brown snake, Red-Bellied black snake.

# **Clinical features of envenoming:**

- Patients may be envenomed, but remain asymptomatic
- Early collapse (Brown snake), cardiac arrest
- None-specific: headache, nausea, vomiting, abdominal pain
- Neurotoxicity: ptosis, diplopia/ophthalmoplegia, respiratory or distal limb paralysis, seizures
- Coagulopathy: bleeding from bite site, venipuncture, gums, epistaxis, ICH
- a) Venom Induced Consumptive Coagulopathy (VICC): INR > 1.3,
  - ↓ fibrinogen, elevated d-dimer
- b) Anticoagulant coagulopathy (Black snake): raised APTT
- TMA (thrombotic microangiopathy): renal impairment, ↓ Hb, ↓ platelet
- Musculoskeletal: local pain (Black snake), rhabdomyolysis, myoglobinuria
  (can be delayed)

#### TREAT AS ENVENOMED IF:

- 1. Clinical evidence
  - Collapse
  - Loss of consciousness
  - Cardiac arrest
  - Seizure
- 2. Laboratory evidence
  - Coagulopathy
    - o INR >1.3
    - Persistent bleeding from venipuncture sites / wounds

## POSSIBLE ENVENOMATION

(Discuss with a clinical toxicologist)

- Significant symptoms
  - Ongoing headache
  - Persistent vomiting
- Patient systemically unwell
- Any abnormality of:
  - o INR, APTT, fibrinogen
  - o D Dimer
  - o FBC
  - o CK

- RESUSCITATE
- Discuss with a clinical toxicologist
- Administer antivenom in a critical care area with monitoring and equipment to treat anaphylaxis
- Antivenom administration: dilute 1 vial of Tiger Snake AV and 1 vial of Brown Snake AV in 100-500 mL of sodium chloride 0.9% and infuse over 15-30 minutes
- Remove pressure bandage after AV has been administered
- Monitor and manage any complications (haemorrhage, renal failure, TMA)
- Repeat bloods (FBC, electrolytes, renal function, blood film, coagulation) 6+ 12 hours post AV
- Coagulopathy is unlikely to start to resolve within first 12 hours of bite
- Continued coagulopathy is not an indication for additional administration of antivenom

### CRITERIA FOR DISCHARGE

VICC resolving AND any myotoxicity / neurotoxicity mild and resolving
 Warn patient of risk of serum sickness occurring 4-14 days post AV (fever, arthralgia, myalgia, rash)
 Serum sickness can be treated using 50 mg oral prednisolone daily for five days