

**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 and/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
- **Non-specific:** headache, nausea, vomiting, abdominal pain
- **Neurotoxicity** (typically a descending paralysis): 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, ↓ platelets
- **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
    - 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:
  - INR, APTT, fibrinogen
  - D Dimer
  - FBC
  - CK

If wound present, consider tetanus status and manage as per standard protocols

- **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, coagulation profile) 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