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All feedback and suggestions are welcome. Please forward to: Clinical.Guidelines@ambulance.qld.gov.au

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Marine envenomation can result from stings due to superficial contact or penetrating injuries from spiny marine creatures.

**Stings:**
- Box Jellyfish
- Irukandji
- Blue Bottle and minor Jellyfish
- Blue ringed octopus

**Penetrating injuries:**
- Venomous fish
- Stingray
- Sea Urchin

### Clinical features

#### Box jellyfish:
- Severe localised pain
- Adherent tentacles and associated lesions
- Cardiovascular collapse can occur, typically within 20 to 30 minutes of a sting which can be life threatening if ACLS is not instituted

#### Irukandji:
- The sting initially appears to be minor with delayed onset of pain
- The sting is associated with a release of endogenous catecholamines leading to sympathomimetic toxicity
- Onset of systemic symptoms appear approximately 30 minutes following a sting with generalised pain, agitation, vomiting and diaphoresis
- ECG changes can occur, which reflect myocardial injury

#### Clinical features

**Blue bottle and minor jellyfish:**
- Immediate localised pain lasting 1–2 hours with associated linear eruptions
- Mild systemic features – nausea, vomiting, malaise – occur uncommonly

**Blue-ringed octopus:**
- Saliva contains tetrodotoxin which is injected with a bite
- Most bites occur when the octopus is handled
- Causes rapid onset of generalised paralysis requiring ventilation

**Penetrating injuries:**
- Venomous fish have venomous spines which penetrate the skin and injects a painful venom into the wound. Localised oedema is common
- Larger animals, like sting-rays, can cause significant penetrating trauma

### Additional information
- The effectiveness of Box jellyfish antivenom has not been proven. Its administration should not detract from good resuscitation.
Suspected envenomation

Suspected box jellyfish envenomation?

Shock or cardio-respiratory arrest?

Manage as per appropriate CPG:
- CPG: Resuscitation – Adult
- CPG: Resuscitation – Paediatric

Consider:
- Copious flushing with vinegar
- Remove tentacles

Consider:
- Analgesia
- Box jellyfish antivenom
- Magnesium sulphate

Consider:
- Copious flushing with vinegar
- Remove tentacles

Consider:
- Analgesia
- Magnesium sulphate
- GTN (if systolic BP ≥ 160 mmHg)

Suspected irukandji?

Suspected bluebottle or minor jellyfish?

Suspected blue-ringed octopus?

Transport to hospital
Pre-notify as appropriate

Note: Clinicians are only to perform procedures for which they have received specific training and authorisation by the QAS.
Penetrating marine injury

CPG: Clinician safety
CPG: Standard cares

Significant penetrating marine injury with haemorrhage?

Y

Manage as per:
CPG: Haemorrhage control

N

Significant pain?

Y

Consider:
Hot water immersion

N

Transport to hospital
Pre-notify as appropriate

Note: Clinicians are only to perform procedures for which they have received specific training and authorisation by the QAS.