



# Clinical Practice Guidelines: Trauma/Electric shock

<b>Policy code</b>	CPG_TR_ELS_0326
<b>Date</b>	March, 2026
<b>Purpose</b>	To ensure a consistent approach to the management of a patient with electric shock.
<b>Scope</b>	Applies to Queensland Ambulance Service (QAS) clinical staff.
<b>Health care setting</b>	Pre-hospital assessment and treatment.
<b>Population</b>	Applies to all ages unless stated otherwise.
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All **electric shocks** (including lightning strike) should be managed as per this CPG.

The extent of injury following electric shock depends on (i) the amount of current that passes through the body, (ii) the duration of the current, and (iii) the tissues traversed by the current.<sup>[1]</sup>

Visible injury is not an indicator of severity. There may be serious internal injury to nerves and vessels as they offer little resistance to electrical energy.<sup>[2]</sup>

## Clinical features



**Electric shock can result in the following:**<sup>[3]</sup>

- Neurological injury:
  - ALOC
  - seizures
  - amnesia
  - dysphasia
  - motor dysfunction
  - spinal cord damage
- Respiratory arrest or dysfunction
- Cardiac arrest or dysfunction:
  - dysrhythmia
  - palpitations
  - myocardial damage
- Pain (including chest pain or tightness)
- Vascular damage
- Renal failure

## Clinical features (cont.)



- Trauma:
  - burns
  - fractures
  - entry and exit wounds
  - secondary injuries due to falls
  - compartment syndrome

## Risk assessment



- Safety is paramount.<sup>[1]</sup>
- The patient must not be approached until the scene is declared safe by appropriate agency/organisation or personnel.

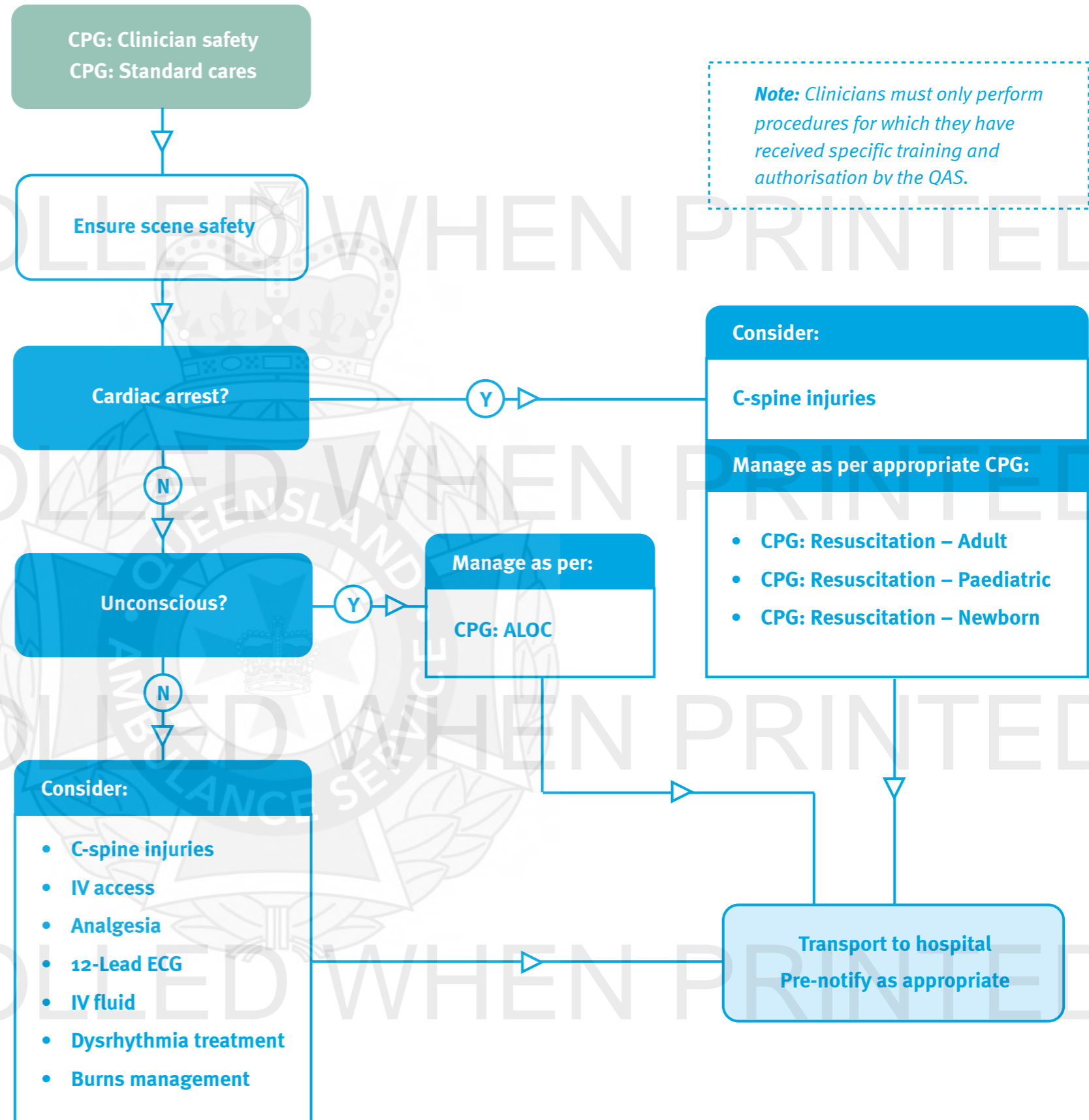


## Additional information

- Lightning strikes may cause respiratory and cardiac arrest (usually asystole) with fixed dilated pupils. Despite this, resuscitation should be initiated, as it is often successful.
- Lightning strike has a mortality rate of 40%.<sup>[4]</sup>

**+ Additional information (cont.)**

- If ANY of the following criteria is met, patients should be transported to a dedicated burns unit:
  - Full thickness burns > 5%.
  - Partial thickness burns:
    - > 10% in children or adults > 50 years of age
    - > 20% in all other patients
  - High voltage electrical burns.
  - Burns with suspected inhalation injury.
  - Any burn resulting from suspected non-accidental injury or domestic and family violence.



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

**Consider:**

C-spine injuries

**Manage as per appropriate CPG:**

- CPG: Resuscitation – Adult
- CPG: Resuscitation – Paediatric
- CPG: Resuscitation – Newborn

**Consider:**

- C-spine injuries
- IV access
- Analgesia
- 12-Lead ECG
- IV fluid
- Dysrhythmia treatment
- Burns management