



Clinical Practice Guidelines: Trauma/Electric shock

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Date	February, 2015
Purpose	To ensure a consistent approach to the management of a patient with electric shock.
Scope	Applies to Queensland Ambulance Service (QAS) clinical staff.
Health care setting	Pre-hospital assessment and treatment.
Population	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.^[1]

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.^[2]

Clinical features



Electric shock can result in the following:^[3]

- 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

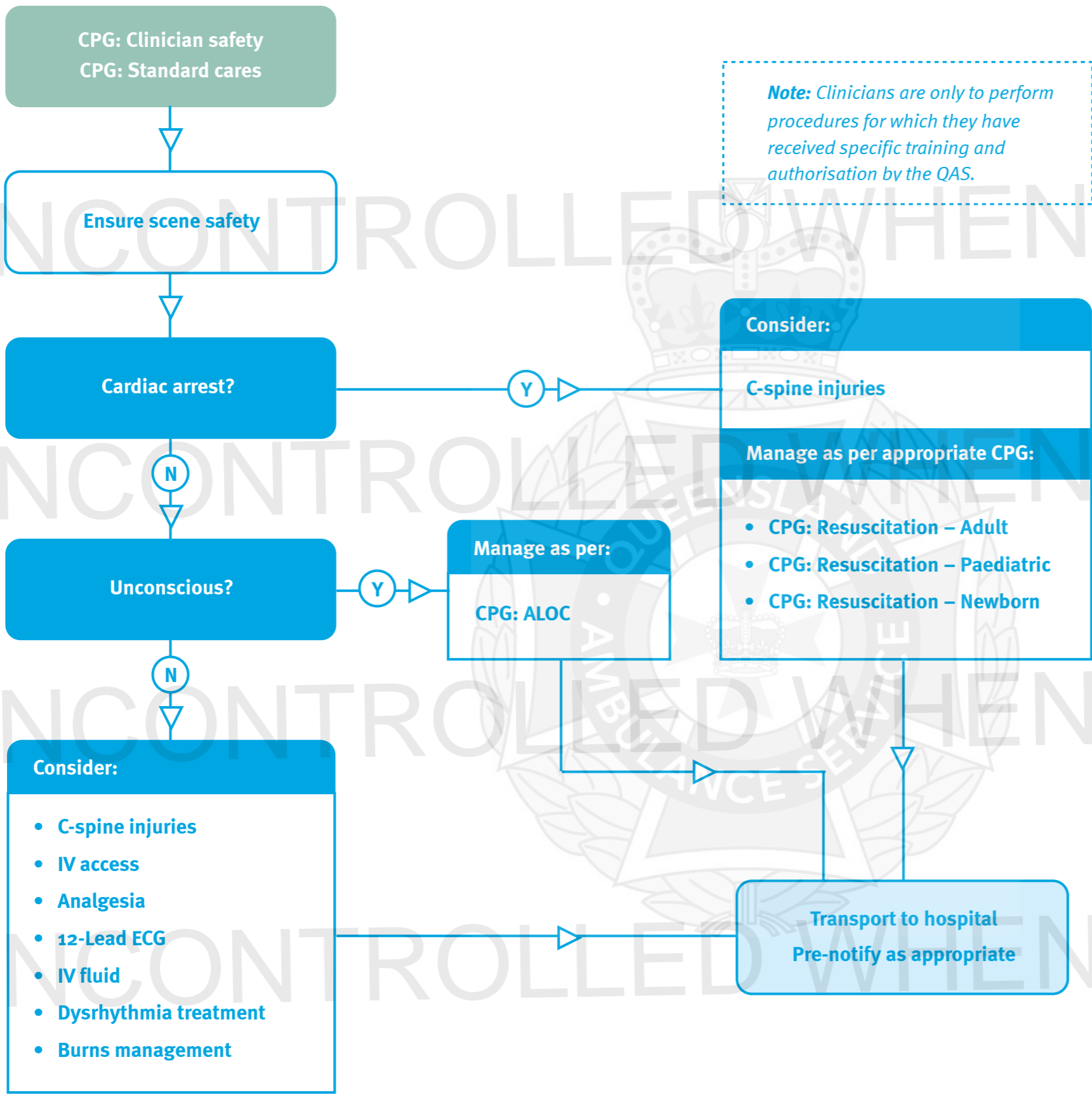


- Safety is paramount.^[1]
- The patient must not be approached until the scene is declared safe by appropriate agency/organisation or personnel.



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%.^[4]



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

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