Clinical Practice Guidelines: Neurological/Altered level of consciousness

<table>
<thead>
<tr>
<th>Policy code</th>
<th>CPG_NE_ALC_0221</th>
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<tbody>
<tr>
<td>Date</td>
<td>February, 2021</td>
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<tr>
<td>Purpose</td>
<td>To ensure consistent management of patients with an altered level of consciousness.</td>
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<td>Scope</td>
<td>Applies to Queensland Ambulance Service (QAS) clinical staff.</td>
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<tr>
<td>Health care setting</td>
<td>Pre-hospital assessment and treatment.</td>
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<tr>
<td>Population</td>
<td>Applies to all ages unless stated otherwise.</td>
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<tr>
<td>Source of funding</td>
<td>Internal – 100%</td>
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Altered level of consciousness (ALOC) is a subjective term often associated with conditions resulting from:

- Inadequate brain (cerebral) perfusion AND/OR
- Hypoxia or increased carbon dioxide levels AND/OR
- Metabolic disturbances AND/OR
- Drugs or toxins AND/OR
- Primary CNS disorder.

The differential diagnosis for ALOC is broad. However to assist with diagnosis, it can be classified into two (2) main categories:

**Intracranial pathology:**
- CVA, subarachnoid haemorrhage, intracerebral haemorrhage, diffuse axonal injury, meningitis/encephalitis, post-ictal/status epilepticus, space-occupying injury.

**Extra-cranial pathology:**
- **Cardiovascular system:** arrhythmia
- **Metabolic:** hyper/hypoglycaemia, hepatic or renal failure, disorders of electrolytes (specifically sodium, potassium, magnesium and calcium)
- **Endocrine:** thyroid or pituitary disorders
- **Toxins:** sedative/hypnotics, ETOH, TCAs, anticonvulsants, opiates
- **Other:** hyper/hypothermia, hypoxia/hypercarbia, infection, factitious, psychiatric \[1,2\]

### Clinical features

- Unable to arouse and respond appropriately to stimuli from the environment
- Confused (e.g. disorientated, impaired thinking and response)
- Delirious (e.g. disorientated, restlessness, hallucinations, sometimes delusions)
- Somnolent (e.g. sleepy)
- Obtunded (e.g. decreased alertness; slowed psychomotor responses)
- Stuporous (e.g. sleep like state with little or no spontaneous activity)
- Comatose (e.g. unable to rouse, no response to stimuli).

### Risk assessment

- Nil in this setting
Additional information

- ALOC may fluctuate with time and response to treatment.
- Consider the patient’s normal level of consciousness (e.g. patients with dementia, acquired brain injury, developmental delay).

Consider:

- Oxygen
- IPPV
- Identify and treat reversible causes:
  - arrhythmia
  - hypoperfusion
  - hypoxia
  - hypo/hyperglycaemia
  - toxin
  - hypo/hyperthermia
  - CVA/TIA

Transport to hospital
Pre-notify as appropriate

Manage as appropriate CPG:

- CPG: Resuscitation – Adult
- CPG: Resuscitation – Paediatric
- CPG: Resuscitation – Newly born

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