



# Clinical Practice Guidelines: Neurological/Altered level of consciousness

<b>Policy code</b>	CPG_NE_ALC_0221
<b>Date</b>	February, 2021
<b>Purpose</b>	To ensure consistent management of patients with an altered level of consciousness.
<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.
<b>Source of funding</b>	Internal – 100%
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<b>Review date</b>	February, 2024
<b>Information security</b>	UNCLASSIFIED – Queensland Government Information Security Classification Framework.
<b>URL</b>	<a href="https://ambulance.qld.gov.au/clinical.html">https://ambulance.qld.gov.au/clinical.html</a>

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# Altered level of consciousness

February, 2021

**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).

CPG: Clinician safety  
CPG: Standard cares

Signs of life?

Manage as appropriate CPG:

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

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

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