

PRE-HOSPITAL GUIDELINE: Illicit Substance-Induced Decreased Level of Consciousness



Decreased Level of Consciousness (LOC) is caused by global depression of the brain's reticular system and may be a consequence of almost any drug or toxin. In patients with a recent history of illicit substance use, decreased LOC can be a result of direct central nervous system (CNS) toxicity (eg. alcohols, sedative-hypnotic agents, narcotics, mushrooms, serotonin syndrome), secondary metabolic or CNS toxicity (eg. seizures/post-ictal, hypoxaemia, hyponatraemia, hypoglycaemia) or non-toxicological issues (eg. head injury, trauma).

Coma or stupor may be preceded by drowsiness, yawning, dizziness, sweating, pallor, blurred vision, nausea or confusion.

Airway and respiratory compromise is the most emergent consequence of decreased LOC, however other complications such as hypotension and hypo- or hyperthermia must also be anticipated and addressed.

Pre-Hospital Approach to Decreased Level of Consciousness

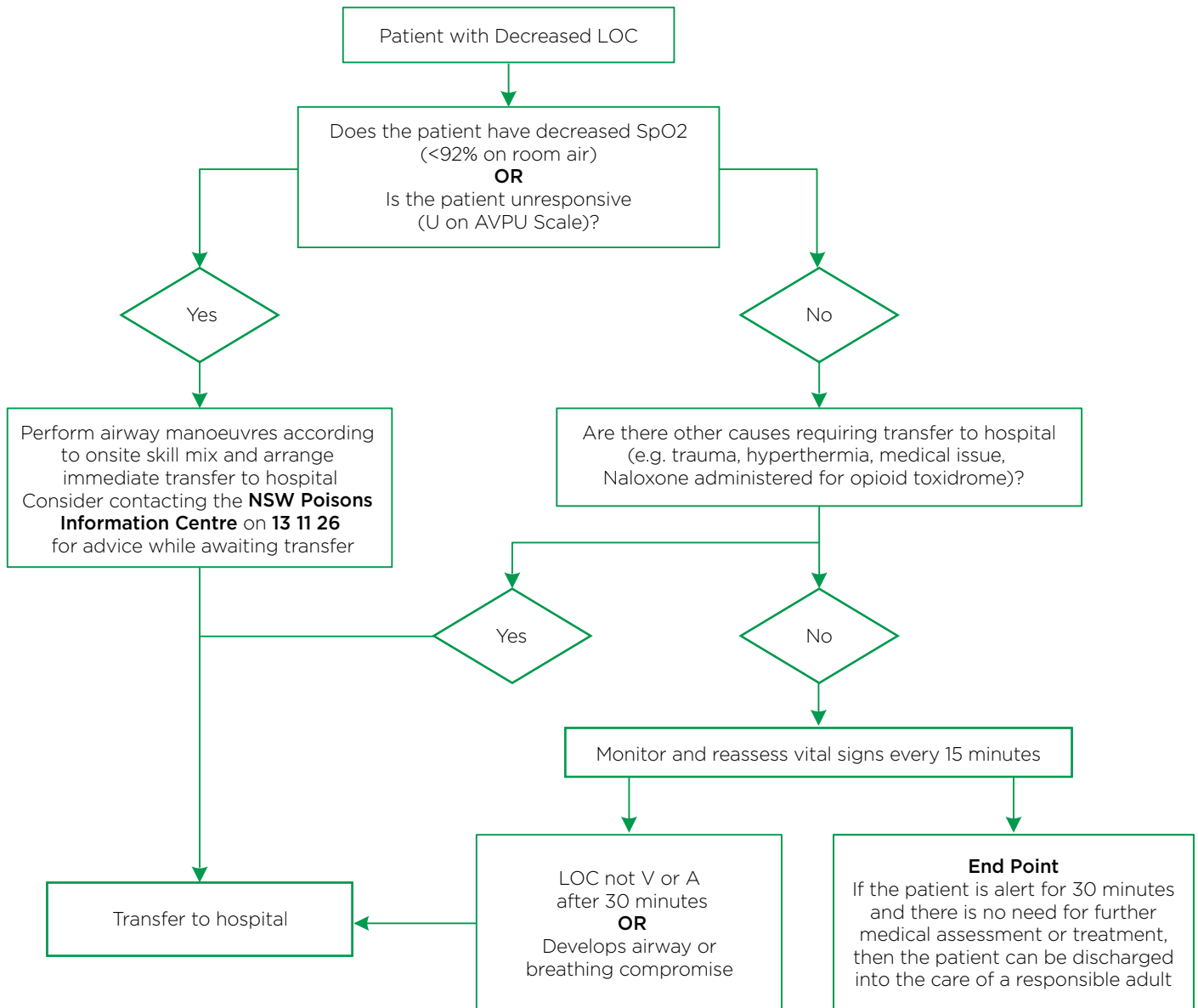
1. Ascertain LOC using the AVPU scale and clear, simple instructions eg. "squeeze my hand", "open your eyes". If the person is not alert, place them in the recovery position, clear the airway and call for help.
2. Primary survey and initial observations. Hyperthermia can rapidly progress to a life-threatening situation. *Please refer to Hyperthermia Guideline.*
3. Evidence of a rapidly decreasing LOC is a flag for a time-critical patient. Minimise scene time and transport urgently to hospital.
4. Monitor and reassess: all patients with decreased LOC require continuous oxygen saturation monitoring and vital signs (heart rate, blood pressure, respiratory rate and temperature) every 15 minutes.
5. Obtain a brief history if possible (eg. AMPLE); Check medi-alert bracelets; Pills/substances/medicines on person; Signs of injury or focal neurology.
6. Clearly document all relevant history, observations, examination and interventions to facilitate rapid handover at receiving hospital.
7. Consider cause:
 - There are many potential causes of a decreased LOC. Very few can be diagnosed in the pre-hospital environment. In addition to effects secondary to illicit substance use there can be concurrent organic pathology. The mnemonic "AEIOU TIPS" can help clinicians to identify possible causes:

A - alcohol, acidosis	T - trauma, toxin
E - epilepsy, electrolytes, environment	I - infection
I - insulin (i.e. hypo- or hyperglycaemia)	P - psychogenic, poison, pharmacological
O - overdose, oxygen (hypoxia)	S - seizures, syncope, stroke, shock
U - uraemia, underdose	

8. Focussed management:
 - If able to clearly identify a toxidrome, the clinician may be able to initiate focussed management. Toxidromes with reduced levels of consciousness:

Vitals	Pupils	Other	Cause	Pre-Hospital Antidotes
Hypothermia, ↓BP, ↓RR, airway compromise	Small	Hyporeflexia	Opioids/ Narcotics eg. Heroin	Naloxone
Hypothermia, ↓HR, ↓RR, airway compromise	Normal or small	Hyporeflexia, consciousness may fluctuate	Hypnotics, sedatives eg benzodiazepines, alcohol, GHB	Nil
Hyperthermia, ↑HR, ↑BP, ↑RR	Large	Tremor, clonus, diaphoresis, hyperreflexia, rigidity	Serotonin syndrome	Nil - Commence treatment as per hyperthermia guidelines.

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