



Clinical Practice Procedures: Other/Sedation – procedural

Policy code	CPP_OT_SP_0416
Date	April, 2016
Purpose	To ensure a consistent procedural approach to sedation – procedural.
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.
Source of funding	Internal – 100%
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Review date	April, 2019
Information security	UNCLASSIFIED – Queensland Government Information Security Classification Framework.
URL	https://ambulance.qld.gov.au/clinical.html

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Sedation – procedural

April, 2016

Sedation refers to an individual having a reduced awareness of their environment and/or a decreased level of consciousness, which has been drug-induced. It can be classified into the following levels:^[1]

- **Minimal sedation:** anxiolysis only with no depression of consciousness level
- **Moderate sedation:** a depressed level of consciousness with a purposeful response to verbal commands or light touch
- **Deep sedation:** a depressed level of consciousness with a purposeful response only to intense painful stimuli. This level of sedation may depress airway reflexes and produce respiratory depression.
- **General anaesthesia:** unconscious and has no purposeful response to stimulation; airway and cardiorespiratory function may become profoundly depressed.

Generally, moderate sedation will be optimal in most situations.

Deep sedation is to be avoided as it is unnecessary in the pre-hospital environment. Most, if not all, patients in the pre-hospital setting are not fasted and are therefore at a greater risk of aspiration.

Indications

- Patients with trauma requiring fracture reduction, splinting or extrication who are distressed and agitated by pain despite appropriate narcotic analgesia
- Procedures (e.g. TCP or cardioversion)
- Ketamine disinhibition, or emergence
- Maintenance of an established ETT.

Contraindications

- Patients with current airway compromise where securing the airway will be difficult
- Facilitation of tracheal intubation

Complications

The induction of sedation by the clinician requires **CAREFUL ATTENTION** to all aspects of risk assessment and close adherence to accepted clinical guidelines.

The risks associated with sedation include:^[2,3]

- Potential for unintentional loss of consciousness
- Depressed airway reflexes
- Depressed respiration
- Unpredictable responses due to drug effects and/or interactions
- Depressed cardiovascular system
- Inadequate analgesia
- Individual variations in responses and dosage requirements

Procedure – Sedation – procedural

1. Obtain a detailed history with particular attention to:
 - co-morbidities
 - previous anaesthetics
 - current medications
 - fasting status
 - drug use
 - drug allergies
2. The patient should be thoroughly examined, especially focusing on:
 - vital signs
 - mental status
 - cardio-respiratory assessment
3. Eliminate other factors that precipitate the need for sedation, such as:
 - hypoglycaemia
 - negotiation or conflict resolution
 - basic pain relief measures
4. Prior to, or as soon as practical after sedation, patients are to have the following vital signs monitored continuously AND recorded on the eARF:
 - SpO₂
 - EtCO₂
 - BP
 - ECG

5. Assess the patient's airway and ventilation:^[2]
 - An attempt should be made to assess the patient's airway to establish the difficulty of obtaining and maintaining a patent airway should this be required.
 - Assess whether the patient can be ventilated should this be required following sedation.
6. Assess and ensure adequacy of breathing and perfusion.
7. Obtain IV access. If this cannot be established due to severe agitation, then consideration may be given to the IM route where indicated in the relevant DTP, until a level of sedation is achieved that will permit safe intravenous access.
8. Carry out sedation as per relevant indication and DTP.
9. All patients who are sedated are to be managed in the lateral position unless an alternative position is required for the performance of a procedure, or they are intubated.

Additional information

- Airway control and ventilation status is paramount with all sedative procedures and should remain the responsibility of the treating CCP.

Ketamine disinhibition:^[4]

- A small number of patients will develop a disinhibited state, due to marked changes in perception secondary to dissociation. This must not be confused with the transient hypertonicity and nystagmus that occurs with administration of ketamine.
- Initial management of the disinhibition should be reassurance and calming words to the patient. An attempt to reduce external stimulation should be made until the correct level of sedation is achieved. Failing this, administration of midazolam should be undertaken.
- Further ketamine administration is authorised once the patient's state has settled.

+ Additional information

Ketamine emergence:

- Approximately 5–10 per cent of patients administered ketamine will be affected by emergence. In the majority of patients the symptoms will be mild.^[5]
- The effects of emergence can be mitigated by a quiet calm environment with reduced light. This requires the patients to be very closely monitored, especially for EtCO₂ – which will provide objective evidence of breathing patterns and pre-empt any reduction in oxygen saturation. For patients with more significant emergence symptoms, the use of small doses of midazolam may be required. There is no role for prophylactic midazolam use in QAS practice.