Clinical Practice Procedures: Behavioural disturbances/ Emergency sedation – acute behavioural disturbance

Policy code	CPP_BD_ESAB_0325
Date	March, 2025
Purpose	To ensure a consistent procedural approach to emergency sedation – acute behavioural disturbance.
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%
Author	Clinical Quality & Patient Safety Unit, QAS
Review date	March, 2028
Information security	UNCLASSIFIED – Queensland Government Information Security Classification Framework.
URL	https://ambulance.qld.gov.au/clinical.html

While the QAS has attempted to contact all copyright owners, this has not always been possible. The QAS would welcome notification from any copyright holder who has been omitted or incorrectly acknowledged.

All feedback and suggestions are welcome. Please forward to: Clinical.Guidelines@ambulance.qld.gov.au

Disclaimer

The Digital Clinical Practice Manual is expressly intended for use by appropriately qualified QAS clinicians when performing duties and delivering ambulance services for, and on behalf of, the QAS.

The QAS disclaims, to the maximum extent permitted by law, all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs incurred for any reason associated with the use of this manual, including the materials within or referred to throughout this document being in any way inaccurate, out of context, incomplete or unavailable.

Emergency sedation – acute behavioural disturbance

March, 2025

This Clinical Practice Procedure (CPP) provides directions for ambulance clinicians regarding the administration of emergency sedation, and subsequent management of patients with acute behavioural disturbance (ABD) in circumstances where emergency sedation is required. This CPP applies to children, young people (under 18 years of age), and adults, including those over 65 years of age. Ambulance clinicians must, however, refer to the relevant Drug Therapy Protocol (DTP) for age specific directions.

This CPP must be read in conjunction with *CPP: Behavioural disturbance/Acute Behavioural Disturbance*, and the relevant DTP that may apply in circumstances involving emergency sedation: *DTP: Droperidol*, *DTP: Midazolam*, and/or *DTP: Ketamine*.

Emergency sedation involves the administration of a pharmacological agent(s) to induce a state of calm. The three pharmacological agents (sedation medication) that are approved for use by QAS ambulance clinicians for the management of ABD, are:

- Droperidol: This is the first drug of choice, subject to contraindications and directions. It can be administered by Critical Care Paramedics (CCPs) and Advanced Care Paramedics Level 2 (ACP2s);
- Ketamine: Subject to contraindications and directions, and can be administered by CCPs only; and
- Midazolam: Subject to contraindications and directions, and can be administered by CCPs and ACP2s.

Olanzapine is an antipsychotic currently being piloted by QAS ambulance clinicians within the Metro South and Gold Coast Regions. It is indicated for acute behavioural disturbance (SAT +1) however, it is not considered appropriate for patients who require emergency sedation.

The QAS ABD Sedation Team

The administration of emergency sedation requires a ***QAS ABD sedation team*** to be present and directly involved with the administration of the sedation medication, and the continual monitoring of the patient following sedation. The team MUST consist of at least TWO (2) QAS ambulance clinicians, including a designated Sedation Supervisor and a Sedation Assistant.

The ***Sedation Supervisor*** must assume overall responsibility for patient management during emergency sedation. This role must be performed by the most clinically senior ambulance clinician available at the scene. The Sedation Supervisor is responsible for the completion of the ***ABD Sedation Checklist*** and the ***pre-sedation team briefing***.

The ***Sedation Assistant*** is responsible for the ***administration of the sedation medication*** and the ***continual monitoring of the patient*** both prior to, and post sedation, with particular emphasis on the patient's airway, breathing and circulation.

Note: *For cases where two QAS ambulance clinicians are not available at the scene, e.g. a single officer response where timely backup is not available, the officer must contact the QAS Clinical Consultation and Advice Line for further case specific management guidance, before commencing any patient sedation procedure.*

Risks associated with emergency sedation

There are several possible causes of ABD, and in some cases, these can be multifactorial. Determining the underlying cause(s) will provide direction regarding how best to support the patient and guide the most appropriate care.[2]

Ambulance clinicians must be cognisant of the potential for heightened risks associated with the administration of emergency sedation in specific cases, notably:

- patients presenting with ABD due to the use of, or withdrawal from, psychostimulants and/or alcohol;[3]

- patients suffering from medical conditions such as cardiovascular, renal, respiratory, neurological, neuromuscular, and neurodegenerative conditions (refer to contraindications listed in the DTP for each of the three sedation medications referred to above);[4,5] and
- where the patient's prescribed medication(s) may interact with the sedation medication.

Indications

Acute behavioural disturbance in which the following applies:

- Patient SAT Score of two (2) or greater; **and**
- The patient's behaviour indicates imminent risk of serious harm to themselves and/or others; **and**
- Verbal de-escalation has been attempted by a QAS clinician and has failed to calm the patient and reduce the risk of harm.

Contraindications

- Where the patient is suffering or suspected to be suffering from ***haemodynamic instability*** evidenced by one or more of the following: **hypotension, arrhythmias, shortness of breath, decreased peripheral perfusion, cyanosis**.
- The patient is suffering from a ***compromised airway*** or, where securing the airway would be difficult.
- Contraindications listed in the DTP, specific to each sedation medication that is to be administered.

Complications

The potential risks associated with the administration of sedation medication include:

- Patient loss of consciousness
- Respiratory depression – particularly when associated with other Central Nervous System (CNS) depressants such as alcohol or narcotics
- Depressed cardiovascular system – hypotension, bradycardia
- Unpredictable responses related to the interaction of the sedation medication with other medications or substances (prescribed and unprescribed) that the patient may have taken
- Variation in individual patient responses to the dosage(s) that are recommended and administered.

PROCEDURE

1. **If a patient is being physically restrained, request CCP backup code 1 (if available)**

   For all patients being physically restrained, ACP2s should request CCP backup code 1. If a CCP is not available, officers must immediately contact the *QAS Clinical Consultation and Advice Line* for case specific management advice.

2. **Assemble team members** to assist with/facilitate the administration of emergency sedation and, if required, physical restraint of the patient during the procedure.

3. **Assign team roles:**

   - **Sedation Supervisor:** assumes overall responsibility for patient management during sedation. This role must be performed by the most clinically senior ambulance clinician available at the scene. The Sedation Supervisor is responsible for the completion of the ***ABD Sedation Checklist*** and the ***pre-sedation team briefing***.

- **Sedation Assistant:** responsible for the ***administration of the sedation medication*** and the ***continual monitoring of the patient*** both prior to, and post sedation, with particular emphasis on airway, breathing and circulation.
- **Additional personnel:** If ***patient restraint*** is required, assemble up to ***four personnel*** (including QPS officers if present), each to restrain a patient's limb.

4. **Review the DTP** for the sedation medication that is to be administered. Ensure all contraindications have been excluded.
   - Unless contraindicated, droperidol is the first medication of choice for authorised ambulance clinicians (CCPs and ACP2).
   - If droperidol fails to achieve adequate sedation/state of calm after 15 minutes, a second dose of droperidol may be administered.
   - If the second dose of droperidol fails to achieve adequate sedation/ state of calm after 15 minutes:
     - ACP2: contact the *QAS Clinical Consultation and Advice Line* to discuss case specific management options, including the possibility of administering midazolam.
     - CCP: contact the *QAS Clinical Consultation and Advice Line* to discuss case specific management options, including the possibility of administering ketamine.
5. **Clinical Consultation** is required in the circumstances that have been specified above, and in the following circumstances:
   - ACP2: where the patient is less than 16 OR greater than 65 years of age
   - CCP: where the patient is less than 16 years of age
   - All Clinicians: where the patient requires sedation to manage an ABD and the ambulance clinician suspects the patient is suffering from sepsis or is hemodynamically compromised.
6. **Obtain a baseline vital signs survey** (if it is safe to do so) including blood glucose level, heart rate, respiratory rate, and non-invasive blood pressure. In circumstances where this is not possible, conduct a thorough visual examination of the patient.
7. **Complete the ABD Pre Sedation Checks** as set out below. **NOTE:** this is a ***mandatory*** requirement prior to ***each administration*** of a sedation medication.

PRE SEDATION CHECKS

(i) Appropriate QAS and QPS resources are available

(ii) ABD Sedation Teams roles have been allocated

a. Sedation Supervisor

b. Sedation Assistant

c. Additional personnel as required

(iii) Sedation medication DTP has been reviewed and contraindications excluded

(iv) Requirement for Clinical Consultation has been considered and actioned (see no. 4 above)

(v) An ambulance clinician is positioned at the patient's head to monitor the patient's airway and continually observe the patient's physical condition

(vi) Defibrillator pads or ECG electrodes have been applied to the patient (front or back) to continuously monitor the patient's ECG

(vii) Resuscitation equipment is immediately available

a. Bag Valve Mask with adequately inflated face mask

b. Airway suction apparatus

c. Corpuls3 monitor/defibrillator

d. Airway kit

(viii) All sedation team members (including QPS officers) have been briefed.

8. **Administer the sedation medication** in accordance with the relevant DTP.
9. **Apply SpO2 monitoring** to the patient at the earliest opportunity.
10. **Apply post sedation measures** as set out below.

POST SEDATION MEASURES

1. Position the patient in the lateral position, or other appropriate position, ensuring the patient's face can be viewed and their airway can be maintained, and vital signs can be monitored.
2. The ambulance clinician MUST maintain a clear view of the patient's face at all times. Placing any form of dovering over the patient's face, other than an oxygen mask for the treatment of hypoxia, is prohibited. For example, covering the patient's face to prevent them from spitting is unacceptable.
3. Record the patient's SAT Score and vital signs at five-minute intervals post administration of sedation medication.
4. If the patient's SAT Score is less than zero (0), nasal prong EtCO2 should be applied if tolerated.
5. Remove patient restraints (physical or mechanical) as soon as it is safe to do so.
6. Notify the receiving hospital at the earliest opportunity.

Additional information

- Droperidol is the first line ABD sedative used by QAS ambulance clinicians. When compared to midazolam, droperidol is associated with fewer adverse events, a shorter time to sedation and fewer requirements for additional sedation administrations.[6]
- Generally, moderate sedation will be optimal in most situations. Deep sedation must be avoided as it is unnecessary in the pre-hospital environment. Patients in the pre-hospital setting are less likely to be fasted and therefore have a greater risk of aspiration.

Additional information *(cont.)*

- Ketamine is the preferred second line sedative for the rare occurrence when 2 administrations of droperidol fails to achieve the desired sedation effect.
- Where a second dose of droperidol has been administered by an ACP2, a CCP (where available) must be requested. The responding CCP may be cancelled if the second dose of droperidol achieves the desired sedation effect.

Acute Behavioural Disturbance Sedation Checklist

INDICATIONS

- Acute behavioural disturbance in which the following is present:
  - SAT Score of two (2) or greater; **and**
  - The patient's behaviour indicates imminent risk of serious harm to themselves and/or others; **and**
  - Verbal de-escalation has been attempted by a QAS clinician and has failed to calm the patient and reduce the risk of harm.

Pre sedation checks

1. Appropriate QAS and QPS resources available?
2. ABD Sedation Team roles have been allocated?
   - Sedation supervisor
   - Sedation assistant
   - Additional personnel as required
3. Sedation medication DTP has been reviewed and contraindications excluded?
4. Requirements for Clinical Consultation has been considered?
5. Ambulance clinician positioned at patient's head to monitor the patient's airway and continually observe the patient's physical condition?
   *** Avoid prone positioning or pressure to the head, neck, chest or back.**
6. Defibrillator pads or ECG electrodes have been applied to the patient (front or back) to continuously monitor the patient's ECG?
7. Resuscitation equipment is immediately available?
8. All sedation team members (including QPS officers) have been briefed?

Post sedation measures

1. **Position the patient** in the lateral position, or other appropriate position, ensuring the patient's face can be viewed, their airway can be maintained, and vital signs can be monitored.
2. **Record the patient's SAT Score and vital signs** at five-minute intervals post administration of sedation medication.
3. If **SAT Score** less than zero (0), apply nasal prong **$EtCO_2$** if tolerated.
4. **Remove patient restraints** (physical or mechanical) as soon as it is safe to do so.
5. **Notify the receiving hospital** at the earliest opportunity.

ABD Sedation Handover

Name: **Age:**

Estimated body weight (kg):

Presenting history:

Pre-sedation SAT Score:

Suspected ABD cause:

QPS on scene: *Yes* ☐ *No* ☐

Case discussed with the *QAS Clinical Consultation & Advice Line*:

Yes ☐ *No* ☐ *Who:*

ABD sedation supervisor:

ABD sedation assistant:

SAT Score:		**Sedative:**		**Sedation effective:**
Dose:		**Time:**		*Yes* ☐ *No* ☐

SAT Score:		**Sedative:**		**Sedation effective:**
Dose:		**Time:**		*Yes* ☐ *No* ☐

SAT Score:		**Sedative:**		**Sedation effective:**
Dose:		**Time:**		*Yes* ☐ *No* ☐

Post sedation VSS:

Time:				
SAT Score:				
GCS:				
HR:				
RR:				
SpO_2:				
$EtCO_2$:				