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Australian and New Zealand College of Anaesthetists (ANZCA) – PG63(A)

College of Intensive Care Medicine (CICM) – IC-22

Royal Australian and New Zealand College of Psychiatrists (RANZCP) –
see [explanatory notes](#)

Guideline for safe care for patients sedated in health care facilities for acute behavioural disturbance

Short title: Care of sedated ABD patients

1. Purpose

This document sets the minimum safety standards required in caring for patients with ABD where sedation is used to control the behaviour. The document describes standards applicable to the safe care associated with the initiation of sedation, and the safe monitoring of the sedated patient.

The Australian and New Zealand College of Anaesthetists (ANZCA) and all co-signing colleges/societies recognise that practitioners with diverse qualifications and training are administering a variety of medications to patients to manage ABD. This document addresses pertinent issues for all practitioners and facilities involved in such activities.

The aim of this guideline is to guide practitioners involved in the management of patients with ABD, with specific regard to safely managing the risks associated with the use of sedating pharmacotherapeutic agents in these challenging circumstances.

2. Scope

This document is intended to apply wherever sedating agents are used in the management of ABD but excludes situations where sedation is used for diagnostic and interventional medical, dental and surgical procedures. It also excludes situations such as the longer-term management of patients in intensive care units and settings where long term management of behavioural disturbance includes regular administration of sedating pharmacotherapies.

The following guideline is not intended to serve as a protocol, prescriptive or otherwise, or recommendation of any particular technique for the initiation of sedation or the management of ABD leading up to sedation. The principles, however, should be considered where healthcare facilities develop their own specific protocols. Critical care professionals in environments such as the ED/ICU should refer also to any guidance developed by their medical college that is specific to their clinical context. Colleges themselves may write guidelines that elaborate or expand on this guideline. Fellows of those colleges should be guided by that guideline in conjunction with this document.

This document does not apply to acts of aggression or violence, occurring within healthcare settings by individuals without illness, which should be referred to security staff and police, in accordance with facility emergency procedures.

This document is not intended to apply to patients receiving sedation who do not have ABD. Standards for safe sedation for these patients are addressed within ANZCA professional document *PG09(G) Guideline on procedural sedation*.

3. Background

Acute health-related behavioural disturbance (ABD) can occur in any health setting at any time. While ABD may present secondary to acute mental illness, there are many underlying aetiologies of this phenomenon. Not uncommonly comorbid conditions, particularly substance-related disorders, are present. Agitated delirium, a common type of ABD may complicate virtually any medical or surgical condition. Details of clinical conditions may not be known at the time sedation is required. Ceasing ABD immediately is the goal in order to prevent harm to the patient, clinicians treating them and other patients and visitors sharing the health setting. The adverse consequences of treatment of ABD may be physical injury or (rarely) death to the patient, clinicians or bystanders, as well as psychological trauma to those directly involved in or witnessing the behaviours, and heavy consumption of healthcare resources.

Effective treatment of the underlying cause of the ABD or effective use of psychological interventions (such as verbal de-escalation) may prevent the need for use of other measures associated with harm in some circumstances. Restraint is commonly used in the management of ABD and in some circumstances so is seclusion, the latter almost only in mental health inpatient settings. Both of these interventions are best avoided in the management of ABD due to potential iatrogenic patient trauma and injury to staff. Pharmacotherapy to resolve the disturbed behaviour is the most commonly used intervention, either alone or in combination with patient engagement and de-escalation, restraint and/or seclusion. Pharmacotherapy is instituted only after first engaging with the patient, even if only very briefly to assess them. The use of sedation/restraint/seclusion can be decreased by steps to address systemic issues within the health system.

The primary goal of drug administration for ABD is not specifically to induce sedation but rather to safely manage and modify the disturbed behaviour. However, all currently available drugs with utility in the management of ABD cause sedation, with a narrow or unpredictable therapeutic index, variable onset and depth of sedation. Patient responses to medications vary considerably due to a wide range of factors, resulting in low predictability of onset and duration of response.

There is a need to ensure that patient risks associated with sedation, particularly respiratory and cardiovascular compromise, are minimised and that management of sedation is as safe as possible, and commensurate with safety standards for sedation administered in other circumstances, for example for procedural sedation. This task may be particularly challenging when sedation is used in conjunction with restraint and seclusion, or when the patient requires transport while sedated, either within or between hospital settings.

The multidisciplinary management of such patients may involve a range of specialists including psychiatrists, emergency medicine physicians, intensive care physicians, anaesthetists, and other health professionals. The composition of such teams will be determined by guidance from the applicable college.

4. Definitions¹

- 4.1 **Behavioural disturbance** is defined as the combined physical actions made by an individual which are in excess of those considered contextually appropriate and are judged to have the potential to result in significant harm to the individual themselves, other individuals or property. Acute behavioural disturbance is characterised by a rapid onset and severe intensity. The aetiology is commonly a mental disorder, physical illness or intoxication with alcohol and/or other substances. Often the behaviour is considered not to be under the voluntary or legally competent control of the individual.
- 4.2 **Conscious sedation** is defined as a drug-induced depression of consciousness during which patients are able to respond purposefully to verbal commands or light tactile stimulation. Interventions to maintain a patent airway, spontaneous ventilation or cardiovascular function may, in exceptional situations, be required. Conscious sedation may be achieved by a wide variety of drugs.
- 4.3 **Deeper sedation** is characterised by depression of consciousness that can readily progress to the point where consciousness is lost and patients respond only to painful stimulation. It is associated with loss of the ability to maintain a patent airway, inadequate spontaneous ventilation and/or impaired cardiovascular function, and has similar risks to general anaesthesia, requiring an equivalent level of care.
- 4.4 **General anaesthesia** is a drug-induced state characterised by absence of purposeful response to any stimulus, loss of protective airway reflexes, depression of respiration and disturbance of cardiovascular reflexes. General anaesthesia is sometimes indicated during diagnostic or interventional medical or surgical procedures and requires the exclusive attention of an anaesthetist, or other trained and credentialed medical practitioner within his/her scope of practice.

Conscious sedation, deeper sedation and general anaesthesia form a continuum and both the latter may occur unintentionally in the context of use of sedation for ABD, due to the variable response of individuals to medications and the narrow therapeutic index of sedating agents.

The terms 'rapid tranquilisation' and 'chemical restraint' have been used historically, particularly within mental health settings, to describe the use of sedation for ABD. These terms are not considered useful in contemporary practice.

5. Principles

- 5.1 Sedation poses risks that are directly related to the depth of sedation, including airway obstruction, as well as cardiovascular dysfunction. A variety of protocols have been suggested that include a wide range of drugs. However, none is perfect due to the unpredictable variability of drug effect and side effects. In the absence of predictability of response, even utilising protocols with the lowest reported risks, there will still be occasions when potentially life-threatening complications may arise.

¹ Refer ANZCA Document Framework Policy Glossary available [here](#)

- 5.2 Clinical observation and assessment by a vigilant practitioner is essential for safe patient care while patients are under the influence of sedative medications.
- 5.3 Monitoring of fundamental physiological variables during sedation is essential. Clinical judgment will determine how long this monitoring should be continued. Monitoring provides the earliest signs of deterioration. Use of pulse oximetry, for example, provides rapid detection of desaturation. However, it is recognised that the application of monitors may need to be delayed until patient co-operation is achieved. Monitoring equipment could be used for self-harm or as a weapon and consequently requires appropriate care. Nevertheless, these should be applied as soon as practicable.
- 5.4 Monitoring should always be used in conjunction with careful clinical observation by the practitioner, as there are circumstances in which equipment may not detect clinical deterioration.
- 5.5 Staffing should include trained practitioners with the ability to recognise and manage an obstructed airway and maintain oxygenation, ventilation and cardiovascular support if required. This is particularly important for patients during transport between locations.

In situations where sedation is required to mitigate the progression of low grade behavioural disturbance or for purposes of maintaining control with conscious sedation the medications may be administered prn by a health practitioner in accordance with the prescription and instructions of the supervising medical practitioner. In such cases there needs to be an engaged process that is ongoing between medical and nursing staff in relation to sedation. The use of observational charts with defined limits for observations are essential. The prescribing/supervising medical practitioner retains responsibility for patient care in these circumstances.

- 5.6 Facilities should provide suitable locations at which to safely perform sedation for ABD where demand is expected, such as mental health units and emergency departments. Resuscitation equipment that may be needed, including that necessary for airway management, and relevant training are also required.
- 5.7 The least harmful, least restrictive approach to ABD should be emphasised at all times. This includes communication, environment, and utilising oral medications where feasible, prior to restraint and IM/IV routes of administration.

6. Aims and risks of sedation for acute behavioural disturbance

- 6.1 The aim of administering sedatives for ABD is not specifically to induce sedation per se but to de-escalate to the point of being able to manage (not necessarily terminate) the disturbed behaviour. Reduction in psychological arousal or irritability may be the mechanism by which behaviour is modified. In order to achieve this aim, a range of sedation options may be required during any one episode of ABD. While reduced arousal with little or no sedation, or conscious sedation with small doses of drugs such as benzodiazepines or neuroleptics, are options for most patients and settings, other patients may require deeper levels of sedation, or in rare situations, general anaesthesia.
- 6.2 Practitioners who administer sedation should be aware that the transition from complete consciousness through the various depths of sedation to general anaesthesia is a continuum and not a set of discrete, well-defined stages. Progression through the stages can be rapid and unpredictable as the margin of safety of drugs used varies widely between. Therefore practitioners who administer drugs that alter the conscious state of a patient, and those who supervise recovery from sedation, should be prepared to manage the following potential risks:
 - 6.2.1 Depression of protective airway reflexes and airway obstruction.
 - 6.2.2 Depression of ventilation.
 - 6.2.3 Depression of the cardiovascular system.

6.2.4 Drug interactions or adverse reactions, including dystonia, seizures or more rarely anaphylaxis.

6.3 The prone position in this setting may be associated with risks of serious sequelae including depression of ventilation, asphyxia, and musculoskeletal injuries, and occasionally cardiac arrest of unknown aetiology resulting in death. Safe patient positioning once appropriate sedation has been achieved is important as is the release of restraint.

7. Patient consent

Informed consent is rarely feasible in emergency presentations of ABD although in some cases advanced directives by the patient in regard to a preferred response for a recurrent condition may be known. Despite this, consideration should be given to explaining the process to the patient to minimise their distress.

If possible, informed consent for sedation for ABD should be obtained from the patient, or a person entitled to give consent on behalf of the patient, according to applicable legislation, although it is acknowledged that in many cases there will not be a person present who is entitled to consent. In such cases practitioners in Australia and New Zealand will be able to proceed via the doctrine of necessity.

8. Patient assessment

8.1 As far as possible, all patients should be assessed prior to sedation for ABD. If the patient is unable to provide a history, some information may be obtained from family or friends, ambulance officers, police, treating clinicians or the clinical file, among other sources.

In some cases the degree of behavioural disturbance may require urgent intervention and consequently preclude completion of a comprehensive assessment.

8.2 The assessment should aim to cover:

8.2.1 Details of the current problem, co-existing and past medical and surgical history, past psychiatric and alcohol or other drug history, previous exposure to sedation and anaesthesia, current medications (including non-prescribed medications), allergies, fasting status, the presence of false, damaged or loose teeth, or other evidence of potential airway problems, and the patient's exercise tolerance or functional status.

8.2.2 Examination of the airway, assessment of cardio-respiratory status, and other systems as indicated by the history, including that relevant to the current problem.

8.2.3 Identifying patients at increased risk of cardiovascular, respiratory or airway compromise during sedation, with a view to anticipating the need to involve an anaesthetist or other airway and resuscitation trained and credentialed medical practitioner within his/her scope of practice. There should be a low threshold for seeking assistance in the elderly, those with severely limiting systemic disease, morbid obesity, obstructive sleep apnoea, known or suspected difficult endotracheal intubation, severe anaemia, the potential for aspiration of stomach contents (which may necessitate endotracheal intubation), previous adverse events due to sedation, analgesia or anaesthesia. (See Appendix 1 and ANZCA professional document *PG07(A) Guideline on pre-anaesthesia consultation and patient preparation*).

8.2.4 Results of relevant investigations.

9. Staffing

9.1 There should be a minimum of three trained staff present for sedation of the patient with ABD. Commonly there are more than three staff present in such circumstances where restraint is required

to contain behaviour and safely administer sedation (for example five-point restraint requires five people to restrain each of the patient's limbs and head). The minimum three staff are to include:

- 9.1.1 Except in dire emergencies the medical practitioner prescribing or supervising the sedation should be skilled in cardiopulmonary resuscitation, airway management and advanced life support, relevant to the patient's age and condition.
- 9.1.2 At least one nursing staff member who is current in CPR and who is competent to monitor the patient, and to provide assistance to the medical practitioner administering the sedation.
- 9.1.3 At least one additional trained staff member to assist as required with disturbed behaviour occurring during sedation. Escalating behaviour or deterioration of condition requires a rapid response.

If the staffing is not practical then the facility should have a clear protocol for safe management, recognising the expected minimum standard, and escalation processes.

- 9.2 The assistant to the practitioner administering intravenous sedation should be exclusively available to that practitioner at induction of and emergence from sedation, and during the titration of sedation as required. In circumstances when effectiveness of titration of sedation is inadequate and increasing doses are required, deep sedation or general anaesthesia is more likely to occur as an unintended consequence. In such circumstances, which may require endotracheal intubation, a person to specifically assist the anaesthetist, or other airway and resuscitation trained and credentialed medical practitioner within his/her scope of practice, is required throughout the procedure (see ANZCA professional document *PS08(A) Position statement on the assistant for the anaesthetist*).
- 9.3 The practitioner administering or supervising the sedation requires sufficient training to be able to:
 - 9.3.1 Understand the actions of the drugs being administered, and modify the technique according to individual patient needs as well as their concurrent drug therapy or disease processes.
 - 9.3.2 Monitor the patient's level of consciousness and cardiorespiratory status.
 - 9.3.3 Detect and appropriately manage any complications arising from sedation.
- 9.4 If loss of consciousness, airway obstruction or cardiorespiratory insufficiency occurs at any time, all airway and resuscitation trained staff must continue to treat and monitor the patient until recovery, or until such time as any acute airway or resuscitation issues have been resolved.

10. Facilities and equipment

The administration of sedation should be performed in a location which is of adequate size, and is staffed and equipped to deal with a cardiopulmonary emergency. The facilities and equipment should be sufficient to accommodate the range of ages and co-morbidities of presenting patients such that basic life support can be administered until more specialised help, equipment and drugs become available.

At a minimum this should include:

- 10.1 Adequate room to perform resuscitation should this prove necessary.
- 10.2 Sufficient lighting to aid with assessment of patient colour.
- 10.3 An adequate suction source, catheters and sucker.
- 10.4 A supply of oxygen and suitable devices for the administration of oxygen to a spontaneously breathing patient.

- 10.5 A means of inflating the lungs with oxygen (for example, a self-inflating bag and mask) together with ready access to a range of equipment for advanced airway management (for example, masks, oropharyngeal airways, laryngeal mask airways, laryngoscopes, endotracheal tubes).
- 10.6 Drugs for cardiopulmonary resuscitation and a range of intravenous equipment and fluids (see Appendix 2).
- 10.7 A pulse oximeter.
- 10.8 A sphygmomanometer or other device for measuring blood pressure.
- 10.9 Ready access to an electrocardiograph (ECG) and a defibrillator.
- 10.10 A means of summoning emergency assistance.
- 10.11 Within the facility there should be access to devices for monitoring end-tidal carbon dioxide.
- 10.12 Adequate access throughout the facility to allow the patient to be transported easily and safely.
- 10.13 A clinical emergency response plan to manage potential clinical deterioration.

(See ANZCA professional documents *PS55(A) Position statement on minimum facilities for safe administration of anaesthesia in operating suites and other anaesthetising locations* and *PG15(POM) Guideline for the perioperative care of patients selected for day stay procedures*).

Ideally venous access should be obtained prior to deep sedation, however, if it is not safe to insert an IV, one should be inserted as soon as safe and practical. Intravenous access may be unnecessary in patients during conscious sedation; however, at any stage where this level of sedation is exceeded reliable venous access should be acquired. As most complications of sedation are cardiorespiratory, doses of sedative drugs should be kept to the minimum required to achieve control of the ABD, particularly for those patients at increased risk.

11. Monitoring equipment

In general, monitoring equipment aids the clinical assessment of a patient and the following equipment should be available for use. The equipment should be used as clinically indicated and attached as soon as is practicable, given the level of agitation or cooperation of the patient.

- 11.1 Pulse oximeter - Pulse oximetry provides evidence of the level of oxygen saturation of the haemoglobin in arterial blood at the site of application of the probe, and also indicates arterial pulsation. A pulse oximeter should be available, and applied as soon as practical, given the patient's clinical state, and in use for every patient undergoing sedation. When this particular monitor is in use, the variable pulse tone as well as the low threshold alarm should be set and audible to the practitioner responsible for monitoring the patient.
- 11.2 Electrocardiograph (ECG) - Equipment to monitor and continually display the electrocardiograph should be available for every sedated patient.
- 11.3 Intermittent non-invasive blood pressure monitor - Equipment to provide intermittent non-invasive blood pressure monitoring should be available for every patient undergoing sedation; whenever such monitors are applied blood pressure should be measured and recorded at intervals as indicated in 12.1.1 below. A variety of cuff sizes should be available.

12. Monitoring technique

- 12.1 In all patients there should be regular monitoring and recording of pulse rate, oxygen saturation and blood pressure throughout the titration of sedation. Monitoring prior to commencement of

sedation may not be practical in some patients (for example, small children, patients with intellectual disabilities).

12.2 The monitoring of patients undergoing sedation includes regular assessment and recording. The following are critical and should commence at the outset:

12.2.1 Circulation - by detection of the arterial pulse and supplemented by measurement of blood pressure. The intervals between recordings of this data will depend on clinical circumstances and the stability of the patient.

12.2.2 Ventilation - should be monitored continually by direct observation and supplemented by capnography as soon as clinically indicated.

12.2.3 Oxygenation - in conjunction with clinical observation of the patient. Adequate lighting should be available to aid with assessment of patient colour.

Where there is extension of sedation either in duration or depth the following monitoring should be included:

12.2.4 Consciousness – use of sedation scales is recommended.

12.2.5 Extrapyramidal side effects.

12.2.6 Mental state.

12.2.7 Urinary output to detect urinary retention.

12.2.8 Hydration.

12.2.9 Pressure care.

12.2.10 Venous Thromboembolism (VTE) prophylaxis consideration.

12.3 Monitoring of the depth of sedation, typically by assessing the patient's response to verbal commands or stimulation should be routine. Use of a tool such as the sedation assessment tool (SAT) http://www.ozemedicine.com/wiki/doku.php?id=sedation_sat [accessed June 2024] or the Richmond Agitation Sedation Scale (RASS) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5080705/> [accessed June 2024] may be helpful (refer PG63(A) Appendix 3). Monitoring of verbal response may be difficult in some patients (for example, small children, and patients from culturally and linguistically diverse backgrounds). Loss of patient response to stimulation or verbal commands indicates that loss of airway reflexes, and respiratory and/or cardiovascular depression are likely, and sedation should be lightened. Where this is clinically not indicated a trained and credentialed practitioner within their scope of practice should be in attendance to manage the airway and cardiorespiratory depression.

12.4 Oxygenation

12.4.1 Patients undergoing sedation for ABD at risk of airway or cardiovascular compromise should be monitored continuously with pulse oximetry and this equipment must alarm when predetermined limits are transgressed.

12.4.2 Hypoxaemia may occur during sedation for ABD without oxygen supplementation. Oxygen administration diminishes the likelihood of hypoxaemia during sedation, and should be considered and available for use in all patients for the duration of the period of sedation. Oxygen administration prior to commencement of sedation is unlikely to be indicated or feasible for most patients with ABD, and may not be practical in some patients (for example, small children) or during conscious sedation if the patient remains uncooperative.

12.4.3 Pulse oximetry enables the degree of tissue oxygenation to be monitored and should be used in all patients during sedation if practicable, particularly if deep sedation has occurred. If hypoxaemia is detected staff should devote their whole attention to correcting this and considering the underlying causes until the hypoxaemia is corrected.

12.5 According to the clinical status of the patient, other monitors, such as ECG or capnography, may be required (see ANZCA professional document *PG18(A) Guideline on monitoring during anaesthesia*).

13. Medications

13.1 Sedation may be administered by a number of different routes, including oral, intramuscular and intravenous. Rates of absorption will differ markedly between these various routes of administration, and practitioners should be aware of these differences particularly when using a less familiar route to administer the sedation.

13.2 A variety of drugs and techniques are available for sedation. Due to potential synergism between such drugs, even small doses of these drugs may result in loss of consciousness in some patients. Special care is required when recent substance use has occurred or is suspected, or the aetiology of the ABD has not been diagnosed.

13.3 Normally intravenous agents used for sedation or ABD should be used only by a medical practitioner trained in their use because of the risk of unintentional loss of consciousness, and only when a second clinician with appropriate training in the management of the sedated patient is also present for the duration of the index episode.

In cases where the behavioural disturbance precludes the ability to safely gain IV access alternative parenteral routes of administration may be considered as a first line.

14. Documentation

The clinical record should include the names of staff performing sedation with documentation of the history, examination and investigation findings, as applicable. A written record of the dosages of drugs and the timing of their administration should be kept as a part of the patient's records. Such entries should be made as near to the time of administration of the drugs as possible. This record should also note the regular readings from the monitored variables, including those in the recovery phase, details of any major resuscitation or rescue interventions, complications, etc., and should contain other information as indicated in ANZCA professional document *PG06(A) Guideline on the anaesthesia record*.

Accurate and timely recording of information should include:

14.1 Consent from patient or carer if practicable and/or applicable.

14.2 Indication for sedation.

14.3 Relevant history and past history, including medications.

14.4 Results of physical examination.

14.5 Medications administered – both dosage and time.

14.6 Response to medications administered.

14.7 Recording of the physiological variables.

15. Recovery and discharge

- 15.1 Recovery should take place under supervision in a properly equipped and staffed area, which may be the area where the procedure was performed (see ANZCA professional document *PS04(A) Position statement on the post-anaesthesia care unit* as indicative).
- 15.2 If a suitably equipped area is not available where the sedation is unavoidable then there should be adequate and safe patient transfer facilities available.
- 15.3 Some patients requiring sedation for ABD do not require further hospital admission, for example following resolution of stimulant intoxication. Discharge of the patient should be authorised by the practitioner who administered the drugs, or another qualified practitioner with the relevant scope of practice. The patient should be discharged into the care of a responsible adult to whom written instructions should be given, including advice about eating and drinking and resumption of normal activities, as well as about making legally binding decisions, driving, or operating machinery.
- 15.4 A system should be in place to enable safe transfer of the patient to appropriate medical care should the need arise.
- 15.5 Processes should be in place for debriefing the patient after they have recovered from the episode of ABD.

16. Training in sedation for acute behavioural disturbance for medical practitioners

- 16.1 Those medical practitioners in roles that require provision of sedation for ABD should be trained and working within their scope of practice. They should be encouraged to participate in a process of in-training and competency assessment, including as a minimum, basic life support, as well as a crisis resource management simulation centre course, relevant to scope of practice.
- 16.2 There are non-anaesthetist medical practitioners who have had many years' experience in sedation of ABD, yet may not have had a period of formal supervised training as described. Such longstanding clinical experience may be deemed adequate but not extending to deep sedation and general anaesthesia.
- 16.3 Credentialling, training and clinical support of such medical practitioners should be achieved by close cooperation with nominated psychiatrists, emergency physicians, anaesthetists or intensivists. For remote or rural practitioners the credentialling, training and clinical support should be achieved in collaboration with psychiatrists, emergency physicians, anaesthetists or intensivists in a major centre, particularly when intravenous or intramuscular sedation is practiced in the rural or remote setting (see *PS02(A) Position statement on credentialling and defining the scope of clinical practice in anaesthesia*).
- 16.4 Regular certification in cardiopulmonary resuscitation relevant to the clinician's practice, and evidence of relevant continuing professional development, are required for credentialling.
- 16.5 Healthcare facilities are responsible for establishing the scope of practice and credentialling of practitioners administering sedation. Institutions should ensure that such practitioners are trained, and that their scope of practice remains valid with relevant ongoing professional development.

17. Audit

- 17.1 Practitioners carrying out sedation for ABD should be subject to regular and effective audit of sedation administration in compliance with local jurisdictional requirements.
- 17.2 Each unit where sedation services are provided should have an established system for audit of outcomes related to sedation, and include these audited outcomes, and any complications, in

quality assurance and peer review processes. Local audit results should inform ongoing training, education and support of all team members involved in the care of patients who receive sedation.

- 17.3 Practitioners who administer sedation should be aware of their jurisdictional requirements to report morbidity and mortality related to sedation. These requirements are particularly important where an intended sedation episode has inadvertently resulted in deep sedation or general anaesthesia, with an adverse outcome.

Related ANZCA documents

PS02(A) Position statement on credentialling and defining the scope of clinical practice in anaesthesia

PS04(A) Position statement on the post-anaesthesia care unit

PG06(A) Guideline on the anaesthesia record

PG07(A) Guideline on pre-anaesthesia consultation and patient preparation

PS08(A) Position statement on the assistant for the anaesthetist

PG09(G) Guideline on procedural sedation

PG15(POM) Guideline for the perioperative care of patients selected for day stay procedures

PG18(A) Guideline on monitoring during anaesthesia

PS26(A) Position statement on informed consent for anaesthesia or sedation

PS55(A) Position statement on minimum facilities for safe administration of anaesthesia in operating suites and other anaesthetising locations

Further reading

The following references provide evidence to support the recommendations made in this document:

American College of Radiology (ACR) and the Society of Interventional Radiology (SIR). ACR-SIR practice parameter for sedation/analgesia. Reston (VA): American College of Radiology. 2015, updated 2020. 10 p. Available from: <https://www.acr.org/-/media/ACR/Files/Practice-Parameters/Sed-Analgesia.pdf> Accessed 29 May 2024. Note: this updated reference has not yet been reviewed by ANZCA.

American Society of Anesthesiologists. Statement on granting privileges for administration of moderate sedation to practitioners who are not anaesthesia professionals. Schaumburg (IL): American Society of Anesthesiologists, 2016, updated 2021. 10 p. Available from: <https://www.asahq.org/standards-and-practice-parameters/statement-on-granting-privileges-for-administration-of-moderate-sedation-to-practitioners-who-are-not-anesthesia-professionals> Accessed 29 May 2024. Note: this updated reference has not yet been reviewed by ANZCA.

American Society of Anesthesiologists Task Force on Sedation and Analgesia by Non- Anesthesiologists. Practice guidelines for sedation and analgesia by non-anesthesiologists. *Anesthesiology*. 2002;96(4):1004-17.

Cravero JP, Blike GT. Review of pediatric sedation. *Anesth Analg*. 2004;99(5):1355-64.

Dental Board of Australia. Registration standard: Endorsement in relation to conscious sedation. Melbourne: Dental Board of Australia, 2010, updated 2015. Available from: <https://www.dentalboard.gov.au/Registration-Standards.aspx> Accessed 29 May 2024. Note: this updated reference has not yet been reviewed by ANZCA.

Hohl CM, Sadatsafavi M, Nosyk B, Anis AH. Safety and clinical effectiveness of midazolam versus propofol for procedural sedation in the emergency department: a systematic review. *Acad Emerg Med*. 2008 Jan;15(1):1-8.

Hosey MT. UK National Clinical Guidelines in Paediatric Dentistry. Managing anxious children: the use of conscious sedation in paediatric dentistry. *Int J Paediatr Dent*. 2002 Sep;12(5):359-72.

Medical Board of Australia. Guidelines and conscious sedation. In: Medical Board of Australia. Update. Issue 3. Melbourne: Medical Board of Australia. December 2011. Available from: <http://www.medicalboard.gov.au/News/2011-12-16-Newsletter-from-the-Medical-Board.aspx> Accessed 29 May 2024.

Miner JR, Burton JH. Clinical practice advisory: Emergency department procedural sedation with propofol. *Ann Emerg Med*. 2007 Aug;50(2):182-7.

Vargo JJ, Ahmad AS, Aslanian HR, Buscaglia JM, Das AM, Desilets DJ, et al. Training in patient monitoring and sedation and analgesia. *Gastrointest Endosc*. 2007 Jul;66(1):7-10.

Professional documents of the Australian and New Zealand College of Anaesthetists (ANZCA) are intended to apply wherever anaesthesia is administered and perioperative medicine practised within Australia and New Zealand. It is the responsibility of each practitioner to have express regard to the particular circumstances of each case, and the application of these ANZCA documents in each case. It is recognised that there may be exceptional situations (for example, some emergencies) in which the interests of patients override the requirement for compliance with some or all of these ANZCA documents. Each document is prepared in the context of the entire body of the College's professional documents, and should be interpreted in this way.

ANZCA professional documents are reviewed from time to time, and it is the responsibility of each practitioner to ensure that he or she has obtained the current version which is available from the College website (www.anzca.edu.au). The professional documents have been prepared having regard to the information available at the time of their preparation, and practitioners should therefore take into account any information that may have been published or has become available subsequently.

This document has been prepared in collaboration with, and endorsed by, the Australasian College for Emergency Medicine (ACEM), College of Intensive Care Medicine (CICM) and the Royal Australian and New Zealand College of Psychiatrists (RANZCP). Whilst ACEM, ANZCA, CICM and the RANZCP endeavour to ensure that professional documents are as current as possible at the time of their preparation, no responsibility is taken for matters arising from changed circumstances or information or material which may have become available subsequently.

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ACEM: www.acem.org.au
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CICM: www.cicm.org.au
RANZCP: www.ranzcp.org

APPENDIX 1: AMERICAN SOCIETY OF ANESTHESIOLOGISTS' CLASSIFICATION OF PHYSICAL STATUS

P1 - A normal healthy patient

P2 - A patient with mild systemic disease

P3 - A patient with severe systemic disease (that interferes with daily activities)

P4 - A patient with severe systemic disease that is a constant threat to life

P5 - A moribund patient who is not expected to survive without the operation

P6 - A declared brain-dead patient whose organs are being removed for donor purposes

E - Patient requires emergency procedure

Adapted from: American Society of Anesthesiologists (ASA). Statement on ASA physical status classification system. ASA; 2014, updated 2020. Available from:

<https://www.asahq.org/standards-and-practice-parameters/statement-on-asa-physical-status-classification-system> Accessed 29 May 2024. Note: this updated reference has not yet been reviewed by ANZCA.

APPENDIX 2: DRUGS REQUIRED FOR THE MANAGEMENT OF COMPLICATIONS OF EMERGENCY SEDATION FOR ABD

Emergency drugs and supplies should include at least the following:

- adrenaline
- atropine
- dextrose 50 per cent
- amiodaron
- naloxone
- portable emergency O2 supply
- Ringer's or Hartmann's solutions or isotonic saline solution

APPENDIX 3: TOOLS FOR MONITORING DEPTH OF SEDATION.

Richmond Agitation and Sedation Scale

Richmond Agitation and Sedation Scale (RASS)		
+4	Combative	violent, immediate danger to staff
+3	Very Agitated	Pulls or removes tube(s) or catheter(s); aggressive
+2	Agitated	Frequent non-purposeful movement, fights ventilator
+1	Restless	Anxious, apprehensive but movements not aggressive or vigorous
0	Alert & calm	
-1	Drowsy	Not fully alert, but has sustained awakening to <i>voice</i> (eye opening & contact $\geq$ 10 sec)
-2	Light sedation	Briefly awakens to <i>voice</i> (eye opening & contact < 10 sec)
-3	Moderate sedation	Movement or eye-opening to <i>voice</i> (but no eye contact)
-4	Deep sedation	No response to <i>voice</i> , but movement or eye opening to <i>physical</i> stimulation
-5	Unarousable	No response to <i>voice</i> or <i>physical</i> stimulation

Sedation Assessment Tool

SCORE	RESPONSIVENESS	SPEECH
+3	Combative, violent, out of control	Continual loud outbursts
+2	Very anxious and agitated	Loud outbursts
+1	Anxious and restless	Normal
0	Responds easily to name, speaks in normal tone	Normal
-1	Responds only if name is called loudly	Slurring or prominent slowing
-2	Physical stimulation	Few recognisable words
-3	No response to stimulation	Nil