Guideline

QH-GDL-966:2021

Pharmacological management of acute behavioural disturbance management (ABDM) in Queensland Mental Health Alcohol and Other Drugs (MHAOD) Inpatient Services (adults and older adults)

1. Purpose

This Guideline describes the processes for pharmacological management of adults and older adults presenting with acute behavioural disturbance within Queensland Mental Health Alcohol and Other Drugs (MHAOD) Inpatient Services.

Reducing restrictive practices is essential to the provision of MHAOD services that are safe for all consumers, visitors and health staff, and therefore pharmacological management must only be used after all appropriate less restrictive options have been implemented.

2. Scope

This Guideline provides information for all Queensland Health employees (permanent, temporary and casual) and all organisations and individuals acting as its agents (including Visiting Medical Officers and other partners, contractors, consultants and volunteers) working within Queensland MHAOD Inpatient Services.

3. Related documents

Authorising Policy and Standard/s:

Queensland Health policies and guidelines are available by searching the Policies and Standards section of www.health.qld.gov.au.

- *Mental Health Act 2016* (Queensland)
- *Human Rights Act 2019* (Queensland)
- Chief Psychiatrist Policy, Clinical need for medication (2020)
- Chief Psychiatrist Policy, Notification to Chief Psychiatrist of Critical Incidents and Non-Compliance with the Mental Health Act 2016 (2020)
- *Medicines and Poisons Act 2021*
- *Medicines and Poisons (Medicines) Regulation 2021*
- National Safety and Quality Health Service Standards 2017

Procedures, Guidelines and Protocols:

- Guideline for acute behavioural disturbance management (including acute sedation) in Queensland Health Authorised Mental Health Services (children and adolescents) *(currently under review)*
- Management of patients with Acute Severe Behavioural Disturbance in Emergency Departments (2016)

Forms and templates:

- National Inpatient Medication Chart
- Queensland Adult Deterioration Detection System (Q-ADDS) – mental health facilities
- Post Sedation Monitoring Chart

Additional Resources

- Australian Clinical Guidelines for Early Psychosis | Orygen, 2016
- Guideline for Safe Care for Patients Sedated in Health Care Facilities for Acute Behavioural Disturbance | Royal Australian and New Zealand College of Psychiatrists (RANZCP), 2019
- Approach to Managing Acute Behavioural Disturbance | Therapeutic Guidelines, 2021

4. Acknowledgements

This Guideline is informed by the Metro South Health Addiction and Mental Health Services' Adult - Acute Behavioural Disturbance Management (ABDM) within the Acute Adult Inpatient Psychiatric Unit Procedure.

5. Legislation and consent

The use of acute sedation does not preclude the consumer from providing consent to treatment. Wherever possible, consumers should be offered the opportunity to consent to treatment. If the consumer lacks the capacity to provide (or withhold) consent to treatment, involuntary treatment under the *Mental Health Act 2016* (MHA) or the *Guardianship and Administration Act 2000* (GAA) may be possible, if the criteria within the legislation are met. Refusal of treatment is not a criterion for involuntary treatment under either the MHA or GAA.

The involuntary administration of medication, including the use of acute sedation, may be provided under the following/in the following ways:

- Under the MHA – to a person subject to a treatment and authority, Forensic Order (Mental Health), Treatment Support Order or to a person absent from an interstate mental health service and detained in an Authorised Mental Health Service (and awaiting their return interstate)
- Under the MHA – to an involuntary patient for the purpose of safe transport of the person under the MHA, immediately prior to the transportation occurring
- GAA – if the adult lacks capacity to consent and urgent healthcare is required to meet imminent risk to their life, health or to prevent significant pain or distress.

The Queensland public sector must consider the impact on the human rights of individuals when making decisions, and to ensure that decision is compatible with the *Human Rights Act 2019* (Queensland). This guideline must be implemented in a way that is consistent with the rights outlined in the Act. Queensland Health staff have obligations under the *Human Rights Act 2019* to make decisions and act in ways that are compatible with human rights.

Staff must ensure that clinical documentation is accurate, comprehensive and contemporaneous in relevant records including observation and medication charts.

6. Principles for the management of acute behavioural disturbance

This guideline focuses upon the pharmacological management of acute behavioural disturbance management and it should be used with two further resources:

- Guideline for Safe Care for Patients Sedated in Health Care Facilities for Acute Behavioural Disturbance | Royal Australian and New Zealand College of Psychiatrists (RANZCP), 2019
- Approach to Managing Acute Behavioural Disturbance | Therapeutic Guidelines, 2021

These documents outline:

- the assessment of acute behavioural disturbance
- non-pharmacological management of acute behavioural disturbance, and
- post-sedation monitoring requirements.

7. Guideline for pharmacological management of acute behavioural disturbance (adults and older adults)

7.1 Indications

Sedative medication may be the only clinically appropriate treatment option when consumers are extremely agitated, threatening violence, are violent and/or are a danger to themselves or others. In alignment with the above documents, pharmacological therapy should only be administered after attempts to manage the behavioural disturbance with de-escalation techniques delivered by mental health staff have proven unsuccessful.

In circumstances where an individual's needs warrant a variation from this Guideline, discussion with a consultant psychiatrist is recommended; and the clinical reasoning behind such a decision should be documented in the consumer's clinical record.

7.2 Precautions

Consideration of pharmacological and physiological factors impacting on the safe and effective delivery of sedating medications should occur individually for all consumers. Consumer groups which require particular care, including consideration of lower doses than standard adult doses include:

- older adults
- pregnant women
- consumers with an intellectual impairment and/or acquired brain injury
- medically compromised
- consumers with low body weight.

It is always important to use lowest possible effective dose and to seek specialist advice where relevant. This is particularly the case for consumers who have not previously received psychotropic medications. A consumer's previous response to medication should be considered where possible.

Specific suggestions for consideration include:

Precaution	Action
Pregnant women	Consideration of involvement of specialist advice (as required) For further guidance refer to Psychotropic use during pregnancy | Therapeutic Guidelines, 2021 and Psychotropic use while breastfeeding | Therapeutic Guidelines, 2021
Intellectual impairment or acquired brain injury	For further guidance refer to *Psychotropic Prescribing Guidelines for People with Intellectual or Developmental Disability in Queensland* and Psychiatric disorders in people with developmental disability | Therapeutic Guidelines, 2021
Substance withdrawal (including alcohol)	For further guidance refer to Queensland Alcohol and Drug Withdrawal Clinical Practice Guidelines | Queensland Health, 2012 *(currently under review)* and Alcohol and Drug Withdrawal Guidelines | Turning Point, 2018
Pre-existing swallowing problems	Sedation (especially with antipsychotics) or delirium is associated with increased risk of aspiration
Delirium	Should not be treated with benzodiazepines—sedative/alcohol withdrawal delirium is an exception. For further guidance refer to Delirium | Therapeutic Guidelines, 2021

7.3 Prior to administration

A medical assessment should be performed on admission and again, where possible, prior to acute sedation. More specific information pertaining to assessment is available in the RANZCP and Therapeutic Guideline resources listed above.

Note: The implementation of and consumer's response to non-pharmacological measures should be documented.

7.4 Process for pharmacological management of acute behavioural disturbance management for adults 18 – 65 years

7.4.1 Administration of oral medication (preferred medication option)

Principles

- Aim to calm with minimal pharmacological sedation.
- Align dosing decisions with assessment of level of arousal and related risks.
- Prior to administration of medication, calculate the total daily dose of all oral and intramuscular (IM) psychotropic medications (i.e. regular and prn medication) given in the previous 24 hours, whether in the

unit or home or in other health care settings including the emergency department and/or ambulance. If two doses are given without effect, consider consultant psychiatrist advice.

- The use of multiple psychotropics with overlapping side effect profiles should be avoided but if used should be according to any local protocols and/or documented risk mitigation strategies.
- Monitor for delirium using a locally endorsed screening tools (for example; 4AT).
- Treat underlying medical causes.
- Ensure concise accurate documentation of medications and responses, including rationale for change.

Process

- Contact consultant psychiatrist if a higher than recommended dose or shorter interval times between doses are being considered.
- Therapeutic choice points:
  - First line medication is the preferred option. If a subtherapeutic response is obtained after the first dose, titrate with second dose at the lower end of interval time and dose.
  - If a nil or minimal response is obtained after the first dose, consider moving to second line medication.

Indications: mild arousal, may be irritable, willing to talk and co-operative	
First line (oral)	**Second line (oral)**
lorazepam Peak effect at 1–3 hours 0.5 - 1 mg every two hours Do not exceed 8 mg in 24 hours	**olanzapine** as a wafer—if lorazepam regimen fails 5 mg every two hours Maximum dose must not exceed 30 mg in 24 hours

Indications: moderate or severe arousal, highly agitated, abusive, unco-operative, threat or actual violence to self or others	
First line (oral)	**Second line (oral)**
lorazepam Peak effect at 1–3 hours 1 – 2 mg every two hours Do not exceed 8 mg in 24 hours Can increase to 12 mg in 24 hours with consultant psychiatrist approval	**olanzapine** as a wafer—if lorazepam regimen fails 5 – 10 mg every two hours The maximum total dose must not exceed 30 mg in 24 hours

Note: Oral chlorpromazine should only be administered in consultation with a consultant psychiatrist.

Only proceed to IM medications if not accepting oral medications or response to oral medication is unsatisfactory.

7.4.2 Administration of short acting intramuscular (IM) medications

Principles

- Issues of consent must be addressed – refer to section 4. Legislation and consent.
- IM droperidol and midazolam are not recommended within Queensland MHAOD Inpatient Services due to their short duration of action and higher incidence of side effects which may be more difficult to monitor and treat than in other clinical settings.
- **Warning: do not give lorazepam IM and olanzapine IM within 60 minutes of each other.**
- If two sequential IM doses given without effect, seek consultant psychiatrist's advice.
- Prior to administration of medication, calculate the total daily dose of all oral and IM psychotropic medications (i.e. regular and prn medication) given in the previous 24 hours, whether in the unit or home or in other health care settings including the emergency department and/or ambulance. If two doses are given without effect, consider consultant psychiatrist advice.
- Medical officer to review every 12 hours and transition back to oral medications as soon as possible.
- Recommend consultant psychiatrist review in 24 hours if no response.
- Ensure concise accurate documentation of medications and responses, including rationale for change.

Process

Indications: when consumer is not accepting of oral medications or response to step 1. is unsatisfactory	
First line (IM)	**Second line (IM)**
IM lorazepam Peak effect at 1–3 hours (absorption may be faster in the physically agitated patient) 1 – 2 mg every 1-2 hours Do not exceed total dose of lorazepam of 8 mg in 24 hours Can increase up to 12 mg within 24 hours with consultant psychiatrist approval	**IM olanzapine** if lorazepam regimen inadequately sedates (do not commence within 60 minutes of lorazepam) 5 – 10 mg every two hours The maximum dose must not exceed 30 mg in 24 hours

7.4.3 Administration of medication via intravenous (IV) route

Principles

- Intravenous sedation should be used only when other methods to secure safety of consumer and staff have failed.
- Prior to administration of intravenous sedation, calculate the total daily dose of all oral and IM psychotropic medications (i.e. regular and prn medication) given in the previous 24 hours, whether in the unit or home or in other health care settings including the emergency department and/or ambulance. If two doses are given without effect, consider consultant psychiatrist advice.
- Intravenous sedation consideration must involve the consultant psychiatrist, who should involve as necessary specialists with relevant expertise in management of acute intravenous sedation such as anaesthetists or intensivists.
- Planning for intravenous sedation must consider capacity for safe and effective sedation within the acute mental health inpatient unit (AMHIU) setting, including, guided by local protocols, need for medical emergency team (MET) calls.

- Intravenous sedation should be administered in AMHIU settings only by, or under the direct supervision of, an advanced life skills (ALS) competent staff member with careful monitoring.
- Monitor the consumer's respiratory rate, oxygen saturation, oxygen delivered, blood pressure, heart rate, temperature and level of consciousness on the Queensland Adult Deterioration Detection System (Q-ADDS) document or similar early warning tool.
- Intervals between observations should be in alignment with Table 1.
- Escalate in accordance with the documented 'Action Required for Mental Health Facilities' which are included on the *Q-ADDS for mental health facilities* form or similar early warning tool guidance.
- If the consumer becomes unresponsive, a MET call should be made as appropriate, in alignment with MET call criteria.

7.4.4 Administration of longer acting IM medications

Principles

- Must be specifically approved by a consultant psychiatrist
- Not recommended for routine use for acute behavioural disturbance management but may be considered as an option when disturbed/violent over extended time (24–48 hours), a previous history of response including adverse reactions should be considered in such decisions.

Warning: Never administer to antipsychotic naïve, elderly or physically frail, co-administration of short acting IM medications, or as PRN. Not recommended for use in children/adolescents.

Process

Indications: prolonged/sustained disturbed behaviour over extended time (24 – 48 hours)
IM zuclopenthixol acetate (Clopixol Acuphase®) dose recommendations • Adult dose 50 – 150 mg IM, repeat if necessary, after 24 hours • Maximum dose: no more than 400 mg or four injections over a two-week period • Individual injections should be spaced at least 24 hours apart • Allow 2 – 4 hours for onset of effect. Peak effect commonly reached after 12-18 hours • Effects may last up to 72 hours, therefore requiring longer monitoring • After IM zuclopenthixol acetate administration, the administration of other IM antipsychotic agents or lorazepam should be avoided. Where considered necessary, consultant psychiatrist approval should be acquired according to local protocols. In general, other IM antipsychotics should be ceased for at least 24 hours.

7.5 Process for pharmacological management of acute behavioural management for older adults >65 years, the psychotropic naïve or physically frail

Principles

- Lower medication doses used for older persons are also generally appropriate for consumers who are psychotropic naïve or physically frail.
- Prior to administration of medication, calculate the total daily dose of all oral and IM psychotropic medications (i.e. regular and prn medication) given in the previous 24 hours, whether in the unit or home or in other health care settings including the emergency department and/or ambulance. If two doses are given without effect, consider consultant psychiatrist advice.

Process

Indications: moderate or severe arousal	
First line (oral)	**Second line (oral)**
lorazepam 0.5 - 1 mg every 2-4 hours Do not exceed 4 mg in 24 hours	**olanzapine** as a wafer—if lorazepam regimen fails 5 mg every 2-4 hours Do not exceed 15 mg in 24 hours
First line (IM)	**Second line (IM)**
IM lorazepam 0.5 – 1 mg every 1-2 hours Do not exceed 4 mg in 24 hours	**IM olanzapine** 2.5 – 5 mg every two hours Do not exceed 15 mg in 24 hours
Indications: prolonged/sustained disturbed behaviour over extended time (24 – 48 hours)	
IM zuclopenthixol acetate is NOT approved for use in older persons. If inadequate clinical response after IM medications, advice from a consultant psychiatrist should be sought.	

7.6 Monitoring/observation–post parenteral acute sedation

Principles

- Post-acute sedation monitoring is mandatory after any parenteral (IM or IV) medications.
- Monitor the consumer's respiratory rate, oxygen saturation, oxygen delivered, blood pressure, heart rate, temperature, and level of consciousness on the Queensland Adult Deterioration Detection System (Q-ADDS) score, or similar, early warning tool.

Table 1. Level of observations required according to level of sedation:

Arousal level	Level of monitoring
Awake	Observe level of alertness every 15 mins for first hour then half hourly for 8 hours
Easy to rouse	Vital observations* at 30 min interval
Can't stay awake	Vital observations* at 10 min intervals
Difficult to rouse	Vital observations* at 5 min intervals
Unresponsive	Make MET call

***Vital observations**— the consumer's respiratory rate, oxygen saturation, oxygen delivered, blood pressure, heart rate, temperature and level of consciousness.

- Check for signs of dystonia or any deterioration.
- Vital observations should continue until the consumer is alert and mobile or whilst they are receiving acute sedation.

- Due to the potential for delayed side effects, if discharged from hospital, consumers and their carers if possible, should be provided with written documentation of medications, doses given, side effects and warnings.

Note: If a consumer is uncooperative, documentation of observations on the Post Sedation Monitoring Chart may be useful until the consumer is cooperative and can have their vital observations monitored. An excerpt of this document has been included below:

Post Sedation Monitoring Chart
(For consumers who do not consent to having their vital signs monitored in accordance with the Q-ADDS)

Document the following observations at least every 15 minutes:
- If the consumer's respiration rate is **≤8 breaths per minute** or **≥35 breaths per minute** initiate emergency call
- If the consumer is experiencing **respiratory distress** initiate emergency call
- If the consumer's colour becomes **cyanotic** or **you are concerned about their colour** initiate emergency call
- If the consumer does not meet the above criteria but **you are still concerned about their health condition** notify your Team Leader and call your local Medical Officer to review.

Date	Time	Respiration rate	Position (supine, left lateral, right lateral, prone, standing)	Movement present	Face colour	Extremities colour	Clinician's name
				☐ Yes ☐ No			

8 Adverse reactions

Warning: Respiratory depression can occur with lorazepam or other benzodiazepines, particularly in combination with antipsychotics.

Adverse reactions may include:

- dystonic reactions and akathisia, particularly with high doses of antipsychotic agents
- hypotension secondary to benzodiazepine administration or antipsychotic use
- excessive sedation—risking aspiration and/or delirium
- hyperthermia / neuroleptic malignant syndrome
- paradoxical disinhibition (with benzodiazepines)
- prolonged QT, cardiac arrhythmia
- sudden cardiac death secondary to antipsychotic use (rare).

For further guidance refer to the relevant product information brochure.

For acute laryngospasm or extrapyramidal side effects (EPSE)

- benztropine—2 mg either IM or IV should be available.

For reversal of benzodiazepine induced respiratory depression

- flumazenil—see guidelines for use below.

9 Guidelines for flumazenil use for reversal of benzodiazepine-induced respiratory depression

Indications:	If after the administration of lorazepam or diazepam, the respiratory rate falls below 10/min.
Precautions:	Serious overdose of tricyclic antidepressants—can increase risk of seizures

	Where benzodiazepines are being used to control potentially life-threatening conditions e.g. unstable intracranial pressure or status epilepticus Mixed intoxication of benzodiazepines with tricyclic antidepressants where toxicity of the antidepressants may be masked by the effects of: • unstable intracranial pressure • hepatic insufficiency. Severe head injury—may precipitate convulsions Liver disease Known longstanding benzodiazepine users may experience symptoms of acute withdrawal and/or seizures.
Dose:	Initially 0.3–1 mg IV flumazenil, repeated at 60 second intervals until the consumer awakes (up to a maximum total dose of 2 mg) If respiratory rate does not return to normal or the consumer is not alert after initial doses administered, assess for other causes of sedation.
Adverse effects:	Nausea, vomiting, palpitations, agitated, anxious or fearful on wakening. Seizures may occur if history of epilepsy, hepatic impairment or regular benzodiazepine use.
Monitor:	Flumazenil has a short half-life (much shorter than lorazepam and diazepam) and respiratory function may recover and then deteriorate again Continue to monitor respiratory rate, oxygen saturation (via pulse oximetry), alertness and BP until respiratory rate returns to baseline level.

10 Definitions of terms used in the policy and supporting documents

Term	Definition / Explanation / Details
Acute sedation	This Guideline refers to the emergency administration of psychotropic medications to a consumer in an MHAOD inpatient setting to: • relieve distress • bring severe behavioural disturbance under control to protect the consumer or other people from immediate or imminent risk to their safety • facilitate comprehensive diagnostic assessment and management.
prn	When required
mg	Milligrams

11 Approval and implementation

Endorsement

Queensland Psychotropic Medication Advisory Committee

Approving Officer

Chief Psychiatrist, Mental Health Alcohol and Other Drugs Branch

Policy Custodian

Director, Clinical Governance, Office of the Chief Psychiatrist, Mental Health Alcohol and Other Drugs Branch

Approval date: 8 October 2021

Effective from: October 2021

Next review: July 2024

Version control

Version	Date	Prepared by	Comments
V1.0	6 July 2017	Office of the Chief Psychiatrist	First publication.
V2.0	19 December 2019	Office of the Chief Psychiatrist	Minor wording change in section 4.2 in alignment with the Human Right Act 2019 (Qld).
V3.0	23 Sept 2021	Office of the Chief Psychiatrist	Reviewed. Alignment of legislative references with MPA 2021.