Guideline

Mental Health Alcohol and Other Drugs Branch

QH-GDL-451

Acute behavioural disturbance management (including acute sedation) in Queensland Health Authorised Mental Health Services (children and adolescents)

1. Purpose

This Guideline describes the processes for pharmacological management of children and adolescents presenting with acute behavioural disturbance within Queensland Health Authorised Mental Health (children and adolescents) Inpatient Services (AMHS).

Reducing the use of restrictive practices and minimising harms caused by their use is a priority for Queensland mental health alcohol and other drug services and is essential to the provision of 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 and documented.

In circumstances where an individual's needs dictate a variation from this Guideline, discussion with a consultant psychiatrist or emergency physician is indicated and the clinical reasoning behind such a decision must be fully documented.

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 Mental Health Alcohol and Other Drugs (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* (Qld) (MHA)
- 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
- *Medicines and Poisons (Medicines) Regulation 2021*
- *Medicines and Poisons Act 2019*
- National Safety and Quality Health Service Standards Second edition 2021, standards 4 (Medication Safety) and 8 (Recognising and Responding to Acute Deterioration)
- *Guardianship and Administration Act 2000*

Procedures, Guidelines and Protocols:

- Pharmacological management of acute behavioural disturbance management (ABDM) in Queensland Mental Health Alcohol and Other Drugs (MHAOD) Inpatient Services (adults and older adults) 2021
- Management of patients with Acute Severe Behavioural Disturbance in Emergency Departments 2021
- Queensland Human Rights Act 2019

Forms and templates:

- National Inpatient Medication Chart
- Children's Early Warning Tool (CEWT)
- Post Sedation Monitoring Chart

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 *Mental Health Act 2016* (MHA-2016) makes it an offence for a person to administer medication to a consumer (which includes the sedation of the consumer) unless the medication is clinically necessary for the consumer's treatment and care for a medical condition. Treatment and care for a medical condition includes preventing imminent serious harm to the consumer or others.

It is important that wherever possible, the opportunity to consent to treatment should be offered. Children under the age of 16 can be competent to provide informed consent without parental permission or knowledge under certain circumstances ('Gillick' competence[1]).The use of acute sedation does not preclude the child/adolescent from providing consent to treatment where they are able to do so.

The ideal arrangement is to obtain the consent of both the parent/guardian and the adolescent. Children under the age of 16 should not be sedated without the consent of the parent(s)/guardian and before conferring with a consultant psychiatrist, except in emergency circumstances.

If the child/adolescent lacks capacity to provide or withhold consent to treatment, and consent cannot be obtained from the parent/guardian. Involuntary administration of medication, including the use of acute sedation, may be provided under the following/in the following ways under the *MHA 2016* if the criteria within the legislation are met:

- Treatment Authority
- Treatment Support Order
- a person absent from an interstate mental health service and detained in an Authorised Mental Health Service (and awaiting their return interstate)
- Forensic Order (Mental Health Court)
- Recommendation for Assessment, where treatment is for the purposes of safe transfer to, within, or between AMHS immediately prior to the transportation occurring.

In addition, the *Criminal Code Act 1899* removes criminal liability for medical treatment performed or provided in good faith, with reasonable care, and for the benefit of the child/adolescent.

[1] In his judgment in Gillick v West Norfolk and Wisbech Area Health Authority and another [1986] 1 AC 112 (HL), Lord Scarman stated: 'As a matter of Law the parental right to determine whether or not their minor child below the age of sixteen will have medical treatment terminates if and when the child achieves sufficient understanding and intelligence to understand fully what is proposed.'

Under the *MHA 2016* the application of the treatment criteria and the assessment of capacity of minors to consent to being treated is guided by the Chief Psychiatrist Policy - Treatment Criteria, Assessment of Capacity, 'Less Restrictive Way' and Advance Health Directives, and the Queensland Health Guide to Informed Decision-making in Health Care. For a minor, treatment under a less restrictive way includes circumstances where a parent provides consent for the treatment.

The Queensland public sector must consider the impact on the human rights of individuals when making decisions, and to ensure that decisions are 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 the progress notes, 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 utilising the below 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
- Australian Clinical Guidelines for Early Psychosis | Second edition, 2016
- Queensland Health Chief Psychiatrist Policy, Treatment and care of minors

These documents outline:

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

6.1 Principles for acute sedation

6.1.2 Principles to consider prior to the administration of acute sedation

- Acute sedation must be used only when clinically indicated and not as a substitute for other more appropriate treatment or intervention options.
- Issues of consent must be addressed – refer to section 5. Legislation and consent.
- All efforts must be made to maintain the individual's privacy, dignity and confidentiality.
- Prior to administration, be clear on the goal of medication use i.e., to calm or fully sedate.
- Prior to administration, parent/guardian should be supported to leave the area, as witnessing the sedation may be a distressing experience for them.
- Be aware of the total medication load in the previous 24-hour period including PRN medication.

6.1.3 Principles to consider when administrating acute sedation

- All staff involved in acute sedation must be trained in resuscitation.
- Acute sedation must be clearly and accurately recorded, providing details of medication administered, route, clinical indication, monitoring, response, adverse incidents and reviews.

- Frequent administration of ‘as needed’ (PRN) medication for more than 24 hours may indicate an inadequate regimen of regular medication, necessitating a review by the treating team.
- The total dose of medication prescribed in acute sedation for an acutely disturbed child/adolescent must be reviewed regularly by a consultant psychiatrist at least every 24 hours and pharmacist if possible.
- Frequent PRN intramuscular (IM) injections of antipsychotic medication—especially when used over extended periods of time—increases the risk of neuroleptic malignant syndrome.
- Great care must be taken when considering acute sedation for children or adolescents, the frail, or medically compromised where toxicity is more common.
- Acute sedation must be carried out in a clinical area that has ready access to emergency response equipment. Ensure appropriately sized resuscitation equipment is available for children and adolescents.
- Where possible acute sedation should include a medical review. Where a medical review is not possible at the time of acute sedation, this should occur as soon as practicable. Acute sedation without medical review should only be used where circumstances require such action in order to prevent harm that may be caused by the conduct of the child/adolescent.
- Prior to the initiation of parenteral sedation, children/adolescents will be given every opportunity to take oral sedation.
- If parenteral treatment is necessary, the intramuscular route (IM) is preferred.
- Repeated smaller doses of oral or IM medication to achieve the desired sedation endpoint are preferred to the use of a single larger dosing because it allows tolerance to be assessed.

6.1. Principles to consider post the administration of acute sedation

- Children/adolescents, and where applicable parents/guardians, should be given an opportunity in the post sedation phase to debrief and discuss the reasons for, and circumstances of, the sedation episode.
- Children and adolescents should not be discharged from hospital until they are in an alert and mobile state.
- To ensure comprehensive monitoring of potential delayed side effects, it is essential that parent/guardian receive written documentation that is fully explained containing details of medications administered, dosages, associated side effects and relevant precautions in the event of hospital discharge.
- An operational debrief should be conducted for staff involved in the management of an aggressive incident.
- Regular local review of incidents should occur to identify common issues and quality improvement opportunities.
- Incidents must be reported to the Chief Psychiatrist as per the requirements of the Chief Psychiatrist Policy and Practice Guidelines, Notifications to Chief Psychiatrist of Critical Incidents and Non-compliance with the *Mental Health Act 2016.*

7. Guideline for acute pharmacological management of behavioural disturbance (children and adolescents)

7.1 Indications

Acute sedation may be the only clinically appropriate treatment option in situations when children/ adolescents with mental illness are extremely agitated, threatening violence, are actually violent and/or are a danger to themselves or others. Acute sedation should only occur after attempts to manage the behavioural disturbance with de-escalation techniques and oral medication have proven unsuccessful.

An assessment of likely contributing factors to the behaviour will assist decision making on how to proceed. These may include medical illness (e.g., causing pain or delirium), psychiatric illness, situational factors, and personality issues.

The aims of the management of the acute behavioural psychiatric emergency are to:

- calm the child/adolescent and thereby manage extreme agitation, aggression and potential violent behaviour that put the individual or those around them at risk of physical harm
- reduce psychological suffering
- reduce physical distress
- maintain a safe environment for the child/adolescent and others
- prescribe safe regimens e.g., to calm (rather than to sedate to unconsciousness)
- monitor physical health
- do no harm.

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. 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.

Refer also to section 7.6 Adverse reactions.

Precaution	Action
Medical illness	Avoid acute sedation where behavioural disturbance is likely secondary to a serious medical condition for which there is a specific emergency treatment, e.g., hypoglycaemic crisis or hypoxia due to acute asthma
Medically compromised, markedly intoxicated, dehydrated, or those who have never received antipsychotic medication (neuroleptic naïve)	Reduced doses may be required, seek paediatric advice
Pregnant	Discuss with on-call Consultant Psychiatrist 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
Significant respiratory impairment	Avoid benzodiazepines
Cardiac disease	Benzodiazepines should be used in preference to antipsychotics as they are safer, but be aware of the risk of accumulation.
Intellectual impairment or acquired brain injury	Can be very sensitive to pharmacological sedation and high drug doses should be avoided • 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

Precaution	Action
Delirium	It is imperative to identify consumers at risk of delirium to instigate preventive measures. Consumers should not be treated with benzodiazepines—sedative/alcohol withdrawal delirium is an exception Low dose risperidone preferable; 0.02–0.04 mg/kg/day orally only For further guidance refer to Pharmacological management for acute behavioural disturbance in children 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)	Longer acting benzodiazepines is preferred 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
Swallowing problems	Heavy sedation (especially with antipsychotics) or delirium is associated with increased risk of aspiration. Prescribing for rapid acute sedation should proceed with caution for children/adolescents with pre-existing dysphagia.
History of neuroleptic malignant syndrome	Seek paediatric advice prior to administration of medication
Concomitant administration of IM olanzapine and parenteral benzodiazepines	**Avoid** due to risks of extreme hypotension, bradycardia and respiratory depression

7.3 Prior to acute sedation

An initial medical assessment should be performed on admission and where possible, prior to acute sedation. The assessment where possible should involve:

- physical observations
- brief neurological examination
- blood results (urea, electrolytes, creatinine, FBC, TFT, and glucose)
- ECG (useful for establishing baseline QT interval which may be prolonged by neuroleptics)
- pulse oximetry
- signs of dehydration should be noted and must be managed accordingly (dehydration is associated with an increased risk of neuroleptic malignant syndrome).

If a medical assessment is not able to be conducted, the reasons are to be documented in the clinical file and a notation made regarding general observations of physical state.

Note: There are several clinical considerations to take into account including underlying medical/neurological conditions, development delay or the potential for pregnancy. If any of these are suspected, advice must be sought from the relevant specialists to determine medication selection and dose.

7.4 Processes for acute sedation

Step 1: non medication measures—de-escalation

Refer to local de-escalation processes and consumer engagement strategies.

Step 2: medication—oral (preferred medication option)

Principles

- Aim to calm with light sedation.
- Lorazepam being short acting with low risk of accumulation is preferred over oral benzodiazepines having a long half-life with a risk of accumulation.
- There is little data regarding doses for lorazepam and olanzapine (**doses outlined are a guide only)**.
- If olanzapine is taken with benzodiazepines (e.g., diazepam, lorazepam, temazepam), sleeping tablets, strong pain killers or alcohol, it will cause more sleepiness
- Avoid polypharmacy (no more than two antipsychotic agents within a 24-hour period).
- If two doses are given without effect, nursing staff are to consult promptly to the relevant medical staff member who will seek consultant psychiatrist advice.
- Medical officer (and pharmacist where available) to review oral medication regime (both regular and PRN) every 24 hours.
- Clinical monitoring of vital observations and contacting a consultant psychiatrist is recommended if higher doses are considered. Emergence of side effects may occur at lower medication doses than for adults. Prior to administration of additional PRN, calculate the total daily dose of all oral medications given in the previous 24 hours. If acute admission via emergency department (ED), check whether any medication was administered en route to the ED, or in the ED.
- The development of delirium is possible and the underlying medical cause needs to be treated first.
- Any developmental delays (even minor delays) increase the risk of airway problems. Enquire about possible congenital liver or cardiac disease and obtain paediatric advice regarding medication and dose.
- Consider requirements for a lower dose for consumers with an eating disorder if they have never had an antipsychotic medication before.
- Ensure accurate documentation of medication given and response to it, including rationale for change.

Process

- Individual doses may be given 60 minutes apart until maximum dosage reached.
- Contact consultant psychiatrist if a higher than recommended dose is 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		
Age range	**First line (oral)**	**Second line (oral)**
As a guide The maximum dose in 24 hours should be indicated on the medication chart/order	**Lorazepam** Peak effect at 1–3 hours Doses based on weight, for lorazepam 0.05 mg/kg/day	**Olanzapine** as a wafer if lorazepam regimen fails Doses based on weight, for olanzapine 0.1 mg/kg/day
very young child < 5 years	Contact paediatrician	Contact paediatrician
young child 5–8 years	0.25 mg, contact consultant psychiatrist first	Seek consultant psychiatrist advice
pre-adolescent	0.5 mg (max 2 mg in 24 hours)	5 mg (max 10 mg in 24 hours)
early adolescent	0.5 mg (max 2 mg in 24 hours)	5 mg (max 15 mg in 24 hours)
older adolescent	1 mg (max 4 mg in 24 hours) Seek further advice if a higher dose is being considered e.g., based on consumers' height, weight and level of behavioural disturbance	5–10 mg (max 20 mg in 24 hours)

Indications: moderate or severe arousal, highly agitated, abusive, unco-operative, threat or actual violence to self or others		
Age range	**First line (oral)**	**Second line (oral)**
As a guide Warning: do not give lorazepam IM and olanzapine IM within 60 minutes of each other.	**Lorazepam** orally stat Peak effect at 1–3 hours Individual doses may be given after 30–60 minutes if needed until maximum dosage reached Doses based on weight, for lorazepam 0.1 mg/kg/day	**Olanzapine** as a wafer if lorazepam regimen fails. Individual doses may be given after 60 minutes if needed. Seek consultant psychiatrist advice if adequate response is not achieved Doses based on weight, for olanzapine 0.2 mg/kg/day Concomitant administration of IM olanzapine along with benzodiazepines is not recommended due to the potential for excessive sedation and cardiorespiratory depression.
very young child <	Contact paediatrician	Contact paediatrician

Indications: moderate or severe arousal, highly agitated, abusive, unco-operative, threat or actual violence to self or others		
Age range	**First line (oral)**	**Second line (oral)**
5 years		
young child 5–8 years	0.5 mg, contact consultant psychiatrist first	5 mg, contact consultant psychiatrist first
pre-adolescent	1 mg (max 4 mg in 24 hours)	5 mg (max 10 mg in 24 hours)
early adolescent	1 mg (if 4 mg not adequate, contact consultant psychiatrist. Max 6 mg in 24 hours with consultant psychiatrist approval)	5–10 mg (max 15 mg in 24 hours)
older adolescent	1–2 mg (if 4 mg not adequate contact consultant psychiatrist. Max 8 mg in 24 hours with consultant psychiatrist approval) Seek further advice if a higher dose is being considered e.g., based on consumers' height, weight and level of behavioural disturbance	5–10 mg (max 20 mg in 24 hours)

Only proceed to step 3 if not accepting oral medication or step 2 is unsatisfactory

Step 3: short acting IM medications

- Issues of consent and guardianship must be addressed—refer to 5. Legislation and consent
- considerations.
- IM droperidol and midazolam are not recommended.
- **Warning: do not give lorazepam IM and olanzapine IM within 60 minutes of each other.**
- Ensure staff are available to safely hold the child/adolescent during administration.
- Calculate total daily dose of all oral and IM medications given in the previous 24 hours before administering additional PRN.
- If two IM doses given without effect, nursing staff to report promptly to relevant medical staff member who may seek consultant psychiatrist advice.
- Medical Officer to review every 24 hours and change back to oral as soon as possible.
- Ensure concise, accurate documentation of all medication given and response, including rationale for changes.

Age range	First line (IM)	Second line (IM)
As a guide	**Lorazepam** peak effect at 1–3 hours. Individual doses may be given after 30–60 mins if needed until maximum dosage is reached. Doses based on weight, for lorazepam	**Olanzapine** if lorazepam regimen inadequately sedates. A second dose may be given after 2 hours and a third dose 6 hours after the first injection until maximum dose is

Age range	First line (IM)	Second line (IM)
	0.1 mg/kg/day	reached. If no effect, seek consultant psychiatrist advice. Doses based on weight, for olanzapine 0.2 mg/kg/day
very young child < 5 years	Contact paediatrician	Contact paediatrician
young child 5–8 years	0.5mg, contact consultant psychiatrist first	5 mg, contact consultant psychiatrist first
pre-adolescent	1 mg (max 4 mg in 24 hours)	5 mg (max 10 mg in 24 hours)
early adolescent	1 mg (max 6 mg in 24 hours with consultant psychiatrist approval)	5–10 mg (max 15 mg in 24 hours)
older adolescent	1–2 mg (max 8 mg in 24 hours with consultant psychiatrist approval) Seek further advice if a higher dose is being considered e.g., based on consumers' height, weight and level of behavioural disturbance	5–10 mg (max 20 mg in 24 hours)

Step 4: management of prolonged/sustained disturbed behaviour

- Longer acting IM medications—consultant psychiatrist authorised only:
  - Information on the use of IM zuclopenthixol acetate (clopixol acuphase®) in children and adolescents is not available. Any use of IM zuclopenthixol acetate should be under the supervision of a consultant psychiatrist.

7.5 Monitoring/observation–post acute sedation

- Ensure observation and monitoring of mental state and sedation level following administration of oral or IM
- Following IM medication, the child/adolescent must be under constant visual observation until it is clear that they are not over-sedated, can maintain a patent airway, and that it is safe to monitor intermittently.
- Physical observations may be difficult to perform on children/adolescents who are agitated or aggressive. Reasons for not performing observations must be documented and discussed with the relevant medical staff.
- All monitoring should be recorded on the age-appropriate Children's Early Warning Tool (CEWT).

The level of observations is determined by the 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

Arousal level	Level of monitoring
Easy to rouse	Vital observations* at 30 min intervals (only if child/adolescent cooperates)
Can't stay awake	Vital observations at 10 min intervals
Difficult to rouse	Vital observations at 5 min intervals
Unresponsive	Call medical emergency

***Vital observations**: pulse, O_2 saturation (pulse oximetry), blood pressure, respiratory rate, airway, temperature, sedation scale, pupils, limb power, and blood glucose level (BGL).

- Temperature every 4 hours.
- Check for signs of dystonia or any deterioration.
- All observations must be recorded.
- Vital observations continue until the child/adolescent is alert and mobile.
- Due to the potential for delayed side effects, if discharged from hospital, parent/guardian should be provided with written documentation of medications, doses given, side effects and warnings.

Note: If the child/adolescent is uncooperative, as a minimum observe and document the following: position and movements, respiration rate and physical signs of oxygenation, e.g., pallor, colour of extremities, normal regular breath sounds.

7.6 Adverse reactions

Warnings

- Children/adolescents are at a higher risk for extra pyramidal side effects (EPSE).
- Respiratory depression can occur with lorazepam or other benzodiazepines, particularly in combination with antipsychotics.

Other potential adverse effects 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 EPSE

- Benzatropine (Cogentin) 0.02 mg/kg/day given either orally, IM, or intravenous (IV) depending on severity.
- May be repeated after 15 minutes.

For reversal of benzodiazepine induced respiratory depression

- Flumazenil—see guidelines for use below.

Guidelines for Flumazenil use for reversal of benzodiazepine-induced respiratory depression

Indications:	If, after administration of lorazepam, the respiratory rate falls below 12/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 Severe head injury—may precipitate convulsions Liver disease Known longstanding benzodiazepine users may experience symptoms of acute withdrawal and/or seizures
Dose:	IV Flumazenil 5 micrograms/kg/dose repeated every 1–2 minutes until the child/adolescent awakes (up to a maximum total dose of 40 micrograms/kg) If respiratory rate does not return to normal or the child/adolescent 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 other benzodiazepines) and respiratory function may recover and then deteriorate again Continue to monitor vital signs including respiratory rate, oxygenation (via pulse oximetry), alertness and BP until respiratory rate returns to baseline level.

8. Definitions of terms used in the guidelines

Term	Definition / Explanation / Details
Acute sedation	In this Guideline refers to the emergency administration of psychotropic medications to a child/adolescent in an Authorised Mental Health Service in order to: • relieve distress • bring severe behavioural disturbance under control to protect the person or other people from immediate or imminent risk to their safety • facilitate comprehensive diagnostic assessment and management.

9. Approval and implementation

Consultation

Queensland Psychotropic Medication Advisory Committee

Children's Health Queensland Child and Youth Mental Health Services

Office of the Chief Nursing and Midwifery Officer

Queensland Health Mental Health Alcohol and Other Drugs Clinical Clusters

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

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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	03/07/2024	Office of the Chief Psychiatrist	Comprehensive review: Queensland Psychotropic Medication Advisory Committee, Office of the Chief Nursing and Midwifery Officer, Children's Health Queensland Child and Youth Mental Health Services

Guidelines for acute behaviour disturbance management (including acute sedation) in authorised mental health services for children and adolescents

STEP 1 NON-MEDICATION MEASURES
DE-ESCALATION

Don't threaten to withdraw privileges, seclude or medicate
Ensure safety of those in the environment
Escapes, don't corner the person or get cornered
Stance, adopt protective stance
Calm, non-threatening manner
Allow for ventilation of anger and distress
Leave the area and person if secure and safe to do so
Assistance, ensure enough skilled staff available
Time out, offer quiet room/lounge
Invite to sit and verbalise concerns
Options, e.g., large motor exercise, music, beverage
Never turn your back

ONLY proceed to STEP 2 if response to above measures unsatisfactorv.

STEP 2 MEDICATION—ORAL

Mild arousal, may be irritable, willing to talk and cooperative

Individual doses may be given after 60 minutes until max dosage reached

Age range	First line	Second line
As a guide	**Lorazepam** Peak effect at 1–3 hours Doses based on weight, for lorazepam 0.05 mg/kg/day	**Olanzapine** wafer if lorazepam regimen fails Doses based on weight, for olanzapine 0.1 mg/kg/day
very young child < 5 years	contact paediatrician	contact paediatrician
young child 5–8 years	0.25 mg, contact consultant psychiatrist first	seek consultant psychiatrist advice
pre-adolescent	0.5 mg (max 2 mg in 24 hours)	5 mg (max 10 mg in 24 hours)
early adolescent	0.5 mg (max 2 mg in 24 hours)	5 mg (max 15 mg in 24 hours)
older adolescent	1 mg (max 4 mg in 24 hours)	5–10 mg (max 20 mg in 24 hours)

STEP 2 MEDICATION—ORAL

Moderate to severe arousal, highly agitated, abusive, uncooperative, threat or violence to self or others

Age range	First line	Second line
As a guide	**Lorazepam** orally stat Peak effect at 1–3 hours. Individual doses may be given after 30–60 minutes. Doses based on weight, for lorazepam 0.1 mg/kg/day	**Olanzapine** wafer if lorazepam regimen fails. Individual doses may be given after 60 minutes. Doses based on weight, for olanzapine 0.2 mg/kg/day
very young child < 5 years	contact paediatrician	contact paediatrician
young child 5–8 years	0.5 mg, contact consultant psychiatrist first	5 mg, contact consultant psychiatrist first
pre-adolescent	1 mg (max 4 mg in 24 hours)	5 mg (max 10 mg in 24 hours)
early adolescent	1 mg (if 4 mg not adequate contact consultant psychiatrist. Max 6 mg in 24 hours with consultant psychiatrist approval)	5–10 mg (max 15 mg in 24 hours)
older adolescent	1–2 mg (if 4 mg not adequate contact consultant psychiatrist. Max 8 mg in 24 hours with consultant psychiatrist approval)	5–10 mg (max 20 mg in 24 hours)

ONLY proceed to STEP 3 if NOT accepting oral medication or response to STEP 2 is unsatisfactory.

MONITORING/OBSERVATION

Level of observations are determined by the level of sedation

awake	observe level of alertness every 15 minutes for first hour then half hourly for 8 hours
easy to rouse	vital observations* at 30 min intervals (only if child/adolescent cooperates)
can't stay awake	vital observations at 10 min intervals
difficult to rouse	vital observations at 5 min intervals
unresponsive	call medical emergency

***Vital observations**: pulse O_2 saturation (pulse oximetry), blood pressure, respiratory rate, sedation scale, pupils, limb power and BGL.

- If uncooperative, observe pulse oximetry and respiration rate as a minimum
- Temperature every 4 hours
- Check for signs of dystonia or any deterioration
- Vital observations continue until alert and mobile.

Warnings:

Respiratory depression can occur with lorazepam or other benzodiazepines, particularly in combination with antipsychotics. If respiratory rate falls below 12/min IV Flumazenil 5 micrograms/kg/dose repeated every 1–2 mins until child/adolescent awakes (max 40 micrograms/kg).

Children and adolescents are at higher risk for EPSE. For acute laryngospasm or EPSE: Benztropine (Cogentin) 0.02 mg/kg/day given either orally, IM, or IV depending on severity. May be repeated after 15 minutes.

STEP 3 SHORT ACTING IM MEDICATIONS

Do not give Lorazepam IM and Olanzapine IM within 60 minutes of each other

Age range	First line	Second line
As a guide	**Lorazepam** Peak effect at 1–3 hours. Individual doses given after 30–60 minutes if needed until maximum dosage reached. Doses based on weight, for lorazepam 0.1 mg/kg/day	**Olanzapine** if lorazepam regimen inadequately sedates. A 2nd dose may be given after 2 hours and a 3rd dose 6 hours after the first injection until maximum dosage is reached. If no effect, seek consultant psychiatrist Doses based on weight. Olanzapine 0.2 mg/kg/day
very young child < 5 years	contact paediatrician	contact paediatrician
young child 5–8 years	0.5 mg, contact consultant psychiatrist first	5 mg, contact consultant psychiatrist first
pre-adolescent	1 mg (max 4 mg in 24 hours)	5 mg (max 10 mg in 24 hours)
early adolescent	1 mg (max 6 mg in 24 hours with consultant psychiatrist approval)	5–10 mg (max 15 mg in 24 hours)
older adolescent	1–2 mg (max 8 mg in 24 hours with consultant psychiatrist approval)	5–10 mg (max 20 mg in 24 hours)

LONG ACTING IM MEDICATIONS

Prolonged/sustained disturbed behaviour management

IM Zuclopenthixol Acetate (Clopixol Acuphase®) **not recommended for use.**

Effective from 09 July 2024
Due for review 03 July 2027