Clinical Guideline

MANAGEMENT OF ACUTELY DISTURBED ADOLESCENTS

SETTING Bristol Royal Hospital for Children (BRHC)

FOR STAFF All acute medical and nursing staff.

PATIENTS Acutely disturbed children and adolescents – 10 to 16 years old.

- This guideline MUST be used in conjunction with the Mental Health Risk Assessment Matrix and the NICE guideline: Violence & Aggression: Short term management in mental health, health and community settings. NG10.
- The aim of this guideline is to quickly calm acutely disturbed patients (not to induce sleep or unconsciousness) and to reduce the risk of violence and harm to patient and others.
- The decision to use the guideline must be taken jointly between senior medical and nursing staff
- **Advice from the Child and Adolescent Mental Health Services (CAMHS) team must be sought at the earliest opportunity – if possible before medications are used**

Checklist for all Steps

- Review notes + medications chart; check contraindications / interactions if using medications (for example antipsychotic naïve if using antipsychotics, prolonged QTc on electrocardiogram (ECG) or other cardiac disease, history of neuroleptic malignant syndrome (NMS) or other severe drug reaction, **intoxication with alcohol or drugs (use benzodiazepines with caution)**
- Physical examination - assess hydration, blood pressure, pulse, temperature, abnormal movements, evidence of intoxication/illicit drugs.
- Obtain patient/parent/carer consent as soon as possible and document in medical notes. Consideration should be given to the Mental Health Act Code of Practice.
- Clinical assessment and subsequent plans should be discussed by the consultant and senior nurse responsible and documented in the patient's notes.
- Contact the consultant CAMHS psychiatrist at the earliest opportunity & consider security presence / support if required. **(Crisis CAMHS line – Professionals Option: 0800 9539599)**
- **Lorazepam (oral and IM) are the first-line agents for rapid tranquilisation following the use of non-medical measures.**
    - Promethazine (oral and IM for those with known benzodiazepine sensitivities); Risperidone (orodispersible) and Haloperidol (IM and oral) are available in the Children's Emergency Department and on Apollo 35, however **any medication (in addition to lorazepam OR promethazine) will need to be decided in consultation with a CAMHS psychiatrist and would depend on the clinical situation.**
- Ensure access to flumazenil if using lorazepam and procyclidine if using antipsychotics.

Any decisions about restraint in the acute scenario including use of medication are deemed to be in the 'best interests' of the young person and do not fall into any statutory medico-legal framework.

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Step 1: Non-medication measures
(If responding do not proceed to Step 2)

Always try de-escalation techniques: One member of staff as main communicator, Talking, calming techniques, time out, using non-verbal communication, moving to a low stimulus environment, initially as these can often be highly effective.

Helpful NICE guidance for De-Escalation

Checklist:

- Monitor temperature, pulse, blood pressure, GCS and respiratory rate at half hour intervals until ambulatory.
- Ensure access to oxygen/resuscitation equipment
- Consider ECG (required if haloperidol requested by CAMHS psychiatrist)
- Review if further medication necessary or prolonged restraint
- Phone Crisis line (CAMHS team) **0800 9539599**.
- Ensure access to Flumazenil IV
- Further medication: Give in consultation with CAMHS psychiatrist
- **Wait at least 30-60 minutes** between I/M Injections and only give in consultation with CAMHS psychiatrist.

Step 2: Consider Oral medication
(If responding do not proceed to Step3)

- **Oral** Lorazepam*:*
    a. **>12 years: 1 to 2mg**
    b. **10 - 12 years: 1mg**

Maximum of 4mg/24 hrs; Minimum of 1 hour between doses

I**f known contraindication/sensitivity consider:**

- Promethazine **25mg *(> 10 years*)** up to twice daily. Maximum of 50mg/24 hrs
- Continue talking and using non-drug approaches

See checklist

Step 3- Consider Intramuscular (I/M) therapy if patient refuses oral medication, if oral ineffective, or if an effect is essential within 30 minutes (due to serious risk from physical restraint)

- **IM** Lorazepam:
    a. **>12 years 1 to 2mg**
    b. **10 - 12 years 1mg**

Maximum of 4mg/24 hrs; **Minimum of 30-60 minutes between doses**

I**f lorazepam known contraindication/sensitivity consider:**

- Promethazine: **25mg *(> 10 years*)** up to twice daily
- , Maximum of 50mg/24 hrs
- Continue talking and using non-drug approaches

Monitoring:

- **Significant fall in Blood Pressure (BP) (systolic < 90),** Irregular or slow heart rate (< 50 bpm), a fall in GCS or abnormal respiratory rate (< 15) will require a medical review

- **Signs of NMS (hyperpyrexia, rigidity, confusion, autonomic instability) will require a medical/PICU referral**

See Appendix 1 for reversal agents.

Always read the BNF/ BNF for Children, and Summary of Product Characteristics (SPC) for the medicines - https://www.bnf.org/

Further Information On Medicines Used in Rapid Tranquilisation

Medicine	Route	Pharmacokinetics	Major Side Effects	Notes
Lorazepam	Oral or I/M	Onset 20-40mins Peak 60-90 mins Half life 12-16hrs	Respiratory depression Loss of consciousness Disinhibition	Injection must be diluted 1:1 with Water For Injection(WFI) or 0.9% Sodium Chloride for Injection prior to administration e.g. 0.5ml Lorazepam Inj: 0.5ml WFI Do not mix in same syringe as haloperidol (or any other drug). Administer separately **I/M Lorazepam MUST NOT be given within ONE HOUR of I/M Olanzapine** I/M absorption is as slow as oral absorption, but is rapid in an active patient Respiratory depression is readily reversed with the benzodiazepine antagonist Flumazenil Injection (IV use only) Usual maximum BNF dose of Lorazepam = 4mg in 24hours. Higher daily doses only after discussion with Consultant Psychiatrist Not licensed in children less than 12years except for status epilepticus
Promethazine	Oral	Onset 20mins Peak 2-3 hrs Half life 5-14hrs	Prolonged sedation Seizures Cardiorespiratory depression Painful Injection Additional anticholinergic effects	Injection does **not** need to be diluted Promethazine is a sedating antihistamine It may be considered as an alternative sedative agent in those that are antipsychotic naïve, who have been administered the maximum dose of medication, or in whom benzodiazepines are not tolerated. Should be used with advice from Consultant Usual maximum of 50mg in 24 hours. Higher doses (up to 100mg in 24hours) can only be used after discussion with the Consultant. Do not administer I/M Promethazine within ONE HOUR of I/M Olanzapine I/M licensed for children of 2years and above. Oral licensed for children in doses up to 50mg daily
	I/M	Onset 20mins Peak 2-3 hrs Half life 5-14hrs		
Risperidone	oral	Peak 1-2 hrs Half life 18hrs	EPSE Hypotension	Less likely to cause EPSE's than Haloperidol Not licensed for use in children under 18yrs (except for conduct disorder) Usual oral dose 0.5mg-2mg (max16mg/24hrs)

Haloperidol	Oral	Onset 1-2 hrs Peak 4 hrs Half life 21hrs	EPSE Hypotension Increased QTc interval or arrhythmias which may lead to sudden death Seizures Neuroleptic malignant syndrome (NMS)	Ensure that I/M Procyclidine is available to treat acute dystonias The bioavailability of oral and I/M Haloperidol is different. This must be taken into account when considering total dose in a 24hr period 5mg oral Haloperidol = 3mg I/M Haloperidol ECG recommended Not recommended for IV use because of the risk of arrhythmias I/M not recommended for use in children Usual dose Oral/IM 1 to 5mg. Usual max BNFC dose of oral haloperidol 6mg in 24 hours. Higher doses of 20mg **orally**/24hrs and **IM** 12mg/24hrs should only be used after discussion with Consultant Psychiatrist. In adolescents they can receive the adult dose of 2.5-5mg IM for rapid tranquillisation.
	IM	Onset 20-30mins Peak 1 hr Half life 21 hrs		

Table A

REFERENCES	NICE Guideline: Violence & Aggression: Short term management in mental health, health and community settings. NG10. 2019 Update – Surveillance-review-proposal BNF for Children: http://www.bnf.org/bnf/org_450055.htm Quick guide - De-Escalation Preventing violent and aggressive behaviours Reducing the risk of violent and aggressive behaviours. Young Minds: Resource that can help young people with mental health problems think about and understand their feelings of anger Patel et al 2018. Joint BAP NAPICU evidence-based consensus guidelines for the clinical management of acute disturbance: De-escalation and rapid tranquillisation. *Journal of Psychopharmacology* 1 –40
RELATED DOCUMENTS AND PAGES	Risk Assessment Restrictive Intervention for Children and Adults. Security Staff and Clinical Staff Roles & Responsibilities in Challenging Behaviour Management. Mental Health Quick links Mental Health Pathway for Children and Young People
AUTHORISING BODY	CMHOG – Children's Mental Health Operational Group
SAFETY	Anti-psychotics must only be used following CAMHS consultation Escalation of concern for immediate patient management call CAMHS Crisis Line: 0800 9539599
QUERIES AND CONTACT	Contact CMHOG administrator. Ellen Chase: Ellen.chase@uhbw.nhs.uk

Document Change Control				
Date of Version	Version Number	Lead for Revisions	Type of Revision	Description of Revision
June 2022	3	Senior Nurse – Lead CYP Mental Health & Bianca Cuellar CED consultant.	Minor	Update to: Pharmacological information, Detail within checklist, CAMHS contact numbers, De-escalation details. Review NICE guidelines.

Evidence of Learning from Incidents

The following table sets out any incidents/ cases which informed either the creation of this document or from which changes to the existing version have been made.

Incidents	Summary of Learning
Datix ID: 185511	Further development & Update of these guidelines required. Stage 2 at next level of escalation to be developed. Action log held within CMHOG.

Appendix 1: Further Information on Medication

Drug Name	Indication	Administration	Dosage	Key
Flumazenil (Benzodiazepine antagonist)	If Respiratory rate drops below 10 breaths/min after administration of benzodiazepines.	**I/V Injection and must have been prescribed and the indication reviewed by the doctor before administration.** Administer over 15 seconds (stated in BNFC)	10micrograms/kg (max 200micrograms/dose) IV repeated at 1 minute intervals if necessary total max dose of 50micrograms/kg (1mg) (2mg if in PICU)	Monitor respiratory rate continuously until back to baseline Caution: Flumazenil may wear off before the adverse effects of Lorazepam so monitor carefully Flumazenil should only be administered if the potential benefits outweigh possible risks. It is generally well tolerated and side effects subside rapidly. Patients may become agitated, anxious or fearful on awakening due to reversal of benzodiazepine and may experience nausea, vomiting or flushing, rarely seizures.
Procyclidine	Acute dystonia Non- acute	I/M Injection Oral	Dose for 10-18 years is 5-10mg). 12-18 years is 2.5mg	It is usually effective in 5-10 minutes but may need 30 minutes for relief. Three times a day