

Rapid Tranquilisation Guideline in Younger Patients (aged 6-17 Years) on inpatient wards

Guideline information

Guideline number: 1200

Classification: Clinical

Supersedes: N/A

Local Safety Standard for Invasive Procedures (LOCSSIP) reference: N/A

National Safety Standards for Invasive Procedures (NatSSIPs) standards: N/A

Version number: 1

Date of Equality Impact Assessment: 18.01.2024

Approval information

Approved by: Mental Health & Learning Disabilities Written Control Documentation Group

Date of approval: 30.01.2024

Date made active: 14.11.2024

Review date: 30.01.2027

Summary of document:

This guideline has been developed to promote best practice on the use of rapid tranquilisation in younger patients (6-17 years) on inpatient wards across Hywel Dda. A separate Hywel Dda guideline exists for the use of RT in adults 18 years and over – [see guideline 654](#) – opens in a new tab.

Scope:

This guideline provides advice to all Hywel Dda staff members responsible for the care and wellbeing of patients with mental health needs (6-17 years) where the use of rapid tranquilisation is considered necessary.

To be read in conjunction with:

[268 -Medicines Policy \(Acute, Mental Health, Learning Disabilities and Community Services\)](#) (opens in a new tab)

[008 -Consent to Examination or Treatment Policy](#) (opens in a new tab)

[811 -Mental Capacity Act \(2005\) Practice Guideline](#) (opens in a new tab)

[176 -Non Medical Prescribing Policy](#) (opens in a new tab)

NICE Guideline (NG10) May 2015: Violence and aggression: short-term management in mental health, health and community settings <https://www.nice.org.uk/guidance/ng10> (opens in a new tab)

[177 -Observation and Engagement Policy](#) (opens in a new tab)

[654-Rapid Tranquillisation Guideline in Acute Mental Health and Learning Disabilities In Patient Settings](#) (opens in a new tab)

[843 – Reducing restrictive practice policy](#) – opens in a new tab

Patient information:

Include links to [Patient Information Library](#)

Owning group:

MH&LD WCD T&F Group

Executive Director job title:

Director of Operations

Reviews and updates:

Version 1 – 30.01.2024

Keywords

Glossary of terms

ADHD - Attention Deficit Hyperactivity Disorder

ASD - Autistic Spectrum Disorder

CTO - Community Treatment Order

ECG - Electrocardiogram

HDdUHB - Hywel Dda University Health Board

IM - Intra-Muscular

LD - Learning Disabilities

MCA - Mental Capacity Act

NEWS - National Early Warning Score

PRN - Pro re nata (when required)

QTc - Corrected QT interval

RC - Responsible Clinician

RPI - Restrictive Physical Intervention

RRPT - Reducing Restrictive Practice Team

RT - Rapid Tranquillisation

SOAD - Second Opinion Appointed Doctor

U&E's - Urea and Electrolytes

Contents

Guideline information.....	1
Approval information.....	1
Introduction	4
Scope	4
Aim	4
Objectives	5
The Legal Basis for Treatment	5
Consent.....	6
Anticipating and Reducing Risk	6
Roles and Responsibilities.....	7
Treatment Guidelines	8
Restrictive Physical Interventions	10
Sites for administration	11
Drugs used in rapid tranquilisation.....	13
Risks Associated with Medicines used in RT	16
Monitoring after Rapid Tranquilisation	17
Post Incident Review	20
References	20
Acknowledgements	21
Appendix 1: Algorithm for the Pharmacological management of Rapid.....	22
Tranquilisation in Children (<12 years)	22
Tranquilisation in Children and Young Persons(12 -17years)	23

Introduction

This guideline applies to children and young people aged 6 to 17 years, on inpatient mental health wards (Rainbow unit on Cilgerran Ward and Morlais).

This guideline gives advice to prescribers and other health care professionals on the use of non-pharmacological and following that pharmacological methods to prevent disturbed behaviours and reduce risk of imminent and serious harm to self/others.

Acute behavioural disturbance can occur in the context of psychiatric illness, physical illness, substance misuse or personality disorder.

RT is the administration of carefully monitored amounts of sedating drugs over brief intervals of time. It is a strategy used to achieve rapid, short-term behavioural control of extreme agitation, aggression and potentially violent behaviour that without action places individuals or those around them at risk of physical harm or cause damage to property. When appropriate if psychological and behavioural approaches have proved unsuccessful to de-escalate acutely disturbed behaviour, the clinical practice of RT is used, and is essentially, a treatment of last resort.

The use of sedating drugs in this way is not without risks and can be distressing for patients and carers. It is prudent to ensure interventions are used safely and effectively, and to protect patient's safety and dignity.

This guideline gives advice on the administration of carefully monitored amounts of sedating drugs over a brief interval of time (for the purpose of this guideline this period is 72 hours, as defined by NICE NG10).

Scope

This guideline applies to:

- Patients aged 6-17 who are admitted to CAMHS inpatient mental health and learning disabilities beds.
- Who are severely agitated and require intervention to quickly calm to reduce the risk of harm to themselves or others.
- This guideline must be followed by all HDdUHB staff members who are responsible for the care and wellbeing of patients with mental health needs (aged 6 years to 17 years of age) where it is considered necessary to use RT as part of patient's care in the hospital setting.

Aim

The aim of this guideline is to:

- To ensure a safe, consistent approach is taken to the consideration and use of pharmaceutical interventions required for the management of behaviours that challenge in mental health and learning disabilities settings. Considering what is justified, necessary and proportionate in the

circumstance when decision making around the use of medication to manage behaviour. Ensuring that any action taken is the least restrictive option, whilst maintaining safety.

Objectives

The aim of this document will be achieved by the following objectives:

- Prescribing safely within an appropriate legal framework
- Administration of an appropriate intervention when deemed necessary
- Reflection on the intervention
- Considering what is justified, necessary and proportionate in the circumstance when decision making around the use of medication to manage behaviour

The Legal Basis for Treatment

Informal Patients or patients under short terms sections and other relevant sections of the MHA to which Part IV of the Act does not apply e.g. Sec 35, 135, 136, 5 (4), 5(2), 4 etc. If the patient is mentally capable of making a decision about treatment, the common law enables them to refuse to be treated for either a physical or mental disorder. However, if the patient is assessed as being mentally incapable of making a decision about treatment, the treatment can be provided under the MCA if it is deemed to be in their best interests.

Detained patients under a section to which Part IV of the Act applies (e.g. S2, S3, S37, S37/41, S36, S38, S47, S47/49, S48, S48/49 etc) who are within the first three months of medication as treatment for mental disorder can be treated without their consent under S63.

Detained patients under a section to which Part IV of the Act applies (e.g. S2, S3, S37, S37/41, S36, S38, S47, S47/49, S48, S48/49 etc) who are beyond the first three months of medication as treatment for mental disorder (section 58), must have a certificate – either a CO2 (patient consenting, RC completes), a CO3 (patient not consenting or lacking capacity to consent – SOAD completes) or the treatment must be authorised under S62 (RC completes form) if it is urgent treatment and meets the criteria for the use of S62.

CTO patients, those aged 16 and above and eligible, are subject to Part IVA of the Act (treatment of community patients not recalled to hospital). For treatment a certificate is required one month from when the patient leaves hospital or 3 months from when the medication was first given to the patient, whichever is the latter. For those patients who have capacity and consent to their treatment a CO8 Certificate can be issued by the patients RC. For those patients who do not have capacity or do not consent to treatment their treatment must be certified by a SOAD (CO7 certificate).

CTO patients who have been recalled to hospital can be treated without consent if their CO7 (SOAD completes) authorises treatment on recall, or, if they meet the criteria for S62, that can be used as authority for urgent treatment.

CTO patients who have been revoked can be treated under S62 whilst provisions are made to comply with S58 – i.e. a CO2 or CO3 certificate.

In the event that treatment is prescribed and administered for those patients who require a certificate/ authorisation for treatment (recalled/ revoked CTO patients and patients to whom S58 applies) the form (whether it be a CO2/ CO3 or S62 form) must give authority for that particular medication to be prescribed and given.

Unless a patient is able and willing to consent, rapid tranquilisation is usually administered under Part IV of the Mental Health Act (the 3-month rule), CO2/CO3 and CO7/CO8, Section 62 (if post 3 months) or rarely under common law. Seek advice from MHA office if further clarification needed.

Consent

Information regarding in-patient settings, and examples of when it may be necessary to administer either oral or intramuscular medication in psychiatric emergencies should be provided to parents/carers at the point of admission by the nursing/medical team.

In children/adolescents who are assessed as not being Gillick competent, parents/carers who are consenting to treatment on the child's behalf should be informed of the situation and their consent should be sought for the patient. However, in emergency situations, this may not be possible in which case parents/carers should be informed as soon as possible.

The patient in all cases must be informed that medication is going to be administered and should be given the opportunity to take appropriate oral medication voluntarily.

Anticipating and Reducing Risk

- Staff should have appropriate training in psychosocial methods to avoid or minimise the use of restrictive interventions
- Services should have a restrictive intervention programme in place, including a psychologically informed framework of approaches to reduce behaviours that challenge
- Use a multidisciplinary approach to assess and manage risk of behaviours that challenge, involving service user and carer where possible, and including the completion of suitable individual risk assessment tools.
- Regularly review risk assessments and risk management plans, sharing information as appropriate
- Develop, document, and regularly review an individual pharmacological strategy to reduce and manage risk

Roles and Responsibilities

All staff prescribing RT are accountable to ensure that:

- Practitioners who use RT will be trained in the assessment and management of patients who may present with behavioural disturbance.
- The right drug at the right dose via the right route and under an appropriate legal framework is prescribed.
- Minimum time between doses and the maximum dose to be administered in a 24-hour period is specified.
- Medication already prescribed is considered.
- The prescription is reviewed daily.
- Patients are monitored for side effects and desired effects of any medicines administered
- Rationale and target symptoms treated are documented.

Nursing staff are accountable for:

- Exhausting other strategies to de-escalate the patient using primary and secondary prevention as recommended in the 843 - Reducing Restrictive Practice Policy, MHA Code of Conduct 2016 and Reducing Restrictive Practice Framework (Welsh Government 2021), as part of Person Centred Planning, before using pharmacological methods.
- The safe administration of medicines which includes compliance with minimum time between doses and the maximum dose to be administered in a 24-hour period.
- Should Restrictive Physical Interventions (RPI) be required, then nursing staff are responsible for the physical and psychological health monitoring during and post restraint. refer to [843 – Reducing Restrictive Practice Policy](#) (opens in a new tab) for further guidance.
- Ensure medication is administered under an appropriate legal framework.
- Subsequent monitoring of patients for side effects and desired effects of any medicines administered.
- Notifying medics of any physical deterioration.
- Debrief patients.
- Debrief staff.
- Document the non-pharmacological and pharmacological interventions in the patient notes to encourage specific intervention recording to inform ongoing risk management plan. A Datix must be completed in line with the PRRICE reporting guidance (see [843-Reducing Restrictive Practice Policy](#) – opens in a new tab).
- Review interventions, update person centred plans and risk management plan.

Pharmacists are accountable to ensure that:

- Prescription for medicines for RT have the right dose, right medicine and right route.
- Administration of medicines is appropriate.
- Appropriate subsequent monitoring of side effects and desired effects of any medicines administered.
- Medication is prescribed and administered under an appropriate legal framework.

- Medication charts are clinically screened to ensure the prescribing and administration is in accordance with this policy.
- They are available to provide advice on the use and administration of pharmacological agents in RT.

Treatment Guidelines

Non-Pharmacological Interventions

Non-pharmacological measures should be fully utilised by skilled staff prior to the use of pharmacological interventions.

De-escalation

Staff should ensure that a patient-centred approach is taken during de-escalation. Staff should always utilise appropriate defusing techniques.

These are:

- Speaking clearly and calmly.
- Avoid reacting to abusive remarks.
- Listening carefully to what is being said.
- Explaining the consequences of continued aggressive/violent behaviour.
- Using open gestures.
- Avoiding confrontational situations. (Further training is available from RRPT to provide awareness and practical skills regarding de-escalation skills).

Person Centred Support Plans

Person Centred Support Plans can help reduce the need for the use of pharmacological interventions as they record a patient's early warning signs and triggers. They also included Primary prevention, Secondary prevention, and Crisis management. The use of Person Centred Support Plans can reduce the risk of patient's displaying behaviours that challenge by focusing on preventative strategies and overall improvement of quality of life.

Other non-pharmacological tertiary options may include the following providing they are justified within an appropriate legal framework: Increased levels of observation, transfer to a psychiatric intensive care unit, the use of restrictive physical interventions or the use of seclusion/segregation.

Even when they do not prevent the need for pharmacological treatment, such strategies may be important in maintaining the safety of the person and/or others.

It is also important to ensure that any developing situation or positive intervention considers the individual needs of patients related to:

- Sensory impairment
- Black and minority ethnic patients
- Language, cultural and religious needs, and the research that exists that shows black minority and ethnic patients tend to experience over prescribing
- Patients with a physical impairment

- Patients with a cognitive impairment
- Patients with communication difficulties
- Gender and sexual orientation
- Age
- Pregnant patients (see specialist advice)
- Ensure that all interventions are proportionate to the risk and potential seriousness of harm, used for no longer than necessary, and the least restrictive option to meet the need. They must also consider the patient's preferences if known (<https://www.nice.org.uk/guidance/ng10>) (opens in a new tab).

Pharmacological Treatments

RT is not a first line strategy in the management of disturbed behaviour and should only be considered once other methods of de-escalation have failed.

During and after RT the patient will be kept safe, treated with dignity and respect, and a member of staff will tell the patient what is happening. The aim when using RT is for the patient to be alert enough to respond to communication throughout.

Patients should only be treated with sedating drugs after an assessment of risk and when it has been established that the risk of not doing so is greater than the risk of acute pharmacological treatment. The nurse in charge should brief all staff involved in the pharmacological intervention and the course of action required.

Whenever RT is being considered, oral medication should always be offered as an alternative prior to any parenteral administration of medication. Where it has been agreed that parenteral medication can be used and when it proves necessary, the intramuscular (IM) route should be used.

For clinical decision-making algorithms and drug doses refer to [Appendix 1](#).

Use of Oral Medication

Oral medication is always the preferred route of administration, especially if the patient is compliant and situation is less urgent.

The reason for prescribing should be clearly documented and any recorded monitoring. Where prescribed in the context of pre-RT treatment, the indication on the MAR chart should be clearly endorsed as "severe agitation and anxiety only". Oral prn medication for acute & severe agitation should only be offered after non-pharmacological de-escalation techniques have not been successful, and before IM medication is considered.

Use of Intra-Muscular (IM) Medication

The use of IM medication should be considered if:

- the patient refuses oral medication,

- the trial of oral medication is unsuccessful,
- oral medication is not indicated based on previous response,
- oral medication is not proportionate to the level of disturbance.

Once the decision has been made to administer IM medication, the nursing team should consider the most appropriate environment for the patient to have the IM administered, which will cause the least distress for the patient. This may mean ensuring other patients are moved away to another area.

The patient should always be given the opportunity, at any stage, to take oral medication as an alternative if clinically indicated.

Restrictive Physical Interventions

“Physical restraint is a type of restrictive intervention which refers to any direct physical contact where the intention is to prevent, restrict, or subdue movement of the body (or part of the body) of another person.”

(MHA Code of Practice 2016).

Hywel Dda UHB currently has 2 models of Restrictive Physical Intervention, PBM (ABMU) is taught for staff working in Learning Disabilities services. PAMOVA is taught to Mental Health staff, Porters and General staff from identified areas. The PAMOVA model has adaptations for children and young people and older adults.

Staff are to assess the young person’s physical and psychological condition including stage of development and consider approaches to RPI in relation to this. If staff require further guidance for planned or anticipated interventions, then the RRPT can be contacted for advice.

In the event that Restrictive Physical Intervention (RPI) is required, the nursing team should take into account what staff are on shift, who has a good rapport with the patient and consider staff who are competent in RPI and with previous experience of being involved in high risk situations.

It may be that portering staff trained in RPI are called to assist. The staff should have the opportunity to have all the relevant information (including legal framework) provided to them so that they can make an informed decision about the use of Restrictive Physical Intervention. Any physical health problems or physical disabilities should also be made known to the staff to ensure the safety of the patient.

Staff that attend RPI training are taught the importance of monitoring the patient’s physical condition during RPI. All staff involved in a restraint are taught to monitor physical and psychological changes

during restraint. The registered nurse is responsible for ensuring that the patient's physical and psychological state is monitored during and after a restraint.

Post restraint physical health monitoring should be undertaken which is detailed later in this document.

“Children are at particular risk physically and psychologically (from restrictive practice) and the principles for upholding children's rights should be followed.” WG Reducing Restrictive Practice Framework 2021. Refer to [UN Convention on the Rights of a Child](#). (opens in a new tab)

Medication Choice

If there is insufficient information to guide the choice of medication for rapid tranquillisation, or the service user has not taken antipsychotic medication before, use intramuscular lorazepam (dose adjusted according to age and weight). If there is a partial response to intramuscular lorazepam, consider a further dose.

Although lorazepam is recommended as the first line medicine for RT in this age group, it is recognised that there is a higher incidence of dis-inhibition with benzodiazepine in children compared to adults and this should be taken into consideration when prescribing and reviewing response.

Children and adolescents are more likely to be antipsychotic naïve and sensitive to extrapyramidal side effects. Evidence from a series of TREC trials suggest that IM olanzapine is more effective than IM haloperidol which in turn is more effective than IM aripiprazole ^[5].

However, the prescribing of typical antipsychotics such as haloperidol should be avoided where possible. NICE NG 10 does not recommend the use of IM haloperidol in children and adolescents due to increased risk of dystonia in this patient group.

Promethazine IM is an antihistamine unlicensed for use in RT. It may be useful instead of a benzodiazepine where tolerance to benzodiazepines is suspected or there is poor response. Promethazine IM is not licenced in children.

Full details of contra-indications, special warnings and precautions for all medicines can be found on <http://www.medicines.org.uk/emc> (opens in new tab)

For clinical decision-making algorithms and drug doses refer to [appendix 1](#)

Sites for administration

It is recognised that IM injections may need to be administered to a resisting patient, and extreme care must be taken to avoid the increased risk of hitting a vein and giving intravenously.

Recognised safe sites include dorsogluteal, deltoid, vastus lateralis and ventrogluteal. The decision if site to be used remains with the judgement of the team administering the intervention.

Drugs used in rapid tranquilisation

For clinical decision-making algorithms and drug doses refer to [appendix 1](#).

Pharmacokinetic data is based on adult populations unless otherwise stated.

Short acting antipsychotics: background information

Drug Route	Pharmacokinetics	Dose	Major side effects*	Notes
Aripiprazole oral	Peak 3-5 hours $t_{1/2}$ (drug half-life) 75 hours-146 hours	No recommended dose for RT. Suggest 10-15mg, repeated up to max. 30mg/24hours including all formulations	Akathisia, nausea, dizziness, somnolence	Not licensed for agitated behaviour
Aripiprazole IM	Peak 1-3 hours $t_{1/2}$ 75-146 hours	5.25mg (0.7ml)-15mg (2ml) as a single injection. Max. 3 injections in 24 hours. Max. 30mg/24hours including all formulations	Akathisia, nausea, dizziness, somnolence	Not licensed in under 18s
Olanzapine Oral	Peak 5-8 hours $t_{1/2}$ 32-51 hours	No recommended dose for RT. Suggest 2.5mg-10mg repeated up to max. 20mg in 24 hours (including all routes)	Hypotension Bradycardia	Not licensed for agitated behaviour
Olanzapine IM	Peak 15-45 minutes $t_{1/2}$ 30 hours	2.5mg-10mg Max. 20mg in 24 hours (including all routes)	Hypotension Bradycardia Injection site discomfort	Not licensed in under 18s Do not give parenteral benzodiazepines within 1 hour of IM olanzapine N.B. Only an unlicensed IM formulation is available in the UK A maximum of three injections in 24hrs. Olanzapine IM should not be administered for more than 3 consecutive day

*Not exhaustive. Please refer to SPC for full list of side effects

Benzodiazepines

Drug Route	Pharmacokinetics	Dose	Major side effects*	Notes
Lorazepam Oral	Peak 2 hours t _{1/2} 12 hours	No recommended dose for RT. Suggest in children under 12 years 0.5-1mg. Wait 45-60 minutes. Repeat up to max. 2mg in 24 hours. Suggest in children over 12 years 0.5-2mg Wait 45-60 minutes. Repeat up to twice more to max. 4mg in 24 hours	Respiratory depression Disinhibition	Not licensed for rapid tranquilisation in children
Lorazepam IM	Peak 60-90 minutes t _{1/2} 12-16 hours	No recommended dose for RT. Suggest in children under 12 years 0.5-1mg. Repeat up to max. 2mg in 24 hours. Suggest in children over 12 years 0.5-2mg Wait 30 minutes. Repeat up to max. 4mg in 24 hours	Respiratory depression Disinhibition	Lorazepam should be mixed in a 1:1 ratio with water for injections before administration Stored in the fridge

*Not exhaustive. Please refer to SPC for full list of side effects

Flumazenil must be available to reverse the effects of benzodiazepine-induced respiratory depression, administered by a doctor. (refer to [section on monitoring](#))

Antihistamine

Drug Route	Pharmacokinetics	Dose	Major side effects*	Notes
Promethazine Oral	Onset:20-30 mins Peak2-3 hours t½ 7-15 hours	Children under 12 years: 20-25mg. Max 25mg in 24 hours Children over 12 years: 25-50mg hourly. Max 50mg in 24 hours	Prolonged sedation Seizures Cardiorespiratory depression	Not licensed for rapid tranquilisation. Licensed as a sedative in children over 2 years
Promethazine IM	Peak 1-2 hours t½ 7-15 hours	Children under 12 years: 5-25mg. Max 25mg in 24 hours Children over 12 years: 25-50mg hourly. Max 50mg in 24 hours Give by deep IM injection into a large muscle mass.	Prolonged sedation Seizures Cardiorespiratory depression	Not licensed for rapid tranquilisation. Licensed as a sedative in children over 2 years No dilution is required May be considered in those who are antipsychotic naive who have been administered the maximum dose of medication or who are benzodiazepine tolerant

*Not exhaustive. Please refer to SPC for full list of side effects

Risks Associated with Medicines used in RT

In certain circumstances prescribing outside the health board guidelines may be appropriate. A risk benefit analysis should be recorded in the patient health record and a rationale in the care plan. Where the risk benefit is unclear, consideration should be given to seeking advice from clinicians who are not directly involved in the care of the patient. There are specific risks associated with the different classes of medications that are used in rapid tranquilisation. The specific properties of the individual drugs should be taken into consideration. When combinations are used, risks may be compounded.

Staff need to be aware of the following:

For benzodiazepines (i.e. lorazepam)

- Loss of consciousness.
- Respiratory depression or arrests.
- Cardiovascular collapse
- Paradoxical increases in aggression.
- Worsening of delirium – ensure delirium is excluded before using benzodiazepines.
- Increased risk of falls.

For antipsychotics (i.e. olanzapine)

- Loss of consciousness.
- Cardiovascular and respiratory complications and collapse (risk arrhythmias and sudden death).
- Seizures.
- Subjective experience of restlessness (akathisia).
- Acute muscular rigidity (dystonia).
- Involuntary movements (dyskinesia).
- Neuroleptic malignant syndrome.
- Excessive sedation.

For antihistamines (i.e. promethazine)

- Excessive sedation.
- Painful injection.
- Additional muscarinic effects.
- Hypotension.
- Arrhythmias.
- Further deterioration in cognition with sedative antihistamines.

Extra care should be taken when implementing rapid tranquilisation in the following circumstances:

- The presence of congenital cardiac conduction abnormality
- The concurrent prescription or use of other medication that lengthens QT intervals on ECG both directly and indirectly
- The presence of certain disorders affecting metabolism, such as stress and extreme emotions, and extreme physical exertion (hypokalaemia, dehydration).

Monitoring after Rapid Tranquilisation

Where possible baseline measurements of consciousness, temperature, blood pressure, pulse and respiratory rate should be made,

Any patient who has been given RT should be placed on close observations. This should include consideration of 1:1 monitoring. They should remain on close observations until fully conscious and mobile.

Following administration of oral prn medication, monitoring should be hourly for at least ONE hour and recorded on NEWS observation sheets. Further monitoring beyond the 1 hour minimum should always be considered if deemed clinically appropriate.

Following administration of parenteral drugs for RT, monitoring by ward staff should be every 5-10 minutes for 1 hour, then half-hourly until patient is ambulatory.

Children and young people may be more prone to extrapyramidal side effects, and these should be observed for.

Patients who refuse to be monitored or who remain too behaviourally disturbed to be approached should be observed for signs/symptoms of pyrexia, hypotension, over sedation and general physical well-being. For patients that refuse physical monitoring this must be clearly documented in the patient's health records.

In the event of a patient sleeping or who is unconscious, the continuous use of pulse oximetry to measure oxygen saturation is desirable. A nurse should remain with the patient until ambulatory. ECG monitoring is recommended by the manufacturer of haloperidol prior to treatment in all patients, owing to rare reports of QTc prolongation and ventricular arrhythmias. When parenteral antipsychotics are administered (especially high doses) electrocardiogram and monitoring of U&E's is advised due to the risk of cardiac arrhythmias with hypokalaemia, stress and agitation.

For details on the management of side effects after RT, refer to Table 1 below.

The nurse administering the medicine for RT is responsible for subsequent monitoring arrangements. Observations should be recorded on the NEWS chart and any physical deterioration should be referred to a doctor immediately.

Table 1: Management of side-effects

Problem	Remedial Measures										
Patient asleep	Monitor patient's respiratory rate every 10 minutes, if unrousable monitor every 5 minutes. If respiratory rate reduced (<10/min) or oxygen saturation falls below 93%, follow guidance below.										
<p>Reduced respiratory rate <10/min</p> <p>Oxygen saturation < 90% (normal is 95-100%)</p> <p>Difficulty maintaining airway</p>	<p>Initiate continuous monitoring.</p> <p>Give oxygen, raise legs, ensure patient is not lying face down.</p> <p>Respiratory depression is benzodiazepine-induced.</p> <p>Give flumazenil only if respiratory depression is benzodiazepine-induced.</p> <p>Flumazenil is kept in the emergency boxes which can be located on all wards. Administration guidance of flumazenil is available via Injectable Medicines Guide (Medusa)</p> <p>Guidelines for use of flumazenil:</p> <table border="1" data-bbox="561 705 1446 1623"> <tr> <td data-bbox="561 705 805 810">Contraindications:</td> <td data-bbox="805 705 1446 810">Patients with epilepsy who have been receiving long-term benzodiazepines</td> </tr> <tr> <td data-bbox="561 810 805 884">Cautions:</td> <td data-bbox="805 810 1446 884">Hepatic impairment (titrate dose carefully)</td> </tr> <tr> <td data-bbox="561 884 805 1199">Dose:</td> <td data-bbox="805 884 1446 1199"> <p>Initial dose of 10 micrograms/kg (max 200 microgram) IV over 15 seconds and assess after 1 minute.</p> <p>If required level of consciousness not achieved after 60 seconds, then:</p> <p>Repeat at 1-minute intervals at dose of 10 micrograms/kg (max 200 microgram)</p> </td> </tr> <tr> <td data-bbox="561 1199 805 1377">Maximum dose:</td> <td data-bbox="805 1199 1446 1377"> <p>50 micrograms/kg or 1mg – whichever is lower – see current edition of BNF for Children for further information.</p> <p>(One initial dose and four subsequent doses)</p> </td> </tr> <tr> <td data-bbox="561 1377 805 1623">Monitoring:</td> <td data-bbox="805 1377 1446 1623"> <p>Monitor heart rate, blood pressure and alertness. Monitor respiration until rate returns to baseline. If respiratory rate does not return to normal or patient is not alert after initial doses, assume that sedation is due to another cause and refer to doctor.</p> </td> </tr> </table> <p>If respiratory depression is induced by other medicines or causes patient will require mechanical ventilation – arrange transfer to ITU immediately</p>	Contraindications:	Patients with epilepsy who have been receiving long-term benzodiazepines	Cautions:	Hepatic impairment (titrate dose carefully)	Dose:	<p>Initial dose of 10 micrograms/kg (max 200 microgram) IV over 15 seconds and assess after 1 minute.</p> <p>If required level of consciousness not achieved after 60 seconds, then:</p> <p>Repeat at 1-minute intervals at dose of 10 micrograms/kg (max 200 microgram)</p>	Maximum dose:	<p>50 micrograms/kg or 1mg – whichever is lower – see current edition of BNF for Children for further information.</p> <p>(One initial dose and four subsequent doses)</p>	Monitoring:	<p>Monitor heart rate, blood pressure and alertness. Monitor respiration until rate returns to baseline. If respiratory rate does not return to normal or patient is not alert after initial doses, assume that sedation is due to another cause and refer to doctor.</p>
Contraindications:	Patients with epilepsy who have been receiving long-term benzodiazepines										
Cautions:	Hepatic impairment (titrate dose carefully)										
Dose:	<p>Initial dose of 10 micrograms/kg (max 200 microgram) IV over 15 seconds and assess after 1 minute.</p> <p>If required level of consciousness not achieved after 60 seconds, then:</p> <p>Repeat at 1-minute intervals at dose of 10 micrograms/kg (max 200 microgram)</p>										
Maximum dose:	<p>50 micrograms/kg or 1mg – whichever is lower – see current edition of BNF for Children for further information.</p> <p>(One initial dose and four subsequent doses)</p>										
Monitoring:	<p>Monitor heart rate, blood pressure and alertness. Monitor respiration until rate returns to baseline. If respiratory rate does not return to normal or patient is not alert after initial doses, assume that sedation is due to another cause and refer to doctor.</p>										

Table 1: Management of side-effects (cont.)

<p>Orthostatic or diastolic hypotension (<50mmHg)</p>	<p>Lie patient flat, raise legs if possible. Monitor closely</p>
<p>Acute dystonia, including oculogyric crisis</p>	<p>Procyclidine – by intramuscular or intravenous injection</p> <p>Child 6–9 years: 2–5mg for 1 dose, dose usually effective in 5–10 minutes but may need 30 minutes for relief.</p> <p>Child 10-17 years: 5–10mg, occasionally, more than 10mg, dose usually effective in 5–10 minutes but may need 30 minutes for relief.</p>
<p>Irregular or slow (<50/min) pulse</p>	<p>Refer to specialist care immediately. ECG essential</p>
<p>Increased temperature >38 °C</p>	<p>Withhold antipsychotics as risk of neuroleptic malignant syndrome (NMS) and perhaps arrhythmia.</p> <ul style="list-style-type: none"> ▪ monitor closely ▪ cool patient ▪ check creatinine kinase, BP, FBC, U&Es, MSU <p>Refer to medical team if continued signs of NMS present:</p> <ul style="list-style-type: none"> ▪ sweating ▪ hypertension or fluctuating BP ▪ tachycardia ▪ muscular rigidity ▪ confusion ▪ agitation ▪ altered consciousness

Post Incident Review

Post incident review by nursing staff should consist of:

- An immediate debrief following restrictive physical intervention and sedation between the staff involved to check in on physical and psychological wellbeing.
- A debrief should take place when the patient is ready and they should be given the opportunity to complete the post incident questionnaire. Consideration should be given to the timing and staff facilitating a debrief.
- Post incident questionnaire should be returned to the RRPT.
- This should aid the patient to describe and discuss their experience with a member of the team if they wish. The carer and/or an advocate may be involved in this process if appropriate. Discuss completion of an advance directive for future preferred treatment options with the patient.
- Recording of events, completion of a restrictive practice record on Datix system detailing restrictive practices used i.e. chemical restraint, restrictive physical intervention, seclusion etc. A detailed entry in the patient's clinical notes.
- Update and amend if needed the patient's risk assessment, person centred behaviour support plan. Any care plans should be reviewed with the patient where practicable.
- Sharing of any reflection or learning from staff or patient feedback that may improve the process in the future.
- For service users and staff consider a psychological impact assessment and make arrangements for further emotional support as needed.

References

1. NICE 2015. Guideline NG10. Violence and aggression: short term management in mental health, health and community settings. 2015 <https://www.nice.org.uk/guidance/ng10> (opens in a new tab)
 2. Patel M, Sethi F, Barnes T, et al. (2018) Joint BAP NAPICU evidence-based consensus guidelines for the clinical management of acute disturbance: De-escalation and rapid tranquillisation. *J Psychopharmacol*, 32:6; 1-40
 3. Taylor D, Paton C, Kapur S. *The Maudsley Prescribing Guidelines in Psychiatry* (14th Edition). Wiley Blackwell
 4. Electronic Medicines Compendium. <http://emc.medicines.org.uk> (opens in a new tab)
 5. TREC Collaborative Group. (2007) Rapid Tranquillisation for agitated patients in emergency psychiatric rooms: a randomized trial of midazolam versus haloperidol plus promethazine. *BMJ*;335:865.
 6. Royal College of Psychiatrists (2015) Consensus Statement on the Use of High Dose Antipsychotic Medication (Council Report CR190). <http://www.rcpsych.ac.uk/files/pdfversion/CR190.pdf> (opens in a new tab)
 7. Joint Formulary Committee. *British National Formulary* [Internet]. London: British Medical Association and Royal Pharmaceutical Society of Great Britain; [updated 2023 Feb 1; cited 2023 Mar]. Available from: [BNFC \(British National Formulary for Children\) | NICE](#) (opens in a new tab)
- Mental Health Act (1983)
Mental Health Measure Wales (2012)
The Mental Capacity Act (2005)
BNF for Children London: BMJ Publishing Group Ltd and RPS Publishing. <https://bnfc.nice.org.uk/> (opens in a new tab)

Acknowledgements

The guideline has also been adapted from those of:




Betsi Cadwaladr University Health Board MHL D MM68 Guidelines for the use of Rapid Tranquilisation (RT) in Children aged 12 years to 17 years July 2020

Cardiff and Vale University Health Board Use of Rapid Tranquilisation Guidelines for rapid control of acutely disturbed Young People and Adolescents (aged 6-16) June 2021

Oxford Health NHS Foundation Trust Rapid Tranquilisation in Adults, Older Adults and Children and Adolescents (CP04) April 2019

Sussex Partnership NHS Foundation Trust The Rapid Tranquillisation Policy (Including the use of oral PRN medication) April 2021

Appendix 1: Algorithm for the Pharmacological management of Rapid Tranquilisation in Children (<12 years)

First Line - Non-Pharmacological Measures	
Second Line - Offer Oral Drug Treatment (consider if non-pharmacological methods fail)	
Consider the following as first-line treatment options (especially if unknown or no history of previous antipsychotic use):	
First line oral medication	12 years: Lorazepam 0.5 -1mg (max 2mg/24hrs)
Alternatives	Promethazine 20-25mg (max 25mg/24hrs)
	
After 30-45 minutes - repeat a second oral dose if needed. Consider any other doses given in the previous 24 hours	
	
Patient refuses oral therapy, or... If no response observed after 2 repeated oral doses (60 minutes apart)	
Third Line – Intramuscular Treatment Initiate Post RT Physical Health Monitoring Flumazenil is kept in emergency boxes on all wards and can be given in case of respiratory depression	
First line IM	Lorazepam IM (onset of action 20-40 minutes) Lorazepam 0.5 -1mg (max 2mg/24hrs)
Alternative	Promethazine IM Promethazine 5-25mg (max 25mg/24hrs)
	
Repeat after 60 minutes to BNF maximum doses, considering all oral and IM doses administered in the 24-hour period.	
If risk persists after 60 minutes: contact consultant for advice	

Tranquillisation in Children and Young Persons(12 -17years)

First Line -Non-Pharmacological Measures	
Second Line - Offer Oral Drug Treatment (consider if non-pharmacological methods fail)	
Consider the following as first-line treatment options (especially if unknown or no history of previous antipsychotic use):	
First line oral medication	Lorazepam 0.5-2mg (max 4mg/24hrs)
Alternatives	Promethazine 25-50mg (max 50mg/24hrs)
Consider an antipsychotic if NOT already taking a regular oral or depot antipsychotic	
	Olanzapine 2.5-5mg (max 20mg/24hrs)



After 30-45 minutes - repeat a second oral dose if needed. Consider any other doses given in the previous 24 hours



Patient refuses oral therapy, or... If no response observed after 2 repeated oral doses (60 minutes apart)...	
Third Line – Intramuscular Treatment Initiate Post RT Physical Health Monitoring Flumazenil is kept in emergency boxes on all wards and can be given in case of respiratory depression	
First line IM	Lorazepam IM (onset of action 20-40 minutes) (> 30kg) : Lorazepam 0.5-2mg (max 4mg/24hrs)
Alternative	Promethazine IM Promethazine 25-50mg (max 50mg/24hrs)
	Olanzapine IM (Not within 1 hour of giving IM Benzodiazepines) Olanzapine 5-10mg (max 20mg/24hrs)



Repeat after 60 minutes to BNF maximum doses, considering all oral and IM doses administered in the 24 hour period, EXCEPT Olanzapine (repeat after 2 hours)

If risk persists after 60 minutes: contact consultant for advice