Rapid Tranquillisation (RT) Policy

Version: 5

Executive Lead: Executive Director – Quality & Medical Leadership
Lead Author: Head of Medicines Management

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Ratified By: Policy Panel

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Target Audience:
This Policy must be understood by staff working in:
- Teams/units/wards in HPFT where healthcare professionals are involved in the management of acute behavioural disturbance including rapid tranquillisation (RT)
Preface - concerning the Trust Policy Management System (PMS)

P1 - Version Control History:
Below notes the current and previous Version details- full history is in Part 3

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P2 - Relevant Standards:

a) **NHSLA Risk Management Standards** - Mental Health & Learning Disability 2013-2014
6.7 Rapid Tranquillisation. See Appendix 1 for full details

b) **Care Quality Commission Outcomes**: **Outcome 1**: Respecting and involving People who use services, **Outcome 2**: Consent to care and treatment, **Outcome 4**: Care and Welfare of People who use the Services, **Outcome 6**: Cooperating with other Providers and **Outcome 9**: Management of Medicines. See Appendix 12

c) **Equality and RESPECT**: The Trust operates a policy of fairness and RESPECT in relation to the treatment and care of service users and carers; and support for staff.

P3 - The 2012 Policy Management System and the Policy Format:
The PMS requires all Policy documents to follow the relevant Template.

- **Policy Template** is the essential format for most Policies. It contains all that staff need to know to carry out their duties in the area covered by the Policy.
- **Operational Policies Template** provides the format to describe our services, how they work and who can access them.
- **Care Pathways Template** is at the moment in draft and only for the use of the Pathways Team as they are adapting the design on a working basis.
- **Guidance Template** is a sub-section of the Policy to guide Staff and provide specific details of a particular area. An over-arching Policy can contain several Guidance’s which will need to go back to the Approval Group annually.

**Symbols used in Policies:**

- **RULE** = internally agreed, that this is a rule & must be done the way described
- **STANDARD** = a national standard which we must comply with, so must be followed

**Managers** must bring all relevant policies to the attention of their staff, where possible, viewing and discussing the contents so that the team is aware of what they need to do.

**Individual staff/students/learners** are responsible for implementing the requirements appropriate to their role, through reading the Policy and demonstrating to their manager that they understand the key points.

All Trust Policies will change to these formats as Policies are reviewed every 3 years, or when national Policy or legislation or other change prompts a review. All expired & superseded documents are retained & archived and are accessible through the Compliance and Risk Facilitator Policies@hpft.nhs.uk

All current Policies can be found on the Trust Policy Website via the Green Button or http://trustspace/InformationCentre/TrustPolicies/default.aspx
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PART 1 – Preliminary Issues:

1. Summary
This document provides guidance for the management of acute behavioural disturbance, including rapid tranquillisation (RT) i.e. the use of medication for both informal service users and those detained under the Mental Health Act 1983 and 2007.

2. Purpose
This document provides all staff involved in the prescribing, administration and monitoring of service users receiving RT with background information that will allow them to make appropriate clinical decisions. Each decision must be based on the characteristics of an individual service user and situation.

- This guidance is based on the NICE Guideline *The Short-Term Management of Disturbed & Violent Behaviour in In-patient Psychiatric Settings and Emergency Departments 2005*: the MHA 1983 Code of Practice revised 2008 and forms part of the Trust *Non-Physical & Physical Assaults (Violence & Aggression) Policy*. It meets the requirement of the *National Health Service Litigation Authority Risk Management Standards 2012-13, Standard 6.7 Rapid Tranquillisation*.

3. Definitions

**STANDARD**

Rapid Tranquillisation (RT) – this is an intervention required to prevent violence or aggression in patients where a calming effect, to avoid unnecessary harm, is essential and urgent. RT may result in deep sedation, hence it carries with it substantial risks. RT is not the primary treatment management of on-going distress and over arousal, which from time to time may require PRN medication.

**Medicines Healthcare Products Regulatory Agency (MHRA)** - A government agency responsible for ensuring that medicines and medical devices work and are acceptably safe.

**QT** - Refers to the measure of the time between the start of the Q wave and the end of the T wave in the heart's electrical cycle.

**PRN** - Refers to medication given when required. Must be explained by further information, such as, the frequency, minimum dosage interval, maximum daily dose and reason for use.

4. Duties and Responsibilities

**RULE**

As a Foundation Trust currently operating within a structure of Information Governance, the Board and Chief Executive have the responsibility to ensure effective risk management of service users, provide appropriate training to their staff and provide a suitable infrastructure to establish and continue support for these activities including recording and monitoring procedures.

The Executive Director of Quality & Medical Leadership as lead for Medicines Management is directly accountable to the Trust Board.

The Trust Drug and Therapeutics Committee is responsible for ensuring that the guidance meets current good practice.
The Quality and Risk Management Committee has the responsibility to ensure the guidance meets national and legal standards including NHSLA requirements and the monitoring of key objectives.

It is the responsibility of the Trust organisational management group to ensure guidance distribution, implementation and compliance throughout the organisation.

Lead Clinicians/Team Managers must ensure that members of their teams involved with the management of acute behavioural disturbance including RT understand their responsibilities within this document. Individual health care professionals have a duty to implement the requirements of this document within their area of responsibility and professional code of conduct. This duty extends to the supervision of support staff when duties are delegated.
There are a variety of approaches for managing acute behavioural disturbance which should be considered prior to pharmacological management, in the first instance. These include for example de-escalation, distraction techniques, move to a quiet area, negotiation, reviewing observation level, consideration of placement and physical intervention. All of these strategies should be considered in each case.

The severity of the disturbed behaviour and associated risk to the service user or to other people and the apparent imminence of that risk often determine the strategies that are employed in a particular situation. Where the risk is assessed as both severe and imminent, RT may be employed.

RT is a pharmacological strategy. RT should only be considered once other strategies such as de-escalation have been unsuccessful in calming a service user. Even when RT is used, the other strategies should continue to be used alongside RT as each is likely to augment the effect of the others. However, particular caution is necessary if combining RT with physical intervention and seclusion.

RT is not a recognised clinical procedure in the British National Formulary (BNF) and has a limited evidence base. Expert clinical opinion may be used to support prescribing outside the limits set by the British National Formulary (BNF) or SPC. (Refer also to the ‘Consensus Statement on High-Dose Antipsychotic Medication’ RCPsych May 2006).

The national Prescribing Observatory for Mental Health (POMH-UK) in collaboration with RCPsych produced an audit-based Quality Improvement Programme on high dose antipsychotic prescribing. There were two main standards for this audit:

- Standard One - The total daily prescribed dose of antipsychotic drugs is within SPC/BNF limits
- Standard Two - Individuals are prescribed only one antipsychotic at a time

Clinicians need to ensure that service users are not inadvertently given high doses of antipsychotics, which can potentially be very dangerous. This could occur accidentally through the use of PRN medication given in combination with regular medication.

### 6. Rapid Tranquillisation (RT)

#### 6.1 What is Rapid Tranquillisation?

**STANDARD**

The administration of medication to calm/lightly sedate the service user and achieve a reduction in agitation and aggression. The aim is to reduce service user suffering and related risks, improve communication throughout the intervention and allow mental state evaluation to take place.

#### 6.2 Service User's Experience

6.2.1 The use of RT has the potential to affect the therapeutic relationship and the context of this needs to be understood in ongoing assessment. As a consequence of this intervention, the reasons for using RT must be explained to the service user at the earliest opportunity.
Effective communication is important during the management of acute behavioural disturbance, especially where there are specific language and sensory communication requirements. The information provided should meet the individual’s communication needs, e.g. people with physical, sensory or learning disabilities or people who do not speak or read English. The Trust guidance on Communicating with Service Users from Diverse Communities provides guidance on communication needs and the procedure on accessing the interpreting service.

Service users should be offered the opportunity to discuss their experiences and to write an account of this. The narrative should be included in the electronic patient record (EPR), thereby supporting the underlying principles of recovery.

ADVANCE DECISIONS / STATEMENT OF WISHES

Service users identified to be at risk of disturbed or violent behaviour should be given the opportunity to have their refusals of treatment or wishes recorded in the form of an advance decision or advance statement. This should fit within the context of their overall care and should clearly state what intervention(s) they would refuse should they lack capacity in the future. This document should be subject to periodic review. (Revised Mental Health Act Code of Practice, 2008).

Where there is an advance decision documented in the service user’s care plan for a refusal of medication in the event of acute illness, this should be adhered to if deemed to be valid and applicable. Any concerns around the validity and applicability of an advance decision should be addressed to the Directorate Manager (Mental Health Legislation).

Information about a person’s wishes and feelings regarding treatment, particularly any written statements must be taken into consideration by decision makers when they are making best interest decisions on behalf of a person who lacks capacity. Advance statements of wishes are not legally binding on the Trust and, although they should be taken into account, a person cannot demand a particular treatment that is not deemed to be clinically appropriate.

ASSESSMENT OF THE CAUSE OF DISTURBED BEHAVIOUR

It is a priority to consider physical causes e.g. an acute confusional state, intoxication, head injury, epilepsy, infection or metabolic disturbance. The possibility of hypoglycaemia must be considered as it requires urgent treatment. Consideration must also be given to any concurrent medication, including potential interactions.

Occasionally violence may not be the result of a disturbed mental state and in this instance calling the police may be the most appropriate action.

Attempt to understand the situation that led up to the disturbed behaviour. For further guidance refer to the Trust Non-Physical & Physical Assaults (Violence & Aggression) Policy.

WHEN SHOULD RT BE USED?

When determining which interventions to employ the following must be taken into consideration: clinical need, safety of service users and of others and advance
decisions. If the person is detained under the MHA then the advance decision should be taken into account, but may be overridden, providing an explanation of the reason for doing so is recorded.

6.5.2 RT should be used as a management strategy. Its aim is not to treat any underlying illness or disorder.

6.5.3 Acute behavioural disturbance may occur in the context of a psychosis or in a non-psychotic context. For further guidance refer to the Trust Non-Physical and Physical Assaults (Violence & Aggression) Policy.

6.5.4 RT is potentially hazardous and there is a risk of adverse events. The decision needs to be made at the stage of prescribing as to the intended purpose and if this differs over time, then it will need adjustment. This will be reflected in the care plan.

6.5.5 For service users known to services where PRN is an accepted approach to managing their behaviour within a flexible maintenance dose, a clear management plan must be in place, which is regularly reviewed by the multidisciplinary team (this does not constitute RT). The individual's management plan must specify the monitoring required following administration of the PRN medication.

6.5.6 Nursing staff need to make important clinical judgements, distinguishing between what is RT and what is administration of ‘PRN' medication. This decision should be made in advance of administration of any medication and documented in the care plan. The level of disturbed behaviour and apparent imminence of the risk of violence are relevant to this decision. In particular it should be considered RT if:

- Medication is to be given without the consent of the service user; (remember to check that medication is covered by MHA ‘consent to treatment' provisions and is authorised under a Form T3; if it is not, the Responsible Clinician should complete Section 62 paperwork to certify that the treatment is of urgent necessity. If unsure, consult your local Mental Health Act Office.

- More than one dose of sedative medication is likely to be required (consider the service user’s previous history of response to such medication) or

- It is considered necessary to give intramuscular medication

The Trust Policy on Consent to Examination and Treatment and the guidance of the Mental Health Act Code of Practice 2008 and the Mental Capacity Act 2005 should be followed. Any departure from this guidance must be clearly recorded and justified as being in the service user’s best interest.

6.5.7 Medical support must be available in case of adverse reactions, over-sedation or the need to administer intravenous (IV) flumazenil for respiratory depression.

6.5.8 Always be clear about Mental Health Act status prior to treatment.

6.5.9 If treating a service user who lacks capacity against their will, it would be under the provisions of the Mental Capacity Act 2005. The medical records should contain a clear Assessment of Capacity Form for the particular treatment. A Best Interest Decision Form should also be completed to demonstrate that the treatment is being provided in the patient’s best interests as they lack capacity to make the decision.
6.6 CAUTIONS IN THE USE OF RT STANDARD

The service user should be assessed considering the following factors:

6.6.1 Concurrent treatment – prescribed medicines, those bought over-the-counter and herbal products.

6.6.2 Co-existing medical illnesses – e.g. epilepsy, cardiac and respiratory conditions.

6.6.3 Alcohol or illicit drug use - because of the serious risk to life, Service Users who are heavily sedated or using illicit drugs or alcohol should be observed more closely.

6.6.4 Physical health and vital signs if possible - airway, pulse, colour and temperature.

6.6.5 Age – for older adults use smaller doses, e.g. if haloperidol is to be used, 500 micrograms is the usual dose. The maximum dose for lorazepam is 2mg in 24 hours. Seek advice from senior colleagues where appropriate. Refer to Appendix 7 - Algorithm for the use of Rapid Tranquillisation (RT) in Older Adults (65years+).

6.6.6 Dementia – the MHRA have warned against the use of antipsychotic medication for the treatment of behavioural symptoms of dementia, due to an increased risk of stroke and death.

Consider medication for non-cognitive symptoms or challenging behaviour in the first instance only if there is severe distress or an immediate risk of harm to the person with dementia or others.

Do not use antipsychotic drugs for mild-to-moderate non-cognitive symptoms in:
- Dementia with Lewy bodies (DLB), because of the risk of severe adverse reactions
- Alzheimer’s disease, vascular dementia or mixed dementias, because of the increased risk of cerebrovascular adverse events and death

Consider an antipsychotic for severe non-cognitive symptoms (psychosis and/or agitated behaviour causing significant distress) only if:
- Risks and benefits have been fully discussed. Assess cerebrovascular risk factors and discuss possible increased risk of stroke/transient ischaemic attack and possible adverse effects on cognition

Changes in cognition must be regularly assessed and recorded. Consider the following:
- Target symptoms have been identified, quantified and documented
- Comorbid conditions such as depression have been considered
- The drug is chosen after an individual risk-benefit analysis
- The dose is started low and titrated upwards
- Treatment is time limited and regularly reviewed
- Consider alternative medication if necessary

In DLB, monitor for severe untoward reactions, particularly neuroleptic sensitivity reactions (development or worsening of extrapyramidal features or acute severe physical deterioration).
Risperidone (as Risperdal) is indicated for the short-term treatment (up to 6 weeks) of persistent aggression in patients with moderate to severe Alzheimer’s dementia unresponsive to non-pharmacological approaches and when there is a risk of harm to self or others.

6.6.7 Many people with a learning disability are especially sensitive to the side-effects of psychotropics. It is good practice to start at lower doses and increase more slowly than is usual in general psychiatric practice.

6.6.8 Pregnancy – risk-benefit analysis must be undertaken in cases where service users are pregnant, as there is insufficient evidence on the safety of RT in pregnancy. (Refer to Appendix 9 - Drug Choice in Pregnancy). For further advice refer to the Trust Guidelines for the Care and Management of Pregnant Service Users.

6.7 RISKS ASSOCIATED WITH RT STANDARD

- Rather than simple calming, over-sedation with loss of alertness or even loss of consciousness can occur.
- Medical risks include cardiac arrhythmias, respiratory depression, hypotension, neuroleptic malignant syndrome (NMS) and extra-pyramidal side-effects (not exhaustive).
- Paradoxical agitation may result from antipsychotic or benzodiazepine treatment.
- There are specific risks associated with the different classes of medications used in RT. When combinations are used, risks may be compounded. These include:

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<th>BENZODIAZEPINES</th>
<th>ANTIPSYCHOTICS</th>
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<tr>
<td>Respiratory depression or arrest</td>
<td>Cardiovascular and respiratory collapse</td>
<td>Excessive sedation</td>
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<tr>
<td>Cardiovascular collapse (in service users on both clozapine and benzodiazepines)</td>
<td>Seizures</td>
<td>Painful injection</td>
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<td>Loss of consciousness</td>
<td>Subjective experience of restlessness (akathisia)</td>
<td>Additive antimuscarinic effects</td>
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<td>Involuntary movements (dyskinesia)</td>
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<td>Acute muscular rigidity (dystonia)</td>
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<td>Neuroleptic Malignant Syndrome (NMS)</td>
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<td>Excessive sedation</td>
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<td>Loss of consciousness</td>
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- Polypharmacy within a class of medication should be avoided, e.g. the use of two benzodiazepines.
- Clinicians need to ensure that service users are not inadvertently given high doses of antipsychotics, which can potentially be very dangerous. This could occur accidentally through the use of PRN medication given in combination with regular medication.
- Consider any oral antipsychotic(s) taken within the last 24 hours or depot antipsychotic injections given in the past 6 weeks.
For any PRN medication prescribed as RT, prescribers must clearly state ‘Rapid Tranquillisation (RT)’ as the indication.

It is sometimes necessary to knowingly exceed British National Formulary (BNF) limits and knowingly use drugs outside of their marketing authorisation (off-label) for the purpose of RT. The rationale for this must be recorded in the care plan and monitoring of the service user’s condition must be specified.

If medication is given, it is important to allow time for the drug to work before giving further doses by either oral or intramuscular means.

In addition, clinicians must bear in mind that the plasma concentration of the antipsychotic is not only affected by the total dose, but also the route of administration and its rate of elimination. Elimination depends on a number of factors including drug interactions and the age of the service user. Clinicians should also be aware that absorption from intramuscular (IM) administration can happen far more rapidly when a service user is agitated, excited or physically overactive.

The need for medication should be re-assessed on a regular basis within the agreed and on-going treatment plan.

Seek advice from the Consultant Psychiatrist at any stage if there is any doubt about current care / treatment plan / risk strategy.

6.8 CIRCUMSTANCES FOR SPECIAL CARE

Extreme care needs to be taken when initiating RT in the following circumstances:

Almost all serious adverse events occur to service users undergoing physical restraint. The restraining period is one of particular risk and should be kept to a minimum. For guidance refer to the Trust Non-Physical & Physical Assaults (Violence & Aggression) Policy.

The presence of congenital prolonged QTc syndromes. The concurrent prescription or use of other medication that lengthens QTc interval both directly and indirectly. (Refer to Appendix 8 – Psychotropic-related QT prolongation)

The presence of certain disorders affecting metabolism such as hypo- and hyperthermia, stress, extreme emotions and extreme physical exertion.

In service users who are pregnant. (Refer to Appendix 9 – Drug Choice in Pregnancy)

In service users who are heavily sedated and/or used illicit substances or alcohol.

6.9 PHYSIOLOGICAL / SAFE AND SUPPORTIVE OBSERVATIONS RULE

Staff should ensure that the minimum standards of physiological / safe and supportive observation are maintained as described in Appendix 2 and are part of a comprehensive approach to the management of risks associated with responding to disturbed / aggressive behaviour involving medication and physical interventions.
6.10 PHYSICAL MONITORING

6.10.1 If medication is used for the management of acute behavioural disturbance, the emergency response equipment and equipment for carrying out the following monitoring must be immediately available:

- Blood Pressure (BP)
- Pulse
- Respiratory rate
- Temperature using tympanic device
- Oxygen saturation levels via pulse oximeter
- Resuscitation equipment as set out in the Trust *Resuscitation Policy*
- Blood glucose level

6.10.2 An Electro Cardio Graph (ECG) to be carried out at the earliest opportunity.

The SPCs for both haloperidol injection and oral haloperidol state that a baseline ECG is recommended prior to treatment in all patients. Patients commonly require treatment with haloperidol for immediate relief of critically disturbed behaviour or emotions. Although an ECG is recommended prior to treatment, the patient’s condition, for which the haloperidol treatment is required, may of itself not allow an accurate ECG recording to be obtained. The Trust concurs with its clinicians that the competing requirements of maximal behavioural safety and maximal cardiac safety are, at times, substantially irreconcilable.

Under such circumstances the treating clinician will make a judgement whether the patient’s interests are best served by administering haloperidol within its licensed terms even though an ECG is not available. The large and demonstrable beneficial effect of haloperidol on behavioural and emotional disturbance and the small and poorly quantified risk of cardiac abnormality may be taken into account. It is recognised that instances will arise where the patient’s needs are best served by the urgent administration of haloperidol even in the absence of a pre-treatment ECG. This recognition does not however reduce the force of whatever other authoritative statements apply to the use of haloperidol outside critical care situations.

6.10.3 If current BNF doses are exceeded, it is particularly important that frequent and intensive monitoring of a service user is undertaken. This must be specified and recorded in the electronic patient record (EPR). Pay particular attention to regular checks of airway, respiratory effort, level of consciousness, pulse, blood pressure, temperature and hydration.

Members of staff must know the procedure for accessing emergency assistance. Resuscitation equipment must be available for immediate use. For further information on equipment needs refer to the Trust *Resuscitation Policy*.

6.11 RT and Seclusion

The use of seclusion with RT is not absolutely contraindicated.

If the service user is secluded, the potential complications of RT should be taken particularly seriously.
• The service user should be monitored by ‘within eyesight’ observation by a suitably trained individual. Refer to the Trust *Safe and Supportive Observation Policy*.

• Once RT has taken effect, seclusion should be terminated.

6.12 **Recording**

**RULE**

A full record of the management of the acute behavioural episode must be made in the individual’s EPR.

All drugs must be prescribed on the prescription chart and administered medication must be recorded on the administration record, in line with the Trust Medicines Policy.

Each time RT is carried out, staff must complete the RT Checklist (Appendix 10) and scan this in to the relevant EPR.

A Rapid Tranquillisation (RT) Monitoring Sheet (Post Oral & IM Medication) (Appendix 11) must be completed for all individuals who are administered medication for RT. This form must be scanned in to the relevant EPR.

7. **Guidelines for the Management of Acute Behavioural Disturbance In Adults – Stepped Approach**

**Introduction**

The following is a stepped approach for the management of acute behavioural disturbance that outlines the various approaches that may be used.

An important clinical judgement must be made as to which step(s) would be appropriate for individual service users, based on the severity of behavioural disturbance and associated risks. The least restrictive intervention must be employed whenever possible.

*Once the decision is made to administer medication for RT, the emergency response equipment must be immediately available.*

**STEP ONE – Non-pharmacological measures**

• Measures that do not involve medication should be the first approach for the control of acute behavioural disturbance.

• The following strategies should be considered in each case: de-escalation, distraction techniques, move to a quiet area, negotiation, reviewing observation level, consideration of placement and physical intervention.

• Ensure ongoing risk assessment and physical assessment is available to inform treatment strategy.

• For further guidance on measures that do not involve medication, refer to the Trust *Non-Physical & Physical Assaults (Violence & Aggression) Policy*.

• If a satisfactory outcome is not achieved with the above procedures, proceed to STEP TWO.

• Continue to use verbal de-escalation even if pharmacological management is employed.
STEP TWO – Oral Medication

- Oral medication should only be used when STEP 1 is not feasible and/or does not achieve a satisfactory outcome i.e. sufficiently calm a service user thereby reducing risk to self and others.

- The aim is to achieve light sedation with rapid onset.

- Care should be taken to consider whether sedation is the best approach.

- This section should be read in conjunction with Appendix 4; Prescribing Guidelines - List of preparations clinicians may use in RT, their properties and side-effects.

- Medication for RT can only be prescribed by a doctor. The doctor must check the relevant consent to treatment form prior to prescribing and nurses must check it prior to administering (if applicable).

- Treatment choice should ideally be guided by previous response/adverse reaction(s) to medication.

- Advance decisions made by the service user in relation to medication must be taken into account.

- Any intervention with medication should be tailored to the individual service user and their clinical situation at any given time.

- To support intervention, the Agitation-Calmness Evaluation Scale (ACES) should be used to generate and develop a score over time, in order to monitor effectiveness of treatment. (See Appendix 3)

- Efficacy of intervention should be monitored closely.

- Oral medication should be offered before parenteral medication as far as possible.

- Bioavailability differs between routes of administration so prescriptions for oral and IM medication should be written separately. The abbreviation O/IM must not be used.

- The decision to use oral therapy rather than intramuscular (IM) injection will generally result in a slower onset of action.

- The indication for which oral medication has been prescribed must be specified on the prescription by the doctor i.e. rapid tranquillisation (RT).

- Details of the medication administered together with reason(s) for administration must be clearly documented in the service user’s EPR.

- The use of two PRN drugs of the same class e.g. haloperidol and olanzapine (antipsychotics) for the purpose of RT is not acceptable.

For behavioural disturbance in a non-psychotic context:
Oral lorazepam should be used where the medication history is unknown, the service user has had no previous exposure to antipsychotics or has pre-existing cardiac disease. Oral promethazine is a useful alternative in those with compromised respiratory function, or in those known to be sensitive/tolerant to benzodiazepines. Refer to Appendix 6 - Algorithm for use of Rapid Tranquillisation (RT) in Adults (18-65 years).

Oral lorazepam dose for adults is 1-2mg, maximum 4mg in 24 hours. Dose for elderly is 0.5-1mg, maximum 2mg in 24 hours.

With oral lorazepam, sedation usually occurs within 30 to 45 minutes, peaks at 2 hours and lasts 4-6 hours.

Oral lorazepam/promethazine dose may be repeated after a minimum of 45-60 minutes. It takes in excess of an hour before achieving full effect and staff should take such delays into account before administering further doses.

Frequent small doses are safer and more effective than single large doses, but this may lead to a risk of accumulation.

Always review level of sedation and clinical response prior to repeating administration of any medication.

Ensure regular reviews of service user and prescription.

For behavioural disturbance in a psychotic context:

Where there is a confirmed history of regular previous antipsychotic exposure (not just PRN), first consider using oral lorazepam (or oral promethazine if more appropriate) and if this fails to produce an adequate response after 45-60 minutes, consider using an oral antipsychotic. Refer to Appendix 6 - Algorithm for use of RT in Adults.

Always consider any contra-indications to the use of benzodiazepines and antipsychotics in an individual.

Using a combination of a benzodiazepine and antipsychotic may be beneficial, as this should allow for a lower dose of antipsychotic to be used.

Benzodiazepines may also counteract the lowering of seizure threshold caused by antipsychotics.

Oral lorazepam dose for adults is 1-2mg, maximum 4mg in 24 hours. Dose for elderly is 0.5-1mg, maximum 2mg in 24 hours.

Oral lorazepam/promethazine dose may be repeated after a minimum of 45-60 minutes. It takes in excess of an hour before achieving full effect and staff should take such delays into account before administering further doses.

Haloperidol is best avoided in those who are antipsychotic naïve and in those who have a previous history of extra-pyramidal side-effects. Other oral antipsychotics that may be used include olanzapine and risperidone.

Dementia – the MHRA have warned against the use of antipsychotic medication for the treatment of behavioural symptoms of dementia, due to an increased risk of stroke and death (in particular with olanzapine and risperidone).
olanzapine should not be used for treating behavioural symptoms of dementia; refer to section 6.6 Cautions in the use of RT; for guidance on the use of risperidone as RISPERDAL.

- for acute psychotic conditions in elderly patients with dementia, risperidone should be limited to short-term use under specialist advice; olanzapine is not licensed for acute psychoses.

- the possibility of cerebrovascular events should be considered carefully before treating any service user with a history of stroke or transient ischaemic attack; risk factors for cerebrovascular disease should also be considered.

- Oral antipsychotic dose may be repeated after a minimum of 45-60 minutes.

- The maximum BNF daily dose must be borne in mind at all times. Any regularly prescribed benzodiazepines and/or antipsychotics must be taken into consideration.

- Always review level of sedation and clinical response prior to repeating administration of any medication.

- Ensure regular reviews of service user and prescription.

**Oral Antipsychotic Options**

Refer to:

Appendix 6 - Algorithm for use of Rapid Tranquillisation (RT) in Adults

Appendix 7 – Algorithm for use of Rapid Tranquillisation (RT) in Older Adults (65 years+);

Appendix 4 - Prescribing Guidelines

**Haloperidol**

- Use of this medicine is associated with the greatest risk of acute dystonias. For this reason a PRN antimuscarinic such as procyclidine should be available and prescribed.

- Recommended RT dose for adults: oral haloperidol 5mg. The dose may be repeated after 45 - 60 minutes. Maximum oral daily dose is 30mg.

- Elderly service users will require much lower doses of antipsychotic medication e.g. haloperidol 500 micrograms may be enough to sufficiently calm an elderly service user.

- Recommended preparation for RT are liquid or tablets.

- The bioavailability differs between routes of administration so prescriptions for oral/IM haloperidol must be written separately. The abbreviation O/IM must not be used.

- Review total use of haloperidol if the service user has received both haloperidol IM and oral in the last 24 hours. To calculate how much has been received in total refer to Appendix 5; Haloperidol administration – oral & intramuscular equivalent doses.

- If deemed necessary, oral haloperidol may be administered with lorazepam, however service users should be monitored for side-effects.

- With haloperidol a baseline ECG is recommended prior to treatment in all service users, especially in the elderly and patients with a positive personal or family history of cardiac
disease or abnormal findings on cardiac clinical examination. Refer to Appendix 8 Psychotropic-related QT Prolongation. During therapy, the need for ECG monitoring (e.g. dose escalation) should be assessed on an individual basis. Whilst on therapy, the dose should be reduced if QT is prolonged and haloperidol should be discontinued if the QTc exceeds 500 ms.

Olanzapine

- Recommended RT dose for adults: oral olanzapine 10mg. The dose may be repeated after 45 – 60 minutes. Maximum daily dose is 20mg.
- Recommended preparation for RT is orodispersible tablets.
- If deemed necessary, oral olanzapine may be administered with oral lorazepam, however service users should be monitored for side-effects e.g. excessive sedation.
- **MHRA Warning** – olanzapine is associated with an increased risk of stroke in elderly patients with dementia and should not be used for treating behavioural symptoms of dementia. Olanzapine is not licensed for acute psychoses in elderly patients.

Risperidone

- Recommended RT dose for adults: oral risperidone 1-2mg. The dose may be repeated after 45 – 60 minutes. Doses above 10mg daily should only be considered if the benefit outweighs risk; maximum daily dose 16mg.
- Recommended preparations for RT are liquid or orodispersible tablets.
- If deemed necessary, oral risperidone may be administered with oral lorazepam, however service users should be monitored for side-effects.
  
  **MHRA Warning** – Risperidone is associated with an increased risk of stroke in elderly patients with dementia. Refer to section 6.6 Cautions in the Use of RT for guidance.

If the first dose of oral medication is inadequate, preferably repeat oral medication in STEP 2, or move to STEP 3 if oral medication is refused/risk assessed as high.

If the second dose of oral medication fails to produce an adequate response after 45-60 minutes, move to STEP 3.
STEP THREE – Intramuscular (IM) Medication

- Use of IM medication should be considered where RT through oral therapy has failed to produce an adequate response, is refused, is not indicated by previous response, or is not expected to be effective quickly enough and the risk is assessed as high.

- This section should be read in conjunction with Appendix 4 – Prescribing Guidelines - List of preparations clinicians use in the management of acute behavioural disturbance in HPFT, their properties and side-effects.

- Medication for RT can only be prescribed by a doctor. The doctor must check the relevant consent to treatment form prior to prescribing and nurses must check it prior to administering (if applicable).

- For cautions when administering IM medication refer to the Trust Policy for the Management of Needlestick Injuries and Incidents Involving Exposure to Blood and Body Fluids.

- Treatment choice should ideally be guided by previous response/adverse reaction(s) to medication.

- Advance decisions made by the service user in relation to medication must be taken into account.

- Any intervention with medication should be tailored to the individual service user and their clinical situation at any given time.

- To support intervention, the Agitation-Calmness Evaluation Scale (ACES) should be used to generate and develop a score over time, in order to monitor effectiveness of treatment. (See Appendix 3).

- The service user and the efficacy of the intervention must be monitored closely.

- The indication for which IM medication has been prescribed must be specified on the prescription by the doctor i.e. rapid tranquillisation (RT).

- Details of the medication administered together with reason(s) for administration must be clearly documented in the service user’s notes.

- The use of two PRN drugs of the same class e.g. haloperidol and olanzapine (antipsychotics) for the purpose of RT is not acceptable.

- The service user should be switched to oral medication at the earliest opportunity.
For behavioural disturbance in a non-psychotic context:

- Where oral lorazepam is not considered to be appropriate or is refused, consider IM lorazepam in the first instance. Refer to Appendix 6 - Algorithm for use of RT in Adults.

- IM lorazepam should be used where the medication history is unknown; the service user has had no previous exposure to antipsychotics, or has pre-existing cardiac disease. IM promethazine is a useful alternative in those with compromised respiratory function, or in those known to be sensitive / tolerant to benzodiazepines. Refer to Appendix 6 - Algorithm for use of RT in Adults.

- IM lorazepam dose for adults is 1-2mg, maximum 4mg in 24 hours. Dose for elderly is 0.5-1mg, maximum 2mg in 24 hours.

- Sedation usually occurs within 30 to 45 minutes, peaks 60 - 90 minutes, lasts 4-6 hours.

- IM lorazepam dose may be repeated after a minimum of 30 minutes. However, since IM lorazepam can take in excess of an hour before achieving full effect, staff should take such delays into account before administering further doses.

- Always review level of sedation and clinical response prior to repeating administration of any medicine.

- Ensure regular reviews of prescription and service user.

For behavioural disturbance in a psychotic context:

- Where there is a confirmed history of previous regular antipsychotic exposure (not just PRN), consider first using IM lorazepam (or IM promethazine if more appropriate) and if this fails to produce an adequate response after 30 minutes, consider using an IM antipsychotic. Refer to Appendix 6 - Algorithm for use of RT in Adults.

- Always consider any contra-indications to the use of benzodiazepines and antipsychotics in an individual.

- Short acting benzodiazepines are generally preferred for RT as they are associated with fewer serious side-effects than antipsychotics. Caution is required if a service user has already received an agent with a respiratory depressant effect, e.g. someone who has taken opiates or large amounts of alcohol. (Respiratory depression may be reversed with IV flumazenil – see section 11 Common or Serious Side Effects and their Management).

- Using a combination of a benzodiazepine and antipsychotic may be beneficial, as this should allow for a lower dose of antipsychotic to be used.

- IM haloperidol is best avoided in those who are antipsychotic naïve and in those who have a previous history of extra-pyramidal side-effects.

- The dose of IM haloperidol may be repeated after a minimum of 1 hour. For IM olanzapine and IM aripiprazole, a second dose may be repeated two hours after the first dose.
• IM haloperidol and IM aripiprazole may be administered together with IM lorazepam. **IM lorazepam and IM olanzapine must not be administered within an hour of each other.** (For further details refer to IM antipsychotic options below).

• Always review level of sedation and clinical response prior to repeating administration of any medication.

• Ensure regular review of prescription and service user.

**IM ANTIPSYCHOTIC OPTIONS**
Refer to:
Appendix 6 - Algorithm for use of Rapid Tranquillisation (RT) in Adults
Appendix 7 – Algorithm for use of Rapid Tranquillisation (RT) in Older Adults (65 years+);
Appendix 4 - Prescribing Guidelines

**IM Haloperidol**

• Use of this medicine is associated with the greatest risk of acute dystonias. For this reason a PRN antimuscarinic such as procyclidine should be available and prescribed.

• Recommended RT dose for adults: IM haloperidol 3 to 6 mg. The dose may be repeated after 1 hour. Maximum IM daily dose is 18mg.

• Elderly service users will require much lower doses of antipsychotic medication (Refer to Appendix 7).

• The bioavailability differs between routes of administration so prescriptions for oral and IM haloperidol must be written separately. The abbreviation O/IM must not be used.

• Review total use of haloperidol if the service user has received both haloperidol IM and oral in the last 24 hours. To calculate how much has been received in total, refer to Appendix 5; Haloperidol administration – oral & intramuscular equivalent

• The maximum daily dose of haloperidol is either 30mg orally or 18mg IM. Maximum doses will need to be adjusted if a combination of both routes is used. Oral haloperidol 5mg may be considered to be approximately bioequivalent to IM haloperidol 3mg.

• If deemed necessary, IM haloperidol may be administered with lorazepam; however service users should be monitored for side-effects.

• Do not mix two medications in the same syringe.

• With haloperidol a baseline ECG is recommended prior to treatment in all service users, especially in the elderly and patients with a positive personal or family history of cardiac disease or abnormal findings on cardiac clinical examination. Refer to Appendix 8 Psychotropic-related QT Prolongation. During therapy, the need for ECG monitoring (e.g. dose escalation) should be assessed on an individual basis. Whilst on therapy, the dose should be reduced if QT is prolonged and haloperidol should be discontinued if the QTc exceeds 500 ms.
**IM Olanzapine**

- **Recommended dose:**
  - Adults: initially 5-10mg (usual dose 10mg) as a single dose followed by 5-10mg after 2 hours if necessary.
  - Elderly: initially 2.5-5mg as a single dose followed by 2.5-5mg after 2 hours if necessary. Maximum 3 injections daily for maximum 3 days.
  - Maximum daily combined oral and parenteral dose 20mg.

- **MHRA Warning** – olanzapine is associated with an increased risk of stroke in elderly patients with dementia and should not be used for treating behavioural symptoms of dementia. Olanzapine is not licensed for acute psychoses in elderly patients.

- **IM lorazepam and IM olanzapine must not be administered within an hour of each other** due to an increased risk of sedation and cardiorespiratory depression. The combination of oral lorazepam and IM olanzapine should be used with caution.

**IM Aripiprazole**

- **Recommended dose:**
  - Adults: initially 9.75mg as a single dose. Effective dose range is 5.25 -15mg as a single injection.
  - Lower dose of 5.25mg may be given on the basis of individual clinical status. A second injection may be administered two hours after the first injection.
  - No more than 3 injections should be given in any 24 hour period.
  - Maximum daily dose is 30mg (including all formulations of aripiprazole).

- Elderly: the effectiveness in people 65 years or older has not been established. A lower starting dose should be considered when clinical factors warrant.

- **IM aripiprazole is not approved for the treatment of dementia-related psychosis.**

- If IM aripiprazole is deemed necessary in addition to IM lorazepam, service users should be monitored for excessive sedation and for orthostatic hypotension.

- Do not mix two medications in the same syringe.

(For further information refer to the BNF and relevant SPCs).

**NB:** There is not sufficient evidence with regards to the safety of the combination of IM haloperidol with IM midazolam, hence this combination is **not recommended** for routine psychiatric practice in the UK.

In very exceptional circumstances, which must be specified and recorded, IM haloperidol with IM midazolam may be considered as an alternative to intravenous administration of benzodiazepines or haloperidol. Junior medical staff in isolation must not make this decision.

If the **first dose** of IM medication is inadequate, repeat IM medication.
If the **second dose** of IM medication fails to produce an adequate response, **SEEK ADVICE FROM CONSULTANT PSYCHIATIST**
In the event of a shortage of any medicine routinely used for RT, the Medicines Management Team will issue guidance regarding alternative medicines that may be used.

Procedure for Physical Observations following the Administration of Oral & IM Medication for RT

Physical observations should be carried out following the schedule below and recorded. Where it is difficult to undertake these observations due to service user unwillingness, a more subjective assessment is required. (Refer to Appendix 2). The following procedure is based on The Maudsley Prescribing Guidelines in Psychiatry, 11th edition.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Alertness using ACES scale</td>
<td>1. Every 5 - 10 minutes for first hour unless there is a deterioration in physiological condition.</td>
</tr>
<tr>
<td>• Respiratory rate</td>
<td>2. Then every 30 minutes until service user is ambulatory.</td>
</tr>
<tr>
<td>• Pulse</td>
<td>3. Then continue to monitor alertness, mental state and behaviour. Restart physical observation if there are any concerns.</td>
</tr>
<tr>
<td>• Blood Pressure</td>
<td></td>
</tr>
<tr>
<td>• Oxygen Saturation SpO2</td>
<td></td>
</tr>
<tr>
<td>• Temperature</td>
<td></td>
</tr>
</tbody>
</table>

Ensure fluid intake is maintained. Fluid intake and output should be monitored.

Seek urgent medical advice if there is any deterioration.

The following should be available immediately:

- IM antimuscarinic if service user develops acute dystonia
- Emergency response equipment

Electrocardiogram and haematological monitoring should be performed at the earliest opportunity where parenteral antipsychotics are used. Hypokalaemia, stress and agitation place the patient at risk of cardiac arrhythmia. ECG monitoring is formally recommended for all patients who receive haloperidol (refer to page 17).

If ACES score 8/9 or any signs of physical deterioration, implement initial emergency care, call for advanced emergency care (999 Ambulance/2222 Crash Team) and inform the on-call doctor.

Intravenous (IV) medication (Please note this does not appear in the RT algorithms)

- IV administration of benzodiazepines or haloperidol should NOT normally be carried out except in very exceptional circumstances i.e. a VERY hostile and disturbed service user.

- The decision to use IV medication should NOT be made by junior medical staff in isolation and can only be used in consultation with the Consultant Psychiatrist (on-call Consultant Psychiatrist if out-of-hours). Medication for RT can only be prescribed by a doctor.
• Reasons for using the IV route must be clearly specified and recorded in the service user’s notes.

• The IV route of administration can lead to high concentrations of drug at the heart muscles and should always be avoided in older service users.

• Be aware of any past history of respiratory depression, acute dystonia or cardiovascular compromise.

• Nursing staff working within the Trust are not trained to administer medication via the IV route and hence administration must be carried out by an appropriately trained doctor when necessary.

• If immediate tranquillisation is essential then IV administration may be required. If it is used, medical and nursing staff must be appropriately trained to recognise and manage symptoms of respiratory depression, acute dystonia or cardiovascular compromise (such as palpitations, significant changes in blood pressure and cardiovascular collapse).

• If IV medication is used, the service user must be managed on continuous observation for a minimum of three hours following RT or longer if considered necessary. The service user must not be left unattended; emergency response equipment must be immediately available and staff must be trained in immediate life support (ILS).

8. Medications not Recommended for RT
(Refer to Appendix 4 – Prescribing Guidelines)

• Chlorpromazine oral or IM
• Diazepam IM
• IM depot antipsychotics
• Olanzapine should not be used for behavioural disturbance in service users with dementia

Zuclopenthixol acetate (Acuphase) is NOT an appropriate drug for use in RT due to both its delayed onset of action and long duration of action.

• It must NEVER be administered to those without any previous exposure to antipsychotic medication.

• It may have a role in the ongoing management of risk of violence once tranquillisation has been satisfactorily achieved. It is important to consider the pharmacokinetics of other drugs when prescribing zuclopenthixol acetate. For example, caution is necessary in a service user who has recently received a dose of depot antipsychotic which has not yet reached peak levels.

• It should only be given after calming has been achieved and/or in those situations when it is likely that repeated doses of intramuscular antipsychotics would be necessary.

• It should never be used in those who are struggling, who are sensitive to extrapyramidal side-effects (EPSE), those with cardiac disease, hepatic or renal impairment or in pregnancy.

• The BNF and manufacturer’s SPC must be consulted regarding the use of zuclopenthixol acetate (Acuphase).
• The onset of sedation with zuclopenthixol acetate starts at 1 to 4 hours, peaks at 8 to 36 hours and is mainly complete by 48 to 72 hours. A second dose should not be given within 24 hours of the first dose. Do not exceed 4 injections of zuclopenthixol acetate.

• The usual effective dose used in acute adult psychiatry is 100mg. 25mg is an appropriate starting dose in the elderly, service users with low body weight and in those who are dehydrated. 50 mg is an appropriate starting dose in younger adults with little previous experience of antipsychotic treatment. The maximum dose is 400mg in 2 weeks.

• If in doubt contact a senior member of medical staff for further advice.

NICE suggests that zuclopenthixol acetate (Acuphase) injection MAY be considered as an option for medium term management of disturbed behaviour when any of the following apply:

• It is clearly expected that the service user will be disturbed/violent over an extended period of time

• A service user has a past history of good and timely response to zuclopenthixol acetate

• A service user has a past history of repeated parenteral administration

• An advance decision has been made indicating that this is the treatment of choice

9. DOSES FOR RT

9.1 It is sometimes necessary to knowingly exceed BNF limits and knowingly use drugs outside of their marketing authorisation (off-label) for the purpose of RT. The rationale for this must be recorded in the care plan and monitoring of the service user’s condition must be specified. For further information refer to section 6.6 Cautions in the use of RT.

9.2 In all circumstances of RT, the prescriber and person administering medication must pay attention to issues of consent, capacity, advance decisions, BNF requirements and physical and mental health status of the service user.

   In considering the dose, if it is above the BNF maximum recommended dose you MUST contact the Consultant Psychiatrist (On-Call Consultant Psychiatrist if out-of-hours), for confirmation of this dose.

9.3 The dose of antipsychotic medication should be individualised for each service user.

9.4 If current BNF doses are exceeded, it is particularly important that frequent and intensive monitoring of the service user is undertaken. This must be specified and recorded in the notes. Pay particular attention to regular checks of airway, level of consciousness, pulse, blood pressure, respiratory effort, temperature and hydration.

9.5 The total dose of medication prescribed for an acutely disturbed service user must be reviewed:

• regularly by a member of the medical team responsible for the service user or the duty doctor out of hours, in conjunction with the multidisciplinary team

• at least every 24 hours (or more often in a rapidly changing situation)
9.6 Oral and intramuscular medications should be prescribed separately and the abbreviation of O/IM should not be used.

- Note previous medications, doses and response.

- Look for any previous records of adverse reactions to medication which might inform your choice.

- Consider any antipsychotics taken recently (note oral doses taken in last 24 hours) or depot antipsychotic injections given in the past six weeks and any drug intoxication (especially alcohol, opiates and benzodiazepines).

- Remember that elderly and physically ill people will require lower doses than healthy adults. Review physical health and drug status (elderly, thin or frail, cardiac or respiratory disease, service users with a learning disability).

- Ensure regular review of prescriptions and service user.

10. **Plan for the Next 24 Hours and Afterwards**

**RULE**

- After RT, offer the service user the opportunity to discuss their experience. Provide them with a clear explanation of the decision to use urgent sedation. Record this in their notes.

- Ensure that the service user has the opportunity to write an account of their experience of RT in their notes.

- Medical and nursing staff should jointly review the care plan **four** hours after RT.

- A Rapid Tranquillisation (RT) Monitoring Sheet (Post Oral & IM Medication) (Appendix 11) must be completed for all individuals who are administered medication for RT. This form must be scanned in to the relevant EPR.

- Each time RT is carried out staff must complete the RT Checklist (Appendix 10) and scan this in to the relevant EPR.

- The Nurse in Charge must ensure that the Trust incident reporting procedure has been fully implemented. He/she must forward the incident report and RT Checklist to the Team Leader and Responsible Consultant.

- The clinical team should meet at the earliest opportunity, within 72 hours, for a critical clinical review of the incident.

- The service user’s care plan should be reassessed and the service user helped to reintegrate in to the ward.

- If the service user is transferred to another unit a full history must be available to the receiving team.

- Review and monitor physical and mental health status.

- Where language barriers are seen to be a factor which is preventing a response by the service user to interventions/treatment, this can lead to an escalation of acute behavioural disturbance. Staff should be mindful of this and seek the support of the interpreting service as soon as possible.
• Seek advice from a senior doctor if necessary.

• Review Mental Health Act status.

• Review any “when required (PRN)” medication.

• Consider increasing, or start regular (oral) antipsychotics (if haloperidol is used, consider switching to an alternative and possibly better tolerated antipsychotic) or starting a longer acting regular benzodiazepine, e.g. diazepam, if appropriate.

• Post incident support made available in line with the Trust Non-Physical & Physical Assaults (Violence & Aggression) Policy.

11. Common or Serious Side Effects and their Management

<table>
<thead>
<tr>
<th>Complication</th>
<th>Symptoms/signs</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute dystonia</td>
<td>Severe painful muscular stiffness</td>
<td>Procyclidine 5-10 mgs IM</td>
</tr>
<tr>
<td>Hypotension</td>
<td>Fall in blood pressure (orthostatic or &lt;50mmHg diastolic)</td>
<td>Lie patient flat and raise legs; Monitor closely</td>
</tr>
<tr>
<td>Neuroleptic malignant syndrome</td>
<td>Increasing temperature, fluctuating blood pressure, muscular rigidity, confusion/altered consciousness</td>
<td>Withhold antipsychotics; Monitor closely and liaise with general medical team immediately</td>
</tr>
<tr>
<td>Arrhythmias</td>
<td>Slow (&lt;50/min) or irregular pulse</td>
<td>Monitor closely and liaise with general medical team immediately</td>
</tr>
<tr>
<td>Respiratory depression</td>
<td>Reducing respiratory rate, reducing consciousness</td>
<td>Give oxygen, raise legs. If necessary ventilate mechanically. If respiratory rate drops below 10/minute in a service user who has received benzodiazepines do the following: 1. Call for advanced emergency care (see below) 2. *Doctor to administer IV flumazenil. 200 micrograms IV over 15 seconds. 3. If consciousness is not resumed within 60 seconds give 100 micrograms over 10 seconds. 4. Repeat at 60 second intervals. Maximum dose 1 mg/24 hours. Continue to monitor after respiratory rate returns to normal. Flumazenil has a short duration of action so further doses may be required. Service users may become agitated or anxious on waking.</td>
</tr>
</tbody>
</table>

If any signs of physical deterioration, implement initial emergency care, call for advanced emergency care (999 Ambulance/2222 Crash Team) and inform the on-call doctor.

*All units where RT may be carried out MUST stock IV flumazenil. Team Leaders must ensure that the equipment necessary for administering this medication is also available on the unit. Please note that HPFT nurses are not approved to administer IV medication and such medication must therefore be administered by a doctor.
### 12. Training/Awareness

**RULE**

NHSLA Risk Management Standards – Mental Health & Learning Disabilities 2012-13; 6.7 Rapid Tranquillisation. Refer to Appendix 1 for full details.

<table>
<thead>
<tr>
<th>Course</th>
<th>For</th>
<th>Renewal Period</th>
<th>Delivery Mode</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate Life Support (Incorporate Resuscitation Training and Rapid</td>
<td>Registered nurses working in inpatient</td>
<td>Annually</td>
<td>Taught course (1 day)</td>
<td>For taught courses, contact the Learning &amp; Development Team: <a href="mailto:Learning@hpft.nhs.uk">Learning@hpft.nhs.uk</a></td>
</tr>
<tr>
<td>Tranquillisation Training)</td>
<td>inpatient settings</td>
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<td></td>
<td>You can check for future dates here, and request a specific date.</td>
</tr>
<tr>
<td>Basic Life Support (Incorporates Resuscitation Training)</td>
<td>Medical Staff and Community Support</td>
<td>Every 3 years</td>
<td>Taught course (half day)</td>
<td>For taught courses, contact the Learning &amp; Development Team: <a href="mailto:Learning@hpft.nhs.uk">Learning@hpft.nhs.uk</a></td>
</tr>
<tr>
<td>Support Workers</td>
<td>Support Workers in In-Patient Units</td>
<td>Annually</td>
<td></td>
<td>You can check for future dates here, and request a specific date.</td>
</tr>
<tr>
<td>Relating to People/RESPECT (Incorporates Violence and Aggression</td>
<td>Inpatient</td>
<td>Annually</td>
<td>Module 4 (5 days) followed by</td>
<td>For taught courses, contact the Learning &amp; Development Team: <a href="mailto:Learning@hpft.nhs.uk">Learning@hpft.nhs.uk</a></td>
</tr>
<tr>
<td>Training and Observation of Patients Training)</td>
<td></td>
<td></td>
<td>annual module 4 refresher (1 day)</td>
<td>You can check for future dates here, and request a specific date.</td>
</tr>
<tr>
<td>First Aid &amp; Resuscitation</td>
<td>Tertiary Learning Disabilities Staff</td>
<td>Annually</td>
<td>Taught course (1 day)</td>
<td>For taught courses, contact the Learning &amp; Development Team: <a href="mailto:Learning@hpft.nhs.uk">Learning@hpft.nhs.uk</a></td>
</tr>
<tr>
<td>Management of Aggression / RT</td>
<td>Doctors</td>
<td>Bi-annually</td>
<td>Taught (30 mins) as part of induction</td>
<td>Local academic leads</td>
</tr>
<tr>
<td>Management of Aggression / RT</td>
<td>Doctors</td>
<td>Bi-annually</td>
<td>Taught (1 hour) as part of weekly teaching sessions</td>
<td>Local academic leads</td>
</tr>
<tr>
<td>Management of Acute Behavioural Disturbance including RT</td>
<td>Doctors, nurses and pharmacists</td>
<td>Annually</td>
<td>Taught course (half day)</td>
<td>Contact Chief Pharmacy Technician – Medicines Management Team: <a href="mailto:andrew.smith@hpft.nhs.uk">andrew.smith@hpft.nhs.uk</a></td>
</tr>
</tbody>
</table>
Section 4 of the HPFT Mandatory Training Matrix 2012-13 also describes the process for checking that all relevant staff groups complete the training they need, and the process for following up those who fail to attend this, or any such training.

Newly qualified nursing staff will receive appropriate training in the use of RT during preceptorship.

For medical staff this training will be addressed via medical induction and continual professional development.

Medicines Management Annual Education and Training Programme includes sessions on High Dose and Combination Prescribing of Antipsychotics and RT.

Lead clinicians/ward/team leaders are responsible via supervision that their staff attend the relevant training and updates. Records of training must be kept.

Members of staff are responsible for attending the required training at the required intervals.

The training schedule applies to indicated staff groups whether temporary or permanent.

**Associated Training**

- Clinical Risk Assessment and Management
- Mental Health Act 1983 and 2007
- Mental Capacity Act 2005
- Equality and Diversity
- Cultural Competence

For further information refer to the appropriate procedural document.

13. Embedding a culture of Equality & RESPECT

The Trust promotes fairness and RESPECT in relation to the treatment, care & support of service users, carers and staff.

RESPECT means ensuring that the particular needs of ‘protected groups’ are upheld at all times and individually assessed on entry to the service. This includes the needs of people based on their age, disability, ethnicity, gender, gender reassignment status, relationship status, religion or belief, sexual orientation and in some instances, pregnancy and maternity.

Working in this way builds a culture where service users can flourish and be fully involved in their care and where staff and carers receive appropriate support. Where discrimination, inappropriate behaviour or some other barrier occurs, the Trust expects the full cooperation of staff in addressing and recording these issues through appropriate Trust processes.

**RULE:** Access to and provision of services must therefore take full account of needs relating to all protected groups listed above and care and support for service users, carers and staff should be planned that takes into account individual needs. Where staff need further information regarding these groups, they should speak to their manager or a member of the Trust Inclusion & Engagement team.

Where service users and carers experience barriers to accessing services, the Trust is required to take appropriate remedial action.

The following table reflects – specifically for this policy – how the design of the service and processes involved has given consideration to all protected groups so ensuring equality and dignity for everyone.
<table>
<thead>
<tr>
<th>Service user, carer and/or staff access needs (including disability)</th>
<th>Effective communication is essential during RT, especially where there are specific language and sensory communication requirements. The information provided should meet the individual’s communication needs e.g. people with physical, sensory or learning disabilities or people who do not read or speak English. Staff may need to access the interpreting service.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement</td>
<td>Reasons for using RT must be explained to the service user at the earliest opportunity. Service users should be encouraged to discuss their experiences and given the opportunity to write an account of this. This narrative should be included in the EPR, thereby supporting the underlying principles of recovery.</td>
</tr>
<tr>
<td>Relationships &amp; Sexual Orientation</td>
<td>All service users must be given the same consideration and appropriate advice/treatment by staff in terms of RT, which must be independent of their circumstances.</td>
</tr>
<tr>
<td>Culture &amp; Ethnicity</td>
<td>All service users must be given the same consideration and appropriate advice/treatment by staff in terms of RT, which must be independent of their circumstances.</td>
</tr>
<tr>
<td>Spirituality</td>
<td>All service users must be given the same consideration and appropriate advice/treatment by staff in terms of RT, which must be independent of their circumstances.</td>
</tr>
<tr>
<td>Age</td>
<td>Please refer to section 6.6 Cautions in the use of RT; Appendix 6 Algorithm for use of RT in Adults (18-65 years); Appendix 7 Algorithm for use of RT in Older Adults (65years+)</td>
</tr>
<tr>
<td>Gender &amp; Gender Reassignment</td>
<td>All service users must be given the same consideration and appropriate advice/treatment by staff in terms of RT, which must be independent of their circumstances.</td>
</tr>
<tr>
<td>Advancing equality of opportunity</td>
<td>All service users must be given the same consideration and appropriate advice/treatment by staff in terms of RT, which must be independent of their circumstances.</td>
</tr>
</tbody>
</table>
14. Process for monitoring compliance with this document - This section should identify how the organisation plans to monitor compliance with the process/system being described, presented in a table.

## STANDARD

NHSLA Risk Management Standard 2013 – 14 ; 6.7 Rapid Tranquillisation (Appendix 1)

<table>
<thead>
<tr>
<th>Action:</th>
<th>Lead</th>
<th>Method</th>
<th>Frequency</th>
<th>Report to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review of compliance with NHSLA Criterion 6.7 at Level 2</td>
<td>Head of Medicines Management</td>
<td>Review policy against NHSLA standards</td>
<td>Policy checked annually</td>
<td>Drug &amp; Therapeutics Committee (DTC) DTC reports annually to Quality and Risk Management Committee</td>
</tr>
<tr>
<td>The organisation has approved documentation which describes the process for managing risks associated with RT</td>
<td>Head of Medicines Management</td>
<td>Review of policy to meet NHSLA standard 6.7</td>
<td>Policy checked annually</td>
<td>Drug &amp; Therapeutics Committee (DTC) DTC reports annually to Quality and Risk Management Committee</td>
</tr>
<tr>
<td>Demonstrate compliance with the objectives set out in NHSLA standard 6.7 and the monitoring of the minimum requirements for:</td>
<td>Head of Medicines Management and Deputy Director of Nursing</td>
<td>Audit - Medicines Management Team</td>
<td>Annually</td>
<td>Drug &amp; Therapeutics Committee (DTC) DTC reports annually to Quality and Risk Management Committee</td>
</tr>
</tbody>
</table>
  - prescribing guidelines for RT
  - recording of observations including timeframes when patients have received RT

---

Page 30
PART 3 – Associated Issues

15. Version Control

**STANDARD**

<table>
<thead>
<tr>
<th>Version</th>
<th>Date of Issue</th>
<th>Author</th>
<th>Status</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>V3.1</td>
<td>May 2012</td>
<td>Head of Medicines Management</td>
<td>Superseded</td>
<td>Archived</td>
</tr>
<tr>
<td>V4</td>
<td>July 2012</td>
<td>Head of Medicines Management</td>
<td>Superseded</td>
<td>Archived</td>
</tr>
</tbody>
</table>

16. Archiving Arrangements

**STANDARD:** All policy documents when no longer in use must be retained for a period of 10 years from the date the document is superseded as set out in the Trust Business and Corporate (Non-Health) Records Retention Schedule available on the Trust Intranet.

A database of archived policies is kept as an electronic archive administered by the Compliance and Risk Facilitator. This archive is held on a central server and copies of these archived documents can be obtained from the Compliance and Risk Facilitator on request.

17. Associated Documents

**STANDARD**

- Clinical Risk Assessment & Management for Individual Service Users Policy
- Communicating with Service Users from Diverse Communities Policy
- Consensus Statement on High-Dose Antipsychotic Medication Royal College of Psychiatrists Report May 2006
- Consent to Examination, Care & Treatment including Electro-convulsive Therapy Policy
- Guidelines for the Care and Management of Pregnant Service Users
- MCA Advance Decisions to Refuse Treatment & Advance Statements Policy
- Medicines Policy
- Mental Capacity Act 2005
- Mental Health Act Code of Practice 2008
- Needlestick Injuries & Incidents involving Exposure to Blood & Body Fluids Policy
- Non-Physical & Physical Assaults (Violence & Aggression) Policy
- POMH-UK Prescribing High-Dose and Combination Antipsychotics 2012
- Pregnant Service Users Care & Management Policy
- Safe & Supportive Observation Policy
- Single Equalities Scheme Policy
18. Supporting References

STANDARD

- National Institute for Health and Clinical Excellence, CG82 (updated March 2009)
- Core interventions in the treatment and management of schizophrenia in primary and secondary care, Royal College of Psychiatrists Management of imminent violence: quick reference guide

Acknowledgements

Birmingham and Solihull Mental Health NHS Foundation Trust Rapid Tranquillisation Policy
South West London and St. George’s NHS Trust Rapid Tranquillisation Policy

19. Comments and Feedback

STANDARD

<table>
<thead>
<tr>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head of Medicines Management</td>
</tr>
<tr>
<td>Consultant Psychiatrists</td>
</tr>
<tr>
<td>Speciality Doctor PICU</td>
</tr>
<tr>
<td>Principal Clinical Pharmacists for Mental Health</td>
</tr>
<tr>
<td>Lead Nurses</td>
</tr>
<tr>
<td>Resuscitation Officer</td>
</tr>
<tr>
<td>Professional Lead – Prevention &amp; Management of Violence &amp; Aggression</td>
</tr>
<tr>
<td>Directorate Manager Mental Health Act</td>
</tr>
</tbody>
</table>
APPENDICES

Appendix 1: NHSLA Risk Management Standards 2013-2014; 6.7 Rapid Tranquillisation
Appendix 2: Nursing Observations Pre and Post Rapid Tranquillisation
Appendix 3: Agitation-Calmness Evaluation Scale (ACES)
Appendix 4: Prescribing Guidelines - List of preparations clinicians may use in RT, their properties and side effects
Appendix 5: Haloperidol Administration – Oral & Intramuscular Equivalent Doses
Appendix 6: Algorithm for use of Rapid Tranquillisation (RT) in Adults (18-65 years)
Appendix 7: Algorithm for use of Rapid Tranquillisation (RT) in Older Adults (65 years+)
Appendix 8: Psychotropic-related QT Prolongation
Appendix 9: Drug Choice in Pregnancy
Appendix 10: Rapid Tranquillisation (RT) Checklist for Staff
Appendix 11: Rapid Tranquillisation (RT) Monitoring Form
Appendix 12: CQC Essential Standards of Quality and Safety
Appendix 13: Rapid Tranquillisation (RT) Quick Reference Guide
6.7 Rapid Tranquillisation
Organisations providing MH & LD services must have an approved documented process for rapid tranquillisation.

Level 1
Your documented process must include:
   a) Duties
   b) Prescribing guidelines for rapid tranquillisation
   c) How observations are recorded, including timeframes when patients have received rapid tranquillisation
   d) How the organisation trains staff, in line with training needs analysis
   e) How the organisation monitors compliance with all of the above.

Level 2
You must evidence implementation of your documented process in relation to:
   - Prescribing guidelines for rapid tranquillisation
   - How observations are recorded, including timeframes when patients have received rapid tranquillisation.

The assessor will look at between 10 and 30 health records in current use in order to assess compliance. This will typically be equivalent to 10% of all daily admission numbers. To award a score the assessor will need to be assured that 75% of the records presented for this criterion meet all of the above relevant minimum requirements.

Level 3
You must evidence monitoring of your documented process in relation to:
   - Prescribing guidelines for rapid tranquillisation
   - How observations are recorded, including timeframes when patients have received rapid tranquillisation.

Where monitoring has identified shortfalls, you must evidence that changes have been made to address them. The assessor will look at between 10 and 30 health records in current use in order to spot check the organisation’s monitoring results. This will be typically equivalent to 10% of all daily admission numbers. If the spot check of health records does not demonstrate 75% compliance, these findings will override the evidence provided by the organisation and will result in no score being awarded for this criterion.
Nursing Observations Pre and Post Rapid Tranquillisation

1. Nursing Observations

1.1 Aim

- The physical assessment is to help you identify and report medical problems that affect a service user’s health.

- The expectation of staff is that they will monitor the service user (physiological parameters) in a realistic, appropriate and safe manner.

1.2 During physical interventions (RESPECT / PMA) observe ACES, respiratory rate and colour, looking for signs of cyanosis or distress. (Refer to the Trust Policy on the Management of Physical and Non-Physical Assaults).

1.3 Skilled nursing observation is essential following rapid tranquillisation and nurses should be advised by the following guidance.

This can be defined as:

- **OBJECTIVE observations**: BP, Pulse, Respiration, Temperature, Oxygen Saturation Levels
- **SUBJECTIVE observations**: Agitation-Calmness Evaluation Scale; when objective observations not possible

The attending doctor should state in the EPR any further specific monitoring requirements.

1.4 In the following circumstances, more frequent and intensive monitoring is required:

- If the service user appears to be or is asleep/sedated
- If BNF daily dose limit is exceeded
- Where the service user has been using illicit substances or alcohol
- Where the service user has a relevant medical disorder or concurrently prescribed medication
- If ACES score 8/9 or any signs of physical deterioration, implement initial emergency care, call for advanced emergency care (999 Ambulance / 2222 Crash Team) and inform the on-call doctor

2. Implementing Nursing Observations

- Carry out continuous supportive observations until reviewed by the medical and nursing team

- Follow the physical monitoring schedule set out on page 24

- Maintain the dignity and privacy of the service user

- Use opportunities to establish rapport and empathy with the service user
• Monitor any signs / symptoms of physical health deterioration

• Ensure fluid intake and output is maintained.

• Ensure pressure areas are dry and clean and monitor risk in line with Trust Tissue Viability Policy

• Grade and record levels of consciousness. Use the ACES scale (Appendix 3) for this purpose.

• All monitoring activity must be recorded in the electronic patient record (EPR) and appropriate observation and vital signs recording chart.

• If ACES score 8/9 or any signs of physical deterioration, implement initial emergency care, call for advanced emergency care (999 Ambulance / 2222 Crash Team) and inform the on-call doctor.
Agitation-Calmness Evaluation Scale (ACES) are defined as follows:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Marked Agitation: High levels of physical activity, may demonstrate markedly increased levels of verbal expression, may be physically violent, cannot control signs of agitation if requested to do so, may require continuous nursing care/supervision and/or physical restraint.</td>
</tr>
<tr>
<td>2</td>
<td>Moderate Agitation: Moderately increased levels of physical activity, demonstrates increased levels of verbal expression and may be verbally threatening, is not physically violent, can partly control signs of agitation if requested to do so, requires standard nursing care/supervision.</td>
</tr>
<tr>
<td>3</td>
<td>Mild Agitation: Slightly increased levels of physical activity, may demonstrate slightly increased levels of verbal expression (e.g. may raise his or her voice volume), is not threatening or violent, can control signs of agitation if requested to do so, requires standard nursing care/supervision.</td>
</tr>
<tr>
<td>4</td>
<td>Normal: Normal levels of physical activity, normal levels of verbal expression, awake with eyes continuously open.</td>
</tr>
<tr>
<td>5</td>
<td>Mild Calmness: Slightly reduced levels of verbal and physical activity, eyes continuously open, remains aware of and responsive to his or her environment.</td>
</tr>
<tr>
<td>6</td>
<td>Moderate Calmness: Moderately reduced levels of verbal and physical activity, eyes may be intermittently open, easily aroused or responsive to mild verbal (e.g. calling of name) or physical stimulation (e.g. a gently touch), remains awake when stimulus removed.</td>
</tr>
<tr>
<td>7</td>
<td>Marked Calmness: Greatly reduced verbal or physical activity, sleeping lightly, aroused by mild to moderate verbal (e.g. calling of name) or physical stimulation (e.g. a touch).</td>
</tr>
<tr>
<td>8</td>
<td>Deep Sleep: No verbal or physical activity, sleeping deeply, awakened only with great difficulty by vigorous verbal (e.g., loud repeated calling of name) and/or physical stimulation (e.g. vigorous, repeated shaking of service user’s shoulder), returns to sleep immediately when stimulus is removed.</td>
</tr>
<tr>
<td>9</td>
<td>Unrousable: Sleeping deeply, cannot be aroused by either vigorous verbal or physical stimulation (e.g. vigorous, repeated shaking of service user’s shoulders).</td>
</tr>
</tbody>
</table>
### Prescribing Guidelines - List of preparations clinicians may use in RT, their properties and side effects

<table>
<thead>
<tr>
<th>Drug</th>
<th>Route</th>
<th>Pharmacokinetics</th>
<th>Major side effects</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short-acting antipsychotics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olanzapine</td>
<td>Oral</td>
<td>Peak 5-8 hours t½ 32-50 hours</td>
<td>Hypotension Bradycardia Syncope</td>
<td>Less likely to cause EPSE than haloperidol</td>
</tr>
<tr>
<td></td>
<td>Intramuscular</td>
<td>Peak 15-45 minutes t½ 30 hours</td>
<td></td>
<td>IM administration results in initial maximum plasma concentration 5 times higher than same dose given orally.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>IM olanzapine must not be administered within one hour of IM lorazepam.</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not approved for use in dementia – related psychosis/behavioural disturbance.</td>
</tr>
<tr>
<td>Risperidone</td>
<td>Oral</td>
<td>Peak 2 hours t½ 18 hours</td>
<td>EPSE ? Hypotension</td>
<td>Limited clinical experience or trial data.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not recommended for the treatment of behavioural symptoms of dementia.</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>Oral</td>
<td>Peak 1.5 - 1.8 hours t½ 6-7 hours</td>
<td>? QT prolongation ? Hypotension</td>
<td>Limited clinical experience or trial data.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>This drug was not considered by NICE in the violence guideline, but its short half-life justifies its inclusion in this list.</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>Oral</td>
<td>Peak 4 hours t½ 21 hours</td>
<td>EPSE Hypotension NMS Increased QTc Arrhythmias Seizures Sudden death</td>
<td>The SPC requires an ECG. Note risk of acute dystonias and ensure that an appropriate antimuscarinic is to hand. Not recommend for I.V. use because of increased risk of arrhythmias. The bioavailability of oral &amp; IM haloperidol is different and this must be taken into account when considering the total dose per 24 hour period. 5mg oral = 3 mg IM.</td>
</tr>
<tr>
<td></td>
<td>Intramuscular</td>
<td>Peak 20 minutes t½ 21 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aripiprazole</td>
<td>Intramuscular</td>
<td>Peak 1 - 3 hours t½ 75 – 146 hours</td>
<td>Orthostatic hypotension Tachycardia Dry mouth</td>
<td>Those receiving IM aripiprazole should be observed for orthostatic hypotension. If parenteral benzodiazepine therapy is deemed necessary in addition to aripiprazole IM, monitor for excessive sedation and for orthostatic hypotension. (Oral aripiprazole has a licence in the control of agitation and disturbed behaviour in schizophrenia) Not approved for the treatment of dementia–related psychosis</td>
</tr>
<tr>
<td><strong>Benzodiazepines</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lorazepam</td>
<td>Oral</td>
<td>Peak 2 hours t½ 12 hours</td>
<td>Respiratory depression Disinhibition</td>
<td>Benzodiazepines have a wide therapeutic index &amp; respiratory depression is readily reversed with the specific antagonist flumazenil. IM lorazepam must not be administered within one hour of IM olanzapine. Oral lorazepam and IM olanzapine should be used with caution.</td>
</tr>
<tr>
<td></td>
<td>Intramuscular</td>
<td>Peak 60 – 90 minutes t½ 12 – 16 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diazepam</td>
<td>Oral</td>
<td>Peak 60 minutes t½ 24 – 48 hours</td>
<td></td>
<td>Disinhibition is more likely to occur in those with organic brain disease, including learning disabilities, the under 18s and the over 65s, and perhaps those with impulse control problems.</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>Oral</td>
<td>Peak 1 – 4 hours t½ 20 – 60 hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Longer acting antipsychotics

<table>
<thead>
<tr>
<th>Drug</th>
<th>Route</th>
<th>Onset</th>
<th>t½</th>
<th>Adverse Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zuclopenthixol acetate</td>
<td>Intramuscular</td>
<td>2 – 8 hours</td>
<td>60 hours</td>
<td>EPSE, Sudden Death, Cardiac arrest, Arrhythmias</td>
</tr>
<tr>
<td>(Acuphase)</td>
<td></td>
<td>Peak 24 – 36 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>t½ 60 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>This is not an appropriate drug for use in RT</strong> due to its delayed onset and long duration of action. NICE suggest that this drug maybe used for medium term management of disturbed behaviour under four explicit circumstances (see section 7 of this guidance for detail). It should never be used in those who are neuroleptic naïve, who are struggling, who are sensitive to EPSE, or those with cardiac disease, hepatic or renal impairment or in pregnancy.</td>
</tr>
</tbody>
</table>

### Antihistamines

<table>
<thead>
<tr>
<th>Drug</th>
<th>Route</th>
<th>Onset</th>
<th>t½</th>
<th>Adverse Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promethazine</td>
<td>Oral</td>
<td>Peak 2 - 3 hours</td>
<td>7 – 15 hours</td>
<td>Prolonged sedation, Seizures, Cardiorespiratory depression</td>
</tr>
<tr>
<td></td>
<td></td>
<td>t½ 7 – 15 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intramuscular</td>
<td>Onset 1 – 2 hours</td>
<td>7 – 15 hours</td>
<td>Limited evidence for efficacy but may be of use in patients who are known to be sensitive/tolerant to benzodiazepines.</td>
</tr>
</tbody>
</table>

**Note:** The pharmacokinetics of lorazepam is similar whether given orally or parenterally, therefore the only reason to give lorazepam parenterally is if the patient refuses oral.

**Note:** It is recognised that clinicians may decide that the use of medication outside of the manufacturer’s Summary of Product Characteristics (SPC) is occasionally justified, bearing in mind the overall risks. However, where the regulatory authorities or manufacturer issues a specific warning that this may result in an increased risk of fatality, the medication should only use used strictly in accordance with the current marketing authorisation.
HALOPERIDOL ADMINISTRATION – ORAL & INTRAMUSCULAR EQUIVALENT DOSES

The maximum recommended daily dose for each route of administration is different, because parenteral doses generally have a greater bioavailability than oral doses.

Maximum dose in 24 hours:
If only oral form prescribed: 30mg
If only IM form prescribed: 18mg
If oral & IM forms prescribed in combination, refer to table below for total daily dose

Please use the conversion chart below if a patient has received both haloperidol IM and oral in the last 24 hours, to calculate how much the patient had received in total:

<table>
<thead>
<tr>
<th></th>
<th>0.5</th>
<th>1</th>
<th>1.5</th>
<th>2.5</th>
<th>4.2</th>
<th>5</th>
<th>7.5</th>
<th>8.3</th>
<th>10</th>
<th>12.5</th>
<th>16.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Haloperidol</td>
<td>0.5</td>
<td>1</td>
<td>1.5</td>
<td>2.5</td>
<td>4.2</td>
<td>5</td>
<td>7.5</td>
<td>8.3</td>
<td>10</td>
<td>12.5</td>
<td>16.7</td>
</tr>
<tr>
<td>IM Haloperidol</td>
<td>0.3</td>
<td>0.6</td>
<td>0.9</td>
<td>1.5</td>
<td>2.5</td>
<td>3</td>
<td>4.5</td>
<td>5</td>
<td>6</td>
<td>7.5</td>
<td>10</td>
</tr>
</tbody>
</table>

For example:

Patient has been given 1 x 5mg haloperidol IM, followed 30 minutes later by 5mg orally, then 30 minutes later by another 5mg orally.

Convert to all oral doses, i.e. 8.3mg + 5mg + 5mg = 18.3mg oral equivalent

Or

Convert to all IM doses, i.e. 5mg + 3mg + 3mg = 11mg IM equivalent

Therefore the patient may receive a further 10mg oral equivalent or 5mg IM equivalent haloperidol within the 24 hour period.

NOTE: Each route of administration should be prescribed as a separate entry on the prescription chart
ALGORITHM FOR USE OF RAPID TRANQUILLISATION (RT) IN ADULTS (18-65 YEARS)

(Appendix 2)

(This algorithm is for guidance only; please consult BNF for full prescribing information)

Many people with LD are especially sensitive to the side-effects of psychotropics. It is good practice to start at lower doses and increase more slowly than is usual in general psychiatric practice.

**STEP 1**
TRANQUILLISATION/CALMING

**NON-PHARMACOLOGICAL MEASURES**
De-escalation, distraction, move to quiet area, negotiation, review observation level, consideration of placement & physical intervention etc

At all times the intervention chosen must be proportionate & a reasonable response to the risk posed by the service user. Continue to use verbal de-escalation even if other interventions are necessary.

**PSYCHOTIC CONTEXT**
CONFIRMED HISTORY OF REGULAR PREVIOUS ANTIPSYCHOTIC EXPOSURE (NOT JUST PRN)

Lorazepam 1-2mg (or promethazine 25-50mg)* (wait 45-60 mins to assess response)

If insufficient, consider using an IM antipsychotic:
- Olanzapine 5-10mg IM or aripiprazole 9.75mg IM (wait at least 2 hours to assess response)
- Haloperidol 3-6mg IM** (wait at least 1 hour to assess response)

Olanzapine IM & lorazepam IM must not be administered within 1 hour of each other & use oral lorazepam with caution

**NON PSYCHOTIC CONTEXT**
NO KNOWN HISTORY OF ANTIPSYCHOTIC EXPOSURE
HISTORY OF CARDIAC DISEASE

Lorazepam 1-2mg (or promethazine 25-50mg)* (wait 45-60 mins to assess response)

If insufficient, consider using an oral antipsychotic:
- Olanzapine 5-10mg or risperidone 1-2mg or haloperidol 5mg** (wait 45-60 mins to assess response)

Consider the use of an orodispersible or liquid formulation where available

**STEP 2**
ORAL MEDICATION

**TRANQUILLISATION/CALMING NOT ACHIEVED**

MONITOR & RE-ASSESS RISKS

If first dose of oral medication is inadequate, preferably repeat oral medication in STEP 2, or move to STEP 3 below if oral medication is refused / risk assessed as high

If second dose of oral medication fails to produce an adequate response after a further 45-60 mins, move to STEP 3 below

Lorazepam 1-2mg IM (or promethazine 50mg IM)* (wait at least 30 mins to assess response)

Lorazepam 1-2mg IM (or promethazine 50mg IM)* (wait at least 30 mins to assess response)

If insufficient, consider using an oral antipsychotic:
- Olanzapine 5-10mg IM or aripiprazole 9.75mg IM (wait at least 2 hours to assess response)
- Haloperidol 3-6mg IM** (wait at least 1 hour to assess response)

Olanzapine IM & lorazepam IM must not be administered within 1 hour of each other & use oral lorazepam with caution

**STEP 3**
INTRAMUSCULAR MEDICATION

TRANQUILLISATION/CALMING NOT ACHIEVED

MONITOR & RE-ASSESS RISKS

If first dose of IM medication is inadequate, repeat IM medication as indicated in STEP 3

If second dose of IM medication fails to produce an adequate response, SEEK ADVICE FROM CONSULTANT PSYCHIATRIST

* Promethazine: consider use in those with compromised respiratory function, or in those known to be sensitive/tolerant to benzodiazepines

** Haloperidol: co-prescribe prn IM procyclidine to reduce risk/treat dystonia or other extrapyramidal side-effects

A baseline ECG is recommended with both oral & IM haloperidol prior to treatment. Please refer to the ‘HPFT DTC Recommendation on Haloperidol & ECG Monitoring’ pg. 12 of the guidelines

Zuclopenthixol acetate (Acuphase) is not an appropriate drug for use in RT

PLEASE SEE REVERSE FOR COMMON OR SERIOUS SIDE-EFFECTS & THEIR MANAGEMENT & ALSO PROCEDURE FOR PHYSICAL OBSERVATIONS
**COMMON OR SERIOUS SIDE EFFECTS & THEIR MANAGEMENT**

<table>
<thead>
<tr>
<th>Complication</th>
<th>Symptoms/signs</th>
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</tr>
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<tbody>
<tr>
<td>Acute dystonia</td>
<td>Severe painful muscular stiffness</td>
<td>Procyclidine 5-10 mgs IM</td>
</tr>
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<td>Hypotension</td>
<td>Fall in blood pressure (orthostatic or &lt;50mmHG diastolic)</td>
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<td>Slow (&lt;50/min) or irregular pulse</td>
<td>Monitor closely and liaise with general medical team immediately</td>
</tr>
</tbody>
</table>
| Respiratory depression             | Reducing respiratory rate, reducing consciousness                             | Give oxygen, raise legs. If necessary ventilate mechanically. If respiratory rate drops below 10/minute in a service user who has received benzodiazepines do the following: 1. Call for advanced emergency care (see below) 2. *Doctor to administer IV flumazenil. 200 micrograms IV over 15 seconds. 3. If consciousness is not resumed within 60 seconds give 100 micrograms over 10 seconds. 4. Repeat at 60 second intervals. Maximum dose 1 mg/24 hours. Continue to monitor after respiratory rate returns to normal. Flumazenil has a short duration of action so further doses may be required. Service users may become agitated or anxious on waking.

If any signs of physical deterioration, implement initial emergency care, call for advanced emergency care (999 Ambulance / 2222 Crash Team) and inform the on-call doctor.

*All units where RT may be carried out MUST stock IV flumazenil. Team Leaders must ensure that the equipment necessary for administering this medication is also available on the unit. HPFT nurses are not approved to administer IV medication.

**PROCEDURE FOR PHYSICAL OBSERVATIONS FOLLOWING ADMINISTRATION OF ORAL & IM MEDICATION FOR RT**

Physical observations to be carried out following the schedule below and recorded. Where it is difficult to undertake these observations due to service user unwillingness, a more subjective assessment is required. (Refer to Appendix 2 – main policy).

The following procedure is based on The Maudsley Prescribing Guidelines in Psychiatry, 11th edition.

<table>
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<td>Temperature</td>
<td>3. Then continue to monitor alertness, mental state and behaviour. Restart physical observation if there are any concerns.</td>
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Ensure fluid intake is maintained. Fluid intake and output should be monitored.

Seek urgent medical advice if any signs show deterioration.

The following should be available immediately:
- Antimuscarinic if service user develops acute dystonia
- Emergency response equipment

Electrocardiogram and haematological monitoring should be performed at the earliest opportunity where parenteral antipsychotics are used. Hypokalaemia, stress and agitation place the patient at risk of cardiac arrhythmia. ECG monitoring is formally recommended for all patients who receive haloperidol (refer to page 17).

If ACES score 8/9 or any signs of physical deterioration, implement initial emergency care, call for advanced emergency care (999 Ambulance / 2222 Crash Team) and inform the on-call doctor.
ALGORITHM FOR USE OF RAPID TRANQUILLISATION (RT) IN OLDER ADULTS (65 YEARS+)

This algorithm is for guidance only; please consult BNF for full prescribing information.

Medication should be the last resort in older adults and all risks and benefits should be considered before prescribing antipsychotic drugs. In older adults with dementia, antipsychotic drugs are associated with an increased risk of mortality and an increased risk of stroke or transient ischaemic attack.

**STEP 1**

**TRANQUILLISATION/CALMING NOT ACHIEVED**

**MONITOR & RE-ASSESS RISKS**

**De-escalation, distraction, negotiation, review observation level**

At all times the intervention chosen must be proportionate & a reasonable response to the risk posed by the service user. Consider using verbal de-escalation even if other interventions are necessary.

**Patients with DEMENTIA**

- Lorazepam 0.5 – 1mg or Promethazine 25mg**
  (wait 45 – 60 mins to assess response)

  If first dose of oral medication is inadequate, repeat the same oral medication as in STEP 2

  If second dose of oral medication fails to produce an adequate response after a further 45 – 60 mins, consider alternative oral medication not yet used

**Functional Elderly patients**

- Lorazepam 0.5 – 1mg or Promethazine 25mg
  (wait 45 – 60 mins to assess response)

  *Haloperidol 0.5 – 2mg (wait 45 – 60 mins to assess response)

  (Consider the use of a liquid formulation where available)

**STEP 2**

**ORAL MEDICATION**

**TRANQUILLISATION/CALMING NOT ACHIEVED**

**MONITOR & RE-ASSESS RISKS**

**ALTERNATIVE ORAL MEDICATION**

- Aripiprazole 5mg OR Quetiapine 12.5 – 50mg
  (wait 45 – 60 mins to assess response)

**IF THE ALTERNATIVE ORAL MEDICATION FAILS TO PRODUCE AN ADEQUATE RESPONSE SEEK ADVICE FROM CONSULTANT**

**ANT PSYCHIATRIST**

**STEP 3**

**IN CASES OF EXTREME EMERGENCY ONLY**

Consider intramuscular medication.

- Lorazepam 0.5 – 2mg IM (wait 30 – 45 mins to assess response) OR Promethazine 25mg IM
- Aripiprazole 5.25mg IM (wait at least 2 hours to assess response) OR olanzapine 2.5 – 5mg IM (wait at least 2 hours to assess response)

Lorazepam IM and olanzapine IM must not be administered within 1 hour of each other and use oral lorazepam with caution

(Only use haloperidol IM if Dementia with Lewy Bodies has been ruled out)

MHRA warning - olanzapine and risperidone should not be used in older adults with dementia as they are associated with an increased risk of stroke. For use of RISPERDAL refer to section x

*Haloperidol: co-prescribe prn IM procyclidine to reduce risk/treat dystonia or other extrapyramidal side effects. A baseline EC G is recommended with both oral & IM haloperidol prior to treatment. Please refer to the ‘HPFT DTC Recommendation on Haloperidol & ECG Monitoring’ pg. x of the guidelines

**Promethazine:** consider use in those with compromised respiratory function, or in those known to be sensitive / tolerant to benzodiazepines

PLEASE SEE REVERSE FOR COMMON OR SERIOUS SIDE-EFFECTS & THEIR MANAGEMENT & ALSO PHYSICAL MONITORING
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Electrocardiogram and haematological monitoring should be performed at the earliest opportunity where parenteral antipsychotics are used. Hypokalaemia, stress and agitation place the patient at risk of cardiac arrhythmia. ECG monitoring is formally recommended for all patients who receive haloperidol (refer to page 17).

If ACES score 8/9 or any signs of physical deterioration, implement initial emergency care, call for advanced emergency care (999 Ambulance / 2222 Crash Team) and inform the on-call doctor.
Psychotropic-related QT Prolongation  
(Taken from the Maudsley Prescribing Guidelines 11th Edition 2012)

Introduction

Many psychotropic drugs are associated with ECG changes and some are causally linked to serious ventricular arrhythmia and sudden cardiac death. Specifically, some antipsychotics block cardiac potassium channels and are linked to prolongation of the cardiac QT interval, a risk factor for the ventricular arrhythmia torsades de pointes, which is often fatal. Case-control studies have suggested that the use of most antipsychotics is associated with an increase in the rate of sudden cardiac death. This risk is probably due to the arrhythmogenic potential of antipsychotics. Overall risk is probably dose related; although the absolute risk is low, it is substantially higher than the risk of, for example, fatal agranulocytosis with clozapine. Tricyclic antidepressants are sodium channel antagonists which prolong QRS interval and QT interval, effects which are usually evident only following overdose.

ECG Monitoring

ECG monitoring is essential for all patients prescribed antipsychotics* (but detecting drug-induced changes in mental health settings is complicated by a number of factors;  
- Psychiatrists may have limited expertise in ECG interpretation, for example, and still less expertise in manually measuring QT intervals. Even cardiologists show an inter-rater reliability in QT measurement of up to 20msec  
- Self reading, computerised ECG devices are available and to some extent compensate for some lack of expertise, but different models use different algorithms and different correction formulae  
- ECG machines may not be as readily available in all clinical areas as they are in general medicine  
- Time for ECG determination may not be available in many areas e.g. outpatients  
- ECG determination may be difficult to perform in acutely disturbed, physically unco-operative patients.

*Measure QTc in all patients prescribed antipsychotics:  
• on admission (recommended in the NICE Guideline for Schizophrenia (update) 2009  
• at yearly check-up (if previous abnormality or additional risk factors)

HPFT DTC Recommendation on Haloperidol and ECG Monitoring (Jan 2010)

The SPCs for both haloperidol injection and oral haloperidol state that a baseline ECG is recommended prior to treatment in all patients. Patients commonly require treatment with haloperidol for immediate relief of critically disturbed behaviour or emotions. Although an ECG is recommended prior to treatment, the patient’s condition, for which the haloperidol treatment is required, may of itself not allow an accurate ECG recording to be obtained. The Trust concurs with its clinicians that the competing requirements of maximal behavioural safety and maximal cardiac safety are, at times, substantially irreconcilable.

Under such circumstances the treating clinician will make a judgement whether the patient’s interests are best served by administering haloperidol within its licensed terms even though an ECG is not available. The large and demonstrable beneficial
effect of haloperidol on behavioural and emotional disturbance and the small and poorly quantified risk of cardiac abnormality may be taken into account. It is recognised that instances will arise where the patient’s needs are best served by the urgent administration of haloperidol even in the absence of a pre-treatment ECG. This recognition does not however reduce the force of whatever other authoritative statements apply to the use of haloperidol outside critical care situations.

**QT Prolongation**

The cardiac QT interval (usually cited as QTc, i.e. QT corrected for heart rate) is a useful but imprecise indicator of risk of torsade de pointes and of increased cardiac mortality. Different correction factors and methods may give markedly different values.

The QT interval broadly reflects the duration of cardiac repolarisation. Lengthening of repolarisation duration induces heterogeneity of electrical phasing in different ventricular structures (dispersion) which in turn allows the emergence of early afterdepolarisations (EADs) which may provoke ventricular extrasystole and torsade de pointes.

There is some controversy over the exact association between QTc and risk of arrhythmia. Very limited evidence suggests that risk is exponentially related to the extent of prolongation beyond normal limits (440msec for men, 470msec for women), although there are well-known exceptions which appear to disprove this theory (some drugs prolong QT without increasing dispersion). Rather stronger evidence links QTc values over 500msec to a clearly increased risk of arrhythmia. QT intervals of >650 msec may be more likely than not to induce torsade. Despite some uncertainties, QTc determination remains an important measure in estimating risk of arrhythmia and sudden death.

QTc measurements and evaluation are complicated by:
- difficulty in determining the end of the T wave, particularly where U waves are present (this applies to both manual and self-reading ECG machines)
- normal physiological variation in QTc interval: QT varies with gender, time of day, food intake, alcohol intake, menstrual cycle, ECG lead, etc.
- variation in the extent of drug-induced prolongation of QTc because of changes in plasma levels. QTc prolongation is most prominent at peak drug plasma levels and least obvious at trough levels.

**Other ECG Changes**

Tricyclics and other antidepressants may prolong the QRS interval, particularly in overdose. Other reported antipsychotic-induced changes include atrial fibrillation, giant P-waves, T-wave changes and heart block.

**Quantifying risks associated with psychotropic drugs**

Drugs are categorised by The Maudsley Guideline according to data available on their effects on the cardiac QTc interval (as reported; mostly using Bazett’s correction formula).
## Psychotropics – effect on QTc

### “No effect” drugs
Those with which QTc prolongation has not been reported either at therapeutic doses or in overdose.

<table>
<thead>
<tr>
<th>Drug</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Aripiprazole</td>
<td>Paliperidone</td>
<td>MAOIs</td>
<td>Gabapentin</td>
<td>Valproate</td>
<td>Reboxetine</td>
</tr>
<tr>
<td>SSRIs (except citalopram)</td>
<td>Mirtazapine</td>
<td>Carbamazepine</td>
<td>Lamotrigine</td>
<td>Benzodiazepines</td>
<td></td>
</tr>
</tbody>
</table>

### “Low effect” drugs
Those for which severe QTc prolongation has been reported only following overdose or where only small average increases (less than 10ms) have been observed at clinical doses.

<table>
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<tbody>
<tr>
<td>Asenapine</td>
<td>Fluphenazine</td>
<td>Risperidone</td>
<td>Moclobemide</td>
</tr>
<tr>
<td>Clozapine</td>
<td>Perphenazine</td>
<td>Sulpiride</td>
<td>Venlafaxine</td>
</tr>
<tr>
<td>Flupentixol</td>
<td>Olanzapine*</td>
<td>Bupropion</td>
<td>Prochlorperazine</td>
</tr>
</tbody>
</table>

* Isolated cases of QTc prolongation and has effects on cardiac ion channel, I_{kr}, other data suggest no effect on QTc

### “Moderate effect” drugs
Those which have been observed to prolong QTc by more than 10ms on average when given at normal clinical doses or where ECG monitoring is officially recommended in some circumstances.

<table>
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<tbody>
<tr>
<td>Amisulpride**</td>
<td>Quetiapine</td>
<td>Chlorpromazine</td>
<td>Citalopram</td>
</tr>
<tr>
<td>Melperone</td>
<td>Ziprasidone</td>
<td>Tricyclic antidepressants</td>
<td>Iloperidone</td>
</tr>
</tbody>
</table>

** Torsades de pointes common in overdose

### “High effect” drugs
Those for which extensive average QTc prolongation (usually more than 20ms at normal clinical doses) has been noted or where ECG monitoring is mandated by the manufacturer’s data sheet.

<table>
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<tbody>
<tr>
<td>Any intravenous antipsychotic</td>
<td>Haloperidol</td>
<td>Pimozide</td>
<td>Sertindole</td>
</tr>
<tr>
<td>Any drug or combination of drugs used in doses exceeding recommended maximum</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### “Unknown effect” drugs

<table>
<thead>
<tr>
<th>Drug</th>
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<tbody>
<tr>
<td>Loxapine</td>
<td>Pipothiazine</td>
<td>Trifluoperazine</td>
<td>Zuclopenthixol</td>
<td>Anticholinergic drugs (procyclidine, benzhexol, etc)</td>
</tr>
</tbody>
</table>
**Note:**
The effect on QTc may not necessarily equate directly to risk of torsade de pointes or sudden death, although this is often assumed. Note also that categorisation is inevitably approximate given the problems associated with QTc measurement. Lastly, keep in mind that differences in the effects of different antipsychotics on the QT interval rarely reach statistical significance, even in meta-analyses.

**Other risk factors**
**Physiological/pathological risk factors for QTc prolongation and arrhythmia**
**Cardiac**
- Long QT syndrome
- Bradycardia
- Ischaemic heart disease
- Myocarditis
- Myocardial infarction
- Left ventricular hypertrophy

**Metabolic**
- Hypokalaemia*
- Hypomagnesaemia
- Hypocalcaemia

**Others**
- Extreme physical exertion
- Stress or shock
- Anorexia nervosa
- Extremes of age – children and elderly may be more susceptible to QT changes
- Female gender
*Hypokalaemia-related QTc prolongation is more commonly observed in acute psychotic admissions. Also be aware that there are a number of physical and genetic factors which may not be discovered on routine examination but which probably predispose patients to arrhythmia.

**Non-psychotropic drugs associated with QT prolongation**
**Antibiotics**
- Erythromycin
- Clarithromycin
- Ampicillin
- Co-trimoxazole
- Pentamidine
  (Some 4 quinolones affect QTc – see manufacturers’ literature)

**Antimalarials**
- Chloroquine
- Mefloquine
- Quinine

**Antiarrhythmics**
- Quinidine
- Disopyramide
- Procainamide
- Sotalol
Amiodarone
Bretylium

Others
Amantadine
Ciclosporin
Diphenhydramine
Hydroxyzine
Methadone
Nicardipine
Tamoxifen

Note: B₂ agonists and sympathomimetics may provoke torsade de pointes in patients with prolonged QTC.

Metabolic inhibition
The effect of drugs on the QTC interval is usually plasma level dependent. Drug interactions are therefore important, especially when metabolic inhibition results in increased plasma levels of the drug affecting QTC. Commonly used metabolic inhibitors include fluvoxamine, fluoxetine, paroxetine and valproate.

Other cardiovascular side-effects
The risk of drug-induced arrhythmia and sudden cardiac death with psychotropics is an important consideration. With respect to cardiovascular disease, note that other risk factors such as smoking, obesity and impaired glucose tolerance present a much greater risk to patient morbidity and mortality than the uncertain outcome of QT changes.

Management of QT prolongation in patients receiving antipsychotic drugs
- **QTc less than 440ms (men) or less than 470 ms (women)**
  No action required unless abnormal T-wave morphology – consider referral to cardiologist if in doubt
- **QTc more than 440ms (men) or more than 470 ms (women) but less than 500ms**
  Consider reducing dose or switching to drug of lower effect. Repeat ECG and consider referral to a cardiologist
- **QTc more than 500ms**
  Stop suspected causative drug(s) and switch to a drug of lower effect; refer to cardiologist immediately
- **Abnormal T-wave morphology**
  Review treatment. Consider reducing dose or switching to drug of lower effect. Refer to cardiologist immediately

Summary
In the absence of conclusive data, assume all antipsychotics are linked to sudden cardiac death.
Prescribe the lowest dose possible and avoid polypharmacy/metabolic interactions.
Perform ECG on admission and, if previous abnormality or additional risk factor, at yearly check-up.
Drug Choice in Pregnancy

Clinicians should check with an up-to-date source of information before prescribing in pregnancy.

Obtain advice from a specialist Consultant Psychiatrist (Dr A. Roberts), local medicines information service or medicines information services listed on the front cover of the BNF or directly with manufacturers’ databases.

Specialist drugs in pregnancy advice can be obtained from the United Kingdom Teratology Service (UKTIS). Healthcare professionals can contact UKTIS by telephone on 0844 892 0909. The telephone service is available between 08.30 – 17.00 Monday – Friday (excluding bank holidays) for routine enquiries. Urgent enquiries are answered 24 hours per day, seven days per week.

Website for United Kingdom Teratology Service is www.uktis.org/


The safety of psychotropics in pregnancy cannot be clearly established because robust, prospective trials are unethical. Individual decisions are dependent upon an imperfect retrospective database and an assessment of the risks and benefits associated with withdrawal or continuation of drug treatment. The service user’s view of risks and benefits will have paramount importance. Possible effects on the unborn child should be discussed if possible with a mother who requires acute or maintenance treatment. Risks should be weighed up against possible benefits.

General principles of prescribing in pregnancy

Only treat when absolutely necessary (potential benefit outweighs potential harm), but remember that mentally ill women who are pregnant are very likely to require treatment

Ensure that the prospective parents are as fully involved as possible in all discussions

Always consider the risk of relapse when discontinuing psychotropics – relapse may ultimately be more harmful to the mother and child than continued, effective drug therapy

Try to avoid all drugs in the first trimester when major organs are being formed

Use an established drug at the lowest effective dose and avoid polypharmacy whenever possible

Be prepared to adjust doses as pregnancy progresses and drug handling is altered. Be aware of potential problems with individual drugs around the time of delivery

Ensure adequate foetal screening during pregnancy and monitor the neonate for withdrawal effects after birth

Document all decisions
**Rapid Tranquillisation (RT)**

Treat a pregnant woman requiring RT according to the NICE clinical guidelines on the short-term management of disturbed/violent behaviour, schizophrenia and bipolar disorder and the guideline on antenatal and postnatal mental health, but:

– do not seclude the woman following RT

– adapt restraint procedures to avoid possible harm to the foetus

– when choosing an agent for RT, consider an antipsychotic or a benzodiazepine with a short half-life

– manage the woman’s care during the perinatal period in close collaboration with a paediatrician and an anaesthetist
Rapid Tranquillisation (RT) Checklist for Staff

PRE-RT

- Capacity/ MHA status noted and recorded
- Doctor involved
- Prescription chart review
- Medical History (including allergies & sensitivities) / Physical Health (including urine drug screen & ECG for antipsychotics). Review
- Advance decisions/directives check

POST–RT

- Care notes documentation
- Physical monitoring completed and documented (as per monitoring sheet)
- Prescription chart reviewed re: regular medication
- Team debrief
- Incident form completed
- Handover to clinical team (if out of hours)
- Update risk assessment
- Reassure service user / discuss how to manage further similar incidents
Rapid Tranquillisation (RT) Monitoring Sheet  (Post Oral & IM Medication)

It is important that the following monitoring is completed for all individuals who are administered medication for RT; this is because high stress levels, hyper-aroused physical state, restraint, agitation and hypokalaemia can all place the person at high risk of developing cardiac arrhythmias, in addition to other known adverse effects associated with prescribing medication indicated for RT.

<table>
<thead>
<tr>
<th>Service user name:</th>
<th>NHS no:</th>
<th>Ward/Unit:</th>
</tr>
</thead>
</table>

Trigger(s) & reason for use:

<table>
<thead>
<tr>
<th>Nurse signature:</th>
<th>Print name:</th>
<th>Date:</th>
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</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Alertness (ACES)</th>
<th>Respiratory rate</th>
<th>Pulse</th>
<th>BP</th>
<th>Oxygen saturation</th>
<th>Temperature</th>
<th>Fluid offered (mls)</th>
<th>Fluid taken (mls)</th>
<th>Nurse initials</th>
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</table>

Record ‘X’ if unable to monitor
Seek urgent medical advice if any signs show deterioration

Outcome of RT episode:

<table>
<thead>
<tr>
<th>Signature:</th>
<th>Date:</th>
<th>Time:</th>
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</thead>
<tbody>
<tr>
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</tbody>
</table>
Essential Standards of Quality and Safety

What should people who use services experience?

Outcome 1: Respecting and Involving People who use Services

People who use services:
- Understand the care, treatment and support choices available to them.
- Can express their views, so far as they are able to do so, and are involved in making decisions about their care, treatment and support.
- Have their privacy, dignity and independence respected.
- Have their views and experiences taken into account in the way the service is provided and delivered.

Those acting on behalf of people who use services:
- Understand the care, treatment and support choices available to the people who use services.
- Can represent the views of the person using the service by expressing these on their behalf, and are involved appropriately in making decisions about their care, treatment and support.

This is because providers who comply with the regulations will:
- Recognise the diversity, values and human rights of people who use services.
- Uphold and maintain the privacy, dignity and independence of people who use services.
- Put people who use services at the centre of their care, treatment and support by enabling them to make decisions.
- Provide information that supports people who use services, or others acting on their behalf, to make decisions about their care, treatment and support.
- Support people who use services, or others acting on their behalf, to understand the care, treatment and support provided.
- Enable people who use services to care for themselves where this is possible.
- Encourage and enable people who use services to be involved in how the service is run.
- Encourage and enable people who use services to be an active part of their community in appropriate settings.

Outcome 2: Consent to Care and Treatment

People who use services:
- Where they are able, give valid consent to the examination, care, treatment and support they receive.
- Understand and know how to change any decisions about examination, care, treatment and support that has been previously agreed.
- Can be confident that their human rights are respected and taken into account.
This is because providers who comply with the regulations will:
• Have systems in place to gain and review consent from people who use services, and act on them.

Outcome 4: Care and Welfare of People who use Services
People who use services:
• Experience effective, safe and appropriate care, treatment and support that meets their needs and protects their rights.

This is because providers who comply with the regulations will:
• Reduce the risk of people receiving unsafe or inappropriate care, treatment and support by:
  – assessing the needs of people who use services
  – planning and delivering care, treatment and support so that people are safe, their welfare is protected and their needs are met
  – taking account of published research and guidance
  – making reasonable adjustments to reflect people’s needs, values and diversity
  – having arrangements for dealing with foreseeable emergencies.

Outcome 6: Cooperating with other Providers
People who use services:
• Receive safe and coordinated care, treatment and support where more than one provider is involved, or they are moved between services.

This is because providers who comply with the regulations will:
• Cooperate with others involved in the care, treatment and support of a person who uses services when the provider responsibility is shared or transferred to one or more services, individuals, teams or agencies.
• Share information in a confidential manner with all relevant services, individuals, teams or agencies to enable the care, treatment and support needs of people who uses services to be met.
• Work with other services, individuals, teams or agencies to respond to emergency situations.
• Support people who use services to access other health and social care services they need.

Outcome 9: Management of Medicines
People who use services:
• Will have their medicines at the times they need them, and in a safe way.
• Wherever possible will have information about the medicine being prescribed made available to them or others acting on their behalf.

This is because providers who comply with the regulations will:
• Handle medicines safely, securely and appropriately.
• Ensure that medicines are prescribed and given by people safely.
• Follow published guidance about how to use medicines safely.
Rapid Tranquillisation (RT)
Quick reference guide

Version: 1
Approved Date: 16th September 2013
Approved By: Drug and Therapeutic Committee
Issue Date: 5th November 2013
Review Date: 3 year

Related Policy:

Rapid Tranquillisation Policy
Version. 5
Please note this is just a Quick reference Guide. There is a full HPFT Rapid Tranquillisation Policy.

1. Introduction
2. Why? (Definition)
3. By Whom? (Responsibilities)
4. When?
5. How?
6. Physical risk management procedures during restraint and parenteral RT
7. Post-RT monitoring and documentation
8. Managerial follow-up

APPENDICES

Appendix 1 - Prescribing Guidelines - List of preparations clinicians may use in RT, their properties and side effects

Appendix 2 - Algorithm for use of Rapid Tranquillisation (RT) in Adults (18-65 years)

Appendix 3 - Algorithm for use of Rapid Tranquillisation (RT) in Older Adults (65 years+)

Appendix 4 - Rapid Tranquillisation (RT) Checklist for Staff

Appendix 5 - Rapid Tranquillisation (RT) Monitoring Form

Appendix 6 - Drug Choice in Pregnancy
5. Introduction

This Quick Reference Guide explains why the Rapid Tranquillisation (RT) Policy is necessary, to whom it applies, when it should be used and how it should be applied. It describes the standards to be achieved with special emphasis upon risks.

It should be read in conjunction with the main policy and appendices.

2. Why? (Definition)

Rapid tranquillisation (RT) is an intervention required to prevent violence or aggression in patients where a calming effect, to avoid unnecessary harm, is essential and urgent. RT may result in deep sedation, hence it carries with it substantial risks. RT is not the primary treatment management of on-going distress and over arousal, which from time to time may require PRN medication.

Intramuscular tranquillisation should not be prescribed as a PRN dose unless a full description of the circumstances for such treatment has been documented. RT is a medical emergency and doctors should be involved to plan the appropriate pre-treatment monitoring, dose, method of administration and post-treatment observations.

3. By whom? (Responsibilities)

Medical staff must be familiar with the RT Policy, have undertaken relevant mandatory training and be familiar with prescribing and legal requirements. They ought to refer to recent BNF guidelines on drugs and doses (refer to Appendix 1 – Prescribing Guidelines) and be aware of remedial measures and the availability of resuscitation equipment.

Nurses must be familiar with the RT Policy, have had appropriate mandatory training and will provide support and information to service users, carers and their families with regard to the application of RT. They will adhere to the Trust’s Medicines Policy and ensure they are competent in all the clinical procedures, requiring first response training and the use of equipment. They have a special role in monitoring the vital signs affected by RT.

If RT appears not to be working, the dose of drugs may exceed the BNF limits, but this must be justified and authorised by the Consultant Psychiatrist. The clinical risk assessment and risk benefit analysis must be recorded in the case notes.

4. When?

RT should only be considered once other strategies i.e. non-pharmacological measures have failed to produce an adequate response. The intervention chosen must be reasonable and proportionate to the risk posed by the service user. Staff must be mindful of the legal framework that authorises such interventions (advance decisions, capacity assessment and Mental Health Act especially S62 provisions). Doctors and nurses should jointly assess risk before RT.
5. How?

The aim of RT is to reduce service user suffering and related risks, improve communication throughout the intervention and allow mental state evaluation to take place. RT should be guided by the following considerations:

1) RT is a medical emergency and the duty doctor must be called
2) Always consider possible physical and environmental causes e.g. an acute confusional state, intoxication, head injury, epilepsy, infection, metabolic disturbance and hypoglycaemia
3) Check all medicines, alcohol levels and over-the-counter products already used.
4) Be aware of all co-existing medical conditions and ensure cardiac history is taken and an ECG including examination is completed, if possible prior to RT
5) Consider the side effects
6) Consider age, whether service user has a diagnosis of dementia or is pregnant (refer to Appendix 6 – Drug Choice in Pregnancy)
7) Be extra cautious when prescribing for neuroleptic naive patients
8) Do not prescribe two PRN medications from the same class
9) Prescribe oral and IM doses separately as bioavailability may vary
10) Allow sufficient time for a clinical response between doses
11) Monitor the effect of RT upon cardiac rhythm, blood pressure, respiratory function and level of consciousness
12) Be aware of potential damage to the therapeutic relationship between service user and healthcare professional(s)
13) The safest drug for RT is a benzodiazepine e.g. lorazepam, however if given in too high a dose can cause respiratory depression. This may be reversed with IV flumazenil and emergency help must be requested

Please refer to:
Appendix 2 - Algorithm for use of Rapid Tranquilisation (RT) in Adults (18-65 years)
Appendix 3 - Algorithm for use of Rapid Tranquilisation (RT) in Older Adults (65 years+)

6. Physical risk management procedures during restraint and parenteral RT

Those involved should be trained in immediate life support (ILS). Those staff undertaking physical interventions should have been trained by attending an appropriate course as provided by the Trust. The lead staff member will give an on-going explanation of staff actions to the service user and be responsible for monitoring of the physical and psychological needs of the service user, monitoring baseline physical observations throughout the procedure in line with section 7 of the Non-Physical and Physical Assaults (Violence & Aggression) Policy.

RT should be avoided during, or immediately following a struggle, but if necessary special attention should be given to the risks of sudden collapse, needle stick injury, inaccurate siting of the injection and the risk of acidosis (signs include nausea, vomiting, hyperventilation, abdominal pain, lethargy, shock and severe anaemia).

Risk factors for acidosis associated with restraint include:
• a prolonged struggle
• extreme fear and stress
• intoxication, obesity, substance misuse
• the restraint position
• co-existing physical health problems

The first response emergency bag should be immediately available.

7. Post-RT monitoring and documentation

Service users who have received RT should have an immediate clinical risk assessment review to determine levels of engagement and subsequent observation.

Each time RT is carried out, staff must complete the RT Checklist (Appendix 4) and scan this in to the relevant EPR.

A Rapid Tranquillisation (RT) Monitoring Sheet (Post Oral & IM Medication) (Appendix 5) must be completed for all individuals who are administered medication for RT. This form must be scanned in to the relevant EPR.

It is important to undertake frequent and intensive monitoring of sedation, paying particular attention to the airway, level of consciousness, pulse, blood pressure, respiratory function, oxygen saturation, temperature and hydration

The RT checklist must be completed after the service user is stabilised and monitoring has been undertaken.

The doctor will:

1. Make a case note entry documenting the clinical indication for RT
2. Review the prescription chart and documentation of the drugs prescribed and given
3. Specify an indication of RT on the relevant PRN prescription(s)
4. Agree the observations with nurses.

The Nurse in Charge will ensure:

1. The Trust incident reporting procedure has been fully implemented
2. Post RT monitoring has been carried out

8. Managerial follow-up

The Nurse in Charge will forward the incident report and RT checklist to the Team Leader and the Responsible Consultant.

The clinical team should meet at the earliest opportunity within 72 hours for a critical clinical review of the incident.
# Prescribing Guidelines
List of preparations clinicians may use in RT, their properties and side effects

<table>
<thead>
<tr>
<th>Drug</th>
<th>Route</th>
<th>Pharmacokinetics</th>
<th>Major side effects</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short-acting antipsychotics</strong></td>
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<tr>
<td>Olanzapine</td>
<td>Oral</td>
<td>Peak 5-8 hours t½ 32-50 hours</td>
<td>Hypotension Bradycardia Syncope</td>
<td>Less likely to cause EPSE than haloperidol IM administration results in initial maximum plasma concentration 5 times higher than same dose given orally. <strong>IM olanzapine must not be administered within one hour of IM lorazepam.</strong> Not approved for use in dementia – related psychosis/behavioural disturbance.</td>
</tr>
<tr>
<td></td>
<td>Intramuscular</td>
<td>Peak 15-45 minutes t½ 30 hours</td>
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<tr>
<td>Risperidone</td>
<td>Oral</td>
<td>Peak 2 hours t½ 18 hours</td>
<td>EPSE Hypotension</td>
<td>Limited clinical experience or trial data. Not recommended for the treatment of behavioural symptoms of dementia.</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>Oral</td>
<td>Peak 1.5 - 1.8 hours t½ 6-7 hours</td>
<td>? QT prolongation Hypotension</td>
<td>Limited clinical experience or trial data. This drug was not considered by NICE in the violence guideline, but its short half-life justifies its inclusion in this list.</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>Oral</td>
<td>Peak 4 hours t½ 21 hours</td>
<td>EPSE Hypotension NMS Increased QTc Arrhythmias Seizures Sudden death</td>
<td>The SPC requires an ECG. Note risk of acute dystonias and ensure that an appropriate antimuscarinic is to hand. Not recommend for I.V. use because of increased risk of arrhythmias. The bioavailability of oral &amp; IM haloperidol is different and this must be taken into account when considering the total dose per 24 hour period. 5mg oral = 3 mg IM.</td>
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<tr>
<td></td>
<td>Intramuscular</td>
<td>Peak 20 minutes t½ 21 hours</td>
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<tr>
<td>Aripiprazole</td>
<td>Intramuscular</td>
<td>Peak 1 - 3 hours t½ 75 – 146 hours</td>
<td>Orthostatic hypotension Tachycardia Dry mouth</td>
<td>Those receiving IM aripiprazole should be observed for orthostatic hypotension. If parenteral benzodiazepine therapy is deemed necessary in addition to aripiprazole IM, monitor for excessive sedation and for orthostatic hypotension. (Oral aripiprazole has a licence in the control of agitation and disturbed behaviour in schizophrenia) Not approved for the treatment of dementia–related psychosis</td>
</tr>
<tr>
<td><strong>Benzodiazepines</strong></td>
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<tr>
<td>Lorazepam</td>
<td>Oral</td>
<td>Peak 2 hours t½ 12 hours</td>
<td>Respiratory depression Disinhibition</td>
<td>Benzodiazepines have a wide therapeutic index &amp; respiratory depression is readily reversed with the specific antagonist flumazenil. IM lorazepam must not be administered within one hour of IM olanzapine. Oral lorazepam and IM olanzapine should be</td>
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<tr>
<td></td>
<td>Intramuscular</td>
<td>Peak 60 – 90 minutes t½ 12 – 16 hours</td>
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<tr>
<td>Drug</td>
<td>Route</td>
<td>Onset</td>
<td>Peak</td>
<td>t½</td>
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<tr>
<td>Diazepam</td>
<td>Oral</td>
<td>Peak 60 minutes</td>
<td>t½  24 – 48 hours</td>
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<tr>
<td>Clonazepam</td>
<td>Oral</td>
<td>Peak 1 – 4 hours</td>
<td>t½  20 – 60 hours</td>
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<tr>
<td><strong>Longer acting antipsychotics</strong></td>
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<tr>
<td>Zuclopenthixol acetate (Acuphase)</td>
<td>Intramuscular</td>
<td>Onset 2 – 8 hours</td>
<td>Peak 24 – 36 hours</td>
<td>t½  60 hours</td>
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<tr>
<td><strong>Antihistamines</strong></td>
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<tr>
<td>Promethazine</td>
<td>Oral</td>
<td>Peak 2 - 3 hours</td>
<td>t½  7 – 15 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intramuscular</td>
<td>Onset 1 – 2 hours</td>
<td>t½  7 – 15 hours</td>
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**Note:** The pharmacokinetics of lorazepam is similar whether given orally or parenterally, therefore the only reason to give lorazepam parenterally is if the patient refuses oral.

**Note:** It is recognised that clinicians may decide that the use of medication outside of the manufacturer’s Summary of Product Characteristics (SPC) is occasionally justified, bearing in mind the overall risks. However, where the regulatory authorities or manufacturer issues a specific warning that this may result in an increased risk of fatality, the medication should only use used strictly in accordance with the current marketing authorisation.
Many people with LD are especially sensitive to the side-effects of psychotropics. It is good practice to start at lower doses and increase more slowly than is usual in general psychiatric practice.

**STEP 1**

**NON-PHARMACOLOGICAL MEASURES**

De-escalation, distraction, move to quiet area, negotiation, review observation level, consideration of placement & physical intervention etc

At all times the intervention chosen must be proportionate & a reasonable response to the risk posed by the service user. Continue to use verbal de-escalation even if other interventions are necessary

**STEP 2**

**ORAL MEDICATION**

**NON PSYCHOTIC CONTEXT**

NO KNOWN HISTORY OF ANTIPSYCHOTIC EXPOSURE

HISTORY OF CARDIAC DISEASE

Lorazepam 1-2mg (or promethazine 25-50mg)* (wait 45-60 mins to assess response)

If first dose of oral medication is inadequate, preferably repeat oral medication in STEP 2, or move to STEP 3 below if oral medication is refused / risk assessed as high

If second dose of oral medication fails to produce an adequate response after a further 45-60 mins, move to STEP 3 below

**STEP 3**

**INTRAMUSCULAR MEDICATION**

**TRANQUILLISATION/CALMING NOT ACHIEVED**

**NON PSYCHOTIC CONTEXT**

NO KNOWN HISTORY OF ANTIPSYCHOTIC EXPOSURE

HISTORY OF CARDIAC DISEASE

Lorazepam 1-2mg IM (or promethazine 50mg IM)* (wait at least 30 mins to assess response)

If insufficient, consider using an oral antipsychotic:

Olanzapine 5-10mg or risperidone 1-2mg or haloperidol 5mg** (wait 45-60 mins to assess response)

(Consider the use of an orodispersible or liquid formulation where available)

**PSYCHOTIC CONTEXT**

CONFIRMED HISTORY OF REGULAR PREVIOUS ANTIPSYCHOTIC EXPOSURE (NOT JUST PRN)

Lorazepam 1-2mg (or promethazine 25-50mg)* (wait 45-60 mins to assess response)

If insufficient, consider using an oral antipsychotic:

Olanzapine 5-10mg or risperidone 1-2mg or haloperidol 5mg** (wait 45-60 mins to assess response)

(Consider the use of an orodispersible or liquid formulation where available)

TRANQUILLISATION/CALMING NOT ACHIEVED

**MONITOR & RE-ASSESS RISKS**

**TRANQUILLISATION/CALMING NOT ACHIEVED**

**NON PSYCHOTIC CONTEXT**

NO KNOWN HISTORY OF ANTIPSYCHOTIC EXPOSURE

HISTORY OF CARDIAC DISEASE

Lorazepam 1-2mg IM (or promethazine 50mg IM)* (wait at least 30 mins to assess response)

If insufficient, consider using an IM antipsychotic:

Olanzapine 5-10mg IM or aripiprazole 9.75mg IM (wait at least 2 hours to assess response)

Haloperidol 3-6mg IM** (wait at least 1 hour to assess response)

Olanzapine IM & lorazepam IM must not be administered within 1 hour of each other & use oral lorazepam with caution

If first dose of IM medication is inadequate, repeat IM medication as indicated in STEP 3

If second dose of IM medication fails to produce an adequate response, SEEK ADVICE FROM CONSULTANT PSYCHIATRIST

Zuclopenthixol acetate (Acuphase) is not an appropriate drug for use in RT

* Promethazine: consider use in those with compromised respiratory function, or in those known to be sensitive/tolerant to benzodiazepines
** Haloperidol: co-prescribe prn IM procyclidine to reduce risk/treat dystonia or other extrapyramidal side-effects

A baseline ECG is recommended with both oral & IM haloperidol prior to treatment. Please refer to the ‘HPFT DTC Recommendation on Haloperidol & ECG Monitoring’ pg. 12 of the guidelines

PLEASE SEE REVERSE FOR COMMON OR SERIOUS SIDE-EFFECTS & THEIR MANAGEMENT & ALSO PROCEDURE FOR PHYSICAL OBSERVATIONS
## COMMON OR SERIOUS SIDE EFFECTS & THEIR MANAGEMENT

<table>
<thead>
<tr>
<th>Complication</th>
<th>Symptoms/signs</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute dystonia</td>
<td>Severe painful muscular stiffness</td>
<td>Procyclidine 5-10 mgs IM</td>
</tr>
<tr>
<td>Hypotension</td>
<td>Fall in blood pressure (orthostatic or &lt;50mmHG diastolic)</td>
<td>Lie patient flat and raise legs, Monitor closely</td>
</tr>
<tr>
<td>Neuroleptic malignant syndrome</td>
<td>Increasing temperature, fluctuating blood pressure, muscular rigidity, confusion/altered consciousness</td>
<td>Withhold antipsychotics, Monitor closely and liaise with general medical team immediately</td>
</tr>
<tr>
<td>Arrhythmias</td>
<td>Slow (&lt;50/min) or irregular pulse</td>
<td>Monitor closely and liaise with general medical team immediately</td>
</tr>
<tr>
<td>Respiratory depression</td>
<td>Reducing respiratory rate, reducing consciousness</td>
<td>Give oxygen, raise legs. If necessary ventilate mechanically. If respiratory rate drops below 10/minute in a service user who has received benzodiazepines do the following: 1. Call for advanced emergency care (see below) 2. *Doctor to administer IV flumazenil. 200 micrograms IV over 15 seconds. 3. If consciousness is not resumed within 60 seconds give 100 micrograms over 10 seconds. 4. Repeat at 60 second intervals. Maximum dose 1 mg/24 hours. Continue to monitor after respiratory rate returns to normal. Flumazenil has a short duration of action so further doses may be required. Service users may become agitated or anxious on waking.</td>
</tr>
</tbody>
</table>

If any signs of physical deterioration, implement initial emergency care, call for advanced emergency care (999 Ambulance / 2222 Crash Team) and inform the on-call doctor.

*All units where RT may be carried out MUST stock IV flumazenil. Team Leaders must ensure that the equipment necessary for administering this medication is also available on the unit. HPFT nurses are not approved to administer IV medication.

### PROCEDURE FOR PHYSICAL OBSERVATIONS FOLLOWING ADMINISTRATION OF ORAL & IM MEDICATION FOR RT

Physical observations to be carried out following the schedule below and recorded. Where it is difficult to undertake these observations due to service user unwillingness, a more subjective assessment is required. (Refer to Appendix 2 – main policy). The following procedure is based on The Maudsley Prescribing Guidelines in Psychiatry, 11th edition.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Duration</th>
</tr>
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<tbody>
<tr>
<td>Alertness using ACES scale</td>
<td>1. Every 5 - 10 minutes for first hour unless there is a deterioration in physiological condition.</td>
</tr>
<tr>
<td>Respiratory rate</td>
<td>2. Then every 30 minutes until service user is ambulatory.</td>
</tr>
<tr>
<td>Pulse</td>
<td></td>
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<tr>
<td>Blood Pressure</td>
<td></td>
</tr>
<tr>
<td>Oxygen Saturation SpO2</td>
<td>3. Then continue to monitor alertness, mental state and behaviour. Restart physical observation if there are any concerns.</td>
</tr>
<tr>
<td>Temperature</td>
<td></td>
</tr>
</tbody>
</table>

Ensure fluid intake is maintained. Fluid intake and output should be monitored.

Seek urgent medical advice if any signs show deterioration.

The following should be available immediately:

- Antimuscarinic if service user develops acute dystonia
- Emergency response equipment

Electrocardiogram and haematological monitoring should be performed at the earliest opportunity where parenteral antipsychotics are used. Hypokalaemia, stress and agitation place the patient at risk of cardiac arrhythmia. ECG monitoring is formally recommended for all patients who receive haloperidol (refer to page 17).

If ACES score 8/9 or any signs of physical deterioration, implement initial emergency care, call for advanced emergency care (999 Ambulance / 2222 Crash Team) and inform the on-call doctor.
ALGORITHM FOR USE OF RAPID TRANQUILLISATION (RT) IN OLDER ADULTS (65 YEARS+)

This algorithm is for guidance only; please consult BNF for full prescribing information.

Medication should be the last resort in older adults and all risks and benefits should be considered before prescribing antipsychotic drugs. In older adults with dementia, antipsychotic drugs are associated with an increased risk of mortality and an increased risk of stroke or transient ischaemic attack.

**Please see reverse for common or serious side-effects & their management & also physical monitoring**
If any signs of physical deterioration, implement initial emergency care, call for advanced emergency care (999 Ambulance / 2222 Crash Team) and inform the on-call doctor.

*All units where RT may be carried out MUST stock IV flumazenil. Team Leaders must ensure that the equipment necessary for administering this medication is also available on the unit. HPFT nurses are not approved to administer IV medication.

PROCEDURE FOR PHYSICAL OBSERVATIONS FOLLOWING ADMINISTRATION OF ORAL & IM MEDICATION FOR RT

Physical observations to be carried out following the schedule below and recorded. Where it is difficult to undertake these observations due to service user unwillingness, a more subjective assessment is required. (Refer to Appendix 2 – main policy). The following procedure is based on The Maudsley Prescribing Guidelines in Psychiatry, 11th edition.

<table>
<thead>
<tr>
<th>Complication</th>
<th>Symptoms/signs</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute dystonia</td>
<td>Severe painful muscular stiffness</td>
<td>Procyclidine 5-10 mgs IM</td>
</tr>
<tr>
<td>Hypotension</td>
<td>Fall in blood pressure (orthostatic or &lt;50mmHG diastolic)</td>
<td>Lie patient flat and raise legs, Monitor closely</td>
</tr>
<tr>
<td>Neuroleptic malignant syndrome</td>
<td>Increasing temperature, fluctuating blood pressure, muscular rigidity, confusion/altered consciousness</td>
<td>Withhold antipsychotics, Monitor closely and liaise with general medical team immediately</td>
</tr>
<tr>
<td>Arrhythmias</td>
<td>Slow (&lt;50/min) or irregular pulse</td>
<td>Monitor closely and liaise with general medical team immediately</td>
</tr>
<tr>
<td>Respiratory depression</td>
<td>Reducing respiratory rate, reducing consciousness</td>
<td>Give oxygen, raise legs. If necessary ventilate mechanically.</td>
</tr>
</tbody>
</table>

If respiratory rate drops below 10/minute in a service user who has received benzodiazepines do the following:
1. Call for advanced emergency care (see below)
2. *Doctor to administer IV flumazenil. 200 micrograms IV over 15 seconds.
3. If consciousness is not resumed within 60 seconds give 100 micrograms over 10 seconds.
4. Repeat at 60 second intervals. Maximum dose 1 mg/24 hours. Continue to monitor after respiratory rate returns to normal. Flumazenil has a short duration of action so further doses may be required. Service users may become agitated or anxious on waking.

Ensure fluid intake is maintained. Fluid intake and output should be monitored.

Seek urgent medical advice if any signs show deterioration.
The following should be available immediately:
- Antimuscarinic if service user develops acute dystonia
- Emergency response equipment

Electrocardiogram and haematological monitoring should be performed at the earliest opportunity where parenteral antipsychotics are used. Hypokalaemia, stress and agitation place the patient at risk of cardiac arrhythmia. ECG monitoring is formally recommended for all patients who receive haloperidol (refer to page 17).

If ACES score 8/9 or any signs of physical deterioration, implement initial emergency care, call for advanced emergency care (999 Ambulance / 2222 Crash Team) and inform the on-call doctor.
Rapid Tranquillisation (RT) Checklist for Staff

PRE-RT

- Capacity/ MHA status noted and recorded
- Doctor involved
- Prescription chart review
- Medical History (including allergies & sensitivities) / Physical Health (including urine drug screen & ECG for antipsychotics). Review
- Advance decisions/directives check

POST–RT

- Care notes documentation
- Physical monitoring completed and documented (as per monitoring sheet)
- Prescription chart reviewed re: regular medication
- Team debrief
- Incident form completed
- Handover to clinical team (if out of hours)
- Update risk assessment
- Reassure service user / discuss how to manage further similar incidents
Rapid Tranquillisation (RT) Monitoring Sheet (Post Oral & IM Medication)

It is important that the following monitoring is completed for all individuals who are administered medication for RT; this is because high stress levels, hyper-aroused physical state, restraint, agitation and hypokalaemia can all place the person at high risk of developing cardiac arrhythmias, in addition to other known adverse effects associated with prescribing medication indicated for RT.

<table>
<thead>
<tr>
<th>Service user name:</th>
<th>NHS no:</th>
<th>Ward/Unit:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger(s) &amp; reason for use:</td>
<td></td>
<td></td>
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<tr>
<td>Nurse signature:</td>
<td>Print name:</td>
<td>Date:</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Time</th>
<th>Alertness (ACES)</th>
<th>Respiratory rate</th>
<th>Pulse</th>
<th>BP</th>
<th>Oxygen saturation</th>
<th>Temperature</th>
<th>Fluid offered (mls)</th>
<th>Fluid taken (mls)</th>
<th>Nurse initials</th>
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Record ‘X’ if unable to monitor
Seek urgent medical advice if any signs show deterioration

**Outcome of RT episode:**

<table>
<thead>
<tr>
<th>Signature:</th>
<th>Date:</th>
<th>Time:</th>
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</table>
Drug Choice in Pregnancy

Clinicians should check with an up-to-date source of information before prescribing in pregnancy.

Obtain advice from a specialist Consultant Psychiatrist (Dr A. Roberts), local medicines information service or medicines information services listed on the front cover of the BNF or directly with manufacturers’ databases.

Specialist drugs in pregnancy advice can be obtained from the United Kingdom Teratology Service (UKTIS). Healthcare professionals can contact UKTIS by telephone on 0844 892 0909. The telephone service is available between 08.30 – 17.00 Monday – Friday (excluding bank holidays) for routine enquiries. Urgent enquiries are answered 24 hours per day, seven days per week.

Website for United Kingdom Teratology Service is [www.uktis.org/](http://www.uktis.org/)


The safety of psychotropics in pregnancy cannot be clearly established because robust, prospective trials are unethical. Individual decisions are dependent upon an imperfect retrospective database and an assessment of the risks and benefits associated with withdrawal or continuation of drug treatment. The service user’s view of risks and benefits will have paramount importance. Possible effects on the unborn child should be discussed if possible with a mother who requires acute or maintenance treatment. Risks should be weighed up against possible benefits.

**General principles of prescribing in pregnancy**

Only treat when absolutely necessary (potential benefit outweighs potential harm), but remember that mentally ill women who are pregnant are very likely to require treatment

Ensure that the prospective parents are as fully involved as possible in all discussions

Always consider the risk of relapse when discontinuing psychotropics – relapse may ultimately be more harmful to the mother and child than continued, effective drug therapy

Try to avoid all drugs in the first trimester when major organs are being formed

Use an established drug at the lowest effective dose and avoid polypharmacy whenever possible

Be prepared to adjust doses as pregnancy progresses and drug handling is altered. Be aware of potential problems with individual drugs around the time of delivery

Ensure adequate foetal screening during pregnancy and monitor the neonate for withdrawal effects after birth

Document all decisions
Our vision

‘to be the leading provider of mental health and specialist learning disability services in the country’

To be a leading provider, we must offer high quality care with excellent treatment outcomes, within a safe environment which meets the needs of service users.

Our vision is underpinned by eight goals which inform our entire strategy.

- To deliver high quality integrated health and social care services in accordance with recovery principles
- To be the provider of choice for service users, carers, the community and commissioners
- To work in partnership with the community to promote the wellbeing of others, whilst making a positive contribution to the environment
- To be the employer of choice where staff are highly valued, well supported and rewarded
- To create a dynamic and flexible working environment where staff are motivated and committed to providing high quality care
- To embed a learning culture where staff develop their full potential and deliver excellent care
- To ensure a sustainable future through income growth and efficient use of resources
- To be an innovative and learning organisation that embraces new and modern approaches to health and social care