Cumbria Partnership NHS
NHS Foundation Trust

RAPID TRANQUILLISATION PROTOCOL

Document Summary

To ensure rapid tranquillisation is carried out safely and with appropriate monitoring of patients.

DOCUMENT NUMBER	POL/001/020
DATE RATIFIED	10 July 2017
DATE IMPLEMENTED	July 2017
NEXT REVIEW DATE	30 June 2020
ACCOUNTABLE DIRECTOR	Medical Director
POLICY AUTHOR	Consultant Psychiatrist, PICU. Senior pharmacists

Important Note:

The Intranet version of this document is the only version that is maintained.

Any printed copies should therefore be viewed as “uncontrolled” and, as such, may not necessarily contain the latest updates and amendments.

Here for you

TABLE OF CONTENTS

1 SCOPE

This document applies to Mental health and Learning Disabilities inpatient areas within Cumbria Partnership NHS Foundation Trust and to all staff employed by the Trust, working in those areas, including agency staff, locums and student nurses.

2 INTRODUCTION

This protocol is based on Violence and aggression: short term management in mental health, health and community settings (NICE NG10)
Rapid tranquillisation, physical intervention and seclusion should only be considered once all strategies taught in line with the PMVA restraint reduction programme (de-escalation and other strategies) have failed to calm the service user. These interventions are management strategies and are not regarded as primary treatment techniques. When determining which interventions to employ, clinical need, safety of service users and others, risk of physical and psychological harm and, where possible, advance directives should be taken into account. The intervention selected must be a reasonable and proportionate response to the risk posed by the service user.

The service user should be able to respond to communication throughout the period of rapid tranquillisation. The aim of rapid tranquillisation is to achieve a state of calm sufficient to minimise the risk posed to the service user or to others.

When a service user is subject to control and restraint, or receives compulsory treatment including rapid tranquillisation under the Mental Health Act (1983; amended 1995 and 2007), staff should recognise that the service user may consider the treatment as a violation of their rights. Documentation of the service users consent or status under the Mental Health Act must be checked. Where possible try to involve healthcare professionals whom the service user trusts. Explain reasons for the episode of compulsory treatment to the service user, and involved family members or carers.

Following an episode of violence and agression an incident form must be completed. All treatment and care must be recorded in the patients clinical notes. The opportunity for a debrief to promote lessons learned and prevent situations reoccuring should be identified, this should be provided to both staff and patients. Planned care should be amended as a result of debrief findings.

Service users should be given the opportunity to reflect and document their account of the intervention in their notes.

Other patients on the ward may be distressed by an incident and should be given an opportunity to discuss the experience if necessary.

3 STATEMENT OF INTENT

Rapid tranquillisation is used in situations requiring the rapid control of agitation, aggression or excitement.

The policy describes the prescribing principles. The policy also defines the process to be used for monitoring service-users who have received rapid tranquillisation, the emergency medications which must be available and when these should be used.

4 DEFINITIONS

Refer to Medicines policy for standard definitions.
Other definitions used in this policy.

Rapid Tranquillisation (RT)	The use of medication to calm/lightly sedate the service user and reduce the risk to self and/or others.
Approved Clinician (AC)	Is a person approved by the appropriate national authority to act as an approved clinician for the purposes of the Mental Health Act 1983.
Responsible Clinician:	Is the AC who has been given overall responsibility for a patient's case.
Senior clinician	Medical staff at Associate Specialist level or higher with Approved Clinician status

Abbreviations	
RT	Rapid Tranquillisation
ILS	Immediate Life Support
CPR	Cardio-pulmonary resuscitation
PMVA	Prevention and Management of Violence and Aggression
NMS	Neuroleptic malignant syndrome
NEWS	National Early Warning Scoring System
PRN	Pro re nata. As required or When required

Abbreviations of routes of administration and dosing frequencies should be used as defined in the Trust Medicines policy or in the BNF, and are not listed here

5 DUTIES

As Medicines Policy and in addition:

Unit/Ward Manager:

- Ensure that all relevant staff are aware of this policy and other policies and guidance which relate to this policy.
- Ensure that adequate training is given to allow staff to safely implement the guidelines.
- Inform senior management if the policy is not being followed appropriately.
- Ensure equipment and medication required for resuscitation are checked regularly

Nurse in charge of shift:

- Be fully aware of the contents of this policy and supporting policies and guidance before an incident arises.
- Assess risk and implement the policy when they feel it is appropriate.
- Ensure that non-pharmacological methods are tried first.
- Before implementing rapid tranquillisation, inform the responsible inpatient consultant or their deputy;
- Out-of-hours inform the on-call consultant as soon as possible following the administration of rapid tranquillisation.
- Ensure that the incident is fully documented.
- Ensure that the correct monitoring is done.
- Continue to use de-escalation techniques throughout if appropriate.
- Ensure appropriate handover to the subsequent shift nurse in charge and registered nurses on the shift.
- Ensure appropriate information follows the patient to another unit/ward if it is necessary to move the patient during rapid tranquillisation or monitoring.

Registered nurses:

- Be familiar with the policy and supporting documents
- Support the nurse-in charge as above.
- Attend mandatory training to ensure they are up-to-date with the policy and associated documents.
- Ensure incidents are recorded on Trust incident reporting system

Medical staff:

- Be familiar with the policy and supporting documents
- Assess the patient and take a drug history wherever possible, including allergies and adverse drug reactions.
- Assess mental state and need for administration of rapid tranquillisation before prescribing.
- Consider any advance directives before prescribing.
- Establish a provisional diagnosis where appropriate to do so.
- Follow the correct procedures in line with the patients status under the Mental Health Act 1983
- Ensure there are no drug interactions and that the total dose does not exceed BNF limits
- Complete all relevant documentation.
- Consult the MDT before prescribing.
- Ensure that the nurse in charge is fully aware of any decisions regarding medication.
- With the nurse in charge, agree and advise of the frequency of review of patient's arousal levels and response to rapid tranquillisation medication, including ongoing physical monitoring.
- Document decisions within the clinical record.

- Ensure the patient's current medication chart is amended to reflect the administration of Rapid Tranquillisation.
- Ensure full review of the patient, including prescribed medication and monitoring, minimum every 24 hours.

Pharmacist:

- Be familiar with the policy and supporting documents
- Provide medicines information and advice as required for both staff and patients.
- Ensure medication used for rapid tranquillisation in this policy is available to all units where treatment may be carried out.
- Ensure that medication to treat emergencies which may occur in rapid tranquillisation is available to all units where treatment may be carried out.

6 RAPID TRANQUILLISATION PRESCRIBING AND MONITORING

6.1 Legal Duties

All staff should be aware of the legal framework that authorises the use of these interventions.

- The guidance of the Mental Health Act Code of Practice (chapter 19) and the Mental Capacity Act Code of Practice chapter 13 should be followed.
- Any departures from the guidance should be clearly recorded and justified as being in the service user's best interest.

6.2 Aim of rapid tranquillisation

The aim of rapid tranquillisation is to achieve a state of calm sufficient to minimise the risk posed to the service user or to others. Deep sedation/sleep is not necessarily considered a desirable endpoint.

The early assessment of arousal is essential in order to firstly provide de-escalation approaches and non-pharmacological intervention to provide support to the patient to reduce arousal levels. This may include the use of previously identified restraint reduction tools (e.g. "my safety plan") individual patient specific interventions relaxation; providing reassurance; problem solving and access to a low stimulus environment, for example quieter areas in current unit. This protocol will be triggered when de-escalation techniques have not been successful and the patient will require pharmacological intervention.

6.3 Rapid Tranquillisation prescribing principles

Refer to appendices alongside policy on internet for medicines and recommended dosages in specific patient groups in rapid tranquillisation. Prescribing for Learning Disabilities patients will follow the prescribing for adult patients, commencing with the lower end of the range of prescribed doses.

A multidisciplinary team that includes a psychiatrist should develop and document an individualised pharmacological strategy for using routine and prn medication to calm, relax, tranquillise or sedate service users who are at risk of violence and agression as soon as possible after admission to an inpatient psychiatric unit. This should be included as part of the formulation for the patient. The individualised pharmacological strategy will be dependent on several factors including the service user's age (older service users generally require lower doses); concomitant physical disorders (such as renal, hepatic, cardiovascular, neurological, learning disability); and concomitant medication.

The multidiscliplinary team should review the pharmacological strategy and the use of medication at least once a week and more frequently if events are escalating and restrictive interventions are being planned or used. The review should be recorded and include:

- clarification of target symptoms
- the likely timescale for response to medication
- the total daily dose of medication, prescribed and administered, including prn medication
- the number of, and reason for, any missed doses
- therapeutic response
- the emergence of unwanted effects.

If rapid tranquillisation is being used, a senior doctor should review all medication at least once a day. At weekends this can be by phone with on-call consultant

When deciding which medication to use, take into account:

- the service user's preferences or advance statements and decisions
- pre-existing physical health problems or pregnancy
- possible intoxication
- previous response to these medications, including adverse effects
- potential for interactions with other medications
- the total daily dose of medications prescribed and administered.

The following prescribing standards should be followed:

- Prescribe oral and I/M doses separately
- Remember maximum doses apply to combination of oral and IM, regular and prn
- Do **not** use o/im abbreviation
- Do **not** use two drugs of same class for RT
- Do **not** mix medication in same syringe

<u>Use of prn medication</u>

When prescribing prn medication as part of a strategy to de-escalate or prevent situations that may lead to violence and aggression:

- Tailor prn medication to individual need and include discussion with the service user if possible
- ensure that the maximum daily dose is specified and does not inadvertently exceed the maximum daily dose stated in the British national formulary (BNF)

when combined with the person's standard dose or their dose for rapid tranquillisation
- ensure that the interval between prn doses is specified.

The multidisciplinary team should review prn medication at least once a week and record at MDT whether prn should continue.

If the addition of prn medication for rapid tranquillisation results in the patients total antipsychotic dose exceeding the BNF maximum (including the regular prescribed medication) then Royal College Of Psychiatrists guidelines for high dose antipsychotics should be followed.

6.4 Risks Associated with Rapid Tranquillisation

See Appendix 2 algorithm for risks of rapid tranquillisation and risks of the different classes of medication used.

There are specific risks associated with the different classes of medications that are used in rapid tranquillisation. The specific properties of the individual drugs should be taken into consideration. When combinations are used, risks may be compounded.

The physical health of the patient should be assessed prior to initiating rapid tranquillisation. This may be done by a physical health examination, review of the medical history, review of the current medicaiton or recent physical observations. If a patient is not previously known to services, every effort should be made to find out if there are any relevant medical condiditons which would affect prescribing decisions and subsequent monitoring.

It is recognised that it is not always possible to carry out ECGs in patients requiring rapid tranquillisation. If a patient has had a previous ECG this should be referred to. Where possible patients should have ECGs carried out at a later date to inform future prescribing. It is a requirement of the SPC for haloperidol that all patients have an ECG prior to treatment with haloperidol. Staff should make every effort to be aware of any cardiac risks for an individual patient.

6.5 Rapid Tranquillisation in Pregnancy and perinatal period

Seek specialist guidance

6.6 Care after Rapid Tranquillisation - Observations and Monitoring

Patients must continue to be observed after Rapid tranquillisation in line with Supported Observations Policy POL/001/007 Policy.

Monitoring of the service user must take place if:

- Medication has been administered by parenteral route
- Oral doses greater than specified in appendices have been given in a 24 hour period (including any regular doses prescribed)

- Decision to be made by senior clinician and MDT if monitoring is required after standard oral doses, depending on risk of patient and associated physical health risks.

Baseline monitoring:

If possible, baseline measurements of the following should be recorded before any parenteral drug administration:

Temperature, Pulse, Respiratory rate, Blood pressure

If these cannot be done, reference should be made to any recently obtained baseline measurements that are available.

Follow up monitoring:

Monitor vital signs where safe to do so:

- blood pressure,
- pulse,
- temperature,
- respiratory rate,
- hydration,
- level of consciousness and
- blood oxygen saturation

at intervals agreed by multidisciplinary team until service user active again. The frequency of monitoring is to be documented in the clinical record. The frequency below is recommended:

Time since RT	Monitoring frequency
0-1 hour	Every 15 minutes
1-4 hours	Every 1 hour
4-12 hours	Every 4 hours

The record of temperature, pulse, respiration and blood pressure must be made on NEWS (National Early Warning Signs) tool. A record that physical health monitoring has been done is to be recorded in the clinical record.

Refer to

- Physical Examination and Care of Services Users Policy and Procedures.

All patients administered RT should be subject to either **intermittent, arms-length or within eyesight observation, according to assessed clinical need**. These observations should be Level 2 as a minimum (for patients displaying high levels of aggression due to psychosis/mania/paranoia, 1-1 observations can be inflammatory)

Assessment should take into consideration the patients physical health status as well as their current psychiatric presentation and the assessment and rationale for the level of observation is to be clearly recorded in the clinical notes. Observations are to

continue for at least one hour and until the patient is assessed as being calm and any changes to physical health parameters have returned to normal. The level of observation required should also be reassessed and any change recorded throughout the episode.

In addition, staff should closely monitor for signs of extrapyramidal side effects (and in particular, laryngeal dystonia) in response to the administration of antipsychotic medication, by any route.

Where the patient is unconscious or asleep, the same monitoring should take place so far as is possible, and pulse-oximetry should also be used, where it is practical to do so.

Where possible, and where facilities exist, ECG and haematological monitoring are strongly recommended whenever antipsychotics are administered and especially where high doses or parenteral route are be used. High stress levels, restraint, agitation, and hypokalaemia all place the patient at high risk of developing cardiac arrhythmias. ECG monitoring is required for patients prescribed haloperidol.

Observe for physical symptoms and signs typical of excited delirium

- Extremely aggressive/violent behaviour
- Excessive strength/continued struggle despite restraint
- Insensitive to pain
- Acute psychosis with fear of impending doom
- Constant physical activity without fatigue
- Hot to touch/profusely sweating/inappropriate state of undress
- Hyperthermia
- Tachypnoea
- Tachycardia

Intensive and more frequent monitoring by staff is required if:

- service user is/appears sedated/asleep;
- BNF limit or SPC exceeded;
- in high-risk situations;
- illicit substances/alcohol ingested;
- presence of relevant physical health risks and co-prescribed medication.

Pay particular attention to respiratory effort, airway and level of consciousness.

6.7 Management of problems during or after Rapid Tranquillisation

Problem	Remedial measure
Acute dystonia (including oculogyric crisis)	Procyclidine 5-10mg IM or IV Always prescribe procyclidine, either stat (immediate), regular or prn, when haloperidol IM is prescribed
Reduced respiratory rate (less than 10 breaths/min), or oxygen saturation less than 90%	Give oxygen, raise legs. Ensure patient is not lying face down. Give Flumazenil if benzodiazepine induced, See guidelines for use of flumazenil below. If induced by any

	other sedative agent, transfer to a medical bed and ventilate mechanically
Irregular or slow pulse (less than 50 beats/min)	Refer to specialist medical care immediately
Fall in blood pressure (>30mmHg orthostatic drop or <50mmHg diastolic (Ref Maudsley) or <80mmHg systolic (ref Royal coll psych)	Lie patient flat, raise legs if possible, tilt bed towards head, monitor closely
Increased temperature	Withhold antipsychotics (risk of NMS and possibly arrythmias), check creatinine kinase urgently. Monitor closely, cool patient, consider referral to specialist medical care if any other signs of NMS: Sweating, hypertension or fluctuating BP, tachycardia, incontinence, muscular rigidity, confusion, agitation, altered consciousness.

Respiratory depression

If respiratory rate falls below 10 per minute, and the patient has had benzodiazepines, give flumazenil by IV injection following schedule in BNF and below. If this is not possible (e.g. no one able to give IV injection is present) call emergency ambulance or crash team.

Guidelines for the use of Flumazenil

Indication	For benzodiazepine induced respiratory depression, if rate falls to below 10 breaths/min.
Cautions and contra-indications	Epileptic patients on long term benzodiazepines. Titrate dose in hepatic impairment.
Dose and route	Initial: 200micrograms IV over 15 seconds If required level of breathing not reached after 60 seconds, then subsequent dose: 100micrograms over 10 seconds.
Time before dose can be repeated	60 seconds
Maximum dose	1mg in 24 hours (one initial dose and 8 subsequent doses).
Side effects	Patients may become anxious, agitated or fearful on awakening. Seizures may occur in regular benzodiazepine users. Side-effects usually subside.
Monitoring	Monitor respiratory rate continuously until rate returns to baseline level. Flumazenil has short half-life so rate may return to normal then deteriorate again. Note: if respiratory rate does not return to normal or patient is not alert after initial doses given, assume that sedation is due to some other cause.

Resuscitation equipment and emergency medication

Resuscitation equipment (including an automatic external defibrillator, a bag valve mask, oxygen, cannulas, fluids, suction and first-line resuscitation medications) should be available within 3 minutes in healthcare settings where rapid tranquillisation, physical intervention and seclusion might be used. The equipment should be maintained by designated trust staff and checked weekly by ward staff. Pulse oximeters should also be available.

The following emergency medication must also be available whenever rapid tranquillisation is carried out:

- Procyclidine injection (5mg/ml)
- Flumazenil injection 100micrograms/ml (minimum stock 2 x 5ml amps) – Held in ward emergency drugs box or as stock on the ward. Further stock of flumazenil must be available on the hospital site.

7 TRAINING

Mandatory training will be provided in accordance with Trust training needs analysis. Attendance at training will be managed in accordance with the Learning and development policy.

8 MONITORING COMPLIANCE WITH THIS POLICY

The table below outlines the Trusts' monitoring arrangements for this policy/ document. The Trust reserves the right to commission additional work or change the monitoring arrangements to meet organisational needs.

Aspect of compliance or effectiveness being monitored	**Monitoring method**	**Individual department responsible for the monitoring**	**Frequency of the monitoring activity**	**Group / committee which will receive the findings / monitoring report**	**Group / committee / individual responsible for ensuring that the actions are completed**
Prescribing guidelines and monitoring of rapid tranquillisation	Rapid Tranquillisation prescribing and monitoring audit in all acute mental health units	Senior Clinical lead, PICU	POMH or similar	Medicines management committee	Care Group Clinical Governance

9 REFERENCES/ BIBLIOGRAPHY

Violence and aggression – short term management in mental health, health and community settings NICE (NG10) May 2015 https://www.nice.org.uk/guidance/ng10

Antenatal and postnatal mental health – NICE (CG 192) December 2014
Service user experience in adult mental health - NICE (CG 136) December 2011
The Maudsley prescribing Guidelines 12th edition, 2012, D Taylor, C Paton, S Kapur

10 RELATED TRUST POLICY/PROCEDURES

Prevention and management of violence and aggression Policy (PMVA) POL 001/008
Medicines policy POL 001/013
Resuscitation policy POL 001/002
Physical Examination and Care of Services Users Policy and Procedures POL 001/012
Supported Observations Policy POL 001/007
Consent Policy POL 001/010

APPENDIX 1 - CARE PLAN FOR RAPID TRANQUILLISATION

Risks	Monitoring	Frequency	Remedial Measures
1. **Cardiac Arrhythmias**	Prior to administration an ECG should be undertaken to rule out any risk factors associated with cardiac abnormalities.	Prior to administration of any preparation of Haloperidol.	
	In some situations patients may be admitted in an emergency and it may not be possible to obtain an ECG.		Medical review of physical risk factors and record decision in notes if prescribing haloperidol medication.
	Monitor Pulse and Blood pressure	**First hour post administration:** check every 15 minutes **1-4 hours post administration:** once per hour **4-12 hours post administration:** every 4 hours Use of NEWS to determine increasing frequency of observations and medical assistance if required	Irregular or pulse below 50 beats per minute: Request Dr to attend patient. Fall in blood pressure with more than 30mmHg postural fall in blood pressure or a fall of less than 50 mmHg diastolic: have patient lie flat and tilt bed towards head. Contact medical staff for further advice.
2. Respiratory Depression	Monitor respiratory rate	**First hour post administration:** check every 15 minutes **1-4 hours post administration:** once per hour **4-12 hours post administration:** every 4 hours	If patient asleep or unconscious consider use of pulse oximeter to monitor oxygen saturation levels and if less than 90% and /or respiratory rate falls below 10 per minute call for medical intervention; administer oxygen;

Risks	Monitoring	Frequency	Remedial Measures
		Use of NEWS to determine increasing frequency of observations and medical assistance if required	raise legs and ensure patient does not lie face down. Medical staff to consider use of **Flumazenil I/V** and arrange transfer to General hospital A&E dept. Nursing staff should remain with patient and manage on Level 3 Supportive observation level as per Observation policy
3. **Neuroleptic Malignant Syndrome**	Monitor temperature	**First hour post administration:** check every 15 minutes **2-4 hours post administration:** once per hour **4-12 hours post administration:** every 4 hours Use of NEWS to determine increasing frequency of observations and medical assistance if required	If elevated temperature, contact medical staff to check blood serum levels of Creatinine Kinase urgently. Withhold further doses of antipsychotic medication.
Acute Dystonia including Oculogyric crisis	Observation of patient particularly muscle movements of head, neck and eyes:- Eyes Rolling upwards (oculogyric crisis) Head & neck twisted to side (torticollis)	As part of routine monitoring as identified above Using the Abnormal Involuntary Movement Scale (AIMS)	Inform medical staff and Administer procyclidine 5-10mg IM or IV or Benztropine 1-2mg IM

Risks	Monitoring	Frequency	Remedial Measures
	Muscle spasm in any part of body.		

APPENDIX 2 RISKS AND CAUTIONS OF PHARMACOLOGICAL TREATMENT FOR RAPID TRANQUILLISATION

Potential risks	▪ Over-sedation causing loss of consciousness ▪ Over-sedation causing loss of alertness ▪ Loss of airway ▪ Cardiovascular and respiratory collapse ▪ Interaction with medication (prescribed or illicit) ▪ Damage to the therapeutic relationship ▪ Underlying coincidental physical disorders
Caution	Take extra care in presence of: ▪ Congenital prolonged QTc syndromes ▪ Medications that lengthen QTc intervals directly or indirectly ▪ Hypo/hyperthermia, stress/extreme emotions, extreme physical exertion

- Prescribers and those who administer medicines should be familiar with:
  - the properties of benzodiazepines; flumazenil; antipsychotics; antimuscarinics and antihistamines
  - risks (including cardio-respiratory effects, particularly if with high arousal, possible drug misuse, dehydration or physical illness)
  - the need to titrate doses to effect
- Prescriber and medication administrator should pay attention to:
  - the total dose prescribed
  - arrangements for review
  - consent, British National Formulary (BNF) and SPC requirements, physical and mental status

There are specific risks with different classes of medication. Risks can be compounded if used in combination.

Benzodiazepines: loss of consciousness; respiratory depression or arrest; cardiovascular collapse when receiving both clozapine and benzodiazepines
Antipsychotics: loss of consciousness, cardiovascular/respiratory complications and collapse; seizures; akathisia, dystonia, dyskinesia; neuroleptic malignant syndrome; excessive sedation
Antihistamines: excessive sedation; painful injection; additional antimuscarinic effects