Rapid tranquillisation (RT) is defined as ‘the use of psychotropic medication to control agitation, threatening or destructive psychotic behaviour’ (Ellison et al, 1989). Epidemiological studies show that people with mental disorders are more likely to be violent than community controls and substance misuse greatly increases the risk of violence in people with mental disorders as well as community controls (Davison, 2005). Disturbed or violent behaviour by an individual in an adult in-patient psychiatric setting poses a serious risk to that individual, other patients and staff. Immediate management of such patients is necessary to ensure the safety of other patients and staff and to reduce the patient’s level of distress due to acute agitation. The interventions used should be the minimum required to calm the patient.

Section 1: Aims, policies and training issues
- RT has a defined objective of controlling the acutely disturbed behaviour without causing any harm to the patient.
- RT is not aimed at treating underlying causes of agitation or violent behaviour.
- It should be used only when non-pharmacological measures have been used and proven unsuccessful.
- Staff delivering RT should be trained regularly to ensure good standards of care.

Section 2: Step-by-step approach to RT
- The first two steps in a step-by-step approach to RT are: step 1 – assess the situation using an MDT approach, and step 2 – restraint.
- Rapid tranquillisation should be carried out using a multidisciplinary team approach.
- Before giving medication one should be aware of relevant issues such as physical illness, concurrent medications and if possible, causes of agitation to determine the choice of medication.
- Wrong restraint positions have resulted in positional asphyxia-related death and unwanted injuries, hence it is vital to restrain the patient appropriately.

Section 3 Part 1: Determining choice of medication (step 3): Benzodiazepines
- Lorazepam is a widely prescribed benzodiazepine in the UK for RT. It has the best evidence base amongst benzodiazepines at the moment for RT.
- Buccal midazolam is highlighted as a new treatment recently. It is used to control seizures in status epilepticus as an alternative to rectal diazepam.
- Midazolam has been found to be effective by intramuscular route in the TREC study but the buccal route is yet to be investigated for this purpose. Patients are likely to have better acceptability of this route compared to intramuscular.
- Every treatment facility where parenteral benzodiazepines are used should have flumazenil available. It can be life saving if a patient develops respiratory depression due to benzodiazepines. Doctors using parenteral benzodiazepines should have training in its use.

Section 3 Part 2: First generation antipsychotics
- Concerns about the safety of haloperidol have led to changes in the Summaries of Product Characteristics (SPC) for haloperidol requiring that it should not be prescribed with other antipsychotics and an ECG should be done as a baseline before starting it.
- Use of phenothiazines is not recommended in various guidelines because of troublesome side effects.
- Zuclopenthixol acetate (acuphase) has variable and usually late onset of action and its effects last longer, hence it is not a good choice for RT.

Section 3 Part 3: Second generation antipsychotics
- Second generation antipsychotics are commonly used but there is less evidence base for these medications.
- IM olanzapine has been found to have more troublesome side effects when used above BNF doses and can cause respiratory depression when used with lorazepam, hence both of these medications should never be used simultaneously or within one hour of each other.
Section 3 Part 4: Combination medicines

- Some studies recommend the use of a combination of psychotropic medications.
- The evidence base for the effectiveness of combination medications over a single agent is developing.
- The most favoured combination in the UK is that of haloperidol and lorazepam. There are other popular combinations in other parts of world e.g. haloperidol and promethazine is used commonly in India and Brazil.

Section 3 Part 5: Other medications – ketamine

- A study by Le Cong et al (2011) concluded that ketamine was an effective form of sedation when first line measures failed to control agitation for patients needing aeromedical retrieval.
- They did not notice worsening in psychosis as may be expected due to the antagonistic action of ketamine on NMDA receptors. This study, though interesting, has a number of methodological problems.

Section 4: Determining route of administration (step 4)

- Oral medication should be used first whenever possible but it may not be possible all the time.
- If parenteral treatment proves necessary, the intramuscular route (IM) is safer than intravenous (IV).
- Use of IV medication is justified only in circumstances requiring immediate tranquilisation and staff should be appropriately trained to deal with potentially fatal side effects such as respiratory depression and cardiovascular collapse.
- The patient should never be left unattended and resuscitation facilities should be easily accessible in case of any adverse events.

Section 5: Monitoring after RT (step 5)

- To reduce the chances of adverse outcomes, vital signs and oxygen saturation (using pulse oximeter) should be measured regularly at a frequency set by local guidelines.
- All antipsychotic drugs are associated with adverse effects on cardiac conductance hence an ECG should be done to monitor QTc interval.
- It is particularly important when high dose antipsychotics are used and the patient has pre-existing cardiac problems.

Section 6: RT in special circumstances

- RT can be used by medical staff in A&E but senior medical staff should be involved and the mental health team should be informed.
- RT should be avoided in secluded patients, but it is not contra-indicated. Special care should be taken to monitor vitals when RT is used for a secluded patient.
- Whereas PRN prescribing is non-specific and it is the major cause of high dose antipsychotic prescribing, RT is very specific in its aim and such aims should be written clearly on medication cards to avoid confusion.

Section 7: Risk associated with RT and care after RT

- Rapid tranquillisation is a short-term management strategy and it should be followed by standard care as soon as possible.
- After every episode of rapid tranquillisation the team should carefully evaluate and remediate the factors, which make use of RT necessary.
- In ideal circumstances, making proper and tailor-made care plans can avert the need for RT.
- Repeated use of RT under common law for unwilling informal patients is illegal and in such circumstances the patient should be put on an appropriate section of the Mental Health Act.

Further reading

