

A growing evidence base for management guidelines

REVISITING... GUIDELINES FOR THE MANAGEMENT OF ACUTELY DISTURBED PSYCHIATRIC PATIENTS

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Abstract We review key recent research and guidance for staff working with acutely disturbed psychiatric patients. Assessment of aggressive patients and their situation should enable full risk assessment, which may ideally involve the use of advance directives. We discuss appropriate use of the Mental Health Act 1983 and consider benefits and adverse effects of rapid tranquillisation. We present a simple protocol for oral or intramuscular rapid tranquillisation. Staff using physical restraint should be properly trained and consider sensitively issues of the patient's dignity, gender and the most appropriate location for restraint to occur. Simple precautions can improve safety when working with potentially disturbed patients. Staff need support during and after the management of an aggressive incident.

The authors revisit a topic about which Rob Macpherson and colleagues wrote in an early volume of APT (Macpherson et al, 1996). Their original article, with a comment on it by Trevor Turner, is available on our website (<http://apt.rcpsych.org>), as a data supplement to the online version of the present article.

A complementary article that gives a more wide-ranging account of the prevention and management of violence in psychiatric settings appeared in the previous issue of APT (Davison, 2005). There is deliberate overlap between the two articles, allowing each to be read independently.

The treatment of acutely disturbed patients is a difficult, inherently stressful, but ubiquitous requirement of psychiatric practice. When we developed our first guidelines as a multidisciplinary collaboration almost 10 years ago (Macpherson et al, 1996), it appeared to us that a lack of consensus among senior psychiatrists on appropriate treatment contributed to uncertainty about treatment in this area. Treatments of dubious rationale were often being used, without a clear evidence base. Our original guidelines aimed to set out principles covering general aspects of management, including drug treatment.

There has subsequently been increasing scrutiny of practice in this area. The National Audit Office (2003) noted a 40% increase between 1999 and 2002 in self-reported violence experienced by National

Health Service (NHS) staff, rates of violence being 2.5 times higher in mental health and learning disability trusts than in other NHS trusts. Under-reporting was considered widespread, and it was estimated that violent incidents cost the NHS £69 million a year (this figure took no account of the 'human' costs). The Audit Office report found substantial variation in training in both risk assessment and management of violence, and serious deficits in training among doctors in particular. There was marked inconsistency in staff support following violence, and successful prosecution by assaulted staff was rare. The inquiry into the death of David Bennett (Norfolk, Suffolk and Cambridgeshire Strategic Health Authority, 2003), who collapsed and died following prolonged restraint in psychiatric care, raised important concerns about cultural awareness and sensitivity of staff.

In response the UK Government (Department of Health, 2005) accepted recommendations for mandatory training in cultural awareness and sensitivity of all mental health staff, for the development of a national system of training in restraint and control and that all medical staff and registered nurses working in mental health should have up-to-date resuscitation training. The failure to accept a

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recommendation restricting prone restraint to a 3-min time limit has been controversial, although Paterson & Leadbetter (2004) have pointed out that any time limit for such a complex, difficult procedure is arbitrary and probably reflects an awareness (among the authors of the Government's response) of the harsh realities of restraining patients, a process 'usually entered into by staff only with considerable reluctance and sometimes real fear'.

Overall, there is little to suggest that the NHS's 'zero tolerance' campaign (National Health Service, 1999) has had a major impact in reducing the problem of assaults on mental health or other NHS staff. However, there appear to have been some significant developments in clinical practice and understanding in this field. The increasing availability of specialist care provided through the model of the psychiatric intensive care unit (PICU) has facilitated a concentration of skills and expertise, and this has been associated with a developing evidence base in the field of rapid tranquillisation. Policies for rapid tranquillisation and emergency treatment operate in most if not all psychiatric hospitals. National Health Service trusts aim to provide in-patient staff with training in control and restraint, de-escalation and breakaway techniques, to deal more effectively with situations involving violence or aggression. The development of formal guidelines, first by the Royal College of Psychiatrists (1998) and then initially in a draft consultation document and subsequently in clinical guidelines by the National Institute for Clinical Excellence (NICE; 2005), has helped to clarify and disseminate best practice.

As a result of many positive developments in this area, our task in writing the present article has changed significantly from that in 1996. While our first work was an attempt to produce guidelines based on experience and research evidence, here we draw on a wide range of evidence sources, including published evidence-based guidelines. A number of key reports and guidelines are now available to assist mental health and other professionals who deal with acutely disturbed psychiatric patients in various settings. The most useful of these are listed in Box 1. We have tried to produce simple, user-friendly guidance distilled from these and other sources and relating to practice in standard healthcare settings.

Background

Treating acutely disturbed patients can be dangerous for both patients and staff. The most serious patient risk is of sudden cardiorespiratory collapse, which has been associated with the use of antipsychotics particularly during physical arousal (Lader, 1992). Banerjee *et al* (1995) examined the deaths of 206

Box 1 Important recent guidelines

Short-term management of violent behaviour

Detailed sections on prevention, training, service user perspectives, psychosocial and other interventions; advice for accident and emergency settings; recommendations for research; useful algorithm covering rapid tranquillisation and other interventions (National Institute for Clinical Excellence, 2005)

Treatment of bipolar disorder

British Association for Psychopharmacology's advice on clinical management and pharmaceutical agents for acute treatment of mania (Goodwin, 2003)

Management of aggressive, violent or suicidal patients

Commissioned by the United Kingdom Central Council for Nursing, Midwifery and Health Visiting with the aim of improving policy, practice and education in the management of violence (Health Services Research Department, Institute of Psychiatry, 2002)

detrained patients, identifying 15 as 'iatrogenic'. Concerns were raised about the use of high-dose medication and polypharmacy by inexperienced nurses and trainee psychiatrists who are not directly supervised by seniors.

An interesting paper by Hyde *et al* (1998), describing practice in a psychiatric intensive care unit, found that patient dissatisfaction and non-understandable provocation were related to violent incidents, suggesting that environmental factors, education and remedial action may reduce risks of violence.

Simpson & Anderson (1996) raised concerns about the lack of adequate resuscitation facilities, training and guidelines in acute psychiatric units. It will be interesting to see whether the publication of the NICE and other guidelines (Box 1) results in a more consistent, evidence-based approach to treatment in standard clinical settings.

A recent review of treatment approaches (DeFruyt & Demyttenaere, 2004) identified a number of limitations in research in this area, including unclear definitions of agitation and of therapeutic goals, small sample size and a lack of the patients' perspective. Research findings have been inconsistent and the implications for practice not always clear. Inevitably, there are practical problems in studying this complex, ethically fraught area of clinical practice. Recent guidelines regulate the use of restraint more than at any previous time (Appelbaum, 1999; Department of Health, 2004).

Assessment of disturbed patients

Assessment of patients

It is not usually possible to take a full history from an acutely agitated patient and it is often necessary to accept some degree of diagnostic uncertainty in the early stages of treatment. Nevertheless, it is important to obtain as full a history as possible from the patient, and from family, old case notes and the police and/or general practitioner. Take particular note of information regarding comorbid medical conditions such as cardiac disease and impaired hepatic or renal function. Previous response to treatment is important as it will influence treatment choice. Information about substance misuse should be sought (preferably backed up with urinalysis), as this could complicate the presentation and/or treatment (e.g. through respiratory depression or cardiac arrhythmias). Existing regular and as-required (p.r.n.) medication should be checked. It is also important to carry out a comprehensive mental state examination, with particular attention to hostility, aggression and withdrawal, and their relationship to manic and psychotic symptoms. Thorough physical assessment, including appropriate investigations, should be carried out as soon as possible.

On the basis of a preliminary assessment, it should be possible to make a provisional diagnosis, which is likely to be among the following:

- acute psychosis or mania
- acute confusional state
- acute stress reaction in a vulnerable individual
- drug- or alcohol-induced or dual diagnosis state.

Assessment of the situation

As in-patient aggression has become better understood, it is clear that situational variables can often be as important as the patient's psychiatric symptomatology (Crichton, 1997; Dix, 2001). Therefore, beyond the patient's clinical profile, a systematic assessment of the situational variables should also be undertaken. This may involve identifying real or perceived injustices, breakdown in relationships, frustration and provocation. An understanding of the causes of the aggressive episode will be useful for the development of effective preventive strategies, overall management and future care planning. Often the nature of the aggression will fall into one or a combination of the following categories:

- clinical aggression, arising specifically from psychiatric symptoms;
- purposeful aggression, used as a goal-directed means of achieving an outcome, for example to deal with staff efforts to prevent absconding;

- habitual aggression, arising from the patient's personality;
- discharge of frustration, resulting from real or perceived injustice.

Risk assessment

Risk assessment should take account of historical factors known to be associated with increased risk of violence, the strongest of which being history of previous violence. This should be combined with a view of the individual and his or her circumstances, leading to a clinical judgement informed by the fact that risk changes with personal, illness and treatment factors. In predicting risk of violence, empirically proven risk assessment instruments such as the Historical, Clinical and Risk Assessment Manual (HCR-20; Webster *et al*, 1997) are effective and reliable as an additional aid to clinical judgement (Belfrage, 1998). Instruments of this type should also be used to inform the development of local risk assessment policy.

Training in risk management is mandatory for most staff in NHS trusts, although the quality and evidence base used for much of this training has been questioned (Leadbetter & Perkins, 2002).

Advance directives

Ideally, patients who have been identified as at risk of disturbed or violent behaviour should be given the opportunity to have their treatment needs and wishes recorded in the form of an advance directive. This should fit within the context of their overall care and should clearly state what interventions they would and would not wish to receive in the event of acute relapse. This documentation should be reviewed periodically. In practice, it is evident that the system of advance directives is as yet poorly developed and lengthy work is needed involving patients, families, clinicians and hospital management (Amering *et al*, 2005). Time will tell whether the intensive training and substantial administrative commitment required to support this process is forthcoming.

Mental Health Act status

Staff who deal with emergency psychiatric treatment need regular training on the relevant legal issues, including Mental Health Act 1983 legislation and the requirements of the European Convention on Human Rights 1950. Comprehensive, detailed recording of all aspects of treatment is essential.

Informal patients

If an informal patient (one not detained under the Mental Health Act) is resisting and aggressive, and refusing treatment or threatening to leave the ward, the responsible medical officer or duty consultant should be called to make a Mental Health Act assessment. Use of Section 5(2) of the Act may be necessary to prevent an informal patient from leaving the ward, although it does not allow treatment without the patient's consent. However, under common law intramuscular medication may be given without consent in an emergency, to calm and make safe a dangerous patient detained under Sections 5(2), 5(4) or 136 while a full Mental Health Act assessment is being arranged.

Sectioned patients

Patients who have been detained under Sections 2 or 3 of the Mental Health Act can be given intramuscular antipsychotics, including zuclopenthixol acetate, without consent. Appropriately qualified mental health professionals have the authority – not the right – to treat such patients in the absence of consent. This distinction requires staff to make determined, documented efforts to obtain consent before that authority may be used.

Rapid tranquillisation

Rapid tranquillisation is the administration of medication to calm or sedate an agitated, aggressive patient. The aim is to reduce patient suffering, allow improved communication, reduce risks to the patient and others, and to do no harm. It is used only when less coercive approaches such as diversion and verbal de-escalation have failed. Antipsychotics are often used in rapid tranquillisation, and can bring about rapid improvement in symptoms of psychosis and mania, to a greater extent than benzodiazepines (Agid *et al*, 2003). However, the antipsychotic side-effect akathisia has been associated with suicidality and physical assault (Crownier *et al*, 1990), and the presence of this and other extrapyramidal side-effects means that the important role of antipsychotics in behaviour control has to be balanced carefully against risks of side-effects. Ideally, they should be used at the minimum dose sufficient to achieve therapeutic benefits.

Rapid tranquillisation and physical interventions such as restraint and seclusion are management strategies, not primary treatment techniques. They should be considered only if de-escalation and other strategies summarised below fail. The clinical need, the safety of the patient and others and, where possible, advance directives should be taken into account when deciding appropriate interventions.

The intervention must be a reasonable and proportionate response to the risk posed by the patient. Rapid tranquillisation can be used to avoid prolonged physical intervention.

It is clear that rapid tranquillisation is required in a number of healthcare settings as a regular and routine part of clinical practice. A survey in a London hospital (Pilowsky *et al*, 1992) found that 8 different drugs were used in 102 episodes of emergency treatment over 160 days.

There is no national or international consensus on the most effective drug treatment. The drugs most frequently used in the UK are antipsychotics and benzodiazepines, separately or together. Mannion *et al* (1997) found that combined regimes were most common, and in 39% of cases a high-dose antipsychotic was given. Recent systematic reviews of the effectiveness of antipsychotics in treating acute psychosis (e.g. Carpenter *et al*, 2004; Cure *et al*, 2004) have concluded that no individual antipsychotic drug has demonstrated greater efficacy or superiority over 'standard treatment'. Further work to assess the efficacy of benzodiazepines (Gillies *et al*, 2001) and olanzapine (Belgamwar *et al*, 2004) is underway. A review of zuclopenthixol acetate (Fenton *et al*, 2001) found no specific benefits, other than the possibility reported in just one study that it may produce earlier and more intense sedation than oral haloperidol.

Published reviews have often called for the use of well-conducted randomised controlled trials to properly assess drug differences in this area. In the absence of clear evidence, clinical decisions must be made on the basis of clinical experience, and our knowledge of the relative propensity of different drugs for causing adverse effects (Table 1).

Interestingly, it is possible that there is greater consistency of treatment in other countries. A survey from the USA (Binder & McNeil, 1999) found a preference for haloperidol and lorazepam in combination for rapid tranquillisation. A survey of emergency room practice in Rio de Janeiro (Huf *et al*, 2002) found that a haloperidol–promethazine mixture was used for 80% of cases. Promethazine is an antihistamine that has a slow onset of action, but is often an effective sedative. It is rarely used in the UK for rapid tranquillisation, but may have a place as an alternative to benzodiazepines in benzodiazepine-intolerant patients. It should be noted that promethazine is not licensed for use in rapid tranquillisation and caution is advised regarding dosage and safety.

Management of aggression by non-chemical forms of restraint also varies internationally. It is restricted to immediate physical containment and seclusion in standard UK practice, but mechanical restraint is in common usage in many countries, including the USA and former communist countries.

Table 1 Routes of administration and the main side-effects of drugs commonly used in rapid tranquillisation

	Daily oral maximum BNF dose (mg)	Available routes of administration	Sedation	Postural hypotension	EPSE/ Parkinsonism	Respiratory depression	NMS	QT interval prolongation
Haloperidol	30	Oral/i.m./i.v.		+	+		+	
Lorazepam	4	Oral/i.m./i.v.	+			+		
Zuclopenthixol acetate	See text	i.m.	+	+	+		+	+/-
Zuclopenthixol dihydrochloride	150	Oral	+	+	+		+	+/-
Chlorpromazine	1000	Oral/i.v. ²	+	+	+		+	++
Olanzapine	20	Oral ³ /i.m./i.v.	+		+/-		+	+/-
Risperidone	16	Oral ³	+		+		+	+

BNF, *British National Formulary*; EPSE, extrapyramidal side-effects; NMS, neuroleptic malignant syndrome; i.m., intramuscular injection; i.v., intravenous injection; +, common; ++, very common; -, absent; +/-, occasional.

1. In all cases, parenteral administration should usually be by intramuscular injection; intravenous injection should be used only in exceptional circumstances and it requires appropriate supervision and monitoring.
2. It is not recommended that chlorpromazine be injected intramuscularly because of its poor absorption and pain at the injection site.
3. An orodispersible tablet form is available.

Adverse effects associated with rapid tranquillisation

If possible, the patient's drug history must be reviewed to identify the drug of choice and any contraindications. If this is not available, consider the following issues carefully in planning immediate management strategies.

Respiratory depression

Patients treated acutely with benzodiazepines or barbiturates should be monitored for respiratory depression. There should be immediate access to a pulse oximeter and staff trained in its use. If the respiratory rate drops below 10 breaths per minute or oxygen saturation is less than 90% while on benzodiazepine treatment, give flumazenil intravenously, starting with 200 µg over 15 s, then 100 µg at 60 s intervals (maximum dose 1 mg in 24 h). Lie the patient flat on their back with the legs slightly raised; check that airways are open and ventilate mechanically if necessary. Seek urgent medical/paramedic support. Note that flumazenil has a short half-life, so respiratory function may deteriorate again. Flumazenil may cause seizures in regular users of benzodiazepines.

Hypotension

Hypotension is present if systolic blood pressure drops by more than 30 mmHg on standing, or if

diastolic blood pressure falls below 50 mmHg. Lie the patient flat on their back with the legs slightly raised, and monitor closely.

Irregular or slow (<50 beats/min) pulse

Refer to medical team urgently.

Neuroleptic malignant syndrome

Neuroleptic malignant syndrome usually presents with muscular rigidity, pyrexia and confusion, but partial syndromes are common. If suspected, substitute benzodiazepines for antipsychotics and check white cell count and creatinine kinase (both usually raised in this syndrome). Neuroleptic malignant syndrome is a medical emergency and requires urgent medical advice/admission.

Acute dystonic reaction

Dystonias are prolonged muscular spasms leading to fixed posture. They are associated with the early phase of antipsychotic treatment. They include facial and neck dystonias, opisthotonos and oculogyric crises. They require urgent treatment with 5–10 mg intramuscular or intravenous procyclidine, or 1–2 mg intramuscular benztropine. It is essential to give intravenous procyclidine slowly (no more than 1 mg per minute), as rapid injection is likely to induce an acute cardiac arrhythmia which may prove fatal.

Rapid tranquillisation of elderly, debilitated or learning-disabled patients

Reduce recommended doses by 50%. Drugs of choice for elderly people are lorazepam, starting with 0.5–1 mg orally; or haloperidol, starting with 0.5–1 mg orally or intramuscularly, with careful monitoring of blood pressure and physical state. As noted below, use of olanzapine or risperidone in elderly patients with dementia carries an increased risk of stroke and is not recommended (Committee on Safety of Medicines, 2004).

Physical support

After parenteral rapid tranquillisation, monitor pulse, temperature, blood pressure and respiratory rate every 5–10 min for the first hour, then every 30–60 min until the patient is ambulatory. If the patient is unconscious or asleep, pulse oximetry to monitor oxygen saturation is desirable. A nurse should remain with the patient until they are ambulatory. An electrocardiogram (ECG) should be recorded if there is any concern about cardiac function.

Ensure a balanced diet and adequate fluids. Chart fluid intake if necessary. For patients on recently increased high-dose antipsychotics, check temperature, pulse and respiration every 6 h, and consider serial ECGs to pick up arrhythmia or QT prolongation. A screen of blood tests is helpful, to exclude serious coexisting or underlying pathology.

All staff involved in administering or prescribing rapid tranquillisation or monitoring patients to whom parenteral rapid tranquillisation has been administered should receive ongoing training in adult life support techniques, to a minimum of immediate life support, and should be trained in the use of a pulse oximeter. A 'crash bag' containing an automatic external defibrillator, a bag valve mask, oxygen, cannulas, fluids, suction and first-line resuscitation should be available within 3 min. A doctor should be available to attend the scene of a rapid tranquillisation intervention quickly and to remain at the scene until there is no further clinical concern about the patient.

Choice of drug for rapid tranquillisation

Benzodiazepines

Benzodiazepines have been found helpful in the treatment of mania (Chouinard, 1985), mild behaviour disturbance resulting from substance misuse

(Dubin, 1988) and acute schizophrenia (Stimmel, 1996). They may therefore have a particular role where diagnosis is not yet clear. Benzodiazepines are the treatment of choice in those sensitive to antipsychotics (e.g. with a history of neuroleptic malignant syndrome or severe allergic reaction) or whose physical health is of special concern (e.g. who have cardiac disease). They are relatively safe in carefully supervised use and the effects can be reversed by the antagonist flumazenil. Lorazepam is the most used in the UK, having the advantage of a short half-life. It is available for parenteral use. With longer-acting drugs such as diazepam there is a risk of accumulation. With all benzodiazepines there is a risk of respiratory depression (Broadstock, 2001), and patients with chronic respiratory disease such as asthma or emphysema who are retaining CO₂ should not be given benzodiazepines. There is also a risk of behavioural disinhibition, such that these drugs may be inappropriate in some cases (Fava, 1997).

Antipsychotics

Antipsychotics may be a first-line treatment if benzodiazepines have in the past proved ineffective in rapid tranquillisation, or are contraindicated. There are a number of options (Fig. 1), and the final choice should depend on the results of previous exposure and a risk/benefit analysis of each option. Recent concern has focused on the risk of cardiac arrhythmia and potential cardiorespiratory collapse. Prolonged ECG QT interval is a marker for this risk, variably associated with different antipsychotics (see Table 1). Physical exertion, stress, illicit drug use (ecstasy and cannabis) and metabolic factors are risk factors.

Typical antipsychotics

Haloperidol Haloperidol has been widely used in rapid tranquillisation and is often the preferred option in guidelines. Its use is associated with serious dystonic reactions and other extrapyramidal side-effects (Dix, 2004), which can generally be rapidly reversed by giving antiparkinsonian medication such as procyclidine and may be prevented with prophylactic anticholinergics if susceptibility is known. It is important to note that rapid tranquillisation with haloperidol has also been linked with sudden death, probably because it exacerbates the already prolonged QT_c associated with acute behavioural disturbance (McAllister-Williams & Ferrier, 2002).

Droperidol and thioridazine Concerns about the cardiotoxic effects of typical antipsychotics led to withdrawal of droperidol from the UK market and the placing of limitations on the use of thioridazine.

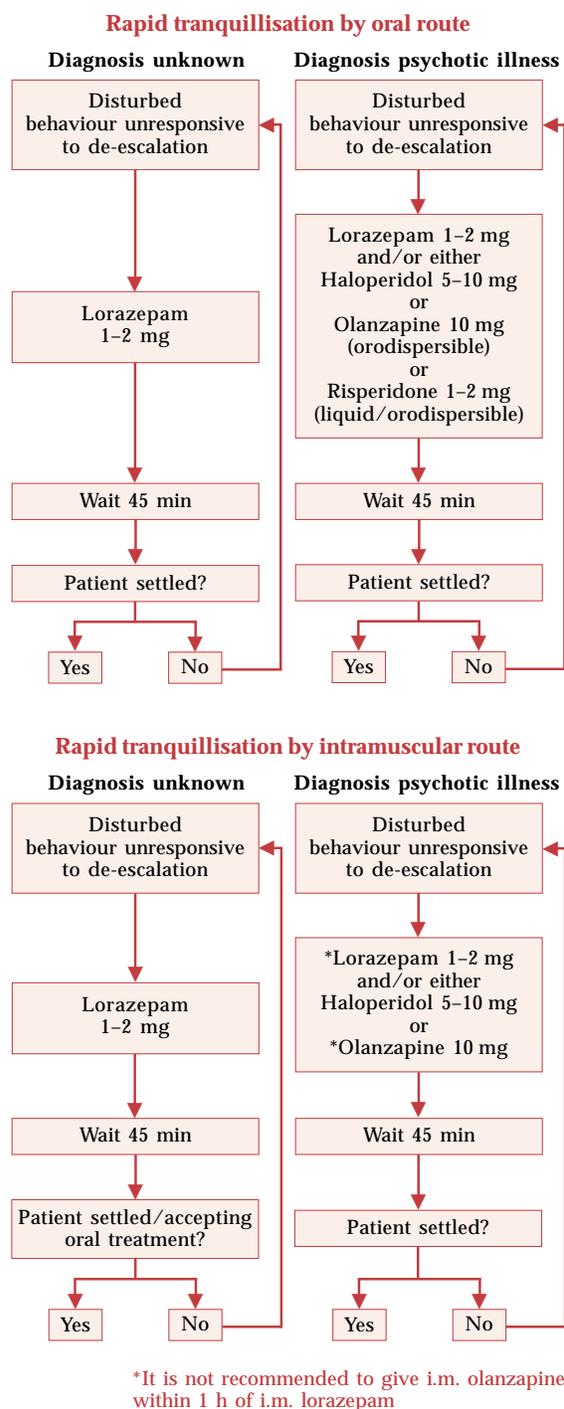


Fig. 1 Rapid tranquillisation by oral and by intramuscular routes.

Zuclopenthixol acetate Sudden deaths and fatal cardiac events have been reported with zuclopenthixol acetate (Royal College of Psychiatrists, 1997), and standard current guidance suggests that it should not be used for rapid tranquillisation. It

has a sedative effect that usually starts about 2 h after injection, peaks after 12 h and lasts for up to 72 h. Indications for use are patients with established psychosis who are not neuroleptic naïve, who have required repeated injections of short-acting sedative or antipsychotic drugs, and are unlikely to accept oral medication for at least the next 72 h. It should be used only to help patients who would otherwise continue to present disturbed behaviour while the management of their psychosis is being initiated. This process can last for several days. It should not be given at the same time as any other parenteral antipsychotic (including depot). It should not be given to patients who are unconscious, pregnant, prone to extra-pyramidal side-effects, or who have hepatic or renal impairment or cardiac disease.

The dose for zuclopenthixol acetate is 50–150 mg up to a maximum of 400 mg over a 2-week period. Injections should be at least 24 h apart. Oral zuclopenthixol dihydrochloride can be given alongside the acetate preparation, to reduce polypharmacy and to enable the dose to be titrated sensitively while management of the psychosis is being initiated.

Atypical antipsychotics

Olanzapine This has a lower risk of extra-pyramidal side-effects than other atypicals, but high risk of weight gain in longer-term use (Duggan *et al*, 2002). A rapid-acting (within 15–45 min) intramuscular preparation and a rapidly dispersing oral tablet are available. In a review, McAllister & Ferrier (2002) reported that these formulations showed 'some promise' but recommended continuing use of benzodiazepines as the mainstay of pharmacological rapid tranquillisation.

The intramuscular preparation appears to have a low risk of prolonged QT interval (Lindberg *et al*, 2003), but other potential side-effects have been noted. These include possible association with dizziness or collapse due to vasovagal bradycardia/syncope, a phenomenon that is generally viewed as benign and a self-limited reflex. Particular caution is necessary with patients who are concurrently taking other drugs that can induce hypotension, bradycardia or depression of the respiratory or central nervous systems.

Intramuscular olanzapine and parenteral benzodiazepine should not be given simultaneously and it is recommended that treatment with these agents should be separated by at least 1 h. If the patient has received parenteral benzodiazepine, intramuscular olanzapine should be considered only after careful evaluation of clinical status, and the patient should be closely monitored for excessive sedation and cardiorespiratory depression (Lilly product safety information, 2005).

Risperidone Other atypical antipsychotics may be suitable for oral rapid tranquillisation, notably risperidone, which also has a rapidly dispersing oral preparation.

Risk of stroke with olanzapine and risperidone The Committee on Safety of Medicines (2004) has reported evidence of increased risk of stroke in elderly patients with dementia who are treated with risperidone or olanzapine. It concludes that the risk outweighs the benefits and therefore advises that neither risperidone nor olanzapine should be used for the treatment of behavioural symptoms of dementia and that use in elderly people should be limited to short-term management of acute psychotic conditions associated with dementia.

Prescribers should consider these issues carefully before treating any patient with a history of stroke, transient ischaemic attack or other risk factors for cardiovascular disease such as hypertension, diabetes and smoking.

Route of administration of rapid tranquillisation

Whenever possible, rapid tranquillisation drugs should be given orally. It is sometimes necessary for these drugs to be administered by intramuscular injection while a patient is being restrained. Intravenous administration is the most hazardous route and should be limited to situations where immediate tranquillisation is deemed essential. This decision should not be made by junior staff in isolation, and the circumstances should be carefully recorded. Intravenous haloperidol or lorazepam should be used, with close monitoring of needs for immediate life support. The patient should not be left unattended.

The use of restraint

The combination of a struggling patient, intramuscular injection and physical restraint must be considered a potentially dangerous mix (Kumar, 1997; Paterson *et al*, 1998). The traumatic, humiliating nature of restraint and its effect on the development of trusting professional relationships between patients and staff cannot be underestimated.

Preparation

In some circumstances the need for rapid tranquillisation arises without warning. In the vast majority of cases, however, there is time to plan for its use. If all verbal and other interventions have failed and

the decision for rapid tranquillisation has been made the following principles apply:

- one person should be responsible for coordinating the whole rapid tranquillisation team;
- it should be decided where the patient will be approached; considerations in choosing an appropriate area include its privacy, the space available, ease of access and exit, the presence of potential weapons and the likelihood that prolonged restraint will be necessary;
- each member of the team should have a clear role with pre-arranged methods of communication;
- one person should be clearly identified to administer the injection, which should be prepared before the patient is approached.

Dignity

Intramuscular administration of rapid tranquillisation often requires unavoidable securing of the patient by restraint and the removal of clothing to expose the upper outer quadrant of the patient's buttocks. In effect, a patient is held down while embarrassing areas of their body are exposed. There should be no doubt that the procedure has potentially serious physical and psychological consequences for the patient.

Gender

Every effort should be made to ensure that the staff delivering rapid tranquillisation are of the same gender as the patient receiving it. This will minimise perceptions of abuse or sexual assault that may be experienced by confused, disoriented patients. If staff of the same gender are unavailable on a ward, staff should be acquired from other areas of the hospital. It is not acceptable to deliver intramuscular rapid tranquillisation on the basis of convenience without first exhausting all opportunities of assembling a team of the same gender as the patient.

Location

People who see rapid tranquillisation, for example other patients and relatives, can find it very distressing. Obviously, it is sometimes necessary to use restraint in an area that is not particularly private, for example when an individual becomes aggressive and attempts to attack a staff member during the course of negotiation, or when a patient's resistance and aggression are so strong that their relocation to a more private area would be unnecessarily risky. However, every effort should be

made to ensure that intramuscular rapid tranquilisation in particular is delivered in a private area of the ward where maximum attention can be paid to the dignity of the patient.

Prolonged restraint

About 50% of psychiatric intensive care units in the UK have no seclusion room (Dix & Betteridge, 2001). There will be times when restraint is required for extended periods and this must be considered potentially very dangerous. Both NICE and the Department of Health have published guidelines on safer prolonged restraint and these must be included in any hospital's restraint policy (Department of Health, 2004; National Institute for Clinical Excellence, 2005). Box 2 shows key points to be remembered.

Environmental factors

Assaults are more common in corridors and communal areas, indicating the role of interpersonal difficulties in generating conflict. An in-patient environment in which patients feel safe and comfortable and have some degree of control over their day-to-day life is likely to reduce the risk of violence. Research by the Royal College of Psychiatrists (2001) has raised serious concerns about the basic standards for living or working in acute psychiatric units, noting that staff, patients and visitors often perceive wards as noisy, smelly and dirty. The Department of Health has published national minimum standards for psychiatric intensive care units, which also include useful guidance on effective physical environments (Department of Health, 2002). The ideal is a therapeutic environment that allows individuals as much choice, privacy and independence as possible, and although there is little research in this area, it

Box 2 Basic guidance for prolonged restraint

- Do not restrain the patient face down, as this may hinder breathing
- Do not place your weight on the patient's chest or back where it may hinder breathing
- Remain aware of the patient's body temperature, which may rise as a result of shared body heat and prolonged struggling: have a fan or damp towels available to cool the patient
- Be prepared to discontinue restraint if the risks of prolonged restraint appear to outweigh potential for further assault

seems implicit that designing or developing psychiatric units with these aims will help to reduce the risks of violence.

Working with disturbed patients

Working with people who are acutely disturbed is difficult and carries significant risks for staff. The key intervention is often referred to as de-escalation, a form of communication intended to minimise aggression and disruptive behaviour. There is no standard de-escalation method, but the following approaches are important: maintaining a calm, controlled manner; giving choices; moving to a less confrontational or busy area; using the relationship with the patient to interact therapeutically. Training in de-escalation techniques aims to improve self-awareness in difficult, stressful circumstances and help staff to analyse the best approach in any given situation (Dix, 2001).

When a disturbance occurs it is vital that ward team members are clear about the management or treatment plan, know how it will be implemented and who is in charge. Patients should be involved as far as possible in planning what will be done should they become violent.

During an incident, repeated clear explanations about what is being done and why ensures coordination and clarity within the team. The patient needs repeated reassurance and explanation that, as doctors and nurses, you are there to help. It is also important to explain that it is the aggressive or threatening behaviour that is the problem, and that the patient is not being punished and will not be harmed by the intervention. Patients are usually frightened or anxious and need repeated explanation of what is being done to them and why. Professionals involved in these complicated interventions must be aware that much violence results from patients' fear and insecurity when they feel that they have no control over events. Therapeutic approaches that aim to restore control to the individual are likely to be of particular value. The doctor supervising treatment must stay at the scene until it is clear the situation is resolving and safe.

Separation from stressful family relationships is often helpful in reducing anxiety and overstimulation.

Observation

Four levels of observation of patients at risk of violence are in widespread clinical usage:

- general observation
- intermittent observation
- continuous observation, within sight
- continuous observation, within arm's length.

Box 3 Simple safety precautions for interviews with potentially violent patients

- When interviewing a patient who has a potential for aggressive behaviour, always inform nursing staff of your intentions and location
- Try to combine medical and nursing assessments, to protect interviewers and reduce stimulation of the patient
- Be aware of the location of panic buttons, and if hand-held assault alarms are available request one and keep it on your person throughout the interview
- Sit at an angle to the patient, at a safe distance, close to the exit: never interview with the patient between you and the door

Observation must be carried out in a sensitive manner, minimising the patient's feeling of being under surveillance. Ideally, the patient and key nurse should discuss and plan it together and it should be the basis for risk assessment and management.

An advisory report on nursing care for patients in the acute mental health setting noted that both patients and many nurses find prolonged observation a difficult and potentially countertherapeutic process that can be distressing for all concerned (Standing Nursing and Midwifery Advisory Committee, 1999).

Staff safety

Staff can and should take precautions to reduce the occurrence or severity of assaults on them (Box 3).

Remember to put safety of people first. If a situation is escalating beyond the capacity of the hospital team to cope with it, call the hospital security service or dial (9)999 for emergency police help. Do not attempt restraint unless there is sufficient back-up (usually a three-person control and restraint specialist nursing team).

Service user perspectives

The Department of Health (2002) encourages mental health workers to adopt a non-judgemental, non-patronising, collaborative approach to care, and it is clear that environmental and attitudinal factors play a vital part in determining the outcome of emergency psychiatric treatment. In reality, some staff will have prejudicial and stereotypical views, and the possibility that patients who have exhibited disturbed behaviour may be given punitive treatment should be considered.

Gender issues must also be taken seriously, and as far as possible we should ensure that patients feel safe and that their concerns are heard and attended to.

Management after an incident

Senior staff, including the regular/on-call consultant, should be informed early of problems, and should be involved in regular discussion of progress thereafter. Multidisciplinary team meetings are an essential focus for management planning. The treatment regime should be reviewed regularly, initially at least at each nursing shift. It may be useful to involve the patient's family, particularly to ensure that the frequency of visiting is not causing problems of excess stimulation.

Staff support after an incident

Despite preventive and coping strategies, aggressive incidents will happen, and there is a risk of exacerbating the victim's distress by unhelpful criticism of the way they handled the crisis. Victims need sympathy, support and reassurance, not just in the short term. Remember the stress of being exposed to a patient's aggression and paranoid criticism and hostility, and try to support colleagues and admit to your own frailties, anxieties and feelings of helplessness. It may be helpful to involve the partner or spouse, and in a severe reaction professional counselling should be considered. The issue of whether to prosecute the aggressor is one for the victim, who may be helped by talking it through with colleagues or managers.

For professionals who have been assaulted, it is advisable to return to work as soon as possible (perhaps taking no time off), to prevent the 'incubation of fear' that can occur.

In the management of a serious aggressive incident, immediate safety must be secured before any investigation. The investigation should attempt as sensitively as possible to compile detailed reports about the incident, so that its causes, context and consequences for both staff and patients can be understood. The aim should be to create a positive, calm atmosphere, in which the incident can be reviewed honestly and openly and constructive lessons learned for the future.

Conclusions

A key challenge for modern mental health services is to provide appropriate training and support for staff who work with acutely disturbed patients. We need to enable staff to develop the necessary skills,

expertise and confidence to work in this difficult area. The clinical difficulties faced by professionals are often exacerbated by the need to work in poorly designed, inappropriate and unpleasant settings. Furthermore, low professional morale, staffing recruitment difficulties and the use of inexperienced locum staff inevitably affect patient care.

However, we now have access to a range of clear, evidence-based guidelines to support practice. These also provide opportunities for audit and review of practice in a way that has previously been impossible. The Government (Department of Health, 2005) recently recommended the urgent implementation of a national system of training in restraint and control, and it seems likely that practice and understanding in this area will continue to develop, perhaps at an even greater pace, in the next few years.

We believe that if we follow a considerate, supportive and humane approach to patients at this critical phase of their treatment, this can provide the foundation for continuing positive engagement with services and may have an important impact on long-term outcomes. We hope that the guidance in this article is of some assistance to colleagues who work in this difficult, challenging, but potentially rewarding area of practice.

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MCQs

- The following organisations have produced recent reviews/guidance in the treatment of acutely disturbed individuals:**
 - the UKCC
 - NICE
 - the Cochrane Collaboration
 - the British Association of Psychopharmacology
 - the General Medical Council.
- Rapid tranquillisation:**
 - is the treatment of choice in dealing with any disturbed individual
 - should preferentially involve treatment by intravenous injection
 - is intended to induce a comatose state
 - is generally free of side-effects
 - is an effective treatment for acute schizophrenic symptoms.
- The following drug treatments are in standard use for rapid tranquillisation in the UK:**
 - thioridazine
 - zuclopenthixol acetate
 - lorazepam
 - droperidol
 - haloperidol.
- Intramuscular lorazepam is commonly associated with the following side-effects:**
 - respiratory depression
 - acute dystonic reactions
 - hypotension
 - cardiac arrhythmias
 - neuroleptic malignant syndrome.
- The following approaches may help to manage an acutely disturbed patient:**
 - de-escalation
 - giving the patient as much choice as possible
 - distraction
 - temporary separation from stressful family relationships
 - physical restraint.

MCQ answers

1	2	3	4	5
a T	a F	a F	a T	a T
b T	b F	b F	b F	b T
c T	c F	c T	c F	c T
d T	d F	d F	d F	d T
e F	e F	e T	e F	e T