
Behavioural Disturbance - Acute Management

Overview

This document

This guideline has been developed primarily to aid psychiatric registrars and others in the management of acute behavioural disturbance in adult inpatient settings. **Caution should be exercised when using this guideline in older adults. It is a decision aid only.**

Contents

This document contains the following topics

<u>Topic</u>	<u>See Page</u>
Introduction	2
Background	3
Baseline Examinations	4
Step One: Measures That Do Not Involve Medication	6
Step Two: Oral Medication	7
Step Three: Short-Acting Intramuscular (IM) Medication.....	11
Step Four: Longer-Acting IM Antipsychotic Medication.....	14

Behavioural Disturbance - Acute Management

Introduction

Purpose This guideline has been developed primarily to aid psychiatric registrars and others in the management of acute behavioural disturbance in adult inpatient settings. Caution should be exercised when using this guideline in older adults. **It is a decision aid only.**

Scope This is intended as a decision aid for psychiatric registrars working in adult inpatient settings.

Background There is a general lack of consensus regarding the pharmacological management of acute behavioural disturbance. This guideline represents the Upper North Island Inpatient Psychiatrists consensus. It has also been peer-reviewed by the Upper North Island Mental Health Pharmacists Group, and updated in June 2006

Related to this is the evidence that a client's initial subjective experience of treatment is a major predictor of future adherence to treatment.

This guideline considers local resource constraints and incorporates local practice with external evidence.

Inpatient units should regularly audit their response to incidents of acute behavioural disturbance.

Acknowledgements Dr Joy Hodgson who initially undertook a focused review of the literature to support the development of this Guideline. Dr David Castle who provided his ideas.

Behavioural Disturbance - Acute Management

Background

There are many reasons why people become acutely behaviourally disturbed, and potentially violent to self or others. Such disturbances may not solely be due to psychosis. Acute behavioural disturbance requires an evaluation of possible causes, and attempts to diffuse the situation prior to further escalation. These guidelines focus primarily on the selection of appropriate medicines for the control of acutely disturbed behaviour.

The aim of the management of the acutely disturbed patient is to:

- Reduce either psychological suffering or self harm for the patient.
- Reduce harm to others by maintaining a safe environment.
- Minimise the harm to the patient.
- Return the patient to the least restrictive environment as quickly as possible.

Ideally plans for the management of individual patients should be made in advance of the episode of acutely disturbed behaviour. These will usually involve a combination of nursing interventions, levels of supervision, placement in a safe environment and pharmacological methods.

It is common practice to prescribe a range of medicines and formulations for future use to manage an acute behavioural disturbance. In such situations the prescription should clearly indicate;

- in what circumstances a particular medicine and formulation should be chosen,
- which medicines should be chosen first, and
- the time before a further dose is to be administered.

If no guidance is provided the schedules in this document are recommended.

Most of the doses recommended in this protocol apply to healthy adults. The elderly and physically ill will require lower doses – usually between a quarter and a half of the standard adult dose.

It is the responsibility of the prescriber to check and take into consideration ALL medications received by the patient over the previous 24 hours. It is important to remember that medication given recently may not yet have reached full effect, and to consider any regular doses which are due in the next few hours.

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Behavioural Disturbance - Acute Management

Baseline Examinations

Introduction The following background examinations (psychosocial and physical) and formulation of the causes of the disturbed behaviour should be undertaken:

- Discussion with client.
- Physical examination (according to degree of co-operation).
- Formulation of possible causes.
- Check Mental Health Act status.
- Check all medication administered in the past 24 hours.

These are described in further detail below.

Discussion with Patient An attempt should be made to discuss with the client the cause of the disturbance and possible ways to address any distress and anger.

Physical Examination (according to degree of co-operation) The purpose of the physical examination is to identify other causes of acute disturbance such as delirium, acute neurological insults, intoxication or withdrawal of any medicine (prescribed or recreational), or other physically compromised states and to act as a baseline.

Assess for:

- Hydration status, blood pressure, pulse, temperature.
- Abnormal movements (underlying extrapyramidal side effects (EPSE)).
- Identification of previous medicine exposure and adverse medicine reactions.
- General medical condition (GMC), especially delirium (including performing specific blood tests).
- Evidence of concurrent substance use e.g. intoxication/withdrawal and performance of baseline toxicology tests.
- Baseline ECG – to assist with prescription choice.

Any clinically significant abnormality of any of the above requires appropriate intervention, which may include referral to a medical registrar.

During a period of disturbed behaviour it may not be feasible to undertake this complete battery of tests. In such circumstances reference should be made to whether recent tests have been undertaken to provide an up to date picture of the physical condition. If such current test results are not available this should generate greater caution in both the selection and doses of prescribed medicines.

Continued on next page

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Behavioural Disturbance - Acute Management

Baseline Examinations, Continued

**Formulation
of Possible
Causes**

There are many reasons why people become acutely behaviourally disturbed and potentially violent to self or others. These can include:

- Acute psychosis or mania.
- Acute confusion.
- Acute stress reaction in a vulnerable individual.

In many situations though the cause may be a complex combination of illness and situational factors. Such factors include overcrowding, coercive behaviour, verbal abuse by others, threatening gestures by others, and failure to carefully set limits.

**Medico-legal
issues**

If the patient is refusing treatment and is not committed using the Mental Health Act, consider undertaking assessment for committal. The Mental Health Act cannot be used solely to treat disturbed behaviour.

Behavioural Disturbance - Acute Management

Step One: Measures That Do Not Involve Medication

**General
Information**

Measures that do not involve medicines should be the first approach for the control of disturbed or violent behaviour. These can include talking down, providing privacy and quiet, time out and other techniques. Medicines should only be used after other interventions have failed and care should be taken to consider whether sedation is the best approach.

Even if the patient is responsive to verbal direction ensure the background physical examination and formulation of causes is available and up to date.

Outcome

If the use of methods that do not involve medicines achieves a satisfactory outcome do not proceed to Step Two.

Behavioural Disturbance - Acute Management

Step Two: Oral Medication

General Information

If measures that do not involve medicines fail, the first medicine intervention should involve the offer of oral therapy.

The aim of the management of acute disturbance is sedation with rapid onset. Treatment choice should ideally be guided by previous response to a drug. Any intervention with medicines should be tailored to the particular clinical situation and the efficacy monitored closely. The decision to use oral therapy rather than intramuscular (IM) injection will result in a slower onset of action. Even with syrups and dispersible tablets, oral formulations may take at least two hours to achieve peak effect.

Even if the patient is responsive to verbal direction and accepting of oral medicines ensure the background physical examination and formulation of causes is available and up to date.

Before a decision is made to repeat the administration of a dose of the selected medicine a review of the level of sedation should take place taking into account the kinetics of oral formulations.

Precautions

Before embarking on oral therapy the following should be in place:

- Procedures to monitor temperature, pulse, blood pressure and respiratory rate every 10-15 minutes for the first hour and then at half hourly intervals until ambulatory.

The following may not be to hand but staff should know how to access them quickly (within a maximum of 5 minutes):

- benztropine if patient develops dystonia.
- oxygen or mechanical ventilation if breathing becomes compromised.

ECGs should be performed especially if higher doses of antipsychotics are to be used.

Continued on next page

Behavioural Disturbance - Acute Management

Step Two: Oral Medication, Continued

Oral Benzodiazepines

Benzodiazepines (BZDs) have for many years been regarded as the medicines of choice for the management of acutely disturbed behaviour. Where the behavioural disturbance occurs in a non-psychosis context then it is preferable to use benzodiazepines alone. They are relatively safe options (especially the short-acting agents such as lorazepam) because they do not accumulate with repeated doses. Lorazepam is also the preferred option for the older adult and people with impaired liver function.

Longer acting benzodiazepines such as diazepam and clonazepam may be useful for prolonged periods of behavioural disturbance but can accumulate with frequent dosing in acute situations.

Oral lorazepam has a similar speed of onset of sedation to IM lorazepam.

Benzodiazepine of Choice for Oral Administration: *Oral Lorazepam*

Dose Recommendations for Oral Administration of *Oral Lorazepam*

For medicine naïve, elderly or physically frail 0.5-1mg, repeated after 2 hours if needed, to a maximum of 4mg in 24 hours.

For others 1-4mg, repeated after 2 hours if needed, to a maximum of 8mg in 24 hours.

Oral Antipsychotics

Oral antipsychotics (APs) are generally regarded as the second choice medicines for the management of disturbed behaviour. In some circumstances they are regarded as first choice. These circumstances include:

- A prior good response to APs.
- A prior poor response to BZDs.
- Problematic side effects with BZDs.
- Severe respiratory depression with BZDs.
- A desire to introduce APs for future control of psychosis.

If the behavioural disturbance occurs in the context of psychosis then it is preferable to use an antipsychotic alone. High doses or cumulative doses of APs should be avoided where possible primarily because of the risk of cardiac arrhythmias. It should be taken into account the other medicines that may have been administered already. Avoid polypharmacy with APs.

Continued on next page

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Behavioural Disturbance - Acute Management

Step Two: Oral Medication, Continued

**Oral
Antipsychotics
*cntd***

Antipsychotics of Choice for Oral Administration

<i>Oral Olanzapine or Risperidone</i>	<p>The atypical APs olanzapine and risperidone are now recognised as useful for the management of acute behavioural disturbance and should be regarded as a first choice oral antipsychotics. Alternative oral formulations are available for risperidone (syrup and dissolving tablets) and olanzapine (dissolving wafers).</p> <p>NB: There is currently a lack of evidence to support the recommendation of quetiapine in the acute management of behavioural disturbance but this will be reviewed on an annual basis.</p>
<i>Oral Haloperidol</i>	<p>Although haloperidol is the first choice antipsychotic for the treatment of behavioural disturbances associated with delirium and intoxication for other situations it should be regarded as second choice. Haloperidol has the advantage of few cardiac problems but is highly likely to cause EPSE (e.g. dystonia) compared to other APs. Before using haloperidol ensure that IM benzotropine is readily available should EPSE occur. Haloperidol is also available in a liquid formulation.</p>
<i>Oral Chlorpromazine or Methotrimeprazine</i>	<p>These low potency APs are very sedating which can assist in the control of behavioural disturbance. They are generally reserved for those patients who have responded well to them in the past and not for medicine naïve or elderly patients.</p>

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Behavioural Disturbance - Acute Management

Step Two: Oral Medication, Continued

Oral Antipsychotics *cntd*

Dose Recommendations for Oral Administration

<i>Oral Olanzapine</i>	For medicine naïve, elderly or physically frail 2.5mg, repeated after 2 hours if needed, to a maximum of 5mg in 24 hours. For others 10mg, repeated after 2 hours if needed, to a maximum of 20mg in 24 hours.
<i>Oral Risperidone</i>	For medicine naïve, elderly or physically frail 0.5-1mg, repeated after 2 hours if needed, to a maximum of 2mg in 24 hours. For others 1-2mg, repeated after 2 hours if needed, to a maximum of 4mg in 24 hours.
<i>Oral Haloperidol</i>	For medicine naïve, elderly or physically frail 0.5-1mg, repeated after 2 hours if needed, to a maximum of 2.5mg in 24 hours. For others 2-5mg, repeated after 2 hours if needed, to a maximum of 10mg in 24 hours.
<i>Oral Chlorpromazine or Methotrimeprazine</i>	50-100mg, repeated to a maximum of 150mg in 2 hours if needed. Maximum of 300mg in 24 hours.

Combination of Oral Benzo- diazepines and Oral Antipsychotics

If monotherapy with either a BZD or an AP does not produce an adequate response within six hours or doses higher than those recommended above are considered necessary **consultation with the on-call psychiatrist** is recommended. The combination of a BZD and an AP is not recommended for first line treatment unless the patient has previously responded only to the combination.

Outcome

If the use of oral medicines achieves a satisfactory outcome do not proceed to Step Three.

Behavioural Disturbance - Acute Management

Step Three: Short-Acting Intramuscular (IM) Medication

General Information

If neither measures that do not involve medicines nor oral therapy are feasible, IM therapy should be used. Ideally the medicine chosen should be rapidly absorbed and calming in action. The alternatives are:

- Benzodiazepines (BZDs) such as lorazepam.
- Antipsychotics (APs) such as haloperidol or olanzapine.

Precautions

Before embarking on IM therapy the following should be in place:

- Procedures to monitor temperature, pulse, blood pressure and respiratory rate every 10-15 minutes for the first hour and then at half hourly intervals until ambulatory.

The following may not be to hand but staff should know how to access them quickly (within a maximum of 5 minutes):

- IM benztropine if patient develops dystonia.
- Oxygen or mechanical ventilation if breathing becomes compromised.

ECGs should be performed especially if higher doses of APs are to be used.

IM Benzodiazepines

Benzodiazepine of Choice for IM Administration

<i>IM Lorazepam</i>	IM Lorazepam may be no more rapidly effective than the oral route, as distribution of the medicine is slow. IM Lorazepam is not registered in New Zealand and is administered using Section 29 of the Medicines Act. All administrations should be recorded as per unit policy.
<i>Other IM Benzodiazepines</i>	Clonazepam is not registered for IM use in New Zealand. Both IM diazepam and IM clonazepam have a long duration of action and the effects may last for many hours. For this reason <u>neither is recommended.</u>

Dose Recommendations for IM Administration of *IM Lorazepam*

For medicine naïve, elderly or physically frail 0.5-1mg, repeated after 1-2 hours if needed, to a maximum of 4mg in 24 hours.

For others 1-4mg, repeated after 1-2 hours if needed, to a maximum of 8mg in 24 hours.

Continued on next page

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Behavioural Disturbance - Acute Management

Step Three: Short-Acting Intramuscular (IM) Medication, Continued

Short-Acting IM Antipsychotics

Short-Acting Antipsychotics of Choice for IM Administration

The disadvantages of both IM olanzapine and IM haloperidol are that they have a delayed onset of action (30mins-2 hours by the IM route) and the effects last for a long period (18-24 hours).

<i>IM Olanzapine</i>	IM Olanzapine may be used without the patient having a Special Authority Number. Under current PHARMAC requirements, if ongoing maintenance treatment with olanzapine is indicated, a Special Authority Number must be obtained to ensure funding of this medicine in the community.
<i>IM Haloperidol</i>	Haloperidol is commonly associated with dystonia. There remains some controversy about the dose of haloperidol to use. In an environment of concern about high doses of antipsychotics, recommended doses have been falling.
<i>IM Chlorpromazine</i>	Chlorpromazine by injection is not recommended for the management of the acutely disturbed patient. It is a local irritant and has a high risk of cardiovascular complications.

Dose Recommendations for IM Administration

<i>IM Olanzapine</i>	For medicine naïve, elderly or physically frail 2.5mg, repeated after 2 hours if needed, to a maximum of 10mg in 24 hours. For others 10mg repeated if needed after 2 hours to a maximum of 20mg in 24 hours.
<i>IM Haloperidol</i>	Any calculation of dose needs to take into account the bioavailability of the IM formulation. Haloperidol has an equivalence of oral:IM of 2:1 (i.e. halve the proposed oral dose). For medicine naïve, elderly or physically frail 0.5-1mg IM, repeated after 1-2 hours if needed, to a maximum of 2.5mg oral equivalent in 24 hours by any route. For others 2-5mg IM repeated after 1-2 hours if needed, to a maximum of 10mg oral equivalent in 24 hours by any route.

Continued on next page

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Behavioural Disturbance - Acute Management

Step Three: Short-Acting Intramuscular (IM) Medication, Continued

Combination of IM Benzo- diazepines and IM Antipsychotics

If monotherapy with either of the above does not produce an adequate response within 6 hours **consultation with the on-call psychiatrist** is recommended. The combination of a benzodiazepine and an antipsychotic medicine by the IM route is not generally recommended for first line treatment.

A combination of a benzodiazepine and an antipsychotic may be considered for:

- Patients continuing to not respond to a single medicine.
- Patients who have a history of good response to the combination rather than the individual medicines.

The risk of cumulative side effects may warrant lower maximum daily doses of both medicines.

Administration of the combination requires two intramuscular injections (i.e. the solutions cannot be mixed in one syringe).

The simultaneous administration of IM olanzapine and IM lorazepam **is not recommended** (allow at least 1 hour between administrations).

Outcome

If the procedures in Step Three do not produce an adequate response within 6 hours or doses higher than those recommended above are considered necessary **consultation with the on-call psychiatrist** is recommended.

If further help and advice is required about this guideline or other medicine options contact a mental health pharmacist or the on-call pharmacist.

If the use of short-acting IM medicines achieves a satisfactory outcome do not proceed to Step Four.

Behavioural Disturbance - Acute Management

Step Four: Longer-Acting IM Antipsychotic Medication

General Information

Many authorities do not regard the IM antipsychotic zuclopenthixol acetate (Clopixol Acuphase®) as appropriate for the acute management of disturbed behaviour. The delay in onset of action is too long for acute management. If the patient is not responsive to verbal direction, refusing oral medication and requiring repeated IM injections the longer-acting IM antipsychotic zuclopenthixol acetate (Clopixol Acuphase®) may be indicated.

The use of Clopixol Acuphase® is recommended as a **Consultant Psychiatrist only decision**. Clopixol Acuphase® should not be prescribed as a 'prn' option, but only as a 'stat' dose at a specific time.

Longer-Acting IM Antipsychotics

Longer-Acting Antipsychotic of Choice for IM Administration *IM Zuclopenthixol Acetate (Clopixol Acuphase®)*

IM zuclopenthixol acetate may be considered in the following situations:

- When reduction of behavioural disturbance has been insufficient over a period of 24-48 hours utilising previous stages of the guideline.
- Past recorded good response and/or patient choice would favour this option.

This guideline advises against the use of Clopixol Acuphase® in an AP - naïve patient and in the older adult or physically frail, particularly if naïve to typical APs.

Dose Recommendations for IM Administration

IM Zuclopenthixol Acetate (Clopixol Acuphase®)

Zuclopenthixol is available as a long acting injection of zuclopenthixol acetate (Clopixol Acuphase®). It takes 2-4 hours for onset of effect and commonly reaches a peak effect after 12-18 hours. The effects may last up to 72 hours.

50-100mg IM, repeated if necessary after 24 hours.

No more than 400mg should be given over a 2 week period and individual injections should be spaced at least 24 hours apart.

Continued on next page

Behavioural Disturbance - Acute Management

Step Four: Longer-Acting IM Antipsychotic Medication, Continued

Precautions

Before embarking on IM therapy with zuclopenthixol acetate (Clopixol Acuphase®) the following should be in place:

- Procedures to monitor temperature, pulse, blood pressure and respiratory rate every 10-15minutes for the first hour and then at half hourly intervals until ambulatory.

The following may not be to hand but staff should know how to access them quickly (within a maximum of 5 minutes):

- IM benztropine if patient develops dystonia.
- Oxygen or mechanical ventilation if breathing becomes compromised.

ECGs should be performed especially if higher doses of APs are to be used.

NB: The practice of co-administration of IM benztropine at the same time as IM zuclopenthixol acetate (Clopixol Acuphase®) **is not recommended.**

The practice of co-administration of shorter-acting IM injections at the same time as IM zuclopenthixol acetate (Clopixol Acuphase®) **is not recommended.**

Outcome

If further help and advice is required about this guideline or other medicine options contact a mental health pharmacist or the on-call pharmacist.

Guidelines For The Short-Term Management Of Acute Behavioural Disturbance In Adult In-Patient Settings

