

How to Manage Acute Agitation in the Medical Setting

Objective:

- 1) To identify different sources of agitation
- 2) To become familiar with the stepwise approach to manage acute agitation
- 3) To know the different types of pharmacological interventions for the management of acute agitation in the medical setting

Step 1: Assess situation and cause of agitation

- Delirium (make sure underlying medical cause is being addressed)
- Intoxication (central nervous system [CNS] stimulant vs. depressant)
- Primary psychiatric disorder (e.g., psychosis, mania)
- Undetermined cause

Step 2: Attempt to de-escalate and utilize non-pharmacological interventions

- Clearing the room: removing dangerous objects and reducing external stimuli
- Verbal de-escalation (see Box 1) (1, 2)
- Having staff available as a “show of force”
- Close observation
- Decrease sensorial stimulation

Step 3: If non-pharmacological interventions fail, medication is now required.

- The goal of psychopharmacologic treatment of acute agitation is **rapid tranquilization** *not* total sleep induction
- Pharmacologic considerations (3, 4):
 - Underlying cause of agitation should drive choice of medication
 - Ease of preparation/administration
 - Rapid onset of action: IV > IM > PO
 - Sufficient duration of effect
 - Low risk of adverse reactions or drug interactions

Box 1: De-escalation techniques (1, 2)

- Respect personal space
- Do not be provocative
- Calm, concise conversation: use gentle, relaxed, assured tone; answer calmly, maintaining firm attitude
- Identify wants and feelings
- Active listening; paraphrase what patient says
- Set clear limits
- Offer choices
- Redirect conversation when disruptive/provocative questions are asked
- If facing imminent violence:
 - Make clear violence is not acceptable
 - Propose resolution through dialogue
 - Offer pharmacological treatment
 - Inform patient you may rely on physical restraint, if necessary

- Medication algorithm for pharmacologic treatment of acute agitation based on the American Association for Emergency Psychiatry (3) and the World Federation of Societies of Biological Psychiatry (WFSBP) Expert Consensus (1):
(see Table 1 for medication details)
 - Agitation associated with delirium [**not** due to benzodiazepine (BZD) or alcohol (EtOH) withdrawal]
 - Oral antipsychotic: first choice, atypical (e.g., risperidone 2 mg, olanzapine 5-10 mg), or second choice, typical (e.g., haloperidol 2-5 mg)
 - If unable to give PO, parenteral antipsychotic: olanzapine 10 mg IM* or haloperidol 5 mg IM (use lowest effective dose of haloperidol due to increased risk of EPS in delirious patients) or IV (with caution)
 - Avoid BZD
 - Agitation due to EtOH or BZD withdrawal or CNS stimulant intoxication (e.g., amphetamines, synthetic cannabinoids)
 - Oral BZD: lorazepam 1-2 mg, diazepam 5-10 mg
 - Parenteral BZD if unable to give PO: lorazepam 1-2 mg IM or IV
 - Agitation due to CNS depressant (e.g., acute EtOH intoxication)
 - Oral haloperidol 2-10 mg
 - If unable to give PO, parenteral haloperidol 2-10 mg IM
 - Avoid BZD
 - Agitation associated with psychosis/mania due to known psychiatric disorder
 - Oral antipsychotic: first choice, atypical (e.g., risperidone 2 mg, olanzapine 5-10 mg), or second choice, typical (e.g., haloperidol 2-5 mg)
 - If unable to give PO, parenteral antipsychotic: olanzapine 10 mg IM* or haloperidol 5-10 mg IM or IV (with caution)
 - If antipsychotic alone is not sufficient, add lorazepam 1-2 mg PO or IM
 - Agitation due to undetermined cause
 - No evidence of psychosis treat as number 2 above
 - If evidence of psychosis treat as number 4 above

* IM olanzapine should NOT be administered with BZDs or CNS depressants given reports of excessive sedation and cardiorespiratory depression

Prolonged QTc: Utilize BZD if appropriate; if antipsychotic is necessary preference given to aripiprazole (see Table 1)

Step 4: Learn how to manage agitation in special populations

- Acute Agitation in Pregnancy
 - The same initial steps for assessment and de-escalation (Steps 1 and 2) should be used in pregnant patients (1,5) as in non-pregnant patients.
 - Given the lack of evidence on the effectiveness of pharmacologic interventions in pregnant women, verbal interventions should be utilized whenever possible (1).
 - If medication is required, the minimal effective dose should be utilized: 1) for mild to moderate cases of agitation, oral or intramuscular diphenhydramine 25-50 mg may

suffice; 2) for severe agitation, haloperidol is the medication of choice, oral or parenteral 2-5 mg (4-5).

• Elderly Patients

- Agitation in elderly patients in the hospital setting should be presumed to be delirium until proven otherwise if the mental status is altered (1).
- Initially try all non-pharmacological strategies (4).
- Cautious use of antipsychotics is recommended: start with low doses (e.g., risperidone 0.5 mg) and slowly titrate with small increments; monitor closely for signs of confusion or over-sedation.
- Expert Consensus Guidelines on Using Antipsychotics in Older Patients give preference to risperidone for treating delirium in the elderly (6).
- In agitation related to dementia first choice risperidone 0.5 mg, second choice aripiprazole 2.5 mg or quetiapine 25 mg; lower doses recommended in frail patients (7).

Table 1: Medications Commonly Used in the Management of Acute Agitation (1, 4)

Medication Class	Medication	Dosing	Side Effects/Considerations
Benzodiazepine	Alprazolam	Only available PO Initial dose is 0.5-4 mg/day	<ul style="list-style-type: none"> • Paradoxical reactions can be seen in character-disordered patients and can worsen symptoms in the elderly
	Diazepam	PO, IM, IV Start at 5 mg	<ul style="list-style-type: none"> • Calming/sedating effect with rapid onset • Use cautiously with elderly patients because of the long half-life
	Lorazepam	PO, SL, IM, IV Start at 1 mg, moderate half-life (10-20 hr)	<ul style="list-style-type: none"> • No active metabolites; therefore, there is a small risk of drug accumulation • Metabolized only via gluconuronidation; therefore, it can be used in most patients with impaired hepatic function • Drug of choice within this class due to moderately long half-life
Typical antipsychotics	Haloperidol	PO, IM, IV Start at 5-10 mg IM, IV* *IV formulation is not FDA approved	<ul style="list-style-type: none"> • High-potency neuroleptic with favorable side-effect profile and cardiopulmonary safety. • IV form less likely to cause EPS • ECG monitoring needed to assess torsades de pointes or QTc prolongation • Risk of NMS increases in patients who are poorly hydrated, restrained, and kept in poorly aerated rooms while given large doses of antipsychotics • Frequent vital sign checks and testing for muscular rigidity are recommended • Can cause hypotension
Atypical antipsychotics	Risperidone	PO, orally disintegrating tablet (OTD) Starting dose 0.5-2 mg acutely	<ul style="list-style-type: none"> • No IM form is available • Offers calming effect with treatment of underlying condition • Orthostatic hypotension with reflex tachycardia. • Increased risk of stroke in the elderly with CVD
	Olanzapine	PO, OTD, IM; Starting dose 2.5-5 mg, max 30 mg/24 hr with doses 2-4 hours apart	<ul style="list-style-type: none"> • Useful in patients with poor reaction to haloperidol • Calming medication with treatment of underlying disorder • Avoid IM combination with lorazepam • Increased risk of stroke in the elderly with CVD
	Ziprasidone	PO, IM Max of 40 mg/24 hr of IM formulation	<ul style="list-style-type: none"> • Use caution in patients with preexisting QT prolongation • Less sedating medication; therefore, good choice if desire tranquilization without sedation
	Aripiprazole	PO, OTD Starting PO dose 5-10 mg, max 30 mg/day (currently IM formulation only for extended-release maintenance therapy)	<ul style="list-style-type: none"> • Akathisia risk • Less sedating than other medications • Increased risk of stroke in the elderly • Good choice for patients with QT interval prolongation
Combinations	Haloperidol, lorazepam, diphenhydramine, or benztropine	5 mg IM, 2 mg IM, 50 mg IM, 1 mg IM	<ul style="list-style-type: none"> • Most commonly used in the acute setting • Young athletic men are at increased risk for dystonia • Akathisia must be considered if agitation increases after administration

References:

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