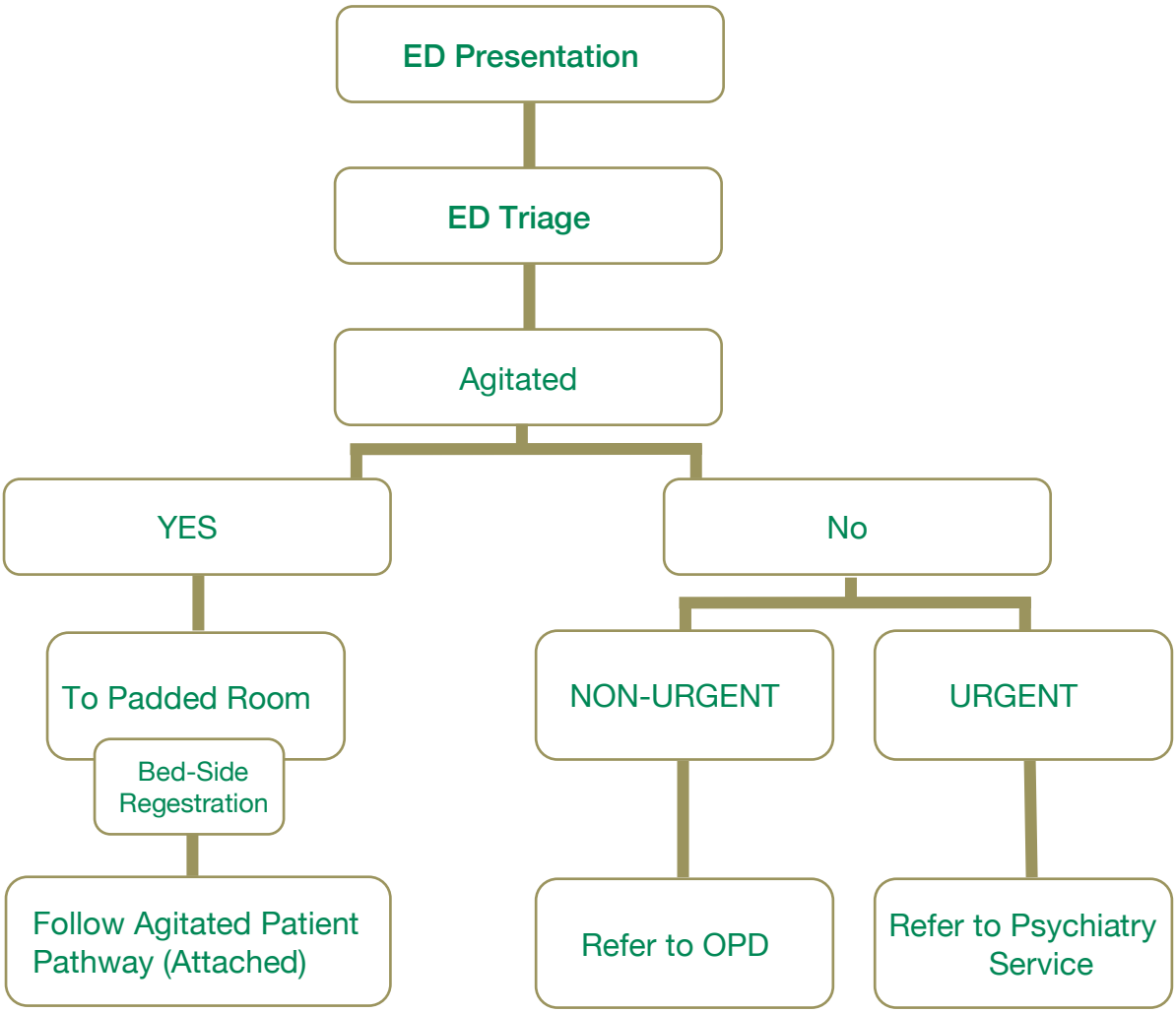
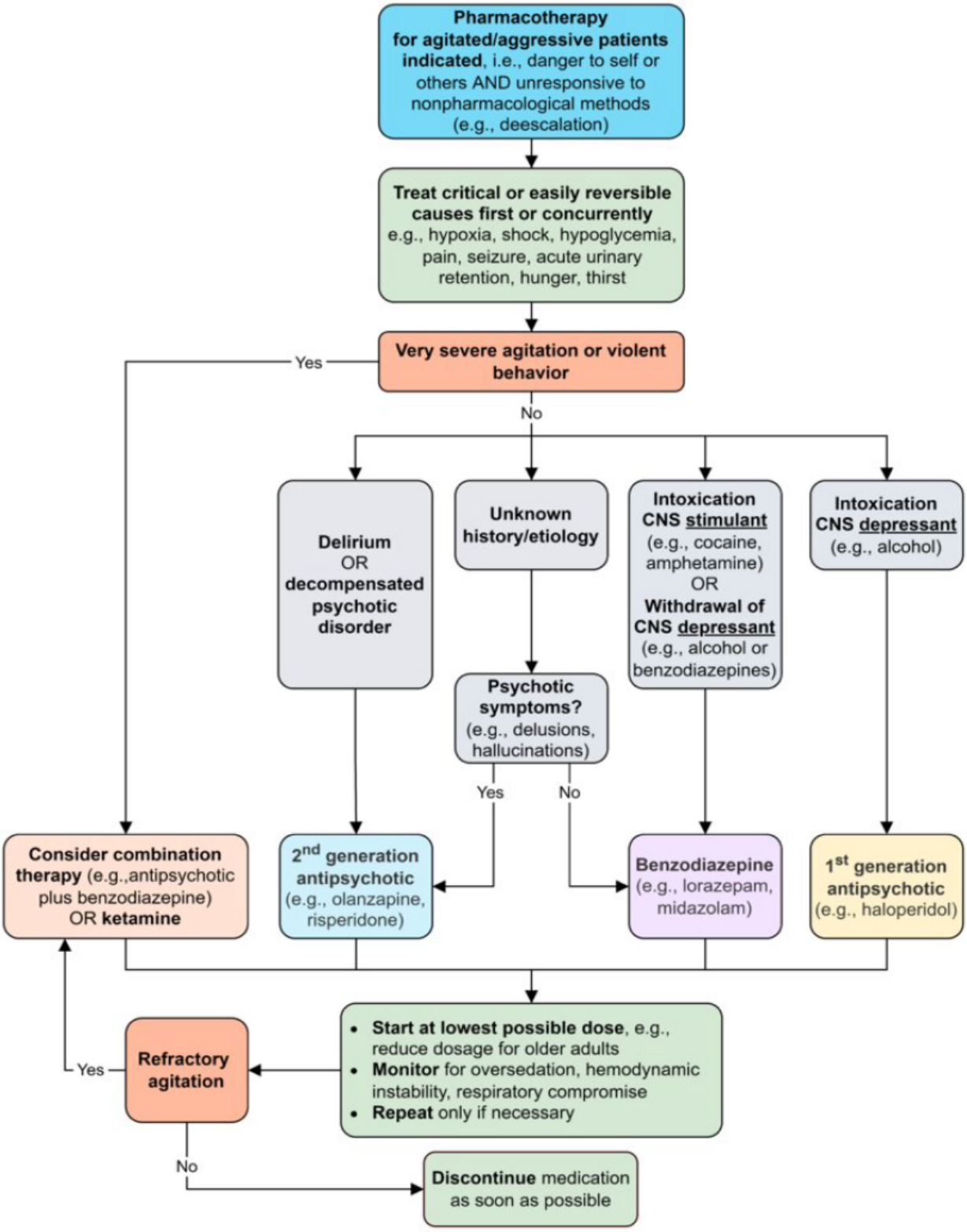
وزارة الصحة
Ministry of Health

دليل السياسات والإجراءات للتعامل مع المرضى النفسيين في أقسام الطوارئ
و دليل ضوابط إنشاء العزل النفسية في أقسام الطوارئ في المستشفيات العامة

الإصدار الأول / 2022 م - 1444هـ


ED Presentation
ED Triage
Agitated
YES
No
To Padded Room
Bed-Side Regestration
Follow Agitated Patient Pathway (Attached)
NON-URGENT
URGENT
Refer to OPD
Refer to Psychiatry Service


Pharmacotherapy for agitated/aggressive patients indicated, i.e., danger to self or others AND unresponsive to nonpharmacological methods (e.g., deescalation)
Treat critical or easily reversible causes first or concurrently e.g., hypoxia, shock, hypoglycemia, pain, seizure, acute urinary retention, hunger, thirst
Very severe agitation or violent behavior
Yes
No
Delirium OR decompensated psychotic disorder
Unknown history/etiology
Intoxication CNS stimulant (e.g., cocaine, amphetamine) OR Withdrawal of CNS depressant (e.g., alcohol or benzodiazepines)
Intoxication CNS depressant (e.g., alcohol)
Psychotic symptoms? (e.g., delusions, hallucinations)
Yes
No
Consider combination therapy (e.g.,antipsychotic plus benzodiazepine) OR ketamine
2nd generation antipsychotic (e.g., olanzapine, risperidone)
Benzodiazepine (e.g., lorazepam, midazolam)
1st generation antipsychotic (e.g., haloperidol)
Start at lowest possible dose, e.g., reduce dosage for older adults
Monitor for oversedation, hemodynamic instability, respiratory compromise
Repeat only if necessary
Refractory agitation
Yes
No
Discontinue medication as soon as possible

Inspections of Patients and Visitors

Purpose:

- Preventing the entry of any contraband (suspected narcotic substances, firearms, knives, prohibited items) to the places where patients or treatment teams are located.

Definition:

- Emergency Department: It IS the facility specialized in treating critical cases without prior appointments for patients, whether arriving by themselves or transferred by ambulance or security control.
- Non-therapeutic substances:
- Substances that may harm the patient or affect the patient's treatment plan and delay the treatment period.

Policy:

- In order to preserve the safety of patients and employees of the medical institution, the patient or his escorts are inspected using metal detectors to ensure that no prohibited, dangerous or prohibited materials enter the emergency department or where the treatment teams are located.

Procedures:

- 1. The security guard must follow safety measures such as gloves and masks.
- 2. The security guard explains to the Patient and his escorts the importance and purpose of the inspection before entering, with a mention of the contrabands that are confiscated and the procedures that will be taken in the event of any prohibited items being seized from the patient or his escorts.
- 3. At the beginning of each shift, it must be ensured that the device is functional and in good condition during the period of shift change, and If there is any defect, the shift supervisor is informed.

- 4. The inspection process for patient or his escorts is carried out by passing the metal detector to the front and side areas of the body
- first, then by conducting an external inspection by passing the hand over the body and opening personal items (handbags, wallets, medicines .... etc.).
- 5police station.

Definitions

- Agitation: a state of heightened arousal that can manifest in a variety of ways, from subtle increases in psychomotor activity to aggressive and/or violent behavior.
- May be caused by a psychiatric disorder, substance use, or occur as a result of a general medical condition e.g. hypoglycemia or traumatic brain injury.
- There may also be no underlying medical reason and it may simply be a reaction to stressful or extreme circumstances.

Clinical features

Medical or substance-related causes

- History of general medical illness and/or history of recreational drug or prescription medication use
- First-time occurrence of psychiatric symptoms at > 45 years
- Symptoms of:
  - Underlying medical disease
  - Intoxication or withdrawal
  - Delirium

Psychiatric causes

- History of psychiatric illness
- Current symptoms consistent with previous presentations (If symptoms differ from previous presentations, other possible causes must be considered)
- Symptoms of underlying psychiatric disease: e.g., psychotic symptoms, manic symptoms, symptoms of depressive disorders or anxiety disorders.

Red flags

The following features increase the risk of a serious medical etiology of agitation:

- Features suggesting physiological instability
  - Abnormal vital signs: e.g., hyperthermia, tachycardia, hypotension, hypertension
  - Clinical features of respiratory distress or signs of increased respiratory effort
  - Obvious signs of trauma: e.g., traumatic brain injury
- Neurological features
  - Focal neurological abnormailities: e.g., anisocoria, hemiparesis, lead pipe rigidity, neuromuscular weakness, ataxia
  - Seizures
  - Cognitive impairment
  - Severe headache
- Psychiatric features: new onset of psychosis
- Other
  - Constitutional symptoms, e.g., recent history of unintended weight loss
  - Intolerance to heat

Etiology

Causes of agitation		
		Etiology
General medical conditions	**Endocrinological causes**	• Adrenal dysfunction: e.g., Cushing syndrome, adrenal insufficiency • Thyroid disorders: e.g., thyroid storm, myxedema coma
	Infectious causes	• Encephalitis: e.g., HSV encephalitis • Meningitis • Sepsis
	Metabolic causes	• Electrolyte disorders: e.g., hyponatremia, hypercalcemia • Acid-base disorders • Hypoglycemia/hyperglycemia • Uremic or hepatic encephalopathy • Wernicke encephalopathy
	Neurological causes	• Dementia • Intracranial tumor • Intracranial hemorrhage • Seizure or postictal state • Stroke • Vasculitis
	Trauma	• Head injury • Severe pain of any cause (e.g., burns)
	Other	• Hypothermia/hyperthermia • Hypertensive encephalopathy • Respiratory cause leading to hypoxia and/or hypercarbia • Shock

Substance-related causes		• Intoxication
		  ○ CNS stimulants
		  ○ CNS depressants
		• Substance withdrawal: e.g., alcohol withdrawal, benzodiazepine withdrawal, opioid withdrawal
		• Medication-related
		  ○ Overdose: e.g., anticholinergic overdose
		  ○ Adverse drug reaction: e.g., steroid-induced psychosis

Psychiatric disease		• Schizophrenia • Bipolar disorder • Psychotic depression • Anxiety disorders • Personality disorders • Posttraumatic stress disorder

Management

Maintaining objectivity

Be aware of the following when considering whether to treat agitation as a medical issue:

- Prejudices: regarding, e.g., race, class, gender, psychiatric illnesses, substance use disorders, homelessness
- Biases: e.g., the potential for anchoring bias or countertransference

Prior to intervention

- Identify patients with signs of potential for violence.
- Ensure patient and staff safety when managing agitated patients.
- If necessary, call security staff or activate the behavioral emergency response team.
  - A multidisciplinary rapid response team that can be deployed anywhere in the hospital to provide immediate intervention in behavioral crises.
  - Usually includes a psychiatry-trained clinician and security personnel as well as members from other relevant services (e.g., social worker or pastoral support).
  - Although conventions vary, the call for this team is often "code white."

During intervention

- Determine the level of agitation and tailor the treatment approach accordingly.
- Identify and treat life-threatening or easily reversible causes of agitation using an ACBDE approach.
- Attempt de-escalation techniques, depending on patient cooperation and level of threat.
- Consider calming medications or physical restraints following local policy and laws only if staff and patient safety are threatened.
- Obtain early IV access in agitated patients, if possible.
- Anticipate the need for airway management in agitated patients.

- Minimize the use of restraints.
  - Follow safe application protocols.
  - Reevaluate orders frequently.
  - Discontinue restraints at the earliest opportunity.

Following intervention

- Closely monitor the patient for complications of:
  - Agitation
  - Pharmacotherapy
  - Physical restraints
- Continue further medical evaluation based on the suspected cause of agitation as soon as safely possible.
- Consider a psychiatry consult.
- Consider a temporary involuntary hospital admission based on an individual's risk to themselves and/or others in accordance with local laws and policies.
- Participate in a team debriefing session if possible.

Patient and staff safety when managing agitated patients

Follow local security protocols and call for help if patient or staff safety is under threat.

- Prioritize early assessment to prevent escalation.
- Consider early engagement of security staff and/or a behavioral emergency response team.
- Assign the patient to a secure, monitored room or location to minimize the risk to self and others.
- If possible, reduce environmental triggers, e.g., bright light and noise.
- Keep a reasonable distance until it is safe to approach the patient.
- Ensure the patient is unarmed and secure any items that might serve as weapons.
- When dealing with an armed patient, evacuate the area and consider the early involvement of law enforcement
- Ensure that providers have an open escape path and do not block exits.

Acute stabilization measures

Consider the following in patients with suspected medical causes of agitation and/or patients in need of sedation because they are endangering themselves or others.

IV access in agitated patients

- Obtain IV access as soon as possible if necessary for diagnostic and/or therapeutic interventions.
- In uncooperative patients, use an IM medication first to calm the patient and facilitate safe IV access.
- Consider the following approach for patients with refractory agitation who require immediate IV access for essential interventions:
  - Use extra personnel to assist with immobilizing the patient.
  - Immobilize the joints immediately proximal and distal to the point of access.
  - Attempt IV placement only once the patient is securely immobilized.
  - Once the IV line is in place, immediately administer an IV calming medication and secure the IV line.

Airway management in agitated patients

- Airway compromise may be due to the underlying cause of agitation or occur as a result of sedation.
- Be prepared for airway management and ensure appropriate equipment is available and functioning.
- Consider a definitive airway in patients with respiratory failure, airway compromise, or heavy sedation requirements.
- For endotracheal intubation of a patient in whom optimal preoxygenation is not possible, consider delayed-sequence intubation.

Risk assessment and mitigation

Early identification of potential for violence

- **Verbal signs**
  - Expression of frustration or anger
  - Loud, threatening, or insulting speech
  - Repetitive mumbling
- **Behavioral signs**
  - Suspicious or angry affect
  - Staring or avoidance of eye contact
  - Pacing and/or restlessness
  - Threatening gestures
  - Signs of anxiety or agitation
- **Other patient factors**
  - Evidence of drug or alcohol use
  - Presence of a weapon

Rapid risk assessment

- Approach each patient based on their individual risk assessment.
- The following classification is loosely based on the Behavioral Activity Rating Scale (BARS).

Level of agitation		
Category	Definition and typical characteristics	Recommended approach
Mild agitation ≈ BARS 5	• Physical or verbal signs of agitation, but patient is not aggressive or violent ○ Pacing and/or restlessness ○ Easily angered ○ Confused ○ Redirectable and cooperative	1. Initiate de-escalation techniques. 2. Consider an oral calming medication, if necessary. 3. Proceed with medical evaluation and consider diagnostic testing as indicated.
Moderate agitation ≈ BARS 6	• Extremely or continuously agitated: physically or verbally threatening, but not violent ○ Continuous pacing and/or restlessness ○ Confused and/or unable to cooperate ○ Disruptive but not imminently dangerous ○ Requires continuous redirection	1. Initiate de-escalation techniques. 2. Consider an oral or parenteral calming medication. 3. Proceed to manage as mild or severe agitation based on the patient's response.
Severe agitation ≈ BARS 7	• Actively aggressive or violent ○ Striking at staff, other patients, or objects ○ Repeated credible threats of harm to self or others ○ Not redirectable ○ Requires restraints	1. Consider initiating de-escalation depending on patient's level of cooperation, but prioritize staff and patient safety. 2. Call for help and/or activate the behavioral emergency response team. 3. Consider immediate parental calming medications and, if necessary, physical restraints. 4. Proceed with medical evaluation as soon as it is safe.

Frequently reassess the level of agitation and response to interventions.

Managing critical causes of agitation

These include etiologies that are rapidly reversible and/or pose an imminent threat to life.

Immediate assessment

- Check vital signs, SpO_2, and POC glucose.
- For cooperative patients, obtain a brief history and conduct a focused medical exam.
- For uncooperative patients, follow the ABCDE approach.

If an immediately life-threatening cause is strongly suspected in an uncooperative patient not responding to de-escalation techniques, consider calming medication and, if necessary, physical restraint to enable further evaluation and treatment.

Management of critical causes of agitation		
	Suggestive findings	Immediate intervention
Hypoxia	• ↓ SpO_2 • Dyspnea	• Start oxygen therapy. • Manage underlying cause of hypoxemic respiratory failure: e.g., pneumonia, acute asthma exacerbation, acute exacerbation of COPD, acute heart failure, CO poisoning.
Hypercarbia	• $PaCO_2$ > 45 mm Hg • Dyspnea or hypopnea	• Manage underlying cause: e.g., hypercapnia respiratory failure of any cause, substance-related respiratory depression (due to opioid intoxication, severe salicylate toxicity). • Consider mechanical ventilation.

Management of critical causes of agitation		
	Suggestive findings	Immediate intervention
Hypoglycemia	• Serum or fingerstick glucose ≤ 70 mg/dL (≤ 3.9 mmol/L)	• Give oral glucose or IV dextrose. • Evidence of chronic alcohol use and/or poor nutritional status ○ Consider concurrent prophylactic IV thiamine. ○ Higher doses of thiamine are indicated if there is a concern for active Wernicke encephalopathy.
Hypothermia	• Core body temperature < 35.0°C (95.0°F)	• Initiate active and/or passive rewarming, as indicated.
Hyperthermia	• Elevated body temperature • History of heat exposure and/or excessive physical activity • Clinical features of drug-induced hyperthermia	• Initiate cooling measures. • Discontinue potentially offending drugs.
Shock	• Clinical features of shock • History of trauma, bleeding, diarrhea, vomiting, or reduced oral intake • Clinical features of underlying cause, e.g., bleeding, clinical signs of hypovolemia signs of sepsis, symptoms of heart failure, or clinical features of pulmonary embolism	• Consider IV fluid resuscitation and/or vasopressors. • Provide immediate hemodynamic support as needed.
Pain	• High score on subjective and/or objective pain assessment.	• Initiate treatment for pain.
Sepsis	• History of infectious symptoms • ≥ 2 positive SIRS or qSOFA criteria	• Check serum lactate and obtain 2 sets of blood cultures. • Initiate fluid resuscitation and start antibiotic therapy for sepsis.

Management of critical causes of agitation		
	Suggestive findings	Immediate intervention
Seizure	• History of seizure disorder • Ictal or postictal signs of generalized seizures or complex partial seizures	• Initiate pharmacological interruption of ongoing active seizures. • If alcohol withdrawal seizures are suspected, consider treatment for alcohol withdrawal.
Wernicke encephalopathy	• Evidence of chronic alcohol use or poor nutritional status • Confusion, oculomotor dysfunction, or gait ataxia.	• Start treatment with full-dose IV thiamine . • Consider treatment for alcohol withdrawal.
Acute urinary retention	• History of BPH, pelvic surgery, pelvic cancer, urinary stones, or spinal disease/injury • Suprapubic pain/discomfort • Palpable bladder	• Perform urgent bladder catheterization.

Diagnostic approach

Subsequent medical evaluation

Obtain the following as soon as safely possible:

- Full patient and corroborative history
- Complete physical exam, including mental status exam
- Focused diagnostic testing based on the suspected underlying cause of agitation
- Consider formal psychiatric evaluation based on findings, if the patient is medically stable.

Patients with a known psychiatric disorder, with no concerning history or physical exam findings, and whose symptoms are consistent with those of their preexisting psychiatric disease are unlikely to require further diagnostic workup.

Diagnostic testing

Basic studies

- CBC: to evaluate for anemia, leukocytosis, and/or other hematological abnormalities
- BMP: to evaluate for electrolyte imbalances, acidosis, or renal dysfunction
- Blood gases: to evaluate for hypercarbia, hypoxia, and acid-base imbalances
- Blood cultures: if infection is suspected
- Urine analysis: including urine toxicology screen

Routine laboratory studies are not recommended. Diagnostic testing should be tailored to each patient based on clinical features, history, and physical examination findings.

Additional studies

- Further diagnostics studies may be indicated to evaluate:
  - The underlying etiology
  - Complications resulting from agitation, such as:
    - Rhabdomyolysis
    - Hypovolemia
    - Skeletal trauma
    - Metabolic acidosis
    - Respiratory compromise due to efforts to resist restraints.

Additional diagnostic evaluation in the agitated patient	

Laboratory studies	• Serum chemistries
	  ○ Liver function tests
	  ○ Albumin
	  ○ Lipase
	  ○ CPK
	  ○ Lactate
	  ○ Troponin
	  ○ Ammonia
	  ○ Thyroid function tests
	• Coagulation studies
	• Hemolytic indices
	• Endocrine testing: e.g., cortisol levels
	• Toxicology
	  ○ Ethanol level
	  ○ Serum toxicology screen
	• Pregnancy test

Imaging	• CT head • Consider advanced neuroimaging (e.g., MRI head) on an individual basis. • Skeletal x-ray • Echocardiography • CT angiography
Other studies	• ECG, EEG, Lumbar puncture

Consider a more extensive diagnostic workup in patients with: atypical presentations of known psychiatric illnesses, age > 45 years without prior psychiatric illness, or immune deficiency.

De-escalation

Noncoercive verbal and nonverbal techniques are used to help the patient calm down and cooperate with medical evaluation and treatment. This approach can relieve the symptoms of agitation, decreasing the need for coercive measures and potential for violence and associated harm to patients and staff.

Approach

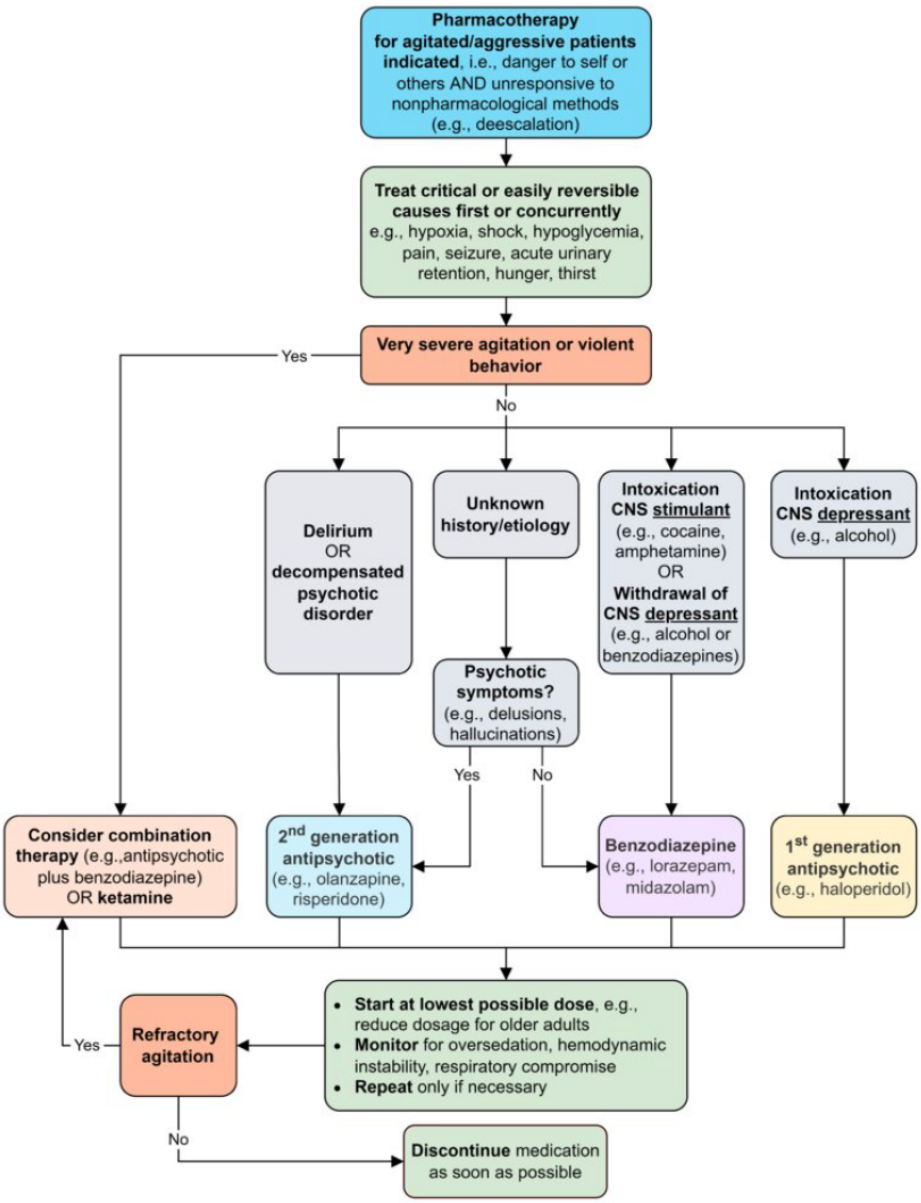
- Attempt de-escalation in patients who are potentially cooperative and not actively violent.
- Designate a single care provider to verbally interact with the patient in order to avoid confusing the patient and creating a perceived threat.
- Approach the patient in a quiet and safe physical environment.
- Ensure staff members are close by in case help is needed.

Principles and techniques for de-escalation		
Principles		**Techniques**
Avoid escalation	Be mindful of personal space	• Keep a distance of at least two arms' length. • Ensure a clear exit path for both the clinician and patient.
	Maintain a nonconfrontational demeanor and body language	• Keep your hands visible and relaxed. • Do not stand directly in front of the patient. • Avoid prolonged eye contact and staring. • Maintain an open and calm manner and expression. • Avoid threatening, condescending, or insulting language and anything that might cause the patient to feel humiliated.
Engage the patient verbally	Provide structure and reassurance	• Introduce yourself and explain your role and intention to help. • Ask how the patient prefers to be addressed. • Explain what to expect.
	Use concise, simple, and repetitive language	• Keep your sentences short and use simple words. • Give the patient time to process information and respond. • Repeat your message until it is heard and understood.

Principles and techniques for de-escalation		
Principles		**Techniques**
Build cooperation and trust	Identify feelings and desires	• Ask what the patient wants. • Use targeted questions based on information provided by the patient and/or the medical record.
	Listen actively	• Restate and verbally acknowledge the information provided by the patient. • Try to understand the patient's subjective experience.
	Validate perceptions and emotions	• Acknowledge the patient's feelings. • Seek out points on which you can agree, like specific facts or general truths and principles. • On points of disagreement, be honest but understanding.
Defuse the situation	Clarify rules and limits	• Set working conditions. • Tell the patient when their behavior is causing you or other staff members to feel threatened or upset. • Inform the patient that violent or abusive behavior will not be accepted.
	Help the patient stay in control	• Tell the patient what you need them to do to enable their care. • Explain how to get attention and communicate needs. • Indicate how to deal with contingencies.
	Offer choices and optimism	• Allow the patient to choose between different acceptable options. • Offer comforting measures: e.g., food, drink, or phone access. • If medication is necessary, involve the patient in decisions, e.g., the type of medication or route of administration. • Provide an honest and realistic but hopeful outlook.
After involuntary intervention	Debrief	• Attempt to restore the clinician-patient relationship. • Allow the patient to explain their view. • Explain why the intervention was necessary. • Engage the patient in planning for future contingencies. • Debrief others who witnessed the event, including family members and staff.

Involuntary medications or physical restraint should only be used if a serious attempt at de-escalation has failed to ensure the safety of the patient and staff.

Pharmacotherapy



Consider calming medication if there is an insufficient response to nonpharmacological measures, with the overarching goal of relieving distress, treating underlying conditions, and permitting a safe medical and psychiatric evaluation.

Approach

- Ensure the ethical use of any prescribed calming medication.
- Choose agent, route, and dosage based on:
  - Most likely etiology
  - Drug properties and risks
  - Patient preference (if possible)
- Monitor all patients closely for complications and adverse effects.

Ethical use

- Consider whether the medication is helpful for:
  - Treatment of the condition itself
  - Alleviation of symptoms
  - Prevention of complications
- Counsel patients about the risks and benefits of pharmacotherapy whenever possible.
- Avoid using medication to restrain freedom and control behavior unless there is:
  - A clear danger to the patient or others
  - A valid court order for treatment
- Respect the patient's right to refuse medication in all other circumstances.
- When possible, involve the patient in the choice of agent and route.

Do not administer medication involuntarily unless it is to prevent imminent self-harm or harm to others, or it is mandated by a valid court order.

Safety

- **Dosage**
  - Use the lowest dose needed to calm the patient and avoid oversedation
  - Reduce dosages as needed, e.g., for older age, impaired drug metabolism, comorbidities.
  - Use oral medication, e.g., orally disintegrating tablets (ODTs) or sublingual tablets, whenever possible.
  - Parenteral administration may be necessary for uncooperative patients.
    - IM medication: Time to onset and maximum effect may be variable due to factors affecting absorption.
    - IV medication: can provide more rapid and reliable sedation than IM or oral medication

- **Monitor** all patients for:
  - Oversedation
  - Hemodynamic instability
  - Respiratory compromise
- **Prevent complications**
  - Avoid drug accumulation and overdose using careful titration.
  - Allow time for each dose to take effect before repeat dosing or combination therapy.
  - Be prepared for airway management in agitated patients and consider prophylactic airway protection in those requiring heavy sedation.

Calming medications of all classes can potentially cause oversedation, hemodynamic instability, and respiratory compromise, especially if used in combination.

Repeated dosing of intramuscular medication can lead to overdose due to less predictable absorption and drug accumulation. Obtain IV access in the agitated patient as soon as safely possible.

Choice of drug class

Medication for agitation based on suspected cause			
Etiology		**Recommended drug class**	**Important considerations**
Undifferentiated		• Benzodiazepines	• If psychotic symptoms are present, treat as psychosis.
Delirium		• Antipsychotics (2nd-generation antipsychotic preferred)	• Identify and treat the underlying cause. • Avoid benzodiazepines when possible (except when related to alcohol or benzodiazepine withdrawal).
Substance-related	Alcohol or benzodiazepine withdrawal	• Benzodiazepines	• Refer to "Pharmacotherapy for alcohol withdrawal."
	CNS depressant intoxication (including alcohol)	• 1st-generation antipsychotics	• Avoid benzodiazepines when possible.

Medication for agitation based on suspected cause			
Etiology		Recommended drug class	Important considerations
	CNS stimulant or sympathomimetic toxicity	• Benzodiazepines	• Consider antipsychotics as a first-line or in combination with benzodiazepines if psychotic features are present. • The safety of ketamine in the treatment of sympathomimetic toxicity is unclear.
Psychosis		• Antipsychotics (2nd-generation antipsychotic preferred)	• Consider adding a benzodiazepine if the response to the antipsychotic is insufficient. • Avoid ketamine in patients with a history of schizophrenia.
Severe or refractory agitation or violence		• Consider combination antipsychotics (1st- or 2nd-generation) PLUS short-acting benzodiazepines • Consider dissociative anesthetics	• Intensive monitoring recommended if combining drug classes. • Ketamine may be considered as an alternative first-line agent in young adults with severe agitation.

For severe agitation consider combining IM typical antipsychotics (e.g., haloperidol) with short-actin IV benzodiazepines (e.g., midazolam) under careful observation.

Benzodiazepines

General principles

- Benzodiazepines are preferred as first-line treatment of agitation of unknown etiology and agitation due to alcohol withdrawal, benzodiazepine withdrawal, or intoxication with CNS stimulants.
- Consider dose reduction for at-risk patients: e.g., older age, impaired drug metabolism, cardiac disease, high risk of hypotension.
- Consult a clinical pharmacist if the optimal agents and dosages are uncertain.
- Midazolam has a faster onset and time to maximal concentration (T_{max}), but a shorter duration of action compared to lorazepam.
- IV benzodiazepines are typically effective within a few minutes.
- PO and IM benzodiazepines have slower and more variable kinetics.
- Duration of effect can vary widely depending on patient factors and agitation etiology and severity.

Beware of drug accumulation with frequent dosing; respiratory suppression can occur if benzodiazepines are prescribed at high doses or when used in patients exposed to other CNS depressants (e.g., alcohol).

Lorazepam dosage

- **Mild agitation**
  - Adults: 1–2 mg PO once; may repeat after 2 hours
  - Older adults: 0.25–0.5 mg PO; may repeat after 2 hours
- **Moderate–severe agitation**
  - Adults: 1–2 mg IM/IV once; may repeat after 2 hours
  - Older adults: 0.25–0.5 mg IM/IV once; may repeat after 2 hours
- **Maximal dose**
  - Adults: 10–12 mg/day
  - Older adults: 2 mg/day

Midazolam dosage

- **Moderate agitation**
  - 2.5–5 mg IM once; may repeat after 5–10 minutes
  - OR 1–2.5 mg IV once; may repeat after 3–5 minutes
- **Severe agitation**
  - 10 mg IM once; may repeat after 5–10 minutes
  - OR 2–5 mg IV once; may repeat after 3–5 minutes
- **Maximal dose**
  - Not clearly defined
  - Respiratory support may be required at doses > 0.15 mg/kg.

Antipsychotics

General principles

- Consider dose reduction for at-risk patients: e.g., older age, impaired drug metabolism, cardiac disease, high risk of hypotension.
- Consult a clinical pharmacist if the optimal agents and dosages are uncertain.
- IM antipsychotics and are usually effective within an hour
- Compared to IM antipsychotics, PO antipsychotics have a slightly slower onset, but a much slower T_{max}.
- IV antipsychotics have the fastest effect but may be associated with a higher risk of adverse effects.
- The duration of action of antipsychotics in agitated patients is unclear and may be highly variable.

Anticipate common adverse effects of all antipsychotics such as extrapyramidal symptoms (e.g., akathisia, acute dystonia), QTc prolongation, and orthostatic hypotension.

Beware of drug accumulation with frequent dosing; Avoid repeat dosing before the expected time to effect of each drug.

Second-generation antipsychotics

Preferred over first-generation antipsychotics as first-line treatment of agitation due to delirium and psychosis.

Olanzapine dosage

- **Older adults**: 2.5–5 mg PO/IM once; may repeat after 2 hours
- **Adults with mild agitation**: 5 mg PO/SL once; may repeat after 2 hours
- **Adults with moderate agitation**: 5–10 mg PO/SL once; may repeat after 2 hours
- **Adults with severe agitation**: 10 mg IM once; may repeat after 2 hours
- **Maximal dose**
  - PO: 20 mg/day
  - IM: 30 mg/day
- **Specific considerations**
  - Avoid within 1 hour of benzodiazepine intake if possible.
  - Most significant adverse effects
    - Hypotension
    - Anticholinergic effects
    - QTc prolongation
    - Extrapyramidal symptoms

Risperidone dosage

- Mild agitation: 1 mg PO/SL once; may repeat every 4–6 hours
- Moderate agitation: 2 mg PO/SL once; may repeat every 4–6 hours
- Maximal dose: not clearly established
  - Generally should not exceed > 6–10 mg/day
  - Older adults: 3 mg/day
- Specific considerations
  - Often used for psychotic symptoms due to schizophrenia or mania in bipolar disorder
  - Most significant adverse effects
    - Orthostatic hypotension
    - Extrapyramidal symptoms

First-generation antipsychotics

- Preferred as first-line treatment of agitation caused by a CNS depressant (e.g., alcohol)
- Can be considered as a first-line antipsychotic in combination with a benzodiazepine for treatment of very severe or refractory agitation
- Avoid in patients with:
  - Cardiac disease
  - QTc prolongation and/or exposure to drugs that cause QTc prolongation
  - High risk of seizures
- Significant adverse effects
  - Orthostatic hypotension
  - Extrapyramidal symptoms
  - QTc prolongation and torsade de pointes
- Obtain an ECG before administration or as soon as possible.

Haloperidol dosage

- **Older adults**: 0.25–0.5 mg PO/IM once; may repeat after 0.5–4 hours
- **Adults with mild agitation**: 2.5 mg PO once; may repeat after 0.5–4 hours
- **Adults with moderate agitation**
  - 5 mg PO once; may repeat after 0.5–4 hours
  - OR 2.5 mg IM once; may repeat every ≥ 15 minutes until adequate effect, then every 0.5–6 hours
- **Adults with severe agitation**
  - 5 mg IM once; may repeat every ≥ 15 minutes until adequate effect, then every 0.5–6 hours
- **Extreme situations (controversial):** 2–5 mg IV once; consider repeating in 0.5–6 hours
- **Maximal dose**
  - PO/IM: 20–30 mg/day
  - IV: 10 mg/day
  - Older adults: 3 mg/day

- **Specific considerations**
  - Keep dosage to the minimum required.
  - If IV therapy is needed, ensure continuous cardiac monitoring during and after administration.
  - Consider adding a drug to prevent extrapyramidal symptoms, e.g., benztropine, diphenhydramine, lorazepam, or promethazine.

Haloperidol administered intravenously (IV) may be associated with high rates of adverse effects (e.g., extrapyramidal symptoms, QTc prolongation, torsades de pointes) and is likely best reserved for extreme situations. Alternate routes (PO or IM) are generally considered safer.

Droperidol dosage

- Severe agitation: 5 mg IM or IV once in combination with midazolam
- Maximal dose: 10–20 mg/day
- Specific considerations
  - Faster control of agitation, shorter duration of action, and lower incidence of extrapyramidal symptoms compared to haloperidol
  - There is currently an FDA black box warning regarding QTc prolongation, however, this is controversial.

Dissociative anesthetics

Ketamine

Consider dose reduction for at-risk patients: e.g., older age, impaired drug metabolism, cardiac disease, high risk of hypotension. Consult a clinical pharmacist if the optimal agents and dosages are uncertain.

- **Clinical application**: rapid short-term control of severe refractory agitation and/or violence.
- **Dosage**
  - 4–5 mg/kg IM once; may repeat once at 2–3 mg/kg IM if no initial effect after 10–25 minutes
  - OR 1–2 mg/kg IV once; if no initial effect after 5–10 minutes, may repeat 0.5–1 mg/kg IV once

- **Pharmacokinetics**
  - Ketamine is effective within minutes.
  - IM ketamine has a comparable onset, but slower T_{max} than IV ketamine.
  - The duration of action, when used for agitation, is ~ 20 minutes.
- Specific considerations
  - Avoid in patients with:
    - Advanced age
    - Known or suspected schizophrenia
    - Risk of morbidity exacerbated by ketamine-induced increases in blood pressure
  - Significant adverse effects
    - Hypertension
    - Tachycardia
    - Emesis
    - Laryngospasm
    - Respiratory failure
  - To reduce the risk of respiratory depression, administer IV bolus doses slowly over > 30–60 seconds.

Physical restraints

Definitions

- Restraints (manual, physical, or mechanical): methods, materials, devices, or equipment that impair or limit free movement of a patient's extremities, body, or head
- Seclusion: measures taken to confine a patient involuntarily to a location from which physical barriers prevent them from leaving; specifically for the purpose of protecting them or others from violence and harm

Ethical use

- Severely limit the use of seclusion and restraints as they can cause significant harm.
  - Use only to prevent imminent harm to the patient or others due to agitation.
  - Consider only if less coercive measures (i.e., deescalation techniques or pharmacotherapy) have failed.

- Apply the least restrictive method possible.
- Maximize patient privacy and dignity during restraint application.
- Frequently reassess the indications for ongoing restraint or seclusion.
- Discontinue as soon as possible, i.e., when the patient has regained self-control and is no longer a threat to self or others.

Physical restraints can cause significant harm, including long-term psychological trauma and death. They should only be considered to enable crucial diagnostics and treatment and/or prevent harm to the patient and others. They should never be used for punishment, discipline, retaliation, or provider convenience!
Use calming medications before or immediately after applying restraints to reduce the risk of injury, complications from the patient's efforts to resist restraints, and the negative psychological consequences of restraint and coercion.

Safe application of restraints
Preparation
- At least 5 trained providers should work as a team.
  - 4 team members to immobilize major joints, i.e., the elbows and knees.
  - 1 team member to ensure immobility of the head and patency of the airway (preferably the team lead)
- Select a team leader who gives orders and communicates with the patient.
- Use appropriate personal protective equipment, especially if the patient is spitting or biting.
- Brief the team about the situation before entering together.
- Choose appropriate restraints.
  - Leather restraints are preferred for actively violent patients.
  - Soft restraints may be considered for partially cooperative, nonviolent patients.

If possible, the treating clinician should avoid actively applying the restraints in order to preserve the clinician-patient relationship.

Approaching the patient

- Ensure other team members are visible to the patient.
- Maintain a calm, nonthreatening demeanor.
- Inform the patient of your intent, explain the necessity, and ask for cooperation.
- If the patient does not cooperate, firmly explain the procedure and follow local hospital restraint protocol.

Procedure

- Place the patient in a supine position, with the head of the bed elevated.
- Assist other team members in immobilizing extremities as needed while restraints are applied.
- Apply restraints to all four extremities and secure them to the bed frame.
  - Restrain one arm at head level with the elbow flexed, the other arm below the waist with the elbow extended.
  - Tie each leg to the contralateral side of the bed.
- Consider further restraint as necessary, e.g.:
  - Applying an oxygen face mask can help prevent biting and spitting.
  - Chest restraints can be applied loosely to help immobilize the trunk.

Do not restrain patients in the prone position, as this can result in asphyxiation and death. If chest restraints are used, ensure that they do not impede chest expansion and adequate ventilation.

Monitoring and ongoing care

- Place the patient under continuous observation.
- Frequently check vital signs and respiratory status, mental and cognitive status, level of agitation, and possible complications of efforts to resist restraints.

- Consider continuous pulse oximetry and cardiac monitoring, especially if factors associated with increased risk for sudden death under restraints are present, e.g.:
  - CNS stimulant intoxication
  - Chronic medical disease
  - Obesity
  - Heavy sedation
- Check and reposition the patient frequently to prevent pressure sores, circulatory obstruction, or nerve entrapment.
- Ensure adequate hydration and nutrition and address patient's comfort and toilet needs.

The level of monitoring should be decided based on an individual risk assessment in accordance with local hospital protocols and regional laws.

Legal considerations

- Physical restraints are medical interventions that require a formal order from the treating clinician.
- Clearly document the following:
  - Full medical and behavioral evaluation by an authorized clinician
  - Previous unsuccessful attempts to deescalate the situation
  - Indication for restraints: e.g., suspected medical condition, violent attack
  - Method(s) of restraint used
- If ongoing restraints are necessary, orders need to be revised regularly.
  - Follow the frequency required by regional law and local hospital policy.
  - The 2008 Joint Commission standards recommend the following minimum intervals, unless local and regional laws are more restrictive:
    - Care providers should reevaluate the need for ongoing restraints at least every 4 hours for adults.
    - The most responsible clinician should repeat the full medical and behavioral evaluation at least every 24 hours.

Always follow regional laws and local hospital protocol. Hospitals are obligated to have specific policies on restraint and seclusion that must be in accordance with regional law, including regulating authority to order restraints, patient monitoring, and circumstances that allow the discontinuation of restraints.

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ارشادات ومواصفات تصميم وتنفيذ غرف العزل النفسي

أولاً | المتطلبات الهندسية :

- يجب أن لا يكون بغرف العزل أي نهايات أو زوايا حادة وذلك لمنع المريض من أصابه نفسة .
- يجب أن تكون جميع المواد المستخدمة في غرف العزل مقاومة للحريق .
- أهمية الرؤية بوضوح لداخل الغرفة لكي تسمح لطاقم التمريض بالمراقبة.

ثانياً | التصميم والأنشاء :

2-1: المتطلبات العامة للتصميم .

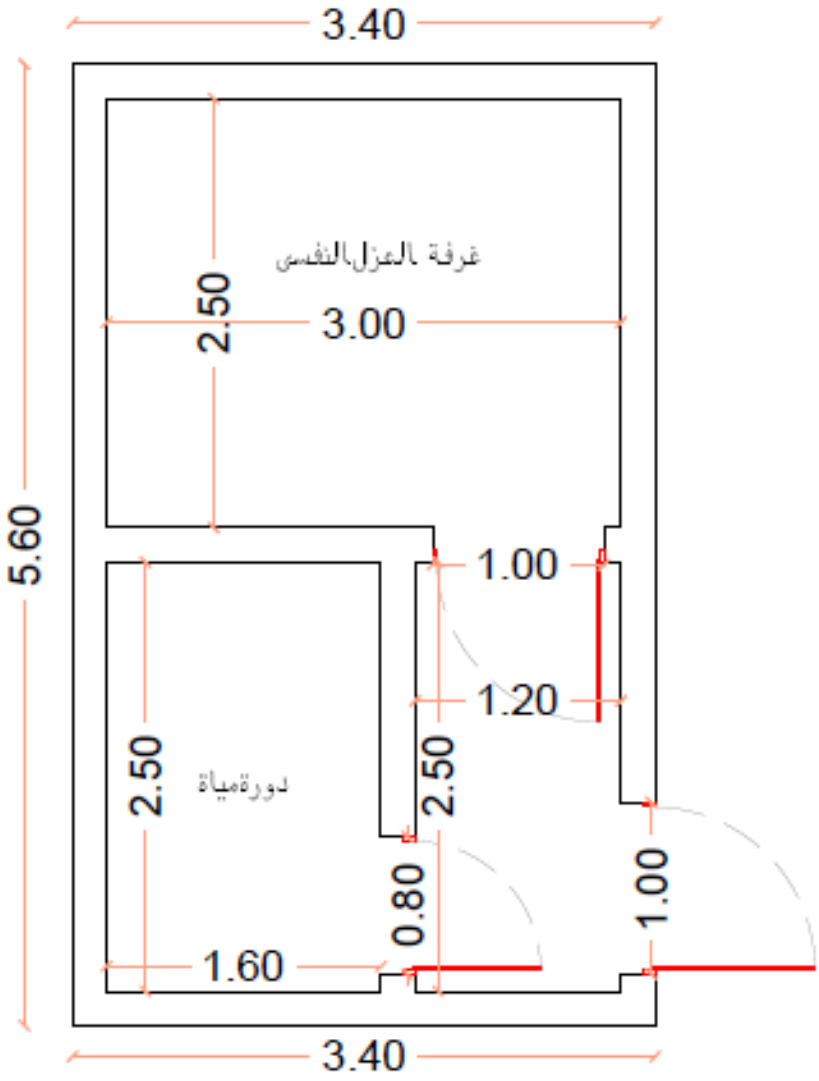
- **حجم الغرفة:** يكون حجم الغرفة الأدنى 7م 2 (سبعة أمتار مربعة) على الا يقل طول أي ضلع عن 2.5 م2 .
- **حجم الباب:** يكون بارتفاع لا يقل عن 2.10م وعرض 1م وسماكة 5 سم ويوجد به نافذة زجاجية غير قابلة للكسر أو من اللكسان الشفاف تحقق هدف مراقبة المريض بطول 25سم إلى 30سم وعرض 10سم إلى 12سم .
- يوجد نموذجين _ مرفقة_ لمخطط التنفيذ لغرف العزل النفسي ، نموذج (1) يتضمن دورة مياه داخلية ، ونموذج (2) لا يتضمن دورة مياه ويشترط فيه أن تكون دورة المياه قريبة وأمام محطة التمريض .

- **2-2** المعايير العامة للتصميم.

عند تصميم غرفة العزل النفسي يجب النظر بالتالي	
الأبواب	• يجب أستعمال الأبواب التي تفتح من الخارج فقط. • استعمال أبواب مبطنة . • استعمال أبواب متينه ومؤمنة بنافذة لمراقبة المريض . • يجب أن تكون مقابض الباب موجودة على الجزء الخارجي من الباب فقط
الجدران والأرضيات	• استعمال بطانة لينه للجدران والأرضيات . • خالية من الحافات أو الزوايا الحادة . • تطلى بلون واحد محايد / طبيعي ولا تستخدم النقوش ولا الزخرفة .
السقف	• سقف صلب يؤمن الحماية للخدمات . • لا يمكن للمريض الوصول الية .
الإنارة	• إنارة دافئة متوسطة السطوع . • يجب أن تكون مفاتيح الإنارة خارج الغرفة ويتحكم بها من وحدة التمريض. • يجب أن تكون الأناة مثبتة بالسقف دون أسلاك مكشوفة .
الصرف الصحي أن وجد	• يجب أن يكون كرسي الحمام والمغسلة متينان مصنوعان من الفولاذ المقاوم للصدأ. • يجب أن يكون صمام إغلاق المياه خارج الغرفة لغلقة عند الضرورة . • سهولة الوصول إليها . • يجب وجود مصرف مياه أرضي محكم الأغلاق داخل الغرفة . • يجب أن لا تكون الأنابيب مكشوفة .
تدفق الهواء ودرجة الحرارة	• يجب أن تكون الغرفة مكيفة ويتحكم فيها من الخارج عبر محطة التمريض .

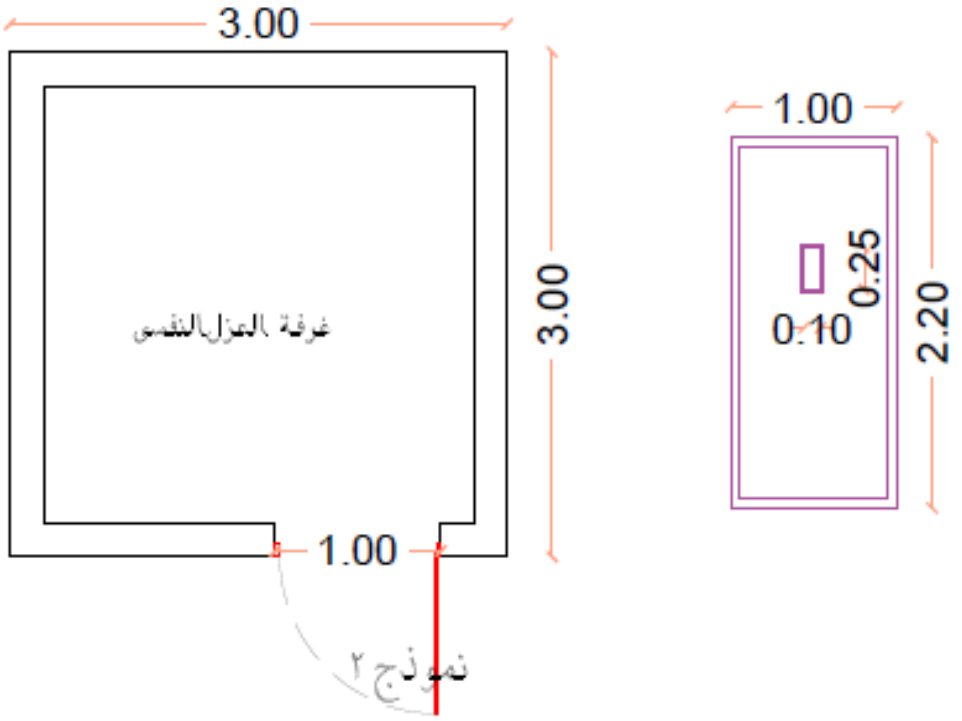
عند تصميم غرفة العزل النفسي يجب النظر بالتالي	
احتياطات السلامة	• وجود كاشف للدخان والحرارة بالغرفة . • يجب أن يكون هيكل الغرفة ومحتواها مقاوم للحريق .
الأثاث	• يكتفى بمرتبة مصنوعة من مادة سميكة (إسفنجية)مع لحاف ومخدة .
المراقبة والاتصالات	• يجب تركيب كاميرات مراقبة مرتبطة مع وحدة التمريض . • توفير نظام تواصل داخلي بين غرفة العزل ووحدة التمريض (اختياري).

ثالثاً | نموذج غرف العزل النفسي رقم (1):



نموذج ١

رابعاً | نموذج غرف العزل النفسي رقم (2):



خامساً | مواصفات تأهيل غرف العزل النفسي:

رقم البند	وصف الأعمال
1	**توريد وتركيب ألواح ماصة للصدمات لحوائط وأرضية غرف العزل النفسي مماثلة للغرف المنفذة في المجمع بالمواصفات التالية :** • مؤلفة من طبقتين الطبقة السفلية توفر الليونة و الطبقة العليا توفر القوة و الحماية من الأضرار. • تركب على ألواح خشبية معالجة ويتم تثبيتها على الحائط بطريقة مناسبة. • مقاومة للفطريات و البكتيريا وغير قابلة للانزلاق . • مقاومة للحريق . • تملئ ثقوب التثبيت من نفس المواد . • تدهن بدهان خاص من نوع بوليريثين لتشكيل طبقة متجانسة ملساء تساعد على إخفاء الوصلات بشكل كامل . • يجب أن تكون الخامات وطريقة التنفيذ منفذة ومعتمدة سابقاً من وزارة الصحة . • يجب زيارة المركز والتأكد من الموقع والكميات قبل تقديم عرض الأسعار . • يجب تقديم مخططات التنفيذ واعتمادها من الجهة المشرفة قبل التوريد . • يجب اعتماد العينات من الجهة المشرفة خطياً قبل التوريد . • محمل على البند ما يلي : • إزالة المكونات الموجودة في الغرفة حالياً . • توريد وتركيب خدمات (التكييف والتهوية والكهرباء) ورفعها إلى أعلى ارتفاع ممكن . • توريد وتركيب شبك حديد للسقف لحماية الخدمات مع تغطيته من الداخل بألواح لكسان مثلج. • توريد وتركيب باب حديد مع الفريم مدهون ومعالج، ويتم تكسيته من الداخل بنفس مواد الجدران ويحتوي شباك صغير للرؤية والمتابعة. • توريد وتركيب وتشغيل كاميرا مراقبة بزاوية رؤية لا تقل عن ٤٠ادرجة ، مع ملحقاتها (تمديدات،شاشة،الخ).