



Assessment and emergency management of the acutely agitated or violent adult

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INTRODUCTION

Patient violence occurs in many clinical settings, and clinicians must be prepared to cope effectively with agitated patients in order to reduce the risk of serious injury to the patient and caretakers. The significant illness, prolonged waiting times, and confusion often found in busy emergency departments (EDs) creates a stressful atmosphere that can exacerbate feelings of agitation among patients and their families. The ED's 24-hour open-door policy, availability of potential hostages, and widespread accessibility of drugs and weapons compound the problem.

The evaluation and management of the acutely agitated or violent patient will be reviewed here. The management of specific psychiatric ailments and intoxicated or poisoned patients is discussed separately.

- (See "[Evaluation of abnormal behavior in the emergency department](#)".)
- (See "[Restraint-related cardiac arrest: Pathogenesis, strategies for prevention, and management for hospital clinicians](#)".)
- (See "[Suicidal ideation and behavior in adults](#)".)
- (See "[Psychosis in adults: Epidemiology, clinical manifestations, and diagnostic evaluation](#)".)
- (See "[Diagnosis of delirium and confusional states](#)".)
- (See "[General approach to drug poisoning in adults](#)".)

- (See ["Ethanol intoxication in adults"](#).)

EPIDEMIOLOGY

Violence in health care settings is a growing problem [1-4]. Up to 50 percent of health care providers are victims of violence sometime during their careers [5,6]. A survey found that, from 2018 to 2022, there was an increased incidence of assaults in emergency departments (ED; 47 versus 55 percent of emergency physicians were personally assaulted and 71 versus 79 percent witnessed an assault) [7]. A 2008 survey of over 3500 United States ED clinicians at 65 sites reported that 3461 physical attacks occurred over a five-year period and that guns or knives were brought to the ED on a daily or weekly basis [8]. Another survey of 263 emergency medicine residents and attending physicians found that 78 percent of participants experienced a violent workplace act in the prior year, distributed equally between males and females [9]. Smaller surveys in the United States have found comparable rates of verbal and physical violence directed against ED clinicians [10,11]. In a prospective observational study performed at a major urban ED in the United States, researchers screened 43,838 patients and found that 1146 (2.6 percent) manifested significant agitation with 84 percent requiring physical restraint and 72 percent requiring sedation by intramuscular (IM) injection [12].

The problem of violence is not limited to the United States or to EDs. Surveys of emergency care workers and nurses in Turkey and Australia report similar rates of violence as those in United States studies [13,14]. A 1997 survey of psychiatry residents revealed that 73 percent reported being threatened, and 36 percent had been physically assaulted in residency. Two-thirds of them had received either no or inadequate training in managing combative patients [15].

Approximately 4 to 8 percent of patients who present to psychiatric EDs are armed [16,17]. At one large urban county hospital ED in the United States, an average of 5.4 weapons was confiscated each day using metal detector screening [18]. At this center, 26.7 percent of major trauma patients seen in the ED over a 14-year period were armed with lethal weapons (84 percent knives and 16 percent guns). The presence of weapons among many ED patients increases the potential for rapid escalation of violence. Unfortunately, predicting weapons carriage in any particular patient is not easy [19].

In the United States, patients requiring restraint are more likely to be younger, male, and homeless and have public or no insurance, a history of alcohol or substance abuse, a psychotic or bipolar disorder, and a history of violence [20,21]. Black patients are more likely to be restrained and spend more time in restraints in the ED setting [20,22]. Older adults who require restraints are more likely to have a medical cause for their agitation [21].

ETIOLOGY AND DIFFERENTIAL DIAGNOSIS

The pathogenesis of violent behavior is not well understood. A wide range of factors may play a role, including the environment, a patient's social and medical history, interpersonal relations, genetics, neurochemistry and endocrine function, and substance abuse [23,24].

It is important to assess for potentially dangerous organic causes of agitation as soon as this can be done safely ([table 1](#)). In the emergency department (ED), drug and alcohol intoxication or withdrawal are the most common diagnoses in combative patients [25,26]. A rapid serum glucose measurement (eg, fingerstick glucose), pulse oximetry, and a complete set of vital signs should be obtained in all patients. (See '[Post-restraint medical evaluation](#)' below.)

Known psychiatric illness is a risk factor for violent behavior, with schizophrenia (paranoid and nonparanoid), personality disorders, mania, and psychotic depression most often associated with violence [25,27-29]. Psychotic patients with a history of incarceration due to violence are likely to act violently again [1]. Psychosis, delirium, or dementia may lead to violent behavior.

The mnemonic FIND ME (functional [ie, psychiatric], infectious, neurologic, drugs, metabolic, endocrine) may be helpful to organize a diagnostic search for the etiology of delirium and violence ([table 2](#)). (See "[Diagnosis of delirium and confusional states](#)".)

VIOLENCE PREVENTION IN THE EMERGENCY DEPARTMENT

Clinicians are largely underprotected and underprepared to prevent and manage violent patients. A telephone survey of 250 United States hospitals with emergency departments (EDs) revealed that approximately 23 percent of hospitals have a 24-hour security presence, 14 percent have security present part of the day, and 63 percent do not have security formally assigned to the ED at any time during the day [30]. Only 21 percent control access to the ED during high-risk hours, 39 percent use a security code, 46 percent have alarm buttons, 14 percent have a seclusion room, 36 percent use closed-circuit surveillance, and 1.6 percent use metal detectors. Security measures have increased in parallel with the rising ED census [30].

The prevention of violence is best accomplished by developing a system that includes ongoing staff education, adequate personnel, and a well-designed physical structure.

High-risk environments — A comprehensive approach is needed to reduce violence at high-risk sites. One large urban United States hospital with a high incidence of violent behavior

reported no incident of weapons-related violence or injury in the ED following implementation of the following measures [18,31]:

- Large security force
- Metal detectors
- Bulletproof Plexiglas in triage areas
- Keypad security entry system
- Monitoring entry into the ED
- Strong barriers to prevent cars from driving into the department

General prevention measures

- **Security personnel** – A well-trained and responsive security force is a key element of any safety system. Nevertheless, security personnel constitute a significant expense, and their services are often curtailed or eliminated when hospitals face fiscal difficulties. The use of guns by hospital security personnel is controversial. Guards may be allowed to carry guns after completing extensive weapons training. Other devices, such as electric stun guns and pepper spray, represent less lethal alternatives but are not free of risk. (See "[Chemical terrorism: Rapid recognition and initial medical management](#)", section on 'Chemical agent definitions' and "[Chemical terrorism: Rapid recognition and initial medical management](#)", section on 'Decontamination'.)
- **Alarm systems** – Alarm systems are commonly used in the ED and psychiatric wards. The goal of any alarm system is to obtain rapid assistance. False alarms must be minimized. A tiered alarm system is usually best. Panic buttons in each room activate a central buzzer in the ED. Several designated ED personnel respond initially and judge the level of response needed. Every ED should have at least one telephone with a direct line to police or security in case additional personnel are needed. A verbal code (eg, "Dr. Armstrong to Room 9") to call for additional help is useful [32].
- **Limiting access** – Controlling access into the ED and hospital helps to prevent violence. This can be done by limiting the number of entrances, controlling entryways (eg, buzzer activated doors), and monitoring who enters. High-risk EDs should limit access to one or two entrances, especially during the evening hours. During non-visiting hours, all entrances to the hospital other than the ED should be locked.
- **Caretaker education** – Regular, brief education sessions with clinicians, nurses, and ancillary staff to train them in the prevention and management of agitated and violent patients may reduce the incidence of violence and improve work satisfaction [33,34].

PATIENT EVALUATION

Interview preparation and setting — All patients must be disarmed before an interview [1]. Metal detectors can be used to identify weapons before patients are allowed entry into the emergency department (ED). The routine practice of undressing all patients and placing them in a gown serves as a nonconfrontational way to search for weapons. Searches should be performed in a nondiscriminatory manner [35]. A warning sign should be prominently displayed (eg, "For the safety of patients and staff, individuals entering the ED may be screened for weapons"). Almost all patients and families will cooperate with searches and may feel safer as a result [36].

The setting of the patient interview should be private but not isolated [28,32]. Some EDs have seclusion rooms specifically intended for interviewing a potentially dangerous patient. Whenever a potentially aggressive or volatile patient is interviewed, security personnel should be nearby and the door left open to allow both intervention and escape by the clinician.

The patient and interviewer may be seated roughly equidistant from the door, or the interviewer may sit between the patient and the door. The patient should NOT sit between the clinician and the exit, nor should the exit be blocked. Blocking the door poses a risk of harm to the clinician if the patient feels the need to escape.

Ideally, two exits should be available and doors should swing outward. This facilitates escape but may increase the chance of injury to anyone standing outside the door. The clinician should have unrestricted access to the door and therefore should never sit behind a desk.

The interview room should not contain heavy objects that may be thrown, such as ashtrays, or other potential weapons, such as electrical cords, scalpels, needles, or hot liquids. The clinician should have a mechanism for alerting others of danger, such as a panic button or a code word or phrase that instructs others to call for security (eg, "I need Dr. Armstrong in here"). Glasses, earrings, neckties, and necklaces should be removed. Personal accessories that may be used to harm the clinician, such as a scissors, pocketknives, or a stethoscope around the neck should be removed. The clinician should be aware of any objects within the room or on the patient's body, such as pens, watches, or belts, that may be used as weapons [32,37].

Patient assessment — Identification of potentially violent patients can be difficult. Active threats of violence are predictive and should be taken seriously. Male sex, a history of violence, and drug or alcohol abuse are associated with violence, but ethnicity, diagnosis, age, marital status, and education do not reliably identify such behavior [27,38-41]. Patients with a history of violent behavior are more likely to act violently again and to inflict serious injury [42-44]. Thus,

whenever possible, it is important to learn from family, caretakers, clinicians familiar with the patient, and medical records about any past violent episodes. Studies have found that prediction of violent behavior can be improved with consistent use of risk assessment tools, such as the Aggressive Behavior Risk Assessment Tool (ABRAT) [45,46].

Evaluation of the combative patient begins with risk assessment and attention to safety measures. Violence typically erupts after a period of mounting tension. The astute practitioner may identify verbal and nonverbal cues and seize the opportunity to defuse the situation [25].

In a typical scenario, the patient first becomes angry, then resists authority, and finally becomes confrontational. However, violent behavior may also erupt without warning, especially when caused by medical illness or dementia. Clinicians should not feel overly confident in their ability to sense impending danger. As a whole, practitioners tend to be poor at predicting impending violence. Nevertheless, the clinician should pay attention to any "gut feeling" that a dangerous situation may be developing [32]. An uncomfortable or threatening feeling during an interview is ominous, and appropriate precautions should be taken without delay.

In the ED, an obviously angry patient should always be considered potentially violent. Signs of impending violence include [32]:

- Provocative behavior
- Angry demeanor
- Demanding
- Loud, aggressive or mumbling speech
- Threatening to leave
- Tense posturing (eg, gripping arm rails tightly, clenching fists)
- Frequently changing body position, pacing
- Aggressive acts (eg, pounding walls, throwing objects, hitting oneself)

Psychiatric texts emphasize the attitude of the patient's hands as an indicator of tension.

The patient should be removed from contact with belligerent accomplices or other provocative patients to prevent escalation. A quiet area with a window or video monitoring that enables direct observation is optimal. Because increased waiting times correlate with violent behavior, the evaluation of these patients should be expedited to prevent any escalation of aggression [47-49]. Often, the aura of preferential treatment will defuse patient anger. Ancillary staff often resist this concept and dogmatically insist that the patient wait. They must be educated on the importance of "moving someone to the head of the line" when dealing with potential violence.

MANAGEMENT

Overview — Research into the best methods for managing acutely agitated patients is limited [50]. The approaches discussed below are based on the available evidence and our experience.

Patients who are agitated but cooperative may be amenable to verbal de-escalation techniques. Actively violent patients and uncooperative, agitated patients, particularly those who exhibit signs of impending violence, require immediate restraint. Patients who obviously do not understand what is occurring, for psychiatric or other reasons, or are unable to communicate and are perceived by medical staff to be potentially violent should be restrained. Assume that all violent patients are armed until proven otherwise, especially those presenting with major trauma [18].

Verbal techniques — Nearly all patients who present with agitation or violent behavior deserve the chance to calm down in response to verbal techniques before physical restraints or sedative medications are implemented. During initial interactions with the patient using the techniques described below, it will rapidly become clear to the clinician whether the patient will cooperate. This interaction also enables the clinician to assess the patient's mental status. If the patient remains resistant or violent or is incapable of interacting appropriately then restraint is necessary.

Agitated but cooperative, nonviolent patients may be amenable to verbal deescalation techniques, although clinical evidence supporting such an approach is limited [51]. The interviewer should adopt an honest and straightforward manner [52]. Friendly gestures can be helpful. Offer a soft chair or something to eat or drink (not a hot liquid, which may be used as a weapon) to establish trust. Many patients will decompress at this point, as offering food or drink appeals to their most basic human needs and builds trust.

A nonconfrontational but attentive and receptive manner without conveying weakness or vulnerability is optimal. Some patients become angry because they feel they are not being taken seriously or treated with respect and their anger abates when these concerns are addressed.

A calm and soothing tone of voice should be used. It is important to avoid direct eye contact or approaching the patient from behind or moving suddenly, and to stand at least two arm's lengths away [32,53].

In some cases, an agitated patient may be aware of their impulse control problem and may welcome limit-setting behavior by the clinician (eg, "I can help you with your problem, but I cannot allow you to continue threatening me or the emergency department staff") [32]. It is

difficult to predict which patients will respond to this limit-setting approach. Some patients may interpret such statements as confrontational and escalate their behavior, in which case, restraint becomes necessary.

A key mistake when interviewing an agitated or potentially violent patient is failing to address violence directly [39,52]. The patient should be asked relevant questions such as: "Do you feel like hurting yourself or someone else?" and "Do you carry a gun?" Stating the obvious (eg, "You look angry") may help the patient to begin sharing emotions. If the patient becomes more agitated, it is important to speak in a conciliatory manner and offer supportive statements to diffuse the situation, such as, "You obviously have a lot of will power and are good at controlling yourself." An offer of medication (eg, "Would you like some medication to help you calm down?") or restraints may prevent further escalation and is often welcomed.

A consensus statement from the American Association for Emergency Psychiatry De-escalation Workgroup describes 10 key elements for verbal de-escalation [53]:

- Respect personal space – Maintain a distance of two arm's lengths and provide space for easy exit for either party.
- Do not be provocative – Keep your hands relaxed, maintain a non-confrontational body posture, and do not stare at the patient.
- Establish verbal contact – The first person to contact the patient should be the leader.
- Use concise, simple language – Elaborate and technical terms are hard for an impaired person to understand.
- Identify feelings and desires – "What are you hoping for?"
- Listen closely to what the patient is saying – After listening, restate what the patient said to improve mutual understanding (eg, "Tell me if I have this right...").
- Agree or agree to disagree – (a) Agree with clear specific truths; (b) agree in general: "Yes, everyone should be treated respectfully"; (c) agree with minority situations: "There are others who would feel like you."
- Lay down the law and set clear limits – Inform the patient that violence or abuse cannot be tolerated.
- Offer choices and optimism – Patients feel empowered if they have some choice in matters.

- Debrief the patient and staff.

Some techniques used in business to manage upset customers can be applied to agitated patients. Among these are the three Fs and the philosophy of yes [54].

The three Fs (feel, felt, found) approach provides a framework for responding to the patient's emotional needs: "I understand how you could feel that way. Others in the same situation have felt that way, too. Most have found that (doing ____) can help."

The philosophy of yes encourages the clinician to respond to the patient affirmatively. Examples of initial clinician responses using this approach might include: "Yes, as soon as," "Okay, but first we need to," or "I absolutely understand why you want that done, but in my experience, there are better ways of getting what you need."

Some common approaches to the combative patient are counterproductive and can lead to escalation. Arguing, machismo, condescension, or commanding the patient to calm down can have disastrous consequences. Patients often interpret such approaches as a challenge to "prove themselves." A threat to call security personnel also invites aggression.

Other potential mistakes include criticizing or interrupting the patient, responding defensively or taking the patient's ire personally, and not clarifying what the patient wants before responding.

Never lie to a patient (eg, "I am sure you will be out of here in no time" when this is not the case). Once the lie becomes apparent, the patient may take out frustrations violently upon an unsuspecting nurse or colleague who follows the interviewer.

Take all threats seriously. It is especially important not to deny or downplay threatening behavior. To do so places the interviewer at increased risk of assault and injury. An example of this principle involves a psychiatrist who was killed after entering the waiting room with a patient he knew was potentially violent and armed [39]. He erroneously believed that the strength of the clinician-patient relationship ensured his safety.

If verbal techniques are unsuccessful and escalation occurs, the clinician should excuse himself and summon help.

Physical restraints

When to apply restraints — Physical restraints can be used when, despite a professional and proper approach to the combative patient, verbal techniques are unsuccessful. The use of restraints can be humane and effective while facilitating diagnosis and treatment of the patient

and preventing injury to the patient and medical staff [55-57]. Restraints are never to be applied for convenience or punishment, and should be removed as soon as possible, usually once adequate de-escalation or chemical sedation is achieved. (See '[Chemical sedation](#)' below.)

Indications for emergency seclusion and restraint include:

- Imminent harm to others
- Imminent harm to the patient
- Significant disruption of important treatment or damage to the environment
- Continuation of an effective, ongoing behavior treatment program

The clinician may find it helpful to classify patients into three categories. First, those with an organic disorder for whom restraints facilitate medical evaluation. Second, those with functional psychosis or substance use for whom verbal techniques are less effective and restraints facilitate administration of medication. Third, those with personality disorders for whom verbal techniques are not useful [32,58].

Seclusion may be used to decrease environmental stimulation and may be desirable for the patient in some instances [59]. In other circumstances, seclusion or restraint may be contraindicated. As examples, seclusion is unsuitable for any patient who is hemodynamically unstable, suicidal, self-abusive, self-mutilating, or has overdosed [25,60].

How to apply restraints — Restraints should be implemented systematically, ideally using an approved institutional protocol. This protocol begins with the examiner leaving the room once verbal techniques have been unsuccessful and summoning assistance. It may be helpful to consider the application of restraints like a procedure, analogous to running an advanced cardiac life support code [61].

The restraint team should have at least five people, including a team leader. The leader is the only person giving orders and should be the person with the most experience implementing restraints, whether a clinician, nurse, or security officer. Whenever possible, the treating clinician should not participate directly in applying restraints in order to preserve the clinician-patient relationship and not be viewed as adversarial. Before entering the room, the leader outlines the restraint protocol and warns of anticipated danger (eg, the presence of objects that may be used as weapons). All team members should remove personal effects, which the patient could use against them. Optimally, restraint teams should be of mixed gender to diminish potential allegations of sexual assault.

The team enters the room in force and displays a professional, rather than threatening, attitude. Many violent individuals decompress at this point, as a show of force protects their ego

(eg, "I would have fought back but there were too many against me"). The leader speaks to the patient in a calm and organized manner, explaining why restraints are needed and what the course of events will be (eg, "You will receive a medical and psychiatric examination as well as treatment"). The patient is instructed to cooperate and lie down to have restraints applied. Some patients will be relieved at the protection to self and others afforded by restraints when they feel themselves losing control. However, even if the patient suddenly appears less dangerous, physical restraints **must** be placed once the decision to use them has been made. Do **not** negotiate with the patient at this point.

Some larger hospitals use a designated behavioral emergency response team that responds to all patient encounters in which restraints may be needed [62]. The basic approach to individual patients is similar to that described here, but all team members have expertise managing violent patients. The team may include a psychiatric nurse. This approach decreases the difficulty of providing regular training for all hospital staff and helps to ensure a consistent, expert approach to potentially violent situations. At smaller institutions this approach may not be feasible.

If it becomes necessary to use force to control the patient, one team member restrains a preassigned extremity by controlling the major joint (knee or elbow). This can be accomplished by locking the major joint in extension. The team leader controls the head. If the patient is armed with a makeshift weapon, two mattresses can be used to charge and immobilize or sandwich the patient. Restraints are applied securely to each extremity and tied to the solid frame of the bed (not side rails, as later repositioning of side rails also repositions the patient's extremity). To prevent lower extremities from flailing independently, it may be best to cross the legs at the ankle and then attach the restraint to the bed frame at the opposite side.

Leather is the optimal material for restraints because it is strong, prevents escape, and is less constricting than typical soft restraints. Gauze should not be used. Soft restraints are helpful in restricting extremity use in a semi-cooperative patient, but are less effective in the truly violent patient who continues to struggle.

If chest restraints are used, it is vital that adequate chest expansion for ventilation is ensured. Applying a soft Philadelphia collar to the patient's neck will help to prevent head-banging and biting. Restraining patients on their side helps to prevent aspiration, although supine positioning with the head elevated is more comfortable for the patient and allows a more thorough medical examination while providing some protection against aspiration [25,26]. Once the patient is immobilized, announcing "the crisis is over" will have a calming effect on the restraint team and the patient.

We recommend avoiding the prone restraint position and using aggressive chemical sedation in patients who continue to struggle against physical restraints to prevent sudden, unexpected cardiac arrest. (See ["Restraint-related cardiac arrest: Pathogenesis, strategies for prevention, and management for hospital clinicians".](#))

Restrained patients who are intoxicated with cocaine, amphetamines, or other stimulants appear to be at particularly high risk for adverse outcomes [63-65]. Increased sympathetic tone and altered pain sensation may allow exertion beyond normal physiologic limits in these patients and may cause vasoconstriction that impedes the clearance of metabolic waste products. Altered respiratory mechanics due to a restrained posture in an acidemic patient may impair respiratory compensation.

Monitoring and care of physically restrained patients — After restraints have been applied successfully, the patient should be monitored frequently and have his or her position changed regularly to prevent neurovascular sequelae such as circulatory obstruction, pressure sores, and paresthesias, as well as to avoid rhabdomyolysis associated with continued combativeness. A standardized form is recommended for this monitoring and should be developed by every emergency department (ED) or ward that physically restrains patients. Documentation should include the specific indication for restraints and a colleague's agreement that restraints were necessary. Physical restraints should be removed as soon as possible.

In a patient who was restrained prone or was struggling against restraints for more than five minutes, we begin continuous cardiac monitoring for at least one hour, frequently re-evaluate clinical status, exclude hyperthermia, and perform a full trauma evaluation once it is safe to do so.

In addition to monitoring and other measures to prevent medical complications, clinicians must ensure that basic needs (eg, hydration, toilet) are met for any patient who is physically restrained or chemically sedated.

The restraint team should review their performance and discuss ways to improve effectiveness. Education and rehearsal by staff is imperative to maintain skills.

Chemical sedation — Chemical sedation may be necessary, with or without physical restraints, in a patient that does not respond to verbal de-escalation techniques. Rapid tranquilization may be required in the agitated or violent patient. Anticipating the need for pharmacologic management early in the clinical course of a patient likely to become agitated may obviate the need for physical restraint.

The ideal sedative medication for the agitated or violent patient would be rapidly acting, effective regardless of the route of administration, and possess minimal side effects. Few double-blinded, randomized, placebo-controlled trials have been performed to establish the efficacy or safety of any single medication in the management of acute delirium [66]. With all medications, the degree of sedation required must be balanced against potential side effects.

The major types of medications used to control the violent or agitated patient include benzodiazepines, first-generation (typical) antipsychotics, second-generation (atypical) antipsychotics, and [ketamine](#). Each is discussed in detail below.

Clinicians may need to consider the potential difficulty and time required to place an intravenous catheter when determining their approach to chemical sedation. Clinical studies reporting the time required to achieve sedation often fail to account for the time needed to complete this procedure.

Patient-based approach to drug selection — A treatment algorithm outlining our approach to chemical sedation of the acutely agitated patient, including specific medication suggestions, is provided ([algorithm 1](#)).

In summary we suggest the following approach:

- For severely violent patients requiring immediate sedation, give a rapidly acting first-generation (typical) antipsychotic (eg, [droperidol](#)) or benzodiazepine alone (eg, [midazolam](#)) or a combination of a first-generation antipsychotic and a benzodiazepine (eg, droperidol and midazolam, or [haloperidol](#) and [lorazepam](#)). (See '[Combination therapy](#)' below.)
- For patients with agitation from drug intoxication or withdrawal, give a benzodiazepine.
- For patients with undifferentiated agitation, we prefer benzodiazepines, but first-generation antipsychotics are a reasonable choice.
- For agitated patients with a known psychotic or psychiatric disorder, we prefer first-generation antipsychotic agents, but second-generation antipsychotics are a reasonable choice.

One management principle is to move to a different class when the first is ineffective or excessive doses are required. Some patients may have paradoxical reactions and become more agitated after receiving a particular medication. In such cases, no additional agents from this class should be given and only alternative classes used.

The use of injectable medications may be viewed as an assault by the patient, invoking images of punishment and incarceration rather than therapy and relief [67]. For the agitated but nonviolent patient willing to cooperate with treatment, the use of oral medication may be as effective as a parenteral form [68].

In 2006 the American College of Emergency Physicians published a clinical policy that discusses pharmacologic treatment for the acutely agitated patient in the ED [69], while in 2012 a workgroup of the American Association for Emergency Psychiatry published recommendations for the management of agitation [70]. These guidelines reflect common practice in many EDs throughout the United States.

Our approach to chemical sedation is based on the available, albeit limited, evidence and our clinical experience. As many agitated or violent patients presenting to EDs are not well known to the clinicians providing the initial care, we prefer to use medications with proven efficacy and relative safety. We recognize that psychiatrists who either know the patient or are more experienced in the diagnosis and management of particular psychiatric conditions may prefer to use different medications for chemical sedation and this is reasonable and appropriate. Such approaches are discussed separately. (See "[Bipolar mania and hypomania in adults: Choosing pharmacotherapy](#)", section on 'Agitation' and "[Schizophrenia in adults: Maintenance therapy and side effect management](#)", section on 'Initial management of acute psychosis'.)

Benzodiazepines — In general, we prefer benzodiazepines when sedating the patient with agitation from an unknown cause. [Lorazepam](#) and [midazolam](#) are used most often.

- [Lorazepam](#) is commonly used due to its rapidity of action, effectiveness, short half-life, and intramuscular (IM) or intravenous (IV) route of administration [71,72]. The usual dose is 0.5 to 2 mg IV or IM. Some experts give doses as frequently as every 10 minutes for severely agitated patients, although standard sources of drug information suggest a dosing interval of 30 minutes. The half-life of lorazepam is 10 to 20 hours.
- [Midazolam](#) is an effective sedative with a more rapid onset than [lorazepam](#) but a shorter duration of action (one to two hours) [73]. The usual dose is 2.5 to 5 mg IV or IM. In severely agitated patients, doses may be given every three to five minutes.

Benzodiazepines may cause respiratory depression, excessive somnolence, and less commonly, paradoxical disinhibition [74]. Clinicians must be vigilant about monitoring the respiratory function of patients receiving benzodiazepines, either alone or in combination with other drugs. In agitated but cooperative patients, benzodiazepines may be given orally using the same doses described above.

Benzodiazepines are especially useful in patients who are agitated from drug or alcohol intoxication or withdrawal, but retain efficacy in acute psychosis [27,75]. Alcohol withdrawal and overdoses of particular drugs may require treatment with large cumulative doses. (See "[Management of moderate and severe alcohol withdrawal syndromes](#)".)

The efficacy of benzodiazepines in treating acute agitation has been demonstrated in several trials:

- In one double-blinded, randomized trial involving 153 acutely agitated patients in the ED, [midazolam](#) (median dose 5 mg) was as effective as [droperidol](#) (median dose 10 mg) in achieving sedation within 10 minutes [76]. Three patients in the midazolam group temporarily required assisted ventilation and one was intubated.
- Patients treated with [midazolam](#) (5 mg IM) achieved more rapid sedation but more often required additional medication for breakthrough symptoms compared with those treated with [droperidol](#) (5 mg IM) or [ziprasidone](#) (20 mg IM) in a double-blinded randomized trial involving 144 agitated ED patients [77].
- In another double-blinded, randomized trial performed in an urban ED, [midazolam](#) (5 mg IM) was found to provide more rapid sedation of severely agitated patients than [lorazepam](#) (2 mg IM) or [haloperidol](#) (5 mg IM) [78]. All three agents provided effective sedation and no differences in hemodynamics or respiratory function was noted among the 111 patients involved.
- In a prospective, observational study of 737 patients comparing [haloperidol](#) (5 mg), [ziprasidone](#) (20 mg), [olanzapine](#) (10 mg), [midazolam](#) (5 mg), and [haloperidol](#) (10 mg) in patients with mild to moderate agitation, IM midazolam achieved more rapid sedation but was more likely to require additional medications for continuing sedation [79].

First-generation (typical) antipsychotics — The older (first-generation) or "typical" antipsychotics include the butyrophenones and phenothiazines. Among the multiple medications in this class, the butyrophenones [haloperidol](#) and [droperidol](#) are used most often to manage acute agitation. The mechanisms and general clinical use of these agents are discussed separately ([table 3](#) and [table 4](#)). (See "[First-generation antipsychotic medications: Pharmacology, administration, and comparative side effects](#)".)

- [Haloperidol](#) has been used effectively for many years to control violent and agitated patients [80,81]. It can be given IV, IM, or orally, although its IV use is not approved by the US Food and Drug Administration (FDA). It is usually given in doses of 2.5 to 10 mg. The onset of action is within 5 to 20 minutes for IV administration. The dose should be

decreased by one half in the elderly. Some clinicians give repeat doses as frequently as every 15 to 30 minutes in patients with severe agitation until the desired level of sedation is achieved.

- **Droperidol** is an analog of **haloperidol** with a shorter half-life. It can be given IM or IV and is usually given in doses of 2.5 to 5 mg. Its onset of action ranges from 15 to 30 minutes, with a duration of six to eight hours [82]. Multiple randomized trials have demonstrated the effectiveness of droperidol in controlling acute agitation [72,76,77,82-86]. A pharmacokinetics study of 41 patients adapted from a larger clinical trial reported that IM droperidol is rapidly absorbed, obviating the need for IV therapy, which can place health care and security workers at risk while attempts are made to place an intravenous catheter [87].

Several trials demonstrate the effectiveness of first-generation antipsychotics for the treatment of acute agitation. As an example, in a randomized trial of 115 ED patients with acute undifferentiated agitation, 16 of 25 (64 percent) treated with **droperidol** (5 mg IM) achieved adequate sedation at 15 minutes compared with 7 of 28 (25 percent) in the first **ziprasidone** group (10 mg IM), 11 of 31 (35 percent) in the second ziprasidone group (20 mg IM), and 9 of 31 (29 percent) in the **lorazepam** group (2 mg IM) [86]. In addition, the incidence of respiratory depression was significantly lower in the droperidol group; no ventricular dysrhythmias occurred.

All first-generation antipsychotics possess quinidine-like cardiac effects resulting in QT prolongation, with the potential for causing dysrhythmias, particularly torsades de pointes. In 2001, the US Food and Drug Administration gave **droperidol** a "black box" warning because of the risk of QT prolongation [88]. A warning for **haloperidol** followed in 2007 [89]. These warnings have generated substantial debate, given the drugs' long history of effectiveness and the dearth of substantial clinical evidence demonstrating harm [90-93]. Studies performed after the warnings appeared raise doubts about their utility:

- In a retrospective chart review of 16,546 patient treated with **droperidol**, only one patient suffered a cardiac arrest, felt to be unrelated to the medication, and five experienced ventricular dysrhythmias, including one patient with torsades de pointes who had multiple pre-existing risk factors for this dysrhythmia [94]. Thus, the overall incidence of severe dysrhythmia in the study was 0.006 percent.
- A prospective observational study performed in six EDs and involving 1009 patients sedated with **droperidol** (median dose 10 mg) for acute agitation who received an ECG

during their workup reported no episodes of torsades de pointes and only six cases of abnormal QT intervals attributable to droperidol [95].

We believe both drugs are effective first-line agents for the sedation of violent and acutely agitated patients. They should be used with caution in those at risk for QT prolongation, such as patients taking other medications known to prolong the QT interval, patients likely to have electrolyte disorders (eg, hypokalemia and hypomagnesemia), and patients with congenital conditions associated with QT prolongation. If feasible, an electrocardiogram (ECG) should be performed prior to administration, but this may be impossible when managing a violent patient. In such cases, an ECG should be obtained once the patient is sufficiently sedated.

In patients with severe agitation secondary to alcohol intoxication, [droperidol](#) may be the most effective antipsychotic available as monotherapy. In a retrospective review of 11,787 patients with acute agitation due to alcohol intoxication, droperidol given as monotherapy was associated with a significantly shorter median length of stay in the ED (499 minutes) compared with parental [haloperidol](#) (524 minutes) or [olanzapine](#) (533 minutes) [96].

Neuroleptics, including [haloperidol](#) and [droperidol](#), should be avoided in cases of alcohol withdrawal, benzodiazepine withdrawal, other withdrawal syndromes, anticholinergic toxicity, and patients with seizures. If possible, these medications should also be avoided in pregnant and lactating females and phencyclidine overdose [32]. First-generation antipsychotics can cause extrapyramidal side effects and delayed dystonic reactions. (See "[Teratogenicity, pregnancy complications, and postnatal risks of antipsychotics, benzodiazepines, lithium, and electroconvulsive therapy](#)" and "[Management of moderate and severe alcohol withdrawal syndromes](#)" and "[Anticholinergic poisoning](#)".)

Second-generation (atypical) antipsychotics — The newer (ie, second-generation) or "atypical" antipsychotics reportedly cause fewer extrapyramidal side effects and less sedation than first-generation antipsychotics [57,97]. The second-generation antipsychotics used most often in the acute setting include [olanzapine](#), [risperidone](#), and [ziprasidone](#). Experience using second-generation antipsychotic medications to control severe, acute agitation in the ED is limited, but growing and preliminary studies suggest that they are effective. The mechanisms and general clinical use of these agents are discussed separately. (See "[Second-generation antipsychotic medications: Pharmacology, administration, and side effects](#)".)

[Olanzapine](#) can be given IM for the treatment of acute agitation [98-101]. The initial IM dose for this indication is generally 10 mg. The onset of action is 15 to 45 minutes, and the half-life is two to four hours. Olanzapine in a dose of 10 mg IM appears not to cause excessive sedation [99]. A

reduced dose of 5 or 7.5 mg may be appropriate in selected patients (eg, less severe agitation, increased risk of hypotension).

In a patient who agrees to take an oral medication, the oral disintegrating formulation of [olanzapine](#) is rapidly absorbed and may be preferred by the patient compared with the more invasive IM injection [70,102]. The initial dose is 5 to 10 mg.

In a retrospective review of 15,918 ED patients treated for acute agitation with [olanzapine](#) (median dose 10 mg IM), [haloperidol](#) (median dose 5 mg), or [droperidol](#) (median dose 5 mg), those treated with olanzapine or droperidol were less likely to require subsequent rescue medication [98]. Major adverse events were uncommon and did not differ significantly among treatment groups.

Several studies suggest that IV [olanzapine](#) at doses of 5 to 10 mg may be a safe and effective treatment for acute agitation [103,104]. Patients given IV olanzapine must be closely monitored as there is a risk of respiratory depression, and clinicians should note that IV administration is off label [105]. While preliminary evidence suggests that IV olanzapine is effective, we prefer first-generation antipsychotics given their lower cost and history of effectiveness. (See '[First-generation \(typical\) antipsychotics](#)' above.)

Studies supporting the use of IV [olanzapine](#) include the following:

- A prospective observational study of 784 patients presenting to the ED for a variety of conditions reported that both IM and IV [olanzapine](#) provided adequate sedation, with respiratory depression occurring in 21 patients, of whom 7 required tracheal intubation, and nonrespiratory complications occurring in 8 patients [106].
- A retrospective study of 713 consecutive patients treated with IV [olanzapine](#) for a number of conditions included 245 (34.4 percent) patients treated for severe, acute agitation [107]. A single IV dose (692 patients received either 2.5 or 5 mg IV) achieved adequate sedation in 67 percent of patients. Hypoxia developed in 74 patients (10.4 percent), while clinically significant respiratory complications (eg, patient required airway stimulation, repositioning, or tracheal intubation) occurred in 15 patients (2.1 percent). Three intubations were deemed either likely or possibly to have been related to olanzapine.

[Risperidone](#) is generally used for schizophrenia and data for its use in acute agitation are limited. It has been useful in controlling agitation in the elderly and may have similar effects to [haloperidol](#) when a benzodiazepine is added [108]. It is only available in an oral and IM depot form and the usual dose is 1 to 2 mg. The time to peak concentration is shorter than some other oral second-generation antipsychotics. Risperidone is preferred when rapid control of

agitation is needed and an oral medication is to be given [109]. In a randomized trial of 42 agitated patients with psychosis that used blinded raters, intramuscular [olanzapine](#), oral disintegrating olanzapine, and oral risperidone solution were found to be as effective as IM haloperidol for the treatment of acute agitation [110].

[Ziprasidone](#) has been used to treat agitated schizophrenic and bipolar patients, and is available in oral and IM formulations [77,79,111]. It is typically given in an IM dose of 10 to 20 mg IM and has an onset of action of 15 to 20 minutes and a half-life of two to four hours. Many psychiatric emergency services in the United States use a 20 mg IM dose of ziprasidone as first line treatment for severe agitation [71].

The second-generation antipsychotics cause some degree of QT prolongation, with [ziprasidone](#) most likely to cause this effect [112]. Precautions similar to those suggested for first-generation antipsychotics should be used. (See '[First-generation \(typical\) antipsychotics](#)' above.)

Combination therapy — Benzodiazepines and first-generation antipsychotics can be used together to sedate combative patients. As examples, the following combinations have been shown to be effective:

- [Midazolam](#) (5 mg IV or IM) and [droperidol](#) (5 mg IV or IM)
- [Lorazepam](#) (2 mg IV or IM) and [haloperidol](#) (5 mg IV or IM)

These combinations achieve more rapid sedation than either drug alone and may reduce side effects. Half doses should be used in the elderly. If additional medication is needed, a reasonable approach to titration is to give additional [midazolam](#) every 3 to 5 minutes or [lorazepam](#) every 10 to 20 minutes as needed.

The use of combination therapy is supported by a small number of randomized trials performed in EDs and psychiatric wards [74,113-115]:

- In a multicenter, randomized, double-blind controlled trial, the combination of either [droperidol](#) (5 mg IV) and [midazolam](#) or [olanzapine](#) (5 mg IV) and midazolam provided more rapid sedation of acutely agitated ED patients (n = 336) than midazolam alone (2.5 to 5 mg IV used for all three groups) without an increase in adverse events and with less need for rescue medication [114]. The mean times to sedation were 21.3 minutes for the droperidol group, 14 minutes for the olanzapine group, and 67.8 minutes for the midazolam only (ie, control) group.
- In another trial, 349 adult patients presenting to one of two urban EDs with acute agitation were randomly assigned to treatment with an intravenous combination of

midazolam 5 mg plus droperidol 5 mg, or droperidol 10 mg IV, or olanzapine 10 mg IV [115]. At 10 minutes following the initial dose, approximately 25 percent more patients given combination therapy were adequately sedated compared to the patients treated with either medication alone, while adverse event rates did not differ significantly among groups.

- A systematic review of seven studies with 1135 patients found that combination therapy resulted in a greater proportion of patients sedated at 15 to 20 minutes compared with benzodiazepines alone [116].

Ketamine — Ketamine, a dissociative anesthetic with a good safety profile when used for procedural sedation, has been used to manage the acutely agitated and violent patient in the prehospital and hospital settings, although studies have been small and methodology has varied [117-124]. We suggest caution when using ketamine to control agitation until evidence confirms the safety and effectiveness of this approach.

Ketamine may be useful when initial treatments such as benzodiazepines or antipsychotics have failed, and in patients with hyperactive delirium, a condition of acute delirium and adrenergic excess often related to acute-on-chronic drug abuse in patients who may have mental illness but its use may be associated with a greater need for endotracheal intubation compared to other medications depending upon the dose required to achieve adequate sedation [124-127]. Case reports describing the use of ketamine in hyperactive delirium have involved young adults, and clinicians may wish to avoid ketamine in patients experiencing delirium who are older, have known heart disease, or are at increased risk of heart disease, as ketamine causes an increase in heart rate and blood pressure. The properties of ketamine and its use for anesthesia in adults are reviewed separately. (See "General anesthesia: Intravenous induction agents", section on 'Ketamine'.)

For the purpose of treating acute agitation, ketamine at an initial dose of 1 to 2 mg/kg IV, or 4 to 6 mg/kg IM, may be used. The onset of action is approximately one to two minutes with IV administration, but four to five minutes or possibly longer with IM administration. The duration of action is approximately 10 to 20 minutes. Should the initial dose fail to provide adequate sedation, a repeat IV or IM dose using a 50 percent reduction in the initial dose may be given after 5 to 10 minutes for IV, and after 10 to 25 minutes for IM treatment. In addition, if ketamine is administered after or in addition to another sedative or antipsychotic medication, we suggest reducing the standard initial dose by 50 percent.

Notable side effects may include hypertension and tachycardia (usually mild and transient), laryngospasm (uncommon), emergence reactions, and vomiting. Side effects may be more

common with rapid IV administration. Although respiratory complications are uncommon, clinicians using [ketamine](#) must be prepared to manage airway obstruction. Ketamine can exacerbate schizophrenia and should be avoided in patients with this condition.

Some evidence suggests that [ketamine](#) can provide more rapid sedation than benzodiazepines and [haloperidol](#):

- In a single-center, open-label randomized trial, 93 acutely agitated patients were treated with [ketamine](#) given IM or IV or with a combination of [haloperidol](#) and [lorazepam](#) given IM or IV (93 percent of patients received treatment IM) [128]. Among those treated with ketamine, 22 percent achieved adequate sedation by five minutes and 66 percent by 15 minutes, compared with 0 percent by five minutes and 7 percent by 15 minutes among those treated with the combination therapy.
- In a single-center randomized trial, 80 acutely agitated patients were treated with [ketamine](#) 5 mg/kg IM or a combination of [haloperidol](#) 5 mg and [midazolam](#) 5 mg IM [129]. While the median time to sedation was significantly shorter for the ketamine group (5.8 versus 14.7 minutes, difference 8.8 minutes, 95% CI 3-14.5), serious adverse events were more common among these patients (five versus two).
- A single-center prospective observational study of 98 acutely agitated patients in the ED compared treatment with [ketamine](#), benzodiazepines, [haloperidol](#), and a benzodiazepine plus haloperidol and reported that ketamine alone was faster in controlling agitation than other treatments [130].

However, other studies report higher rates of tracheal intubation and complications among patients given [ketamine](#):

- Another prospective observational study of 146 patients with acute, undifferentiated agitation requiring transport to the ED compared treatment with [ketamine](#) and [haloperidol](#) and found that ketamine provided more rapid sedation (median time 5 versus 17 minutes) [121]. However, ketamine was associated with more complications and a higher intubation rate (39 versus 4 percent with haloperidol).
- In a retrospective review of 214 patients, 95 patients given [ketamine](#) had an intubation rate of 11.6 percent and were more likely to need additional medications compared with those receiving [haloperidol](#) and benzodiazepines. The need for intubation appeared to be dose dependent [131].

- In a systematic review and proportional meta-analysis of 18 studies and 650 patients, [ketamine](#) provided rapid sedation for patients with undifferentiated agitation, but 40 percent of patients transported by ground emergency medical services (EMS) were intubated in the field or upon arrival to the ED. This compared with intubation rates of 4.9 percent of those transported by air and 1.8 percent for those given ketamine in the ED. This study had several limitations given that all the combined studies were observational. However, caution is needed in the prehospital setting given the reported high incidence of intubations [[132](#)].

Dexmedetomidine sublingual — We believe there is insufficient evidence and clinical experience to recommend the sublingual formulation of [dexmedetomidine](#) as a first-line agent for treatment of agitation in the emergency department. Dexmedetomidine, an alpha-2 adrenergic receptor agonist, is a commonly used IV sedative in mechanically ventilated patients. The sublingual formulation received approval in April 2022 in the United States for the acute treatment of agitation associated with schizophrenia and bipolar disorder in adults. Approval was based on a trial that included 380 patients with mild to moderate agitation associated with bipolar disorder, most treated in clinical research units, that demonstrated efficacy of sublingual dexmedetomidine in improving agitation scores [[133](#)]. These results cannot be generalized to emergency department use since the trial patients were sufficiently calm that they were able to provide informed consent and place the dexmedetomidine film under tongues themselves; it is unclear how many of the patients, if any, were actually cared for in the emergency department setting; and the comparator was placebo rather than an active control [[133](#)]. However, emergency clinicians should be aware that dexmedetomidine sublingual film is now available for use in the agitated but cooperative patient. (See "[Bipolar mania and hypomania in adults: Choosing pharmacotherapy](#)".)

General adverse effects — When appropriate medications, doses, and procedures are used for the chemical sedation of acutely agitated or violent patients in the ED, major adverse side effects are uncommon. As an example, a prospective observational study of 904 agitated patients treated in 12 Australian EDs compared adverse events among patients receiving [midazolam](#) and [droperidol](#) or either droperidol or [olanzapine](#) alone [[134](#)]. No deaths or serious adverse events were observed in any group, although a significant increase in milder adverse events (most notably oxygen desaturation) was noted in patients over age 65, those with alcohol intoxication, and those receiving multiple parenteral sedative medications within 60 minutes.

Post-restraint medical evaluation — Once the patient is restrained, the clinician must investigate the cause of agitation and determine whether it is medical (ie, organic) or

psychiatric (ie, functional). Patients over the age of 40 with new psychiatric symptoms are more likely to have an organic cause. Elderly patients are at higher risk for organic delirium due to medical illness or adverse reactions to medications. Patients with a history of drug or alcohol abuse may exhibit violent behavior as a manifestation of an intoxication or withdrawal syndrome. The acute onset of agitated behavior suggests an organic etiology. Most psychiatric patients are alert and oriented and have a history of psychiatric illness. The differentiation of medical from psychiatric disorders, the evaluation of delirium and confusional states, and the general assessment of drug overdose patients are discussed in greater detail elsewhere. (See ["Evaluation of abnormal behavior in the emergency department"](#) and ["Diagnosis of delirium and confusional states"](#) and ["General approach to drug poisoning in adults"](#).)

A few basic points concerning the medical evaluation bear emphasis:

- The importance of obtaining a complete set of vital signs and performing a thorough mental status and neurologic examination cannot be overemphasized. Patient restraint may be necessary to accomplish even the most rudimentary physical inspection. (See ["The detailed neurologic examination in adults"](#).)
- A rapid blood glucose determination and pulse oximetry should be obtained in all combative patients.
- Combative patients who are sedated and subsequently deteriorate frequently suffer from an unrecognized infection or drug overdose.
- Patients under 40 years of age, with a prior psychiatric history and a normal physical examination including vital signs, and who are oriented and regain a calm demeanor, likely require no further diagnostic testing. Multiple observational studies and position statements support this approach and recommend that diagnostic testing be based on findings obtained from a careful history and physical examination [[135-138](#)].

Legal considerations — Perhaps no area of medicine is more fraught with legal considerations and potential risks than care of the combative patient. Different laws apply according to the location and a discussion of the relevant legal issues is beyond the scope of this topic. Regardless of the legal system in which a clinician practices, adherence to the following guidelines will help to minimize potential liability. References containing more detailed consideration of the legal issues are provided [[139,140](#)].

- The patient should be assessed by the clinician to determine if the patient appears to have the capacity to make reasonable decisions about their health care, workup, and therapy. Courts have consistently given great latitude to clinicians in retrospect as long as they

were acting in good faith. Assessment of decision-making capacity is reviewed separately ([table 5](#)). (See "[Assessment of decision-making capacity in adults](#)".)

- Having a clinician coworker record that they agree with the assessment and treatment described by the clinician primarily responsible for the patient represents powerful supporting documentation. Although obtaining court approval in advance of actions is ideal, it is often impossible due to time constraints and the limited availability of legal authorities.
- If a clinician decides to suspend the liberty of a patient and make decisions for them, the reasons should be clearly documented in the medical chart and any required forms completed.
- When a clinician restrains a patient physically or sedates them chemically they become responsible for the well-being of the patient. Attention to adequate comfort, hydration, respiration, bathroom needs, and protection are required. Such a patient must be closely monitored.
- Should physical restraints be placed, they should be removed as soon as possible.
- A patient with the capacity to make reasonable decisions and who poses no threat to himself, the medical staff, or others cannot be confined or restrained without their permission. Doing so can lead to a legal charge of false imprisonment or battery. In the US, false imprisonment and battery are generally not covered in malpractice insurance policies.
- Duty to Warn is a legal concept, present in some locations, that requires a clinician to warn a person who is in danger from a combative patient. Failure to do so may make the clinician liable for injury to the third party.

DISPOSITION

In general, violent behavior unrelated to organic illness or drug intoxication or withdrawal should be followed by psychiatric consultation and evaluation. The medical record should reflect that the emergency department (ED) evaluation makes an acute medical condition unlikely to have caused or contributed to the patient's behavior. If the etiology of the patient's violent behavior is due to drug or alcohol intoxication, the patient should be observed until he or she has reached the point where a therapeutic interview can be conducted by the psychiatrist.

Alternatively, the patient may be transported to a facility where he or she can be observed until the effects of the intoxicants have abated.

Rather than pronouncing the patient "medically clear," the clinician should clearly convey his or her findings and recommendations directly to the consulting psychiatrist. After the violent patient has been medically evaluated, a decision must be made to begin commitment proceedings or discharge the patient. Admission is appropriate for violent patients who state specific intentions to hurt themselves or others, refuse to answer questions or cooperate, are under the influence of drugs or alcohol, are psychotic, or have an organic brain syndrome [32,141].

Discharge may be appropriate if the violent behavior was caused by a temporary organic syndrome (eg, intoxication), medical and psychiatric evaluation reveals no other significant problem requiring acute intervention, and the patient is deemed in control and no longer violent. All discharged patients should be given specific follow-up evaluation and discharge instructions.

If a violent patient escapes the ED, law enforcement authorities should be notified. If the patient threatened violence to a specific individual before escape, that individual should be notified as well. If the patient has committed a violent act, it is often possible to discharge the patient in police custody. Jail is a safe disposition as long as authorities are warned of potential danger. If the patient needs to be transferred, the accepting clinician should be warned of possible violence.

DEFENSE AGAINST ASSAULT

Unfortunately, physical assault may occur despite appropriate precautions and interventions. If assaulted, immediately summon help, preferably by use of a panic button. Maintain a sideward posture, keeping the arms ready for self-protection. If faced with a punch or a kick, deflect with an arm or a leg. If choking is attempted, tuck the chin in to protect the airway and carotid arteries. If bitten, do not pull away, but rather push toward the mouth and hold the nares shut to entice opening of the mouth.

If threatened with a weapon, try to appear calm and comply with demands [32]. Adopt a nonthreatening posture and avoid sudden movements. Do not attempt to reach for the weapon. Avoid argument, despair, or whining. If taken hostage, attempt to establish a human connection with the hostage taker, as a hostage taker will rarely kill someone if a relationship has been established [28,35]. Offering to administer to ill or injured hostages makes them

appear less expendable. Do not bargain or make promises, and do not lie, as the consequences could be disastrous. Reassure the hostage taker that someone authorized to hear his or her complaints or demands should arrive promptly [35]. If a weapon is put down, do not reach for it, but rather attempt to verbally resolve the crisis while awaiting security arrival. Call law enforcement authorities to provide a professional hostage negotiator if needed.

Each hospital should have a plan of action in the case of extreme violence. The plan should include prevention and safety measures, a means for rapid notification of security and police personnel, evacuation plans, medical treatment, and crisis intervention [18,35]. A novel approach uses a trained violence management team to provide a mechanism for dealing with aggressive patients and to protect the staff [62]. (See '[How to apply restraints](#)' above.)

SOCIETY GUIDELINE LINKS

Links to society and government-sponsored guidelines from selected countries and regions around the world are provided separately. (See "[Society guideline links: Adult with altered mental status in the emergency department](#)".)

INFORMATION FOR PATIENTS

UpToDate offers two types of patient education materials, "The Basics" and "Beyond the Basics." The Basics patient education pieces are written in plain language, at the 5th to 6th grade reading level, and they answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials. Beyond the Basics patient education pieces are longer, more sophisticated, and more detailed. These articles are written at the 10th to 12th grade reading level and are best for patients who want in-depth information and are comfortable with some medical jargon.

Here are the patient education articles that are relevant to this topic. We encourage you to print or e-mail these topics to your patients. (You can also locate patient education articles on a variety of subjects by searching on "patient info" and the keyword(s) of interest.)

- Beyond the Basics topic (see "[Patient education: Delirium \(Beyond the Basics\)](#)")

SUMMARY AND RECOMMENDATIONS

- **Epidemiology** – Up to 50 percent of health care providers are victims of violence sometime during their careers. (See '[Epidemiology](#)' above.)
- **Etiology** – In the emergency department (ED), drug and alcohol intoxication or withdrawal are the most common causes of severe agitation. Fingertick glucose, pulse oximetry, and a complete set of vital signs should be obtained in all combative patients. It is important to assess for potentially dangerous organic causes of agitation as soon as this can be done safely ([table 1](#)). (See '[Etiology and differential diagnosis](#)' above and '[Post-restraint medical evaluation](#)' above.)
- **Violence prevention** – Clinicians are largely under-protected and under-prepared to prevent and manage violent patients. A number of prevention measures are described in the text. (See '[Violence prevention in the emergency department](#)' above.)
- **Safety measures** – Basic safety measures should be followed during all interviews with potentially violent patients. All patients must be disarmed before an interview. The setting should be private but not isolated, and no obstacle should exist between the clinician and the exit. (See '[Interview preparation and setting](#)' above.)
- **Risk factors and signs of impending violence** – Male sex, a history of violence, and drug or alcohol abuse are associated with violence. Signs of impending violence include:
 - Provocative behavior
 - Angry demeanor
 - Loud, aggressive speech
 - Tense posturing (eg, gripping arm rails tightly, clenching fists)
 - Frequently changing body position, pacing
 - Aggressive acts (eg, pounding walls, throwing objects, hitting oneself) (see '[Patient assessment](#)' above)

Actively violent patients and uncooperative, agitated patients, particularly those who exhibit signs of impending violence, require immediate restraint. Assume that all violent patients are armed until proven otherwise. (See '[Overview](#)' above.)

- **De-escalation techniques** – Nearly all patients who present with agitation or violent behavior deserve the chance to calm down in response to verbal techniques. The following suggestions increase the likelihood of a successful interview:
 - Adopt an honest, nonthreatening, and straightforward manner.
 - Perform friendly gestures (eg, offer food).

- Listen to the patient: Identify and confirm their feelings and desires. Offer choices and optimism.
 - Avoid direct eye contact; do not approach the patient from behind or move suddenly; stand at least two arm's lengths away.
 - Address violence directly: The patient should be asked relevant questions, such as, "Do you feel like hurting yourself or someone else?"
 - Avoid arguing, machismo, condescension, or commanding the patient to calm down.
 - Never lie to the patient.
 - Take all threats seriously. (See ['Verbal techniques'](#) above.)
- **Physical restraint** – Physical restraints can be used when, despite a proper approach to the combative patient, verbal techniques are unsuccessful. In a patient who needs physical restraints, we suggest avoiding restraining in a prone posture and rapidly turning a patient supine if prone positioning occurs during the restraint process (**Grade 1C**). We avoid applying any pressure on the neck during the restraining process. The evidence is discussed separately. (See ["Restraint-related cardiac arrest: Pathogenesis, strategies for prevention, and management for hospital clinicians"](#).)

The implementation of physical restraints is described further in the text. (See ['Physical restraints'](#) above.)

Every restrained patient must be carefully and frequently monitored. Physical restraints should be removed as soon as possible. (See ['Monitoring and care of physically restrained patients'](#) above.)

- **Chemical sedation** – Rapid tranquilization may be required in the agitated or violent patient. A treatment algorithm outlining our approach to chemical sedation of the acutely agitated patient, including specific medication suggestions, is provided ([algorithm 1](#)). In summary, we suggest the following approach for the chemical sedation of acutely agitated or violent patients:
 - For severely violent patients requiring immediate sedation, we suggest treatment with a rapidly acting first-generation (typical) antipsychotic alone (eg, [droperidol](#)), a rapidly acting benzodiazepine alone (eg, [midazolam](#)), or a combination of a first-generation antipsychotic and a benzodiazepine (eg, midazolam and droperidol, or [haloperidol](#) and [lorazepam](#)) (**Grade 2B**).
 - For patients with agitation from drug intoxication or withdrawal, we suggest treatment with a benzodiazepine (**Grade 2B**).

- For patients with undifferentiated agitation, we suggest treatment with a benzodiazepine (**Grade 2B**). A first-generation antipsychotic is also a reasonable choice.
- For agitated patients with a known psychiatric disorder, we suggest treatment with a first-generation antipsychotic medication (**Grade 2C**). A second-generation antipsychotic is also a reasonable choice.

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Topic 291 Version 64.0

GRAPHICS

Common and dangerous causes of violent behavior

Toxicologic
Alcohol intoxication or withdrawal
Stimulant intoxication (eg, methamphetamine, phencyclidine, cocaine)
Other drugs and drug reactions (eg, anabolic steroid, sedative-hypnotic)
Metabolic
Hypoglycemia
Hypoxia
Neurologic
Stroke
Intracranial lesion (eg, hemorrhage, tumor)
CNS infection
Seizure
Dementia
Other medical conditions
Hyperthyroidism
Shock
AIDS
Hypothermia; Hyperthermia
Psychiatric
Psychosis
Schizophrenia
Paranoid delusions
Personality disorder
Antisocial behavior

Common causes of delirium and confusional states

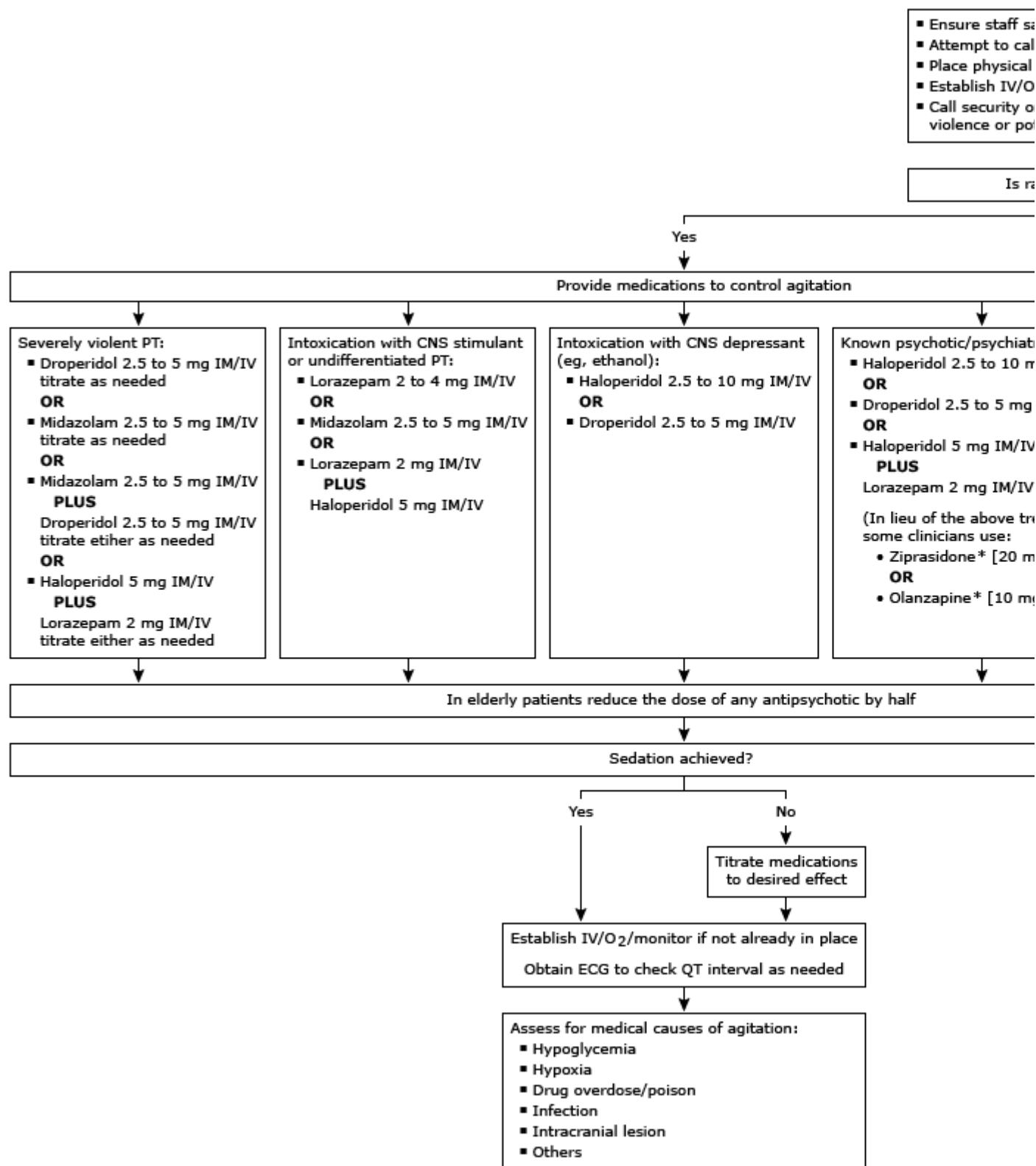
Drugs and toxins
Prescription medications (eg, opioids, sedative-hypnotics, antipsychotics, lithium, skeletal muscle relaxers, polypharmacy)
Nonprescription medications (eg, antihistamines)
Drugs of abuse (eg, ethanol, heroin, hallucinogens, nonmedicinal use of prescription medications)
Withdrawal states (eg, ethanol, benzodiazepines)
Medication side effects (eg, hyperammonemia from valproic acid, confusion from quinolones, serotonin syndrome)
Poisons:
Atypical alcohols (ethylene glycol, methanol)
Inhaled toxins (carbon monoxide, cyanide, hydrogen sulfide)
Plant-derived (eg, Jimson weed, Salvia)
Infections
Sepsis
Systemic infections; fever-related delirium
Metabolic derangements
Electrolyte disturbance (elevated or depressed): sodium, calcium, magnesium, phosphate
Endocrine disturbance (depressed or increased): thyroid, parathyroid, pancreas, pituitary, adrenal
Hypercarbia
Hyperglycemia and hypoglycemia
Hyperosmolar and hypoosmolar states
Hypoxemia
Inborn errors of metabolism: porphyria, Wilson disease, etc
Nutritional: Wernicke encephalopathy, vitamin B12 deficiency, possibly folate and niacin deficiencies
Brain disorders
CNS infections: encephalitis, meningitis, brain or epidural abscess
Epileptic seizures, especially nonconvulsive status epilepticus*
Head injury*
Hypertensive encephalopathy
Psychiatric disorders*

Systemic organ failure
Cardiac failure
Hematologic: thrombocytosis, hypereosinophilia, leukemic blast cell crisis, polycythemia
Liver failure: acute, chronic
Pulmonary disease, including hypercarbia and hypoxemia
Renal failure: acute, chronic
Physical disorders
Burns
Electrocution
Hyperthermia
Hypothermia
Trauma: with systemic inflammatory response syndrome, head injury*, fat embolism

CNS: central nervous system.

* Disorders that, while not truly systemic or "medical," may produce the clinical picture of delirium or confusional state in all other aspects.

Emergency management of the severely agitated or violent adult patient



IM: intramuscular; IV: intravenous; PT: patient; CNS: central nervous system; ECG: electrocardiogram.

* The safety of atypical antipsychotics in geriatric patients remains uncertain.

Antipsychotics for initial management of the acutely agitated adult patient with psychosis

	Formulation	Route	Initial dose (mg)	Frequency (hours)	Maximum initial dose per 24 hours (mg)	Time to peak plasma concentration (hours)
Second-generation agents						
Olanzapine	Injection (short-acting)	IM, IV*	5 to 10 [¶]	2 to 4 ^Δ	30 (including oral doses)	0.25 to 0.75
	Disintegrating tablet	Oral, SL	5 to 10	2	20 (including IM/IV doses)	5

Risperidone	Disintegrating tablet, oral solution	Oral	1 to 2	0.5 to 2	6	1.5
Ziprasidone	Short-acting mesylate injection	IM	10 to 20	2 to 4	40	0.5 to 1
Aripiprazole	Disintegrating tablet, oral solution	Oral	10 to 15	2	30	3 to 5

First-generation agents						
Haloperidol	Short-acting lactate injection	IM, IV	2 to 10	0.5 to 2 ^Δ	20 [◇]	0.5 to 1
	Oral solution	Oral	2 to 10	6	30	2
Droperidol	Injection (short-acting)	IM, IV	2.5 to 10	2 to 4 ^Δ	40	0.5

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- The approach to pharmacologic treatment of the acutely agitated patient, including specific medication choices and combinations depending upon presentation (eg, toxic ingestion, withdrawal syndrome, or known psychiatric history) is provided in the accompanying topic reviews and in an algorithm.
- Antipsychotics should be avoided in patients with anticholinergic delirium or acute alcohol withdrawal; refer to UpToDate topic. Dose reduction by one-half is needed for older adults, debilitated patients, and if used in combination with other sedation.
- Refer to accompanying text for discussion of electrocardiograph and other monitoring for agents known to cause prolongation of the QTc interval.
- Antipsychotics (eg, aripiprazole, risperidone, haloperidol) are metabolized to varying degrees by CYP450 2D6, 3A4, and/or substrates of P-glycoprotein. Drug interactions and additive QTc prolongation effects can be assessed by use of the [drug interactions program](#) included within UpToDate.

IM: intramuscular; IV: intravenous; SL: sublingual.

* IV administration of olanzapine should be limited to settings where patient can be closely monitored for respiratory depression and excessive sedation.

¶ If olanzapine is administered IV, limit total dose to 10 mg per episode (ie, if initial dose was <10 mg, may repeat with additional dose after ≥10 minutes up to 10 mg total).

Δ It may be necessary to repeat initial dose or fraction thereof after 15 to 20 minutes in patients with severe agitation until desired level of sedation attained.

◇ Selected patients without schizophrenia may need a higher cumulative haloperidol dose (eg, up to 30 mg) during the first 24 hours of treatment to achieve and maintain adequate sedation.

§ Treatment of acute dystonic reactions is diphenhydramine 25 to 50 mg IM/IV or benztropine 1 to 2 mg IM/IV, which is discussed in detail separately.

Selected adverse effects of antipsychotic medications for schizophrenia^[1,2]

	Weight gain	Glucose abnormalities	Hyperlipidemia	Akathisia	Parkinsonism
Second-generation agents					
Aripiprazole	+	+	+	++	+
Asenapine	++	++	++	++	+
Brexpiprazole [¶]	+	+	++	++	+
Cariprazine [¶]	++	+	+	++	+
Clozapine ^Δ	+++	+++	+++	+	+
Iloperidone	++	++	+	+	+
Lumateperone [¶]	+	+	+	+	+
Lurasidone	+	++	++	++	++
Olanzapine	+++	+++	+++	++	++
Paliperidone	++	+	++	++	++
Pimavanserin	–	+	+	+	+
Quetiapine	++	++	+++	+	+
Risperidone	++	++	+	++	++
Ziprasidone	+	+	+	++	+
First-generation agents					
Chlorpromazine	++	++	+	++	++
Fluphenazine	++	+	+	+++	+++
Haloperidol	++	+	+	+++	+++
Loxapine	+	+	+	++	++
Molindone	+	+	+	++	++
Perphenazine	++	+	+	++	++
Pimozide	+	+	+	+++	+++
Thioridazine [§]	++	+	+	+	+
Thiothixene	+	+	+	+++	+++
Trifluoperazine	++	+	+	++	++

Adverse effect rankings, with the exception of the QTc classifications, are consistent with American Psychiatric Association practice guidelines for the treatment of schizophrenia.^[1] The QTc classifications are determined by Lexicomp according to US Food & Drug Administration guidance.^[2,3] Other sources may use different classification systems resulting in some agents being classified differently.

IV: intravenous.

* Clinically significant QTc prolongation was not detected in preliminary studies or reported in the manufacturer's labeling.

¶ Based upon limited experience.

Δ Clozapine also causes granulocytopenia or agranulocytosis in approximately 1% of patients requiring regular blood cell count monitoring. Clozapine has been associated with excess risk of myocarditis and venous thromboembolic events including fatal pulmonary embolism. These issues are addressed in the UpToDate topic review of guidelines for prescribing clozapine section on adverse effects.

◇ Although the available evidence concerning the average QTc prolonging effect of pimozide is consistent with a classification of moderate significance (ie, ++), label warnings have characterized the QTc effect and cardiovascular risks as severe and sudden deaths in patients on pimozide have been reported.

§ Thioridazine is also associated with dose-dependent retinitis pigmentosa. Refer to UpToDate text.

References:

1. Keepers GA, Fochtmann LJ, Anzia JM, et al. The American Psychiatric Association practice guideline for the treatment of patients with schizophrenia. American Psychiatric Association 2020. Available at: <https://www.psychiatry.org/psychiatrists/practice/clinical-practice-guidelines> (Accessed on March 24, 2020).
 2. Lexicomp Online. Copyright © 1978-2024 Lexicomp, Inc. All Rights Reserved.
 3. Clinical Evaluation of QT/QTc Interval Prolongation and Proarrhythmic Potential for Non-Antiarrhythmic Drugs – Questions and Answers; Guidance for Industry US Food and Drug Administration, June 2017 (revision 2). Available at: <https://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM073161.pdf>.
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The decision-making abilities, their definitions, and questions to assess them

Decision-making ability	Definition	Sample questions
Understanding	The ability to state the meaning of the relevant information (eg, diagnosis, risks and benefits of a treatment or procedure, indications, and options of care).	After disclosing a piece of information, pause and ask the patient: "Can you tell me in your own words what I just said about [fill in the topic disclosed]?"
Expressing a choice	The ability to state a decision.	"Based on what we've just discussed about [insert the topic], what would you choose?"
Appreciation	The ability to explain how information applies to oneself.	<p>To assess appreciation of diagnosis: "Can you tell me in your own words what you see as your medical problem?"</p> <p>To assess appreciation of benefit: "Regardless of what your choice is, do you think that it is possible the medication can benefit you?"</p> <p>To assess appreciation of risk: "Regardless of what your choice is, do you think it is possible the medication can harm you?"</p>
Reasoning	The ability to compare information and infer consequences of choices.	<p>To assess comparative reasoning: "How is X better than Y?"</p> <p>To assess consequential reasoning: "How could X affect your daily activities?"</p>

Instructions: The usual flow of a capacity assessment begins with the clinician disclosing the relevant facts for a decision and an assessment of the patient's understanding of those facts. Next, the clinician asks for the person's choice, followed by an assessment of their appreciation and reasoning about the choice, and concluding with a reassessment of choice. During the reassessment of choice, pay attention to the logical consistency of the choice based on the reasoning provided. The clinician should modify the capacity assessment when the patient has different communication abilities such as impaired hearing, limited medical literacy, or locked-in syndrome.

