

# Physical and Chemical Restraints

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## KEYWORDS

- Physical restraint • Chemical restraint • Violence
- Safety • Sedation

Combative and violent patients are commonly encountered in the emergency department (ED).<sup>1</sup> These patients may be brought in by concerned family members, referred to the ED by other health professionals, or transported by police or emergency medical services (EMS) personnel for causing a public disturbance. These patients pose significant diagnostic and management challenges to the physicians, nurses, technicians, and other staff members who are trying to care for them. A combative patient's behavior can have numerous causes, including but not limited to psychiatric illness, substance abuse and withdrawal, traumatic injury, and metabolic disturbances. Emergency physicians are expected to manage an agitated patient's behavior safely, determine if a medical or traumatic cause is a contributor to the agitation, and arrange for appropriate disposition.<sup>2</sup> To differentiate between an organic and a functional cause for agitated or violent behavior, it is imperative to obtain a history and perform a complete physical examination on these patients, and, in some cases, order laboratory work and radiologic imaging. Unfortunately, agitated or violent behavior is itself an obstacle to that medical workup and puts the individual patient and all caregivers at risk of injury. When de-escalation strategies are ineffective in getting a violent patient to cooperate, the use of physical and chemical restraints needs to be considered. Once the decision is made to use restraints, it is important to follow hospital policy on patient monitoring and documentation. Hospital policies on restraints should be derived from the Joint Commission's Restraint and Seclusion Standards because the use of restraints is tracked by the Joint Commission.<sup>3</sup>

## EPIDEMIOLOGY

Violence is prevalent in our society. According to the Centers for Disease Control and Prevention (CDC)'s National Institute for Occupational Safety and Health (NIOSH), nonfatal assaults occur in 8.3 per 10,000 health care workers yearly, whereas the rate of nonfatal assaults in private sector industries is 2 per 10,000.<sup>4</sup> Of all health

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care areas examined, violence has been found to be more prevalent in EDs, waiting rooms, psychiatric wards, and geriatrics units. The ED environment, with high stress, fragmented communication, long waiting times, overcrowding, staff shortages, financial issues, and confusion, can provoke violence in predisposed individuals. Surprisingly, 50% of health care workers will be victims of physical violence during their career.<sup>5</sup> Studies suggest that working in an ED, with more than 50,000 patient visits per year and an average waiting time longer than 2 hours, puts health care workers at higher risk of injury from violent patients.<sup>1,6</sup>

### **PATHOPHYSIOLOGY**

It is helpful for the emergency physician to be familiar with the characteristics that predispose patients to violent or aggressive behavior in the ED. Positive predictors of potential violent behavior are male gender, having a prior history of violence, arriving in the custody of the police, being a victim of violence, and having a history of alcohol or drug abuse.<sup>7,8</sup> Psychiatric illness (especially schizophrenia, personality disorders, mania, and psychotic depression) has also been identified as a significant risk for violent behavior in the ED.<sup>7</sup>

Schizophrenics can experience command auditory hallucinations instructing them to perform violent acts or have delusions that others are trying to harm them. These patients may be noncompliant with their medications, nonresponsive to treatment, or be using alcohol or drugs, which can lead to violent behavior.<sup>7,9,10</sup> Certain personality disorders, such as borderline and antisocial, are more prone to violent behavior because these patients have little remorse for their actions on staff. Patients with mania can also exhibit periods of violence and aggression during episodes of emotional lability.

Agitation can have an organic cause. The differential diagnosis is broad and includes delirium, dementia, traumatic brain injury, neurological disease, metabolic disturbance, infection, vascular or circulatory issues, renal or hepatic insufficiency, and endocrine dysfunction.<sup>7</sup> Intoxication or withdrawal from alcohol or any other recreational drug can lead to out-of-control behavior. Even with sedative abuse (alcohol, benzodiazepines) some patients may experience a “paradoxical disinhibition” (an increase in impulsivity due to a decrease in the frontal self-regulatory function).<sup>7</sup> It is important for the physician to differentiate between functional and organic causes for a patient’s aggressive behavior and carefully rule out organic causes even in patients with a history of psychiatric illness or substance abuse problems. One must never assume out-of-control behavior is solely caused by psychiatric illness; all patients should have their blood glucose level checked on arrival and further diagnostic testing, such as serum and urine tests, cranial computer tomographic scan, and lumbar puncture, should be considered as clinically indicated. First time out-of-control behavior has a higher incidence of organic cause in patients older than 40 years with no known psychiatric history, patients with disorientation or hallucinations, and patients with abnormal vital signs.<sup>11</sup>

### **RECOGNIZING AND DE-ESCALATING THE VIOLENT PATIENT**

EMS personnel are at a high risk of encountering violent patients: 14% of calls are precipitated by a violent act and violence occurs during 5% of their overall transports.<sup>12,13</sup> When EMS is transporting a violent patient to a hospital, ideally a call should be made to alert ED staff to prepare and mobilize appropriate resources.

Violence is not usually the initial response of a patient in the ED but is the result of increasing tension and frustration. In addition to the risks mentioned earlier, certain

cues from the patient can predict the possibility of violent behavior. If these cues are noticed, a situation can be diffused before it escalates and gets out of control. The 3 phases of violence should be understood to initiate de-escalation before harm occurs or restraint procedures are used.<sup>14</sup>

### ***Phase 1: Anxiety***

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Patients in this early phase are often loud, have pressured speech, and exhibit body movements the only purpose of which seems to be to expend energy: pacing, clenching fists, and constantly changing position on the stretcher). Because such features are frequently seen in anxious ED patients who do not have a propensity for violence, these cues are often ignored by staff and those prone to violence unfortunately escalate beyond this phase. To avoid progression to increasingly aggressive behavior, many of these patients could be appeased by simply being acknowledged by staff.<sup>14</sup> Establishing a rapport with the patient goes a long way. Patients should be treated with courtesy, respect, and empathy. Offering food and drink or warm blankets can be useful in establishing trust and rapport because it appeals to the most basic human needs.<sup>15</sup> Physicians should relay their concern for patients and assure them that they are in a safe environment.<sup>16</sup>

### ***Phase 2: Defensiveness***

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In the second phase, patients are verbally abusive, using inappropriately profane language. Their behavior is irrational. Feeling that one is losing control of the situation is usually the underlying cause. Limits need to be set for patients in this phase with some choices offered. Limits should be simple, clear, enforceable, and consistent; the patient needs to know the consequences of choosing not to stay within these limits. Staff must be calm and professional but firm when interacting with patients. It is important to avoid countertransference. These patients can be difficult and cause the staff to become angry. If aggression continues or escalates, isolating the patient should be considered.<sup>14</sup> Seclusion can be helpful because extraneous stimulation in patients with hallucinations, paranoia, or agitation can intensify the psychosis.<sup>7</sup> Seclusion should not be used for patients needing continuous monitoring, such as suicidal or overdosed patients.

### ***Phase 3: Physical Aggression***

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In the third phase, patients exhibit completely irrational and out-of-control behavior with threatening language or violent acts toward themselves, other patients, or staff. Verbal management techniques are ineffective with patients in this phase, so physical and chemical restraints are warranted. The decision to use restraints is never an easy one; it is important to remember that restraints for patients in this phase are meant for the safety of the patient, staff, and others, not for punishment.<sup>14</sup> The Joint Commission stresses that restraints should only be used as a last resort when less restrictive interventions are ineffective.<sup>3</sup>

## **PHYSICAL RESTRAINTS**

Physical restraints should be considered when previous efforts to establish rapport and trust, to set limits, and to inform a patient of the consequences of not cooperating have failed. The decision to order physical restraints is difficult because complications can occur and their use can be perceived as coercion or punishment instead of a last resort to ensure safety.<sup>17</sup> Indications for restraining a patient include (1) preventing harm to oneself, (2) preventing harm to other patients, (3) preventing harm to

caregivers and other staff, and (4) preventing serious disruption or damage to the environment.<sup>18</sup> Restraints can be helpful in allowing the physician to perform a medically indicated examination in a patient with altered mental status or when indicated medications need to be safely administered. Although restraining patients can be risky, appropriate use when needed may be less risky than not preventing the patient's out-of-control behavior, which can lead to delayed treatment of the patient or injury to the ED staff. Restraints should never be used for staff convenience.<sup>17</sup>

Every institution should have a detailed protocol for the use of restraints.<sup>3</sup> This protocol should identify the members of a restraint team and how to activate the team. All members of the restraint team should be appropriately trained and familiar with the restraining procedure. The team should have at least five members, including a designated leader who explains the process to the patient in clear language. This show of force alone can sometimes prompt better behavior from an aggressive patient. If possible, to prevent lawsuits, at least one member of the team should be a woman, especially when a woman is to be restrained. Before entering a patient's room and initiating the restraining procedure, all personal belongings that could potentially be used as a weapon or cause injury should be removed, including such apparently benign objects as necklaces, lanyards with IDs, stethoscopes around the neck, neckties, or hanging earrings.<sup>18,19</sup>

During the restraining procedure, the team leader maintains the safety of the patient's head while each of the other members takes control of a preassigned extremity. Each extremity should be controlled at the major joint (elbow, knee) and the restraint should be tied to the frame of the bed, not the handrails. All restraint positions carry certain risks, and careful monitoring of the restrained patient is essential. If aspiration is a risk, the patient should be restrained on the side, otherwise restraint in the supine position may facilitate the medical examination and be more comfortable for the patient. Sentinel event tracking by the Joint Commission indicates that restraining patients on their side reduces adverse restraint events.<sup>3</sup> Restraining a patient in the prone position predisposes them to suffocation.<sup>20</sup> If a patient is to be restrained in the prone position, the airway must remain unobstructed at all times and the expansion of the lungs must not be restricted by excessive pressure on the patient's back.<sup>15,17</sup> Restraining patients in the supine position predisposes them to aspiration. If a patient is to be restrained in the supine position, the head must be free to rotate to the side and, when possible, the head of the bed must be elevated.<sup>3</sup> If four-point restraints are used, the arms should be restrained so that one arm is up and one down. This position makes it difficult for the patient to generate enough force to overturn the stretcher. If two-point restraints are used, the contralateral arm and leg should be restrained. If additional restraint is needed, a sheet can be placed around the chest and tied to the stretcher, taking care that the sheet is not so tight that it prevents adequate chest expansion.<sup>21</sup>

Soft restraints can be used in semicooperative patients, but for patients who are combative and trying to escape, leather restraints are preferred. Soft restraints can tighten and cause circulatory compromise as a patient struggles, whereas leather restraints rarely compromise distal circulation but are more difficult to cut and remove in an emergency.<sup>21</sup> While restrained, patients should be under continuous observation and close monitoring. Change in position is important to prevent rhabdomyolysis, pressure sores, and paresthesias.

The treating physician should not be involved in the actual restraint process to preserve the doctor-patient relationship. However, a member of the medical team should be present during the restraining process to monitor the patient. The restraint procedure requires careful documentation by the physician and the nurse.<sup>3</sup> Physician

documentation should cite that verbal techniques failed to calm the patient, the specific indication for the restraining procedure, the time the restraints were applied, the time-limited duration of the restraining procedure, the planned medical workup or treatment, and the patient's decision-making capacity. Nursing documentation should include frequent assessment of the patient's vital signs, general condition, and personal needs. Formal reassessment should occur every 15 minutes for signs of injury associated with application of restraints, measurement of vital signs, nutrition and hydration status, circulation, and range-of-motion of extremities, hygiene and elimination, physical and psychological status, patient comfort, and readiness for discontinuation of restraint. The patient must be reassessed by a physician at the end of predefined time limits. When clinically appropriate, restraints should be removed one at a time in 5-minute intervals until two are left. If the patient remains cooperative, the last two can be removed.

The Joint Commission provides up-to-date guidelines and standards for restraints and seclusion on their website.<sup>3</sup> These include:

- (1) A physician or licensed practitioner must see and evaluate the patient within 1 hour of initiating intervention.
- (2) Seclusion or restraint can only be used when clinically justified and after consideration of alternative treatment options.
- (3) Seclusion and restraints must have time-limited orders: 4 hours for adults (older than 17 years), 2 hours for adolescents (9–17 years), 1 hour for patients younger than 9 years.
- (4) Patients must have continuous monitoring with periodic evaluation with the intent to discontinue intervention at the earliest possible time.
- (5) A face-to-face reevaluation must be performed before each renewal of initial time-limited orders.
- (6) Clinical leadership (ie, the medical director) must be notified after 12 hours of continuous seclusion or restraint and every 24 hours thereafter.
- (7) With the patient's informed consent, family should be notified promptly when seclusion or restraint is initiated.
- (8) Debriefing with patient and staff should be performed after intervention has been discontinued.

Emergency physicians should be familiar with the risks associated with the use of physical restraints. In a survey covering a 10-year period from 50 states, 142 patient deaths occurred while in restraints, although many of these occurred outside of the ED setting.<sup>17,22</sup> The Joint Commission lists patient injury or death under restraint as one of the top 10 sentinel events in the ED.<sup>3</sup> There are many issues that can be the source or cause of patient injury or death. These issues include miscommunication among staff or between staff and patient, procedural noncompliance, inadequate patient assessment, and restraint of a patient in a room not under continuous observation by staff. During Joint Commission inspections, failure to document and practice safe use of restraints is one of the leading citations.<sup>3</sup>

Abrasions and bruising are the most common complications.<sup>23</sup> Positional asphyxia has been reported to occur if the patient is restrained in the prone or hobble position.<sup>3,20</sup> Death can also occur if the restraints are not applied properly or the patient is not carefully monitored.<sup>24</sup> Factors related to excited delirium, including acute intoxication, withdrawal, and untreated psychosis, are more likely to contribute to sudden death.<sup>20</sup> Protracted struggling against restraints can lead to hyperthermia, increased sympathetic tone with vasoconstriction, and lactic acid release from prolonged

isotonic muscle contractions leading to metabolic acidosis. Cardiovascular collapse from this metabolic acidosis has been found in many restraint-associated deaths.<sup>20</sup> Any complications from the restraining procedure need to be documented fully.

Studies have evaluated various methods to improve compliance with the federal requirements listed earlier. A recent innovation is the use of computerized forcing functions that signal when a restraint order is expiring. One study locked physicians out from their computer system if a restraint order was not renewed or discontinued at a predetermined time. That same study demonstrated that the overall time patients spent in restraints decreased when the number of appropriately documented restraint orders per patient increased.<sup>25</sup> There is concern that physicians may be less likely to use physical restraints in settings with computerized forcing functions, and instead use more pharmacological restraints or other informal restraint methods that do not require an order, or completely bypass the computerized order entry system.<sup>26</sup> Careful, consistent, thorough, and standardized documentation, whether done on paper or in a computerized fashion, minimizes the risk of miscommunication, adverse events, and other complications from physical restraints.

### CHEMICAL RESTRAINTS

Chemical or pharmaceutical restraints, called “rapid tranquilization” in older literature, should also be considered in conjunction with or in place of physical restraints. Physical restraints can be counterproductive because struggling against restraints may prevent obtaining a history or completing a thorough physical examination.<sup>27</sup> Chemical restraints can help gain better control of the agitated patient and allow evaluation and treatment. Complications associated with struggling against physical restraints, such as hyperthermia, dehydration, rhabdomyolysis, or lactic acidosis, can all be minimized with the early use of chemical sedation.<sup>27</sup>

#### *Antipsychotics/Neuroleptics*

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Because so many patients with violent behavior in the ED have an underlying psychiatric illness, antipsychotic (neuroleptic) medications, either alone or with benzodiazepines, have been used most commonly in the ED setting. Antipsychotics have a high therapeutic index and a lack of addictive potential. This class of medication has a high affinity for the dopamine-2 receptor. Contraindications to these medications include an allergy to the class, Parkinson disease, and anticholinergic drug intoxication. Relative contraindications include pregnancy, lactation, and hypovolemia.

Haloperidol (Haldol), a butyrophenone antipsychotic, is easily given intramuscularly (IM) at doses of 2.5 to 10 mg. Repeat doses can be given at 30- to 60-minute intervals, but the desired effect is usually obtained within three doses. The half-life of haloperidol is 10 to 19 hours. Intravenous (IV) administration has not been approved by the US Food and Drug Administration (FDA), but it has been frequently given via this route. Extrapyramidal syndrome (EPS) is a potential side effect of haloperidol and, in rare cases, has been reported to occur days after administration, even after only one dose. Signs of EPS include akathisia and acute dystonia (torticollis, opisthotonos, or oculogyric crisis). Occurrence of EPS is easily treated with diphenhydramine (Benadryl) or benztropine (Cogentin).<sup>28</sup> Haloperidol can be safely given in the same syringe as lorazepam, thus facilitating administration, hastening onset of sedation, and resulting in fewer EPS episodes than when haloperidol is given alone.<sup>29</sup> Numerous studies have also shown the benefit of using haloperidol to treat aggressive methamphetamine-intoxicated patients.<sup>30,31</sup> Quickly sedating patients with methamphetamine intoxication is

particularly important because so many are at risk for rhabdomyolysis, hypertensive crisis, cardiac ischemia, and cardiac dysrhythmias. It has been suggested that haloperidol's dopaminergic antagonism and antimuscarinic properties are neuroprotective in methamphetamine toxicity.<sup>30,31</sup>

Droperidol (Inapsine), also a butyrophenone, used to be one of the most commonly used chemical sedatives in EDs. Routine use has significantly diminished since the FDA issued a black box warning in 2001 about droperidol because of a potential risk for prolongation of the QT interval and resultant torsades de pointes in high doses (QT prolongation has been caused by haloperidol at doses greater than 50 mg IV, but it has no FDA black box warning).<sup>32</sup> Studies have demonstrated that droperidol results in faster control of the patient, shorter duration of effect (half-life = 2 hours), more consistent sedation, and a smaller incidence of EPS when compared with haloperidol, so its use in the ED setting seems ideal.<sup>33</sup> Today, if a clinician prefers to use droperidol, a pretreatment electrocardiogram should be obtained, but in the agitated, combative patient, doing so is obviously quite a challenge and the infrequent use of droperidol not surprising. Continued cardiac monitoring after administration is also recommended.<sup>34</sup>

Neuroleptic malignant syndrome (NMS) is an idiosyncratic adverse effect that can occur in 1% of patients receiving antipsychotics. NMS is recognized by autonomic instability, hyperthermia, altered mental status, and muscle rigidity. Creatine phosphokinase levels may be elevated.<sup>35</sup> Treatment is supportive, with aggressive cooling measures and cessation of all neuroleptics. In some cases dantrolene is indicated for treatment of extreme muscle rigidity.

Second generation antipsychotic medications, more commonly called "atypical antipsychotics," are newer agents common in outpatient psychiatry and recently incorporated into the ED setting for the treatment of violent patients.<sup>36</sup> Risperidone, olanzapine, and ziprasidone are the most commonly used atypical antipsychotics in the ED. Atypical antipsychotics inhibit dopamine-2 and serotonin receptors and thus provide more tranquilization and less sedation. An important benefit of these atypical antipsychotics is the lower incidence of EPS from the serotonergic activity.<sup>36</sup>

Risperidone (Risperdal) may be given IM or orally by elixir or a recently available disintegrating tablet. Studies have shown risperidone to be as effective as IM haloperidol and less sedating than in the acute treatment of psychosis.<sup>37</sup> Convincing an out-of-control patient to take risperidone orally can be challenging, but onset is rapid with the orally dissolving tablets, so this option is safer and potentially more convenient for nursing staff.

Olanzapine (Zyprexa), available IM or in orally dissolving tablets, has been found to be comparable in efficacy to either lorazepam or haloperidol in many well-controlled studies assessing its use for the treatment of agitated elderly patients with Alzheimer disease, bipolar patients with mania, and schizophrenic patients in acute agitation.<sup>38,39</sup> Occurrence of dystonia and akathisia are less common than with haloperidol.<sup>40,41</sup> Mild hypotension is a common side effect and olanzapine has significant anticholinergic properties, which could exacerbate an agitated patient who overdosed on an anticholinergic agent such as diphenhydramine or jimsonweed.

Ziprasidone (Geodon) has been approved by the FDA for the treatment of acute agitation in patients with schizophrenia and bipolar patients with mania. Studies have shown IM ziprasidone to be superior to haloperidol and occurrence of EPS less common.<sup>42,43</sup> The peak plasma concentration of the IM formulation is achieved in 30 to 45 minutes (8 hours for oral formulation). Importantly, ziprasidone was found to prolong the QTc by 20 milliseconds and therefore is not indicted for patients with pre-existing QTc prolongation.<sup>44,45</sup>

### ***Benzodiazepines***

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Lorazepam (Ativan) is one of the more frequently used benzodiazepines for the treatment of agitation in the ED setting. It is a favorable medication because of its rapid onset, lack of active metabolites, effectiveness in patients intoxicated with a sympathomimetic agent such as cocaine, and availability in oral, IM, and IV formulations. Of all the benzodiazepines, it is the one most reliably absorbed when administered IM, so it is especially useful in the agitated patient without IV access.<sup>46–48</sup> It has a half-life of 10 to 20 hours. It is also particularly useful in patients with alcohol dependence or cirrhosis because its inactivation is preserved in the setting of liver disease.<sup>49</sup> Most common side effects include sedation, confusion, nausea, and ataxia. Patients must be closely monitored for respiratory depression. It is a class D agent in pregnancy and should also be avoiding in lactating women. As mentioned earlier, studies by Battaglia and colleagues<sup>29</sup> have shown that the sedative effect from the combination of lorazepam and haloperidol is superior to higher doses of either medication alone. In addition, occurrence of EPS is less common in those given lorazepam and haloperidol together compared with those given haloperidol alone.<sup>29</sup>

Midazolam (Versed) is a water-soluble short-acting benzodiazepine that can be administered IM or IV, has a rapid time to onset (18 minutes) and a time to arousal of 30 to 120 minutes (average 82 minutes). When administered IV, midazolam may result in significant hypotension, whereas IM it has little effect on the cardiopulmonary system.<sup>50</sup> One study revealed that midazolam had similar efficacy to haloperidol or lorazepam but was superior to both in that time to arousal was significantly lower.<sup>51</sup> A shorter time to arousal is a useful quality in the ED in that it allows these patients' evaluations to be completed more rapidly, allowing for faster determination of the appropriate disposition of the patient (**Table 1**).

### ***Seclusion***

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For some patients, seclusion can be an alternative to restraint by allowing for some freedom of movement. However, even limited freedom of movement can be dangerous, especially for large adolescents and adults who can harm themselves and others with their strength, agitation, and free use of their extremities. Psychological harm can also be caused if the patient feels isolated or has a sense of rejection.<sup>53</sup> Rooms used for seclusion need to be safe, calm, and ideally have two exits. Walls need to be indestructible and solid. Furniture needs to be heavy and immovable. The color of the room needs to be calming and there needs to be windows with unbreakable glass to allow for monitoring. No free-standing objects should be in the room. Clear exits and panic buttons should also be present.<sup>54</sup> Continuous observation is required.

### **ASSAULT**

Hospital staff can be victims of assault before a violence management team can be activated and the patient restrained. As noted earlier, 50% of health care workers will be a victim of work-place violence during their career.<sup>5</sup> A few recommendations can help minimize personal injury when facing a potentially violent patient. Do not face the patient head on; keep a sideward stance and try to keep a buffer zone of at least four body widths from the patient. Have your arms ready for self-protection. Try to appear calm and avoid sudden movements. Minimize direct eye contact and try to deflect any kicks or punches. If bitten, do not pull away but instead push into the patient and use the other hand to close their nares, causing them to reflexively open their mouth. Avoid arguing and do not lie, bargain, or make promises. Try to

	Half-Life	Time to Onset	Disadvantages/ Advantages
Haloperidol	18 h	30–60 min (IV, IM)	EPS; NMS; can be given in same syringe with lorazepam
Droperidol	2.3 h	30 min	QT prolongation, torsades de pointes; NMS
Risperidone	Orally 20 h	Orally 1 h	Less sedating
Olanzapine	21–54 h	Orally 6 h/IM 15–45 min	Anticholinergic; useful in elderly, bipolar and schizophrenic patients
Ziprasidone	PO 7 h/IM 2–5 h	PO 6–8 h/IM 1 h	Less EPS; useful in bipolar and schizophrenia
Lorazepam	Adults 13 h, elderly 16 h, ESRD 32–70 h	Orally 30–60 min IV 5–20 min	Rapid onset; inactive metabolites even with liver disease
Midazolam	1–4 h (prolonged with cirrhosis, CHF, elderly, obesity)	IM 15 min IV 1–5 min	Minimal cardiopulmonary effect with IM; hypotension with IV; short time to arousal

*Abbreviations:* CHF, congestive heart failure; ESRD, end-stage renal disease.

Data from Lexi-comp/Up to Date.<sup>52</sup> Available at: <http://www.uptodate.com/home/clinicians>. Accessed July 30, 2009.

control the natural instinct to shout which inadvertently reciprocates the violence.<sup>15</sup> Do not reach for any weapon the patient may be holding.<sup>55</sup>

#### PREVENTATIVE MEASURES AND PREPARATION FOR THE COMBATIVE PATIENT

Various environmental, administrative, and behavioral preventative measures can be implemented to help make the ED a safer environment.<sup>56,57</sup>

Certain environmental designs can strategically minimize violence in hospitals. Monitoring systems such as metal detectors and security cameras have been found to discourage aggressive behavior in the ED and other industries. Waiting rooms should be designed to accommodate and assist visitors and patients who may have a delay in service. The triage area, waiting rooms, and reception areas should have heavy furniture that cannot be lifted and used as weapons; glass should be shatterproof or bulletproof; nursing stations should be enclosed because nurses are often the first target of violence.<sup>4</sup> Uniformed security available 24 hours a day is one of the best ways to increase the safety of a department and hospital. Alarm systems and other ways of emergency signaling should be in place in all EDs. A panic button in patient rooms and hallways can be helpful. A verbal alarm system to get the attention of other staff, such as a code like “Dr. Armstrong to room 8,” is another effective way to mobilize appropriate staff without upsetting other patients.<sup>18</sup>

Administrative controls to help reduce patient violence include designing staffing patterns to minimize patient waiting times and to prevent staff from working alone. Restricting the movement of the public throughout the hospital or various sections of the ED by card-controlled ID access has also been recommended.

Behavioral prevention strategies include continually educating and training all staff to recognize and manage violent events and assaults, resolve conflicts when dealing with patients, and maintain situational awareness. Patient searches are important to exclude weapons from the ED: studies have revealed that up to 10% of patients presenting to the ED carry some type of weapon. Searches can be performed either by having a policy that all patients undress and change into a gown or having a sign posted that all individuals entering the ED will be searched for weapons.<sup>58</sup>

### ***Disposition***

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The violent patient may be considered for discharge if the patient is cooperative, demonstrates no evidence of intoxication, organic problems have been adequately excluded as the cause of a patient's agitation, other medical and psychiatric problems have been addressed, mental status is normal, and vitals signs are normal. Violent patients who elope before their evaluation is completed pose a significant risk to themselves and to others. Elopements can also be a legal risk to health care providers, so local authorities should be notified in such cases.

### **SUMMARY**

As EDs continue to become more crowded, safely managing violent or aggressive patients will continue to be challenging. Appropriately trained personnel, adherence to protocol, careful attention to documentation, and good common sense will minimize complications and ensure safe use of physical or chemical restraints when indicated.

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