

California State Hospital Violence Assessment and Treatment (Cal-VAT) guidelines

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Here we provide comprehensive guidelines for the assessment and treatment of violence and aggression of various etiologies, including psychotic aggression and impulsive aggression due to schizophrenia, mood disorders, ADHD, or trauma, and predatory aggression due to psychopathy and other personality disorders. These guidelines have been developed from a collection of prescribing recommendations, clinical trial results, and years of clinical experience in treating patients who are persistently violent or aggressive in the California Department of State Hospital System. Many of the recommendations provided in these guidelines employ off-label prescribing practices; thus, sound clinical judgment based on individual patient needs and according to institution formularies must be considered when applying these guidelines in clinical practice.

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Introduction

Violence and aggression arise from a complex interaction of personal and environmental factors; however, treatment of the violent or aggressive individual often proceeds without an adequate consideration of the sources of the patient's threatening or violent behavior. Furthermore, there are no recent published guidelines about how to assess and treat violence in an inpatient forensic or state hospital system, where most of the patients have diagnoses of psychosis, especially schizophrenia. That is, most published guidelines that discuss the treatment of violence or aggression are focused on one particular diagnosis, such as dementia, attention deficit hyperactivity disorder

(ADHD), post-traumatic stress disorder (PTSD), traumatic brain injury (TBI), borderline personality disorder, or intellectual disability.^{1–12} The published guidelines that do address treatment of violent or aggressive behaviors in a more general sense and across a variety of diagnostic categories were all published nearly a decade or more ago, the most recent being published in 2007.^{13–17} Since the publication of these guidelines, many advances in psychopharmacology have occurred, not the least of which is the introduction of several additional antipsychotic agents.

Recent research has also suggested that among psychiatric inpatients, personal factors leading to aggression and violence commonly fall into several broad

categories, including psychotic persecutory distortions of reality, increased impulsivity, and antisocial (predatory) personality features, with substance abuse and cognitive impairment frequently playing aggravating comorbid roles with the other domains.¹⁸

Environmental factors may also exert significant influences on the risk of aggressive or violent behavior. While it is recognized that, in many patients, more than one personal or environmental factor may be operative, it is the aim of these guidelines to ask the clinician to generate a data-driven hypothesis regarding the principal or proximate factors that promote the individual's aggression or violence, and then to provide a roadmap for the further evaluation and treatment of the patient. These guidelines make the assumption that a logical, step-wise process of data collection, data analysis, and evidence-based treatment will maximize the probability of resolving or ameliorating the treated person's risk of violent behavior.¹⁹

These guidelines were written for a presumed clinical environment in which, based on level of risk and probable resistance to treatment, the patient may be moved to higher or lower levels of secure care, from a regular hospital unit to an enhanced treatment unit and then to less secure treatment settings as the danger of violence and aggression declines.²⁰ In order to ease the use of these guidelines in clinical practice, they are presented in a bulleted format with numerous tables and treatment algorithms (many available in the online Supplemental Material).

Overview and Key Points

- Determine type of aggression (psychotic, impulsive, predatory) as well as environmental factors that may exacerbate aggressive behaviors
- Actively monitor for and treat comorbid conditions that may contribute to aggressive behavior, including substance abuse
- Continually evaluate patients using violence risk assessment tools
- Integrate psychosocial therapies into the treatment plan for patients who are chronically aggressive
- Actively monitor therapeutic drug levels during treatment
- Strongly consider using high dose antipsychotic monotherapy or antipsychotic polypharmacy in patients who are aggressive and violent
- Strongly consider clozapine for patients with persistent aggression

Assessment

Determine etiology of aggressive behavior

- Evaluate patient for causes of aggression²¹
 - Aggression type²²⁻²⁴

- Psychotic²⁵
 - Patient misunderstands or misinterprets environmental stimuli
 - Attributable to positive symptoms of psychosis
 - Paranoid delusions of threat or persecution
 - Command hallucinations
 - Grandiosity
 - Accompanied by autonomic arousal
- Impulsive
 - Hyper-reactivity to stimuli
 - Emotional hypersensitivity
 - Exaggerated threat perception
 - Involves no planning
 - Accompanied by autonomic arousal
- Predatory²⁶
 - Planned assaults
 - Goal-directed
 - Lack of remorse
 - Autonomic arousal absent
- Physical conditions that may contribute to violence risk²⁷
 - Psychomotor agitation
 - Akathisia
 - Pain or physical discomfort
 - Delirium
 - Intoxication or withdrawal
 - Complex partial seizures
 - Sleep issues
- Abnormal laboratory results that may contribute to violence risk²⁸
 - Plasma glucose
 - Plasma calcium
 - White blood cell count to rule out sepsis
 - Infectious disease screens as clinically indicated
 - Plasma sodium to rule out hyponatremia or hypernatremia
 - Oxygen saturation as clinically indicated
 - Serum ammonia as clinically indicated
 - Thyroid status
 - Sedimentation rate if history of inflammatory disease
- Adverse medication effects
 - Extrapyramidal symptoms (EPS)
 - Akathisia
 - Dystonia
 - Parkinsonism
 - Sedation
 - Orthostasis
 - Adverse anticonvulsant effects
 - Ataxia
 - Tremor
 - Cognitive impairment

- Adverse lithium effects
 - Polyuria
 - Tremor
 - Cognitive impairment
- Adverse beta blocker effects
 - Hypotension
 - Bronchospasm
 - Bradycardia
- Environmental factors that may contribute to violence risk²⁹
 - Physical environment³⁰⁻³²
 - Regulation of daily life/activities
 - Meals, medication, showers, etc. on a fixed schedule
 - Personal choices about attire, food, and leisure time are limited
 - All actions supervised
 - Waiting in line required
 - Limited privacy
 - Shared bedrooms/bathrooms
 - Crowded communal areas
 - Conversely, constant monitoring and structured activities may be beneficial for decreasing violence
 - Treatment unit factors
 - Younger age of unit population^{33,34}
 - Unsafe population mix³⁵
 - Unit population is unadjusted according to violence risk, age, and diagnoses of patients
 - Crowding^{30,36-38}
 - Poor unit management³⁹⁻⁴⁴
 - Unreliable schedules and routines
 - Staff roles not clearly defined
 - Poor teamwork among staff
 - Absence of a committed and active psychiatrist/leader
 - Poor therapeutic alliance between patient and staff
 - Lack of therapeutic activities
 - Sensory overload from excessive noise
 - Lack of a sense of community/therapeutic community⁴⁵
 - Staff factors^{35,43,44,46-49}
 - Inexperienced staff
 - Shift and unit staff assignments are unadjusted for experience levels of staff
 - Understaffing
 - High turnover of staff
 - Inadequate or improper staff training^{50,51}
 - Noncompliance with risk-reducing policies and procedures
 - Overtime shifts
 - Lack of discipline for staff who show a repetitive pattern of poor quality relationships with patients
 - Staff burnout (Supplemental Table 4)
- Institutional factors³⁵
 - Limited ability of staff to quickly access risk-relevant patient information
 - Lack of an effective crisis management plan
 - Poor management⁵²
 - Failure to resolve conflicts among staff members
 - Senior management absent from treatment units
 - Absence of a designated person in charge of violence management
 - Incomplete or inaccurate written policies related to aggression^{45,53}
 - Acceptance of risky current practices
 - Lack of transfer options for patients who are too dangerous to be housed in current facility
- Schedule factors⁵⁴⁻⁶⁰
 - Unstructured activities
 - Periods of transition, patient movement, patient lines, high-volume patient-staff interactions

Violence risk assessment

- Areas of elevated social interaction and physical proximity (eg, hallways)^{56,58,61}
- Violence risk assessment should include a systematic collection of patient information and documenting of violence risk factors^{62,63}
- Violence risk assessment should include both
 - Validated violence risk assessments
 - Structured clinical judgment processes
- Violence risk assessment should be conducted by a credentialed mental health professional
 - With specialized education and supervised training in the use and limitations of psychological assessment instruments and structured clinical judgment processes
 - Who completes ongoing training to maintain expertise in the use of violence risk assessments
- Review prior history and assessments
 - Frequency of violence
 - Severity of violence
 - Patient factors associated with violence
 - Environmental factors associated with violence
 - Cause of latest decompensation
 - Comorbid factors associated with violence
 - Psychosis
 - Substance abuse

- Criminal thinking/psychopathy
 - Emotional instability
 - Borderline personality disorder
 - Intellectual disability
 - Traumatic brain injury
 - Evaluate previous treatments and treatment efficacy⁶⁴
 - Review all incident reports, progress notes, laboratory reports, prior psychological and neuropsychological testing results, treatment team documents, and court records
 - Include collateral reports of previous violence incidents, if available
 - Interview treatment team members and level-of-care staff
 - Conduct a clinical interview with the patient including a full mental status examination
 - Supplementary assessment tools (Supplemental Tables 1 and 2)
 - Structured professional judgment violence risk assessment instruments
 - Historical Clinical Risk Management-20 (HCR-20)⁶⁵
 - Short-Term Assessment of Risk and Treatability (START)⁶⁶
 - Violence Risk Screening-10 (V-RISK-10)⁶⁷
 - Psychopathy
 - Psychopathy Checklist-Revised (PCL-R)⁶⁸
 - Psychopathy Checklist-Short Version (PCL-SV)
 - Actuarial violence risk assessment instruments
 - Classification of Violence Risk (COVR)⁶⁹
 - Violence Risk Appraisal Guide (VRAG)^{70,71}
 - Violence Risk Scale (VRS)⁷²
 - Observational rating scales and checklists
 - Dynamic Appraisal of Situational Aggression (DASA)^{21,73}
 - Staff Observation Aggression Scale-Revised (SOAS-R)⁷⁴
 - Buss-Perry Aggression Questionnaire
 - Brief Psychiatric Rating Scale (BPRS)
 - Cohen-Mansfield Agitation Inventory (CMAI)
 - If patient poses an immediate threat
 - Evaluate need for seclusion or restraint
 - Clinical observation
 - Clinical interview
 - Use of rating scales (eg, DASA)
- play adjunctive roles in controlling acute aggression and violence⁷⁷⁻⁸⁰
- Long-term treatment
 - Note that absence of any adverse effects despite adequate plasma concentrations of antipsychotics may reflect a need for higher-than-standard doses to achieve adequate receptor occupancy (Tables 1 and 2)
 - A partial response (<20–30% on the Positive and Negative Syndrome Scale [PANSS] or BPRS) with minimal or no adverse effects argues for a higher-dose trial of the present antipsychotic
 - Failure of 2 or more adequate trials of antipsychotics, with at least one being an atypical antipsychotic, argues for a trial of clozapine
 - Tailor treatments to target specific symptoms that may contribute to violence risk (Table 3 and Figure 2)
 - There are a variety of pharmacokinetic and drug-drug interaction effects of the anticonvulsants, lithium, and beta blockers that should be considered⁸¹
 - eg, phenytoin with zero-order kinetics
 - eg, carbamazepine induces CYP450
 - eg, angiotensin-converting enzyme inhibitors and nonsteroidal anti-inflammatory drugs (NSAIDs) raise lithium levels
 - eg, nonselective beta-blockers are contraindicated in asthma
 - A partial response (small decline in Barratt Impulsiveness Scale [BIS-11]) with adequate anticonvulsant plasma concentrations argues for the addition of an anticonvulsant or other medication with a mechanism of action distinct from that of the primary treatment^{82,83}

Psychotic aggression

- Confirm that the patient's violent and aggressive behaviors arise primarily from psychosis
 - Associated with a primary psychotic disorder (Figure 3)^{2,3}
 - Schizophrenia spectrum disorders
 - Bipolar spectrum disorders
 - Associated with a major cognitive disorder (Supplemental Figure 1)^{4,7,10,11}
 - Alzheimer's disease⁸⁴
 - Vascular dementia
 - Major cognitive disorder with Lewy bodies
 - Traumatic brain injury¹²
 - Antipsychotics increase the risk of mortality by 1.5- to 2-fold in elderly demented patients but may be worthwhile if alternative choices to control agitation and violence are ineffective^{85,86}

Treatment

- Treatment of acute agitation (Figure 1)^{75,76}
 - When possible, choose an antipsychotic that is also being used as part of the primary treatment. Available dose forms may limit this option
 - Recent studies have suggested that additional agents, such as midazolam and promethazine, may

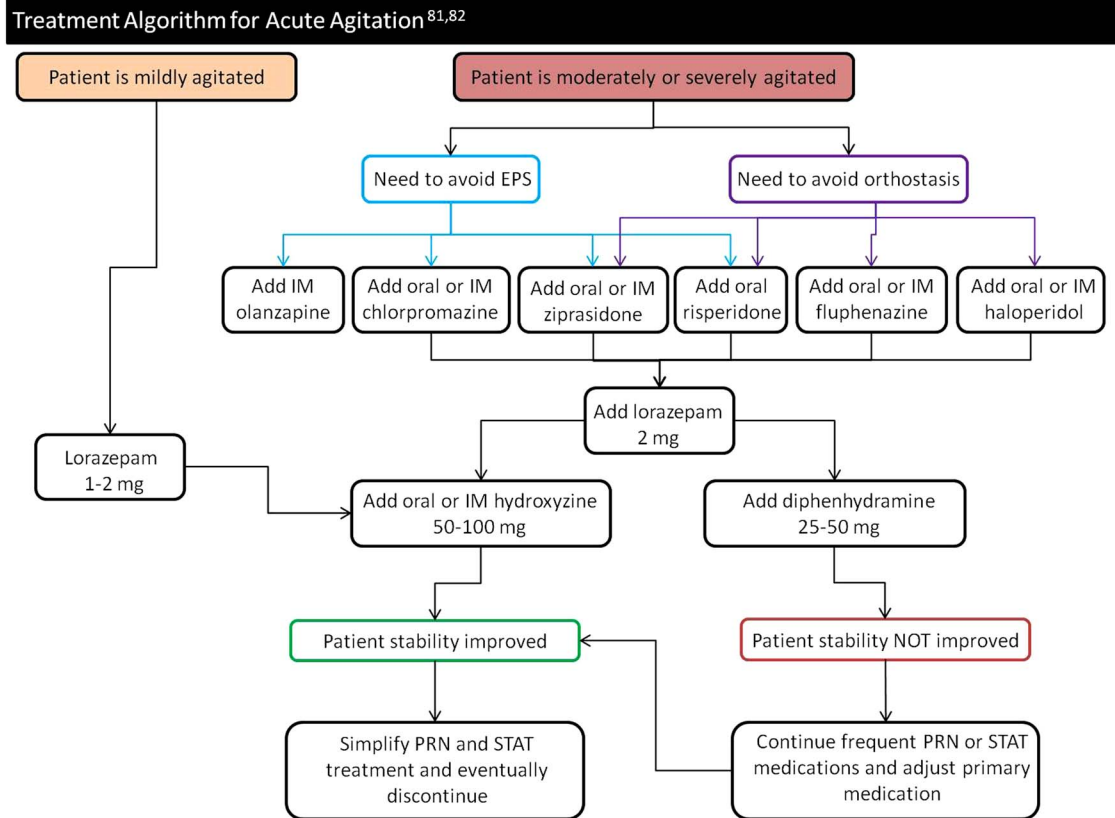


FIGURE 1. Treatment algorithm for acute agitation.

TABLE 1. Dosing recommendations: conventional antipsychotics

Medication (brand)	Recommended dose range	High-dosing recommendations	Recommended plasma concentration	Long-acting depot recommendations
Chlorpromazine (Thorazine)	300–1000 mg/day			
Fluphenazine (Prolixin)	6–20 mg/day	20–60 mg/day	0.8–2.0 ng/mL	2–3 week depot available.
Haloperidol (Haldol, Serenace)	6–40 mg/day	20–80 mg/day	Up to 4.0 ng/mL may be required	25–100 mg/14 days
		Higher doses especially when failing to respond to doses up to 20 mg/day	Up to 30 ng/mL may be required	4 week depot available.
				200–300 mg/28 days after loading with 200–300 mg/weekly times 3
Loxapine (Loxitane)	30–100 mg/day			
Perphenazine (Trilafon)	12–64 mg/day			
Thiothixene (Navane)	15–50 mg/day			
Trifluoperazine (Stelazine)	15–50 mg/day			

See full prescribing information for details.

- Periodically test whether antipsychotic dose is required to maintain stability
- It is recommended that antipsychotics be tapered and discontinued after major cognitive disorders have stabilized or progressed
- Note that, although no response by weeks 4–6 of adequate to high-dose antipsychotic treatment portends a poor outcome, many patients show ongoing improvement for many weeks to months following a favorable, albeit partial, response to early treatment⁸⁷

TABLE 2. Dosing recommendations: atypical antipsychotics

Medication (brand)	Recommended dose range	High-dosing recommendations	Recommended plasma concentration	Long-acting depot recommendations
Aripiprazole (Abilify)	10–30 mg/day	Higher doses usually not more effective and possibly less effective		4-week depot available
Asenapine (Saphris)	10–20 mg/day	High-dosing not well-studied		No depot available
Clozapine (Clozaril)	150–450 mg/day	FDA max 900 mg/day Doses >550 mg/day may require concomitant anticonvulsant administration to reduce seizure risk		No depot available
Iloperidone (Fanapt)	12–24 mg/day	High-dosing not well-studied		No depot available
Lurasidone (Latuda)	40–160 mg/day Must be taken with food. Nightly administration may improve tolerability	Efficacy of high-dosing (>160 mg/day) not well-studied		No depot available
Olanzapine (Zyprexa)	10–30 mg/day	40–60 mg/day. Up to 90 mg/day for more difficult cases	80–120 ng/mL	2- and 4-week depots available
Paliperidone ER (Invega)	3–12 mg/day	Max dose is generally 12 mg/day		4-week depot available 234 mg followed after 1 week by 156 mg then continuing at 117–234 mg/28 days
Quetiapine (Seroquel, SeroquelXR)	300–750 mg/day	Up to 1800 mg /day or more for difficult cases		No depot available
Risperidone (Risperdal)	2–8 mg/day	FDA-approved up to 16 mg/day. Very high doses are usually not well-tolerated		2-week depot available
Ziprasidone (Geodon)	80–160 mg/day Must be taken with food	Up to 360 mg/day for difficult cases		No depot available

See full prescribing information for details.

- Some patients may require higher than cited antipsychotic plasma concentrations to achieve stabilization (Tables 1 and 2)

Impulsive aggression

- Confirm that patient's violent and aggressive behaviors result primarily from impulsive aggression
 - Characterized by reactive or emotionally charged response that has a loss of behavioral control and failure to consider consequences
 - Associated with
 - Schizophrenia spectrum disorders
 - Cognitive disorders⁸⁸
 - ADHD (Supplemental Figure 2)^{5,89}
 - Bipolar disorder (Supplemental Figure 3)^{90–100}
 - Depressive disorders (Supplemental Figure 4)^{101–114}
 - Cluster B personality disorders (Supplemental Figure 5)^{115,116}
 - Intermittent explosive disorder (Supplemental Figure 6)⁸²
 - PTSD (Supplemental Figure 7)⁸

- TBI (Supplemental Figure 8)¹²
- Unknown origin (Supplemental Figure 9)^{81,82,117–120}

- Strongly associated with substance use disorders
- Past history of psychological trauma increases risk of impulsive aggression and is often comorbid with substance use disorders and personality disorders
- For mood disorders, the goal of treatment is resolution of the mood symptoms, or improvement to the point that only 1 or 2 symptoms of mild intensity persist
 - Resolution of psychosis is required for remission
- For patients with mood disorders who do not achieve remission, a reasonable goal is response that entails stabilization of the patient's safety and substantial improvement in the number, intensity, and frequency of mood (and psychotic) symptoms¹²¹

Predatory aggression

- Confirm that patient's violent and aggressive behaviors result primarily from predatory aggression
 - Purposeful, planned behavior that is associated with attainment of a goal

TABLE 3. Dosing recommendations: other medications

Medication (brand)	Recommended dose range	Dosing considerations
Bupropion (Wellbutrin)	150–450 mg/day	High risk of abuse in forensic settings
Benzodiazepines	Various	Dose clonazepam at 0.5–2.0 mg TID and then taper as patient stabilizes. High risk of abuse in forensic settings
Beta blockers	Various	
Carbamazepine (Tegretol, generic)	400–1200 mg/day	Target plasma concentration of 8–12 ng/mL. Recheck plasma concentration for decrease due to autoinduction 4–6 weeks after initiating. May lower plasma levels of other medications
Diphenhydramine (Benadryl)	25–300 mg/day	
Divalproex (Depakote, DepakoteER, generic)	750 mg/day up to 60 mg/kg/day BID or TID	May be loaded at 20–30 mg/kg, reaching steady state at around 3 days with plasma concentrations of 80–120 mcg/mL
Lamotrigine (Lamictal, generic)	Various	
Lithium (Eskalith, generic)	900–2400 mg/day	May be initiated at 600 mg/day and titrated by 300 mg every other day to 900–1800 mg/day. Once per day dosing spares renal function. Plasma concentrations should be 0.6–1.2 mEq/L (up to 1.4 mEq/L in acute mania). Lower doses for unipolar depression (900 mg/day with serum levels of 0.6–0.9 mEq/L)
Oxcarbazepine (Trileptal, generic)	1200–2400 mg/day	Less potent induction than carbamazepine, but may lower plasma levels of other medications.
Phenytoin (Dilantin, generic)	300–900 mg/day	Zero-order kinetics make dosage increases result in dramatic increases in plasma concentration. Desired range is 10–20 mcg/mL. May lower plasma levels of other medications
SNRIs	Various	
SSRIs	Various	
TCAs	Various	Desipramine (150–300 ng/mL) and nortriptyline (50–150 ng/mL) are first line TCAs for impulsive aggression associated with ADHD.
Topiramate (Topamax)	200–400 mg/day	
Trazodone (Oleptro, Desyrel, generic)	25–600 mg /day	
Zolpidem (Ambien)	5–10 mg/day	

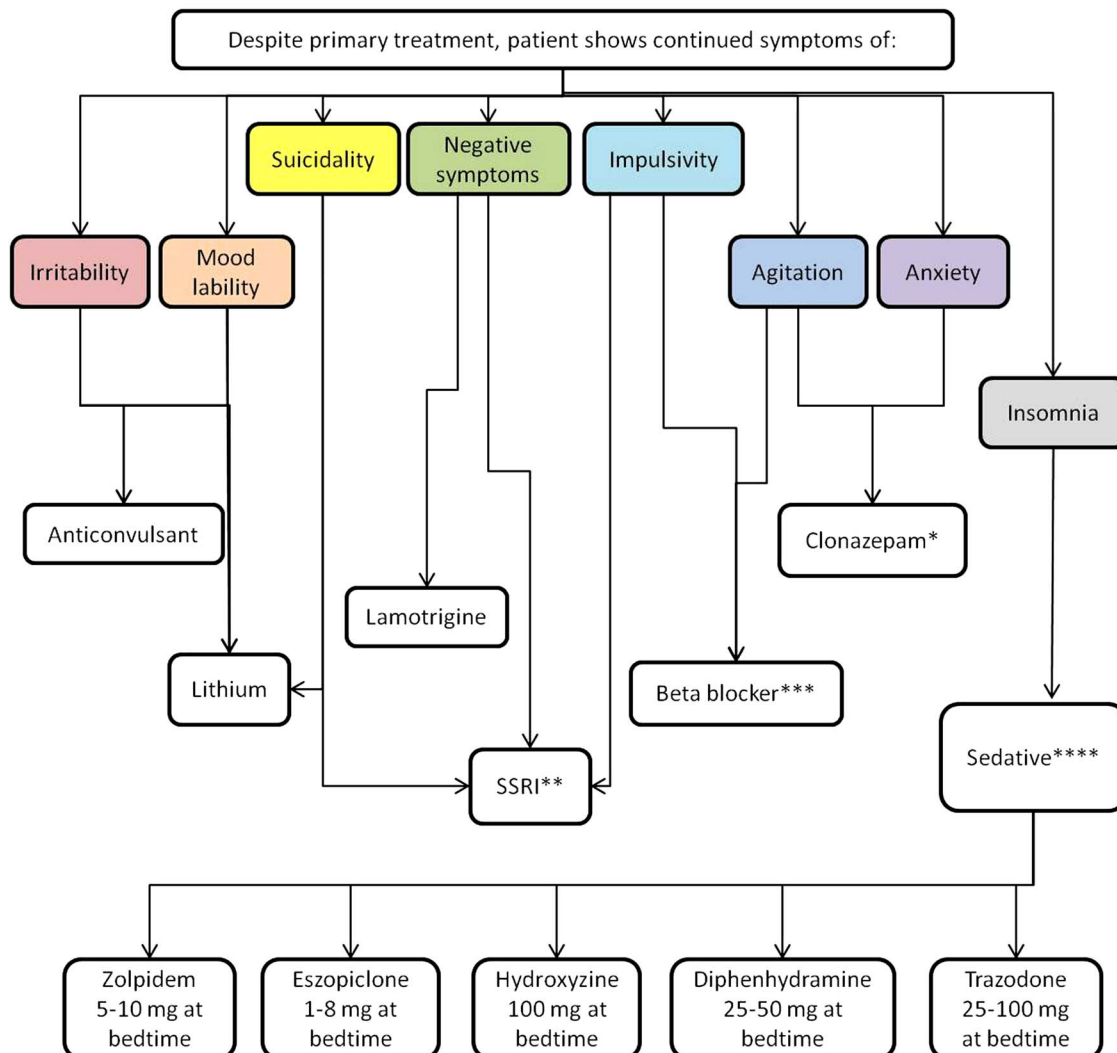
See full prescribing information for details.

- Some patients who engage in predatory acts may have the constellation of personality traits commonly known as psychopathy
- Avoid countertransference reactions (Supplemental Table 3)
- Determine potential reasons for predatory aggression (Supplemental Table 4)^{65,68,70,122}
- Provide opportunities to attain acceptable goals using social learning principles, differential reinforcement, and cognitive restructuring (Figure 4)¹²³
- Utilize the Risk–Need–Responsivity principles to determine risk level, treatment needs, and the best way to deliver and optimize treatment (Supplemental Tables 5 and 6)
- Regularly evaluate the progress of predatory aggression treatment (Supplemental Table 7)¹²⁴
- Consider using mood stabilizers, SSRIs, or other antidepressants for persistent tension, explosive anger, mood swings, and impulsivity
- While level of security and psychosocial interventions remain the mainstays of addressing predatory violence, preliminary data have suggested that clozapine also may reduce such aggression and violence¹²⁵

Psychosocial Interventions

- It is often the case that when treating the violently mentally ill, both medications and therapeutic interventions are needed in order to impact change
- Pairing medication with appropriate psychosocial interventions can impart new coping strategies and increase medication adherence
- Psychosocial interventions should also give weight to the etiology of the aggression
 - Once an etiology has been identified, a behavioral treatment must be further individualized based on the patient's needs, capabilities, and other logistical limitations

Adjunctive Medications for the Treatment of Symptoms That May Increase Risk of Aggression⁸¹⁻⁸³



**Avoid use in major cognitive disorders*

***Avoid use in patients with suspected bipolar disorder. May increase irritability in patients with TBI or autism. Avoid use of fluvoxamine with clozapine or olanzapine as fluvoxamine may increase clozapine or olanzapine plasma concentrations.*

****Propranolol is contraindicated in patients with asthma. Monitor blood pressure to avoid hypotension.*

*****Antihistamines may cause idiosyncratic excitation and agitation. Diphenhydramine, but not hydroxyzine, will add to anticholinergic burden.*

FIGURE 2. Adjunctive medications for the treatment of symptoms that may increase risk of aggression.

- Utilize the Risk-Need-Responsivity Model (Supplemental Table 6)¹²⁶⁻¹²⁸
 - Risk principle
 - Assessment of patient's level of risk and contributing factors to his or her aggressive behavior
 - Need principle
 - Assessment of criminogenic needs
 - In this context, criminogenic needs refer to dynamic (treatable) risk factors that are correlated with criminal behavior, and when treated, reduce recidivism

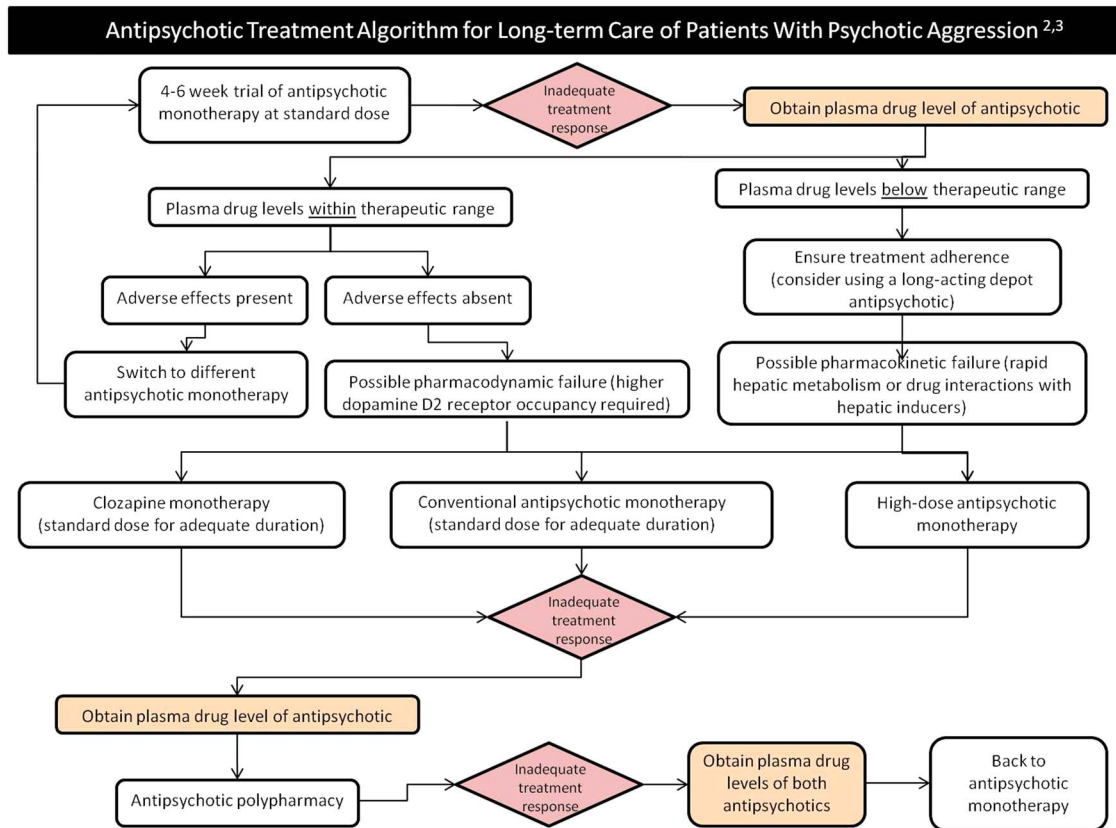


FIGURE 3. Antipsychotic treatment algorithm for long-term care of patients with psychotic aggression.

- Provides specific targets for treatment to reduce violence
 - Early antisocial behavior
 - Impulsive personality patterns
 - Negative criminal attitudes and values
 - Delinquent or criminal associates
 - Dysfunctional family relationships
 - Poor investment in school or work
 - Little involvement in legitimate leisure pursuits
 - Substance abuse
 - Responsivity principle
 - Individually tailor treatments to maximize the patient's ability to learn from the interventions
 - Intervention is tailored toward the patient's
 - Learning style
 - Motivation
 - Abilities
 - Strengths
 - Offer high-standard training on de-escalation and prevention strategies such as awareness of one's presence (body posture), content of speech, reflective listening skills, negotiation, positive affirmation, and offering an alternative solution
 - Provide supportive and nonjudgmental briefing sessions to staff who are involved in incidents to discuss their subjective experience
- Psychosocial interventions for psychotic aggression*
- General factors¹²⁹
 - Good communication is essential
 - Multiple and coordinated treatment approaches should be used, including administrative, psychosocial, and psychotropic approaches
 - A sufficient dose of the selected treatment should be administered
 - Treatment integrity, including well-trained staff, supportive administration, and well-coordinated evaluation efforts, is vital
 - Treatment should be tailored to the individual
 - There should be a clear connection between risk assessment and treatment
 - Specific interventions have some evidence for efficacy in reducing violence associated with mental illness
 - Using cognitive behavioral methods
 - Behavioral modification–reinforcement
 - Unit and individual reinforcement
 - Group therapy

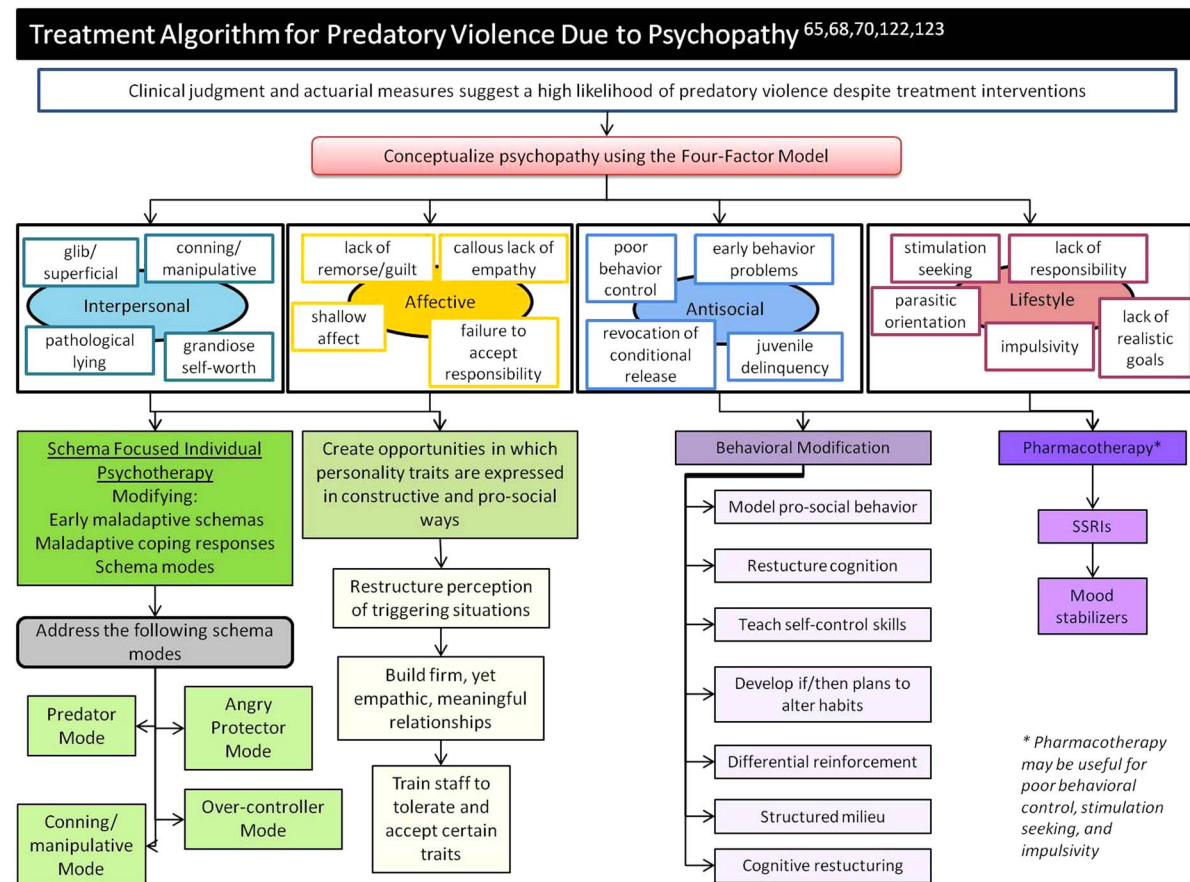


FIGURE 4. Treatment algorithm for predatory aggression.

- UCognitive therapy for psychotic symptoms
 - UAnger management
 - UTeaching cognitive and problem solving skills
 - Individual therapy
 - Can use various approaches
 - Focus on reality testing
 - Building alliance
 - Social learning
 - Modeling by staff
 - Social learning¹³⁰
 - Teaching cognitive and problem solving skills
 - Using behavioral methods
 - Anger management^{131,132}
 - Dialectical behavior therapy (DBT)¹³³
 - Associated with reduction in severity but not in frequency of violence in the mentally ill population
 - Seclusion
 - For up to 48 hours but not less than 4 hours
 - It is worth noting that anecdotal evidence suggests that some patients may respond to preventative interventions, such as time-outs, or to shorter periods of seclusion
 - Most experts caution against using methods that may seem punitive
 - Institutional approaches
 - Total quality management⁶⁰
 - Including rewarding good behavior and changing the environment
 - Identifying the most aggressive individuals and targeting them for intense treatment¹³⁴
 - Social structures that provide strong clinical leadership⁴¹
 - A predictable, competent, interactive, trusting environment
 - Intrapsychic humanism¹³⁵
- Psychosocial interventions for impulsive aggression**
- The goal of treatment is to increase behavioral control and decrease emotional dysregulation¹³⁶
 - DBT^{137,138}
 - Established as a validated treatment for borderline personality disorder and self-injurious behavior
 - Reinforcement/behavioral interventions
 - Positive coping

- Individual therapy: exploration of impulsive episodes, coping, and triggers
- Group therapy: anger management and social skills
- Psychosocial interventions for impulsive aggression with a trauma component:
 - Past history of psychological trauma increases risk of impulsive aggression and is often comorbid with substance use disorders and personality disorders
 - Treatments that incorporate trauma-informed strategies may be effective for impulsive aggression that is not responsive to other interventions¹³⁹⁻¹⁴⁸
 - Previous experiences of victimization often lead to difficulties in forming close relationships and ineffective coping strategies
 - Special emphasis on safety and therapeutic alliance
 - May be incorporated into many existing treatments, especially treatments for ongoing mood disorders or substance use disorders
 - In the case of trauma, be mindful of restraint conditions, which may re-traumatize
 - Exposure therapy may be useful for aggression stemming from PTSD or other traumatic experiences
- More intensive and specialized treatment may be required for severely ill patients or those with chronic coping deficits or personality disorders

Psychosocial interventions for aggression due to cognitive impairment

- Psychosocial interventions for aggression due to cognitive impairment
 - Cognitive impairment is found consistently in serious mental illness, especially schizophrenia¹⁴⁹⁻¹⁵¹
 - Addressing complex aggressive behavior and cognitive issues should be the target of treatment
 - Recovery Inspired Skills Enhancement (RISE)
 - Multifaceted neurocognitive and social cognition training program for individuals with psychiatric disorders and severe cognitive needs and challenges
 - Goal of RISE is to eliminate maladaptive behaviors that interfere with an individual's recovery process and acquisition of skills necessary for adaptive functioning

Psychosocial interventions for predatory aggression

- Interventions that are tailored to the individual and provided for a sufficient amount of time can result in treatment gains¹⁵²⁻¹⁵⁵

- Keeping in mind, treatment gains may be modest or non-existent
- Treatments that address patients' dynamic risk factors through psychotherapy and structured milieu interventions are most effective
- Interventions to address maladaptive patterns of thinking and behavior¹⁵⁶
 - Reasoning and Rehabilitation (R&R)^{157,158}
 - Enhanced Thinking Skills (ETS)¹⁵⁹
 - Think First (TF)
- Psychotherapy¹⁶⁰⁻¹⁶²
 - May include theme-centered psychoeducation and process components
 - Modify antisocial attitudes
 - Improve problem solving abilities and self-regulation
 - Reduce resistance and impulsive lifestyles
 - Focus on early maladaptive schemas, schema modes, and coping responses
 - Seek to increase the patient's awareness of how hostile thoughts, biases, and worldviews have contributed to his or her maladaptive behavior
 - If the patient is particularly psychopathic, individual therapy may be contraindicated
- Milieu
 - Highly structured environment
 - Lack of access to dangerous materials
 - Staff having strong boundaries is crucial
 - Increased monitoring/externally imposed supervision
 - Cameras
 - Hospital security officers
 - Consider a rotation
- Every interaction between the patients and a staff member should be considered an opportunity to reinforce pro-social behaviors and practice learned skills
- Reinforce and model pro-social ways to achieve one's goals

Setting and Housing

- Make all efforts to preserve patients' self-determination, autonomy, and dignity within the treatment environment¹⁶³
- Avoid seclusion, physical restraint, and sedation when possible
 - Finding the right balance is key
 - For instance, staff should not avoid the use of restraint and seclusion to the point where the patient does not have to follow unit rules
- Hospitalize patients in an enhanced treatment unit (ETU) who have¹⁶⁴
 - Recently committed/threatened acts of violence or aggression that put others at risk of physical

- injury and cannot be managed in a standard treatment setting
- Recurrent violent or aggressive behaviors that are unresponsive to all therapeutic interventions available in a standard treatment setting
 - Review attempted interventions to ensure that standard of care has been met
 - Communicate with treating clinicians to discuss past treatment plans
 - Review medications to determine if pharmacotherapy meets standard of care for the identified disorders
 - Review psychological assessments to determine if the relevant assessments have been attempted
 - Review past psychological interventions, including behavioral plans, group treatment enrollment, and individual therapy progress
 - A high risk of violence that cannot be contained in a standard treatment environment determined by a violence risk assessment process in conjunction with clinical judgment
 - The patient shows continued symptoms that increase risk for violence despite standard care
 - The patient refuses to engage in treatment activities
 - The patient refuses medication
 - The patient possesses prominent risk factors for violence
 - Examples of violence or aggression that meet criteria for ETU admission:
 - One severe act of violence to staff or peers that causes bodily injury
 - Multiple acts of moderate physical violence with the potential to cause injury
 - A threat of significant violence (eg, “I’m going to kill you!”) with a history of past violence
 - Threatening gestures or words (eg, raised fist, slicing hand across throat) or words constituting a threat of violence
 - Intentional destruction of property to cause intimidation, discomfort, pain, or humiliation
 - Acts of sexualized violence or attempted sexual violence
 - Examples of behaviors that DO NOT meet criteria for ETU admission:
 - Nuisance behavior that is disruptive but does not cause injury to peers or staff, or has little foreseeable likelihood to result in injury
 - Minor forms of injurious behavior unlikely to cause substantial injury or permanent damage
 - Sexual behavior that is consensual and does not include an aggressive or violent component
 - Destruction of property lacking intent or risk of personal or interpersonal harm
 - Inappropriate masturbation
- Discharge patients from ETU who meet all of these criteria:
 - No evident risk of aggressive or violent behavior as demonstrated by absence of:
 - Serious rule violations
 - Heightened risk factors for assaultive or aggressive acts as determined by the violence risk assessment process
 - Threatening acts (eg, spitting, leering, posturing to fight)
 - Assaultive acts
 - Intimidating acts
 - Reasonable probability that the patient will be able to maintain psychiatric stability in a less structured environment and will continue to participate in ongoing treatment activities designed to reduce violence risk
 - Based on documented treatment records including notes, treatment plans, and consultations
 - Risk assessment indicates that the patient’s current risk for aggression on a standard treatment unit or in a less structured environment is no longer elevated
 - The risk assessment process should include objective inpatient violence risk factors
 - Underlying risk factors that contributed to elevated violence risk and placement in the ETU have been mitigated

Conclusion

In conclusion, the task before clinicians who treat violent mentally ill patients is great. We are challenged to help these individuals by whatever means necessary, while at the same time working within the practical restrictions of a hospital setting. The above guidelines will hopefully provide assistance with this task, and can be used as a reference. It is important to remember that many of our patients do not wish to harm others; they are simply struggling to hold themselves together, day in and day out, and it is our duty to help them achieve their highest potential. We must make every attempt to keep all those at our hospitals safe—patients and staff alike. Our concluding thought is to remember that our efforts matter; that by using science, and the best tools available, we can change the course of a life.

SUPPLEMENTARY MATERIAL

To view supplementary material for this article, please visit <http://dx.doi.org/10.1017/S1092852914000376>.

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