Managing Psychiatric Emergencies

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Citation

M Ramadan. *Managing Psychiatric Emergencies*. The Internet Journal of Emergency Medicine. 2006 Volume 4 Number 1.

Abstract

Behavioral emergencies are common; goals of the intervention are rapid evaluation, containment and referral to appropriate follow up. Clinicians will be likely called on to assess and manage agitation, acute psychosis and suicidality alone or in combination. Reaching an accurate diagnosis must be emphasized. Physician should be aware of the differences among the major psychiatric disorders, also to look for medical reasons in patients with psychiatric presentations. Mechanisms that lead to agitation also predispose to impulsivity, aggression and psychosis. This patient population needs careful and special approach in order to evaluate, treat and refer. Suicide is a serious, growing and complex public health problem and its rate continue to rise. This article will discuss how to assess acute psychosis, agitation impulsivity, aggression and suicidality.

INTRODUCTION

Psychiatric emergencies are a common and serious problem for patients, their loved ones, communities and the healthcare setting on which they rely ([1]). Patients often present to the emergency room with an altered mental status and/or behavior and their evaluation can be difficult and time-consuming. At times, the perceived urgency to arrive at a disposition brings premature closure to the diagnostic evaluation ([2]).

Emergency physicians face the challenge of assessing and managing patients presenting with acute psychosis, agitation, impulsivity and suicidal intent. Evaluations are frequently complicated by the necessity to investigate numerous domains, such as underlying medical conditions, prior psychiatric disorders and substance abuse, as well as psychosocial factors. It is crucial to rule out organic causes for what may appear to be a psychiatric disease. The assessment may be further complicated by the patients' limited ability to recall pertinent aspects of the history due to either cognitive impairment or acute distress ([3]).

Due to the complexity of a patients' presentation, the emergency clinician, in the case of behavioral emergencies, must be a clinical and medical specialist, anthropologist, detective and a diplomat ([4]). The task force on psychiatric emergency care, referred to as the Triage Model describes the goals of the intervention as ‘Rapid evaluation, Containment and Referral'.

Treatment of psychiatric patients by general hospital emergency department physicians at times is affected by the stigma attached to the field of psychiatry, which has occasionally led to less diligent efforts by healthcare providers on behalf of the psychiatric patients ([5]).

In dealing with psychiatric patients, empathy is the most useful psychotherapy tool for understanding patients' feeling of grief, fear, agitation and powerlessness. It is useful to understand that even patients' anger is often a defense against intolerable emotions. This approach will help physicians in acting beneficently when patients' impaired mental faculties prevent them from making sound autonomous decisions. In addition, an empathic approach will facilitate gathering information from the patient and their loved ones. This patient population is interesting because in assessing the patient, the focus is on the brain, which is the affected organ, as well as the patient's source of history for their present illness. This article will discuss how to, assess and manage acute psychosis, agitation, impulsivity, aggression and suicidality.

ACUTE PSYCHOSIS

The definition of the term psychotic, according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV), is “disorganized speech, grossly disorganized or catatonic behavior, delusions or prominent hallucinations, with the hallucinations occurring in the absence of insight into their pathological nature” ([6]).

DIAGNOSIS

Emergency physicians regularly attend to patients presenting

with acute psychosis and 20% are found to have a purely medical etiology ([7]). Every disturbance of the central nervous system increases the probability that psychiatric symptoms will arise ([8]).

The importance of an accurate diagnosis must be emphasized, and in order to do so, the physician should be aware of the differences among the major psychiatric disorders, but it is equally important for physicians to rule out medical causes in patients with psychiatric presentations ([9]). The source diversity of acute psychosis mandates different approaches in management. For example, treatment of Moonflower (Datura inoxia) intoxication, which is an anticholinergic syndrome, the patient will often present with hallucinations and agitation. The common treatment would be benzodiazepines and phyostigmine, which is a completely different approach than managing a patient with Alzheimer dementia with psychosis, which can be managed by using cholinergic replacement therapy and antipsychotics. On the other hand, it is essential for psychiatrists to continue to keep in mind all possible reasons for new and acute onset psychosis, even after the emergency department staff have medically cleared and referred the patient to psychiatric care, whether it is outpatient or inpatient.

Differential diagnosis of non-psychiatric causes for new onset acute psychosis is broad and it may include a history of trauma, organ failure, neurological disorders, endocrine disturbances, metabolic imbalances, infection or a history of ingestation of toxins, prescription drugs and/or illicit drugs. As with all medical problems, a thorough history and physical exam are crucial tools in the evaluation of the patient and can aid in narrowing the differential diagnosis. Laboratory and radiological work up, such as a complete blood count, electrolytes, renal function tests, liver function tests, urine drug screen, chest X-ray, electrocardiogram and brain imaging may point to any organic causes of acute psychosis. In Table 1([7]), there is a list of common nonpsychiatric causes of new onset acute psychosis.

Figure 1

Table 1: Differential Diagnosis of Non Psychiatric Causes of Acute Psychosis ()

Trauma	*Drugs*
Organ failure	*Structural*
Cardiopulmonary	Chronic subdural hematoma
Hypertensive encephalopathy	Intercranial aneurysm/angioma
Renal azotemia	Normal pressure hydrocephalus
Electrolyte abnormality	Cerebral neoplasm
Hepatic encephalopathy	Cerebral abscess
Neurological	*Toxins*
Stroke	Plants
Lupus cerebritis	Carbon monoxide
Multiple sclerosis	Heavy metals, industrial toxins
Seizures	*Infections*
Huntington' disease/chorea	Sepsis
Endocrine	AIDS encephalopathy
Diabetic ketoacidosis	Pneumonia
Addison's disease	Meningitis, Encephalitis
Cushing's disease	Rocky mountain spotted fever
Thyroid disease	Legionnaire's disease
Pituitary disease	Lyme disease
Hematolgic	Acute rheumatic fever
Paraneoplastic	*Vitamins Deficiency*
Acute intermittent propheria	*Anoxia/hypoxia*

Following the exclusion of medical causes of acute psychosis, the next step is to consider the possible psychiatric disorders. Using the DSM-IV criteria, healthcare providers can arrive at psychiatric diagnoses that can be representative of the patients' presentation and eventually will influence the treatment plan. It is always important to gather the patients' psychiatric history (past psychiatric, substance abuse/ dependency, developmental, social and family psychiatric history); this information will help to focus the spectrum of psychiatric disorders and lead to a more accurate diagnosis. It is crucial to establish a time-line for the onset of symptoms to have a better understanding of the psychiatric disorder. Differential diagnosis of psychiatric disorders with psychotic symptoms as a prominent aspect of the patients' presentation is summarized in Table 2 ([10], [11]). This includes psychotic disorders, mood disorders and substance induced psychosis.

Figure 2

Table 2: Differential Diagnosis of Psychiatric Disorders causing Acute Onset Psychosis (,)

Schizophrenia
Schizophreniform Disorder
Schizoaffective Disorder
Delusional Disorder
Brief Psychotic Disorder
Shared Psychotic Disorder
Psychotic Disorder Due to a General Medical Condition
Substance- Induced Psychotic Disorder
Psychotic Disorder Not Other Wise Specified
Mood Disorder with Psychosis
Delirium
Dementia
Conversion Disorder
Malingering

MANAGEMENT

The Management of acutely agitated psychotic individuals is a major issue in emergency psychiatry. Initial management should focus on attempts to calm the patient through empathic, yet firm verbal means and establishing a collaborative relationship between patient and the treatment team. For example, when approaching an agitated psychotic patient, remember there is always a potential for violence and the approach should include speaking softly to the patient in non-judgmental way, it is better not to gaze in to the patients' eyes, it is of utmost importance to appear calm, unthreatened, in control and to be concerned about your own safety.

A violent patient should not be interviewed alone; at least one other person should always be present. In situations that are more volatile, the other person should be a security guard or a police officer. Other precautions include leaving the interviewing room's door open and situating the interviewer between the patient and the door, in this way the interviewer has unrestricted access to an exit. The emergency room physician must make it clear in a firm, non-angry manner to the patient that they may say or feel anything, but are not free to act in violent or threatening manner whatsoever. This type of statement must be backed by a unified, calm and consistent staff presence that the patient understands is there to lend support in his or her efforts to maintain control.

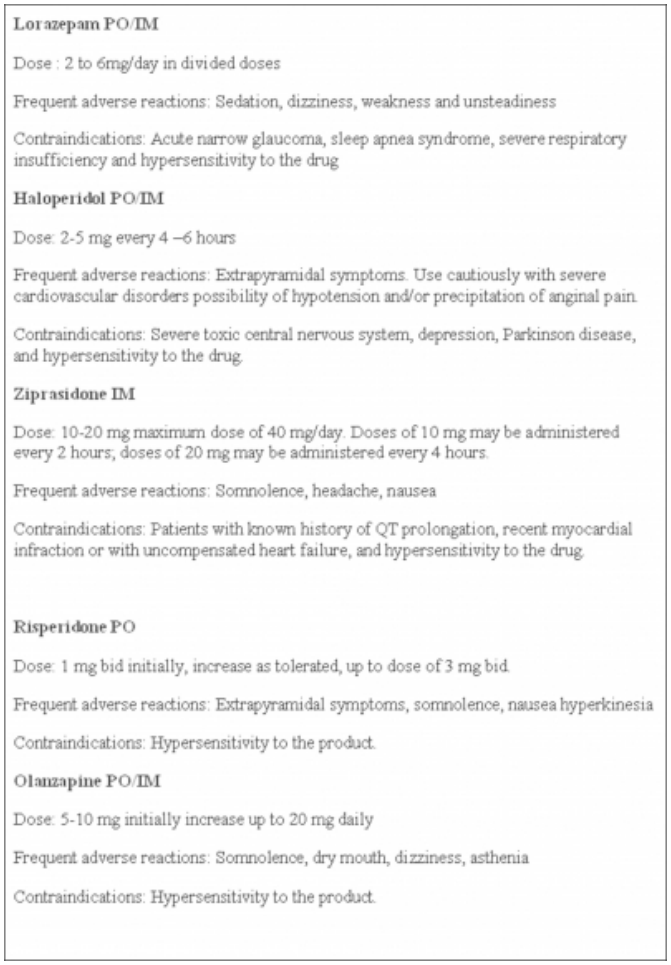
The next step would be rapid tranquillization using emergency medications that have the benefits of reducing the agitated and psychotic state. These types of medications are found to lessen the time in seclusion and restraint and provide greater ease of the evaluative procedures. Choosing among medications and the route of administration is guided by the degree of agitation, concomitant medical conditions, drug use and patient preference ([12]). A wide variety of classes of medications has been reported to be effective in the treatment of agitation. However, benzodiazepines and typical or atypical antipsychotics are the main classes widely used. Occasionally, more than one medication can be used and alternating between different classes can be useful.

Atypical antipsychotics are preferred for agitation in the setting of primary psychiatric illnesses. Atypical antipsychotics are available in new formulations for treating behavioral emergencies (e.g. intramuscular [I.M.] olanzapine and ziprasidone; rapidly dissolving tablets of olanzapine and risperidone). It is recommended that calming, rather than sedation is the more appropriate endpoint of behavioral emergency interventions.

For patients with underlying psychosis, I.M. atypical antipsychotics are effective and help ease the transition from I.M. therapy in the acute care setting, to oral dosing in inpatient or community settings. Evidence exists that atypical antipsychotics demonstrate antiagitation effects in schizophrenic patients. I.M. and oral atypical antipsychotics effectively treat acute agitation in both emergent and long-term care settings. For bipolar patients, these agents are valid therapeutic options for acute, as well as longer-term alleviation of manic symptoms that may include agitation. Doses, frequent side effects and contraindications of the most commonly used medications in emergency departments to treat acutely psychotic and/or agitated patients are illustrated in Table 3 ([13]).

Figure 3

Table 3: Medications commonly used to treat Agitation and Acute Psychosis



Lorazepam PO/IM

Dose : 2 to 6mg/day in divided doses

Frequent adverse reactions: Sedation, dizziness, weakness and unsteadiness

Contraindications: Acute narrow glaucoma, sleep apnea syndrome, severe respiratory insufficiency and hypersensitivity to the drug

Haloperidol PO/IM

Dose: 2-5 mg every 4 –6 hours

Frequent adverse reactions: Extrapyramidal symptoms. Use cautiously with severe cardiovascular disorders possibility of hypotension and/or precipitation of anginal pain.

Contraindications: Severe toxic central nervous system, depression, Parkinson disease, and hypersensitivity to the drug.

Ziprasidone IM

Dose: 10-20 mg maximum dose of 40 mg/day. Doses of 10 mg may be administered every 2 hours; doses of 20 mg may be administered every 4 hours.

Frequent adverse reactions: Somnolence, headache, nausea

Contraindications: Patients with known history of QT prolongation, recent myocardial infraction or with uncompensated heart failure, and hypersensitivity to the drug.

Risperidone PO

Dose: 1 mg bid initially, increase as tolerated, up to dose of 3 mg bid.

Frequent adverse reactions: Extrapyramidal symptoms, somnolence, nausea hyperkinesia

Contraindications: Hypersensitivity to the product.

Olanzapine PO/IM

Dose: 5-10 mg initially increase up to 20 mg daily

Frequent adverse reactions: Somnolence, dry mouth, dizziness, asthenia

Contraindications: Hypersensitivity to the product.

The last resort is to use physical restraints. For example, centers catering to Medicare and Medicaid services, the rules indicate the use of restraints when all other less restrictive measures have failed and unanticipated severely aggressive or destructive behavior places the patient or others in imminent danger. The use of mechanical restraints has been a major tool in the management of severe agitation. Physical restraints are effective as security measure against self-harm or harming others and may be used as a method of injury prevention ([12]). However, psychiatric emergency services may under appreciate the degree to which restraints have lasting physical and psychological effects on both patients and staff. Physical restrains may be used as a necessity, but the indications should be ironclad ([12]). Physicians are expected to act in the patient's best interest, and apply restrains safely to avoid restraint induced injures and to take the patient out of restraints immediately following the patients' demonstration of no to others or the self.

It is worth mentioning that not all acutely psychotic patients are agitated or aggressive, and not all aggressive or agitated patients are psychotic.

THE AGITATED, THE IMPULSIVE AND THE AGGRESSIVE

Agitated, impulsive and aggressive are adjectives used by healthcare providers to describe patients' behavior. At times, these terms are used interchangeably, though the terms are actually different. Agitation is a state of severe inner tension that generally produces motor hyperactivity and behavioral disorganization ([14]). Aggression is any behavior that is intended to be destructive to persons, animals or objects ([15]). Impulsivity is the tendency to act without the ability to match the act to its context to consider the consequences for the self or others ([16], [17]). Impulsivity according to the Barratt Impulsiveness Scale includes greater motor activation, less attention and less planning.

DIAGNOSIS

Impulsivity and aggression are not limited to any specific psychiatric disorder, or even to the presence of a ‘disorder' ([16]). Mechanisms that lead to agitation also predispose to impulsivity, aggression and psychosis. These mechanisms include manic episode or mixed state of bipolar affective disorder, intermittent explosive disorder, agitated depression, anger attacks in patients with depression, posttraumatic stress disorder, obsessive-compulsive spectrum of disorders, anxiety disorders, dementia, delirium, psychotic disorders, personality disorders, especially cluster B (antisocial, borderline and narcissistic), substance intoxication, including alcohol, stimulants and cannabis, or withdrawal from sedatives or alcohol. Medical disorders, such as metabolic imbalances, infections, trauma, neurological and endocrinal dysfunction could be causes of impulsivity, aggression and agitation.

Aggressive behavior in children and adolescents is often associated with attention deficit hyperactivity disorder; conduct disorder and pervasive developmental disorders (autistic disorder, Rett's disorder, childhood disintegrative disorder, asperger's disorder and pervasive developmental disorder not other wise specified) ([18]). Other possible reasons for aggression in younger people may include: anxiety, rigidity of the child wanting their own way, dysregulation due to mood instability, abuse or trauma, impulsivity, or children's lives that are in flux. Medication treatment for children and adolescents must be handled with caution due to the possibility of it causing akathisia, sleep problems,

having activating effects or rage reactions. The source of aggression needs to be determined, which will aid in treatment directions and options ([19]).

Aggression is common in elderly patients with dementia and often leads to placement of these patients in long-term care facilities; it is best understood as a product of the interaction of neurobiological, cognitive and environmental factors. Such a complex etiology calls for an approach to treatment that considers pharmacological therapy as well as environmental manipulation ([20]).

In addition, societal influences, such as poverty, discrimination, exposure to violence and physical abuse, can all play key roles in the genesis of violence. Individuals who have a history of witnessing abuse or having been abused as children may show increased levels of violence in adulthood ([21]).

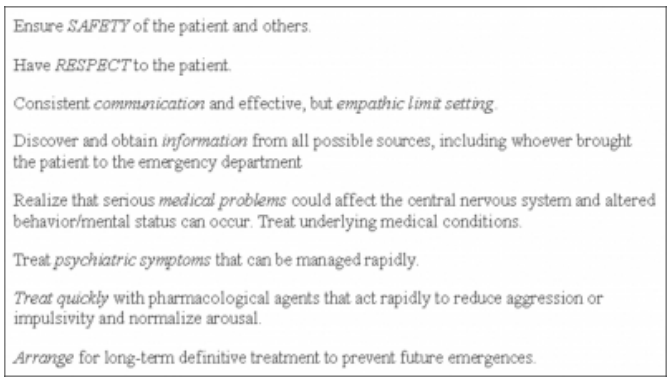
MANAGEMENT

The management for impulsivity, aggression and agitation requires knowledge about the possible causes and the combination of pharmacological options and environmental strategies. Because aggressive behavior occurs in many psychiatric disorders, it is important to have an understanding of the aggression complexity of symptoms ([22]). A unique aspect of patients who are agitated is the fear of losing control. This fear may lead to behavioral disturbances that may already be more subtly present ([23]). The patient may illicit fear, anger and bewilderment in others, making effective communication and treatment difficult ([24]). This patient population needs careful and special approach in order to evaluate, treat and refer to appropriate facility for follow up.

A general approach to the agitated, impulsive and aggressive patient in an emergency setting must ensure the safety of the patient and medical staff. Approach the patient with respect, communicate your treatment plan respectfully, and treat the patient quickly with pharmacological agents to reduce aggression. Anticipate possible violence from hostile, threatening, agitated patients and if the interviewer feels frightened or uneasy, stop the interview and ask for assistance. Offer the patient help, food and bolster the patient's esteem by commenting on his or her strengths and self-control efforts. Do not touch or startle the patient, such as approaching too quickly or closely without warning. Finally, if the patient is transferred, inform the admitting physician about any specific threats and concerns. An algorithm for the general approach is listed in Table 4 ([4]).

Figure 4

General approach to the agitated, impulsive and aggressive patient in emergency setting ().



Anther common behavioral emergency is the assessment of the suicidal patient who may or may not be agitated, impulsive and/or psychotic. The combination of impulsivity and psychiatric disorders may lead to serious suicidal attempts.

THE SUICIDAL PATIENT

Suicide is a serious, growing and complex public health problem, and its rate continues to rise ([25]). Each year 30,000 Americans take their lives ([26]). It is estimated that each year more than half a million Americans make suicide attempts that are serious enough to warrant medical attention ([26]).

Suicide is by far the most common cause of premature death among patients with major mood and psychotic disorders. A major affective or psychotic disorder increases the risk of suicide from 8 to 22 fold. A history of at least one suicide attempt increases the patients' suicide risk 38 fold, so the likelihood of dying by suicide becomes greater than one in four (28%). Attempted suicide is approximately 10 to 20 times more common than completed suicide in the general population ([27]). Lifetime risk in selected psychiatric disorders is listed in Table 5 ([27]).

Figure 5

Table 5: Lifetime Suicide Risk in Conditions ()

Condition	Lifetime Risk (%)
Prior suicide attempt	27.5
Bipolar disorder	15.5
Major depression	14.6
Mixed drug abuse	14.7
Schizophrenia	6.05
Alcohol abuse	4.20
Cancer	1.30
General Population	0.72

Lifetime estimates are based on annual rates x 50 years as an estimate of life-time exposure or years of major risk.

While there has been increasing evidence for various risk factors for suicidal behavior for a number of subgroups, the precision of the researchers' ability of adequately predicting when and who will complete suicide remains limited ([28]). Factors associated with increased risk for suicidal behavior include a history of psychiatric disorders, previous suicide attempts and recent losses. A detailed thorough history must be obtained from the patient and/or close family members and friends. Factors associated with increased risk for suicide are listed in Table 6 ([4,29]).

Figure 6

Table 6: Factors associated with increased risk for suicidal behavior (,)

Mental and/or substance abuse disorder,
Comorbid personality disorders (particularly cluster B)
Previous suicide attempt
Impulsive or aggressive behavior
Stressful life events involving recent losses in financial, work and social areas
In youth include paternal depression, history of sexual or physical abuse and homosexuality
Family history of suicide
Social isolation
Hopelessness
Having recently been assaulted
Combination of depression and impulsivity
Terminal illness
Male sex
Access to Guns
Widowed or never married

Psychiatric disorders carry higher risk of death by suicide. It has been shown that long-term treatment with Lithium reduces suicide risk in bipolar disorders and Clozapine is FDA-approved for reducing suicide in patients with schizophrenia ([27]).

EVALUATION AND MANAGEMENT OF THE SUICIDAL PATIENT

The most useful psychotherapeutic technique in the treatment of a patient who is suicidal is establishing a therapeutic alliance. It is then important to determine patients' personal and demographic risk factors with diligent questions regarding the patients' social history, current stressors or recent losses.

Evaluation should include the assessment of suicidal ideas, wishes and motives, and then the suicidal intent to act on such thoughts. It is imperative to question the patient about specific suicidal plans and then following up to see if the details of the plan actually exist. It is of extreme importance to look for available means for the patient, such as pills, guns, sharps, and even a vehicle if it is part of the suicide plan. Assess the patients' future plans, which should include questions to find out if the patient has been giving up personal belongings, has written a will or recently put other affairs in order.

Evaluation of a suicide attempt is important in order to understand the patients' intention and motivations. Asking about the method used, did the patient think it would work, was it a discrete attempt, was the patient excepting to be rescued, did the patient call anyone after the attempt, what was the reasoning behind the attempt and was it an act of impulsivity or was it well planed out?

In some cases, suicide can be combination of depression, hopelessness and impulsivity ([4]). After a complete evaluation, treatment and referral depend on the patients' risk for suicide. It is essential to incorporate family and friends in the evaluation and eventually in the treatment plan. It is crucial to mobilize the patients' social supports, as it is vital in determining disposition. Disposition of a patient with no risk to attempt suicide should be with a quick follow up appointment that the patient can make and family or responsible friends know about. Admission to the hospital is recommended to patients with suicidal risk or following suicidal attempt. Admission can be voluntary or involuntary according to the appropriate legal processes when necessary. Finally, carefully document the entire evaluation, decision-making process and dispositional steps are crucial.

CONCLUSION

Behavioral emergencies are common and serious problems;

goals of the intervention are rapid evaluation, containment and referral. In dealing with psychiatric patients, empathy is the most useful psychotherapy tool for understanding patients. Clinicians will be likely called on to assess and manage agitation, acute psychosis and suicidality alone or in combination.

The greatest potential error in emergency room psychiatry is overlooking a physical illness as a cause of a psychiatric illness. In patients with acute psychosis 20% are found to have a purely medical etiology, the importance of an accurate diagnosis must be emphasized. Physicians should be aware of the differences among the major psychiatric disorders, and it is equally important for physicians to look for medical causes in patients with psychiatric presentations. Initial management of acute psychosis and agitation should focus on attempts to calm the patient through empathic and firm verbal means. Second step, is rapid tranquillization by using emergency medications. The final step would be the use of restrains. If all less restrictive measures have failed and unanticipated severely aggressive or destructive behavior places the patient or others in imminent danger.

Impulsivity and aggression are not limited to any specific psychiatric disorder, or even to the presence of a ‘disorder'. Mechanisms that lead to agitation may also predispose to impulsivity, aggression and psychosis. The management for impulsivity, aggression and agitation requires knowledge about the possible causes and the combination of pharmacological options and environmental strategies. This patient population needs careful and special approaches in order to evaluate, treat and refer to an out patient treatment facility or to be admitted into the hospital.

Suicide is a serious, growing and complex public health problem and its rate continues to rise, suicide is by far the most common cause of premature death among patients with major mood and psychotic disorders. While there has been increasing evidence for various risk factors for suicidal behavior for a number of subgroups, the precision of researchers' abilities to adequately predict when and who will complete suicide remains limited. Evaluation should include the assessment of suicidal ideas, wishes and motives, and suicidal intent to act on such thoughts and suicidal plans. Following a complete evaluation, treatment and referral depend on the patient's risk for suicide. Incorporate family and friends in the evaluation and eventually the treatment plan, and carefully document all the evaluation, decision process and disposition steps.

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