

Behavioural Emergencies

**EMS Continuing Education
Technician through Technician-Advanced Paramedic**

**Consistent with the
National Occupational Competency Profiles
as developed by
Paramedic Association of Canada
and
“An Alternate Route to Maintenance of Licensure”
as developed by Manitoba Health**

**Evaluated for content by:
Andrea Chevrefils B.S, CMHW
Holly Parcy, Director, Survivor's Hope Crisis Centre**

**Developed by:
Educational Subcommittee – Paramedic Association
of Manitoba**

Revised October 2011

Disclaimer

These documents were developed for improved accessibility to “An Alternative Route to Maintenance of Licensure” for all paramedics in Manitoba. Regional implementation of Alternate Route is at the discretion of the local EMS Director.

This is a supportive document to the National Occupational Competency Profiles and “An Alternative Route to Maintenance of Licensure.” It is not the intent that this package be used as a stand-alone teaching tool. It is understood that the user has prior learning in this subject area, and that this document is strictly for supplemental continuing medical education. To this end, the Paramedic Association of Manitoba assumes no responsibility for the completeness of information contained within this package.

It is neither the intent of this package to supercede local or provincial protocols, nor to assume responsibility for patient care issues pertaining to the information found herein. Always follow local or provincial guidelines in the care and treatment of any patient.

This package is to be used in conjunction with accepted models for education delivery and assessment, as outlined in “An Alternative Route to Maintenance of Licensure”.

This document was designed to encompass all licensed training levels in the province Technician, Technician-Paramedic, Technician-Advanced Paramedic. Paramedics are encouraged to read beyond their training levels. However, the written test will only be administered at the paramedic’s current level of practice.

All packages have been reviewed by the Paramedic Association of Manitoba’s Educational Subcommittee and physician(s) for medical content.

As the industry of EMS is as dynamic as individual patient care, the profession is constantly evolving to deliver enhanced patient care through education and standards. The Paramedic Association of Manitoba would like to thank those practitioners instrumental in the creation, distribution, and maintenance of these packages. Through your efforts, our patient care improves.

This document will be amended in as timely a manner as possible to reflect changes to the National Occupational Competency Profiles, provincial protocols/Emergency Treatment Guidelines, or the Cognitive Elements outlined in the Alternate Route document.

Any comments, suggestions, errors, omissions, or questions regarding this document may be referred to info@paramedicsofmanitoba.ca , attention Director of Education and Standards.

Behavioural Emergencies

Conventions Used in this Manual

Black lettering without a border is used to denote information appropriate to the Technician Level and above.

|| Text with the single striped border on the left is information appropriate to Technician-Paramedic and above.

||| Text with the double striped border on the left is information appropriate to Technician-Advanced Paramedic and above.

Introduction.....	4
Assessing a behavioural emergency:.....	4
Special Considerations when dealing with behavioural emergencies:.....	6
Questions to ask yourself when evaluating a behavioural emergency:.....	7
Depression.....	8
Grief Reaction	8
Suicidal / Homicidal Ideation:	9
Suicide Risk Factors Using the “SAD PERSONS” Mnemonic	11
Violent Patients / Potentially Violent Patients	11
Sexual Assault: The Law	12
Sexual Assault Trauma – SAT.....	12
Managing the Sexual Assault Scene	13
Manic Disorders.....	14
Psychosis.....	14
Schizophrenia	15
Legal Considerations when dealing with behavioural emergencies	20
Pharmacology	22
Benzodiazepines	22
Antipsychotic / Neuroleptic Drugs.....	22
Glossary.....	24
References.....	25

Introduction

Behaviour is what you can see of a person's response to the environment, his or her actions. Most of the time, individuals respond to the environment in reasonable ways. Over the years, they have learned to adapt to a variety of situations in daily life, including stresses and strains, known as adjustment. There are times, however, when the stress is so great that the normal ways of adjusting do not work. When this happens, a person's behaviour is likely to change, even if only temporarily. The new behaviour may not be appropriate or normal. Behaviour alterations may come from a variety of causes, including but not limited to: intoxication (alcohol), metabolic (blood sugar), hypoxia, environmental (hypothermia), cardiovascular (stroke), neoplastic (tumours), psychogenic (anxiety), infection (meningitis), toxicological exposure (CBRN response), trauma (concussion), and drug reactions (both elicited and prescription medications). Because behavioural emergencies stem from a number of causes which are not always behavioural or psychiatric related, it is vital to do a complete medical assessment on every patient.

The definition of a behavioural crisis or emergency is any reaction to events that interferes with the activities of daily living or has become unacceptable to the patient, family or community. Activities of daily living are those tasks that are routinely carried out throughout the course of the day (eating, dressing, washing, etc.). If the interruption of daily routine tends to recur on a regular basis, the behaviour is also considered a mental health problem. It is then a pattern, rather than an isolated incident.

Assessing a behavioural emergency:

Per Manitoba Health guidelines one of the EMS personnel must assume control of the situation, if they are first on scene. Multiple people may increase the patient's confusion or agitation or may make the patient feel overwhelmed or trapped.

Some of the most important work involved in managing a behavioural emergency takes place in the initial approach to the patient. The first contact is crucial and sets the tone for the remainder of the interaction with paramedics and other caregivers. First, the paramedic must be certain that the surrounding scene is safe. Many patients have the potential for violence to themselves or others. One should always be aware of potential weapons, and if the patient is acting in a suspicious manner, the paramedic should wait for police assistance.

The patient intervention should not be rushed. The paramedic should gather as much information directly from the patient as possible. Confrontation inhibits communication and makes the patient more resistant to help, so the paramedic should avoid argumentative statements or questioning. A better approach is to acknowledge the patient's statements without agreeing with irrational thoughts. After hearing the patient out, a paramedic can sort out the details and make better sense of the situation. An interviewer is most effective when appearing to be calm, understanding, and non-judgemental.

When communicating with a person experiencing a behavioural emergency, it is important to use simple, concise terms to explain what is happening and what is being done to help. Comments should be explained fully and important concepts repeated as often as necessary to be sure the patient understands. The paramedic should ask open-ended questions rather than questions that require a “yes” or “no” answer. Open-ended questions elicit a better assessment of the nature of the patient’s disorder or crisis than narrow questions do. The tone of the paramedic’s voice may also influence the patients reaction. Calm voices may help to “bring the patient down”, or harsh and loud voices may startle the patient or cause them to become increasingly agitated.

A behavioural crisis puts tremendous stress on a person’s coping mechanisms, including natural abilities and training. The person may actually be incapable of responding reasonably to the demands of the environment. This state may be temporary, as in an acute illness, or longer-lived, as in a complex, chronic mental illness. In either case, the patient’s perception of reality may be compromised or distorted.

Sometimes a patient in a behavioural or psychiatric emergency will not respond at all to your questions. In those cases, you may be able to tell quite a lot about the patient’s emotional state from facial expressions, pulse, and respirations. Tears, sweating, and flushed skin may be significant indicators of state of mind. Also, make sure that you look at the patient’s eyes; a patient who has a blank gaze or rapidly moving eyes may be experiencing CNS depression or some type of extra stress.



Making eye contact with a patient can provide useful clues about a patient’s emotional state

In trying to determine the reason for the patient’s state, you should consider three major possible contributors:

- Is the patient’s central nervous system functioning properly? For example, the patient may be experiencing diabetic problems, particularly hypoglycemia. He or she may have been poisoned or may be responding to a physical trauma of some sort. Any of these situations could cause the patient to behave in an unusual or irrational fashion.

- Are hallucinogens, other drugs or alcohol a factor? Does the patient see strange things? Is everything distorted? Do you smell alcohol on the patient's breath?
- Are psychogenic circumstances, symptoms, or illness (caused by mental rather than physical factors) involved? These might include the death of a loved one, severe depression, a history of mental illness, threats of suicide, or some other major interruption of activities of daily living.

Family, friends, and observers may be of great help in answering these questions. Together with your observations and interaction with the patient, they should provide enough information for you to assess the situation.

Special Considerations when dealing with behavioural emergencies:

Be prepared to spend extra time. It may take longer to assess, listen to, and prepare the patient for transport.

Identify yourself calmly. Try to gain the patient's confidence. A slow, calm voice is often a quieting influence.

Be direct. State your intentions and what you expect of the patient.

Assess the scene. If the patient is armed or has potentially harmful objects in his or her possession, have these removed by police personnel before you enter the scene to provide care.

Stay with the patient. Do not let the patient leave the area, and do not leave yourself unless there is someone to stay with the patient. Otherwise, the patient may go to another room and obtain weapons, lock himself or herself into the bathroom, take pills, etc.

Encourage purposeful movement. Help the patient to get dressed and gather appropriate belongings to take to the hospital.

Express interest in the patient's story. Let the patient tell you what happened or what is going on now in his or her own words. However, do not play along with auditory or visual disturbances.

Do not get too close to the patient. Everyone needs personal space. Furthermore, you want to be sure you can move quickly if the patient becomes violent or tries to run away. Do not physically talk down to or directly confront the patient. Do not allow the patient to get between you and the exit.

Avoid arguing with the patient. You do not want to get into a power struggle. If you can respond with understanding to the feeling that the patient is expressing, whether this is anger or fear or desperation, you may be able to gain his or her cooperation.

Be honest and reassuring. If the patient asks whether he or she has to go to the hospital, the answer should be honest, explaining the need for medical help.

Do not judge. You may see behaviour that you dislike. Set those feelings aside and concentrate on providing emergency medical care.

Questions to ask yourself when evaluating a behavioural emergency:

- How does the patient relate to you? Does your patient relate to any other emergency responders in the situation?
- Does the patient answer your questions appropriately?
- Is the patient withdrawn or detached?
- Is the patient hostile or friendly? Overly friendly?
- Does the patient understand why you are there?
- How is the patient dressed? Consider the appropriateness of the clothing in relation to the weather. Are the clothes clean or dirty?
- Are the patient's movements coordinated or jerky and awkward? Does he or she appear to be agitated?
- Are the patient's movements purposeful? Are the movements helping to accomplish a task, or do they appear to be aimless, such as rocking back and forth?
- Has the patient harmed himself or herself? Is there damage to the surroundings?
- Does the patient appear relaxed or stiff and guarded?
- Are the patient's responses to what is going on around him / her appropriate?
- Is the patient alert and able to communicate logically and coherently?
- What is the patient's mood? Does he / she seem agitated, elated, abnormally depressed? Does the patient appear fearful or worried?
- Does the patient express disordered thoughts, delusions, or hallucinations?

Five-Step Mental Status Examination

Observations upon Approach

1. General appearance
 - a. Surroundings
 - b. Posture / hand position
 - c. Facial expressions
2. Speech Characteristics
 - a. Rate, clarity, pitch, volume, inflection
 - b. Rational / Coherence
3. Mood
 - a. Direct / Indirect response
 - b. Words
 - c. Perception
4. Thought Processes
 - a. Hallucinations
 - b. Illusions / misinterpretations / delusions
 - c. Suicidal / Homicidal ideation
 - d. Phobias

5. Orientation
 - a. Person, place, time, event
 - b. Concentration
 - c. Attentiveness
 - d. Cooperation

Depression

Depression is a common psychiatric disorder. It affects over 20 percent of the population and accounts for the majority of psychiatric referrals. Depression is a mood disorder characterized by feelings of helplessness and hopelessness. Typically, the patient loses interest and pleasure in his or her usual activities. Depressed patients cry easily. They exhibit behavioural and physical changes such as:

- Insomnia
- Increased or decreased appetite (increase or decrease in weight)
- Loss of sex drive
- Feelings of sadness
- Feelings of guilt
- Feelings of hopelessness
- Irritability

The patient's home medications may give you additional insight into the patient's problem. Antidepressant medications include amitriptyline (Elavil), imipramine (Tofranil), phenelzine (Nardil), bupropion (Wellbutrin), Venlafaxine (Effexor), and fluoxetine (Prozac).

Depressed patients should receive supportive care. Encourage them to talk, delicately raising questions about suicidal thoughts. Remember that depression may have an organic cause, such as organic brain syndrome, hypothyroidism, or chronic corticosteroid usage.

Grief Reaction

Grief is a transition, a long, slow, time-consuming, painful, healing process – a journey towards human wholeness. A process and as a result is not a specific emotion like fear or sadness but instead is a constellation of feelings that can be expressed by many thoughts, emotions, and behaviours.

There are typically five phases or possible reactions one may exhibit when confronted with grief, usually following a death. They include:

1. Denial – the patient will deny that a loss/traumatic event has been experienced
2. Anger – the patient will blame themselves or others for the negative outcome

3. Bargaining – the patient will make “deals” with emergency responders, or religious figures
4. Depression – the patient will become overly emotional or become quiet and sullen
5. Acceptance – the patient will come to terms with the event, and begin to explore ways to move on

Suicidal / Homicidal Ideation:

Suicide is any wilful act designed to end one’s own life while homicide is an act designed to end someone else’s life. The single most significant factor that contributes to suicide is depression. Typically, men tend to use highly lethal suicide methods, such as guns (over 50%), carbon monoxide asphyxiation, or hanging. Women tend to use less violent methods, such as pills or wrist lacerations.

Risk factors for suicide include the following:

- Depression, any age
- Previous suicide attempt (80% of successful suicides were preceded by at least one attempt)
- Current expression of wanting to commit suicide, or sense of hopelessness
- Adults over the age of 40 who are single, widowed, divorced, or alcoholics are at increased risk
- Recent loss of spouse, significant other, family member, or support system
- Holidays
- Chronic debilitating illness or recent diagnosis of serious illness
- Financial setback, loss of job, police arrest, imprisonment, or some sort of social embarrassment
- Substance abuse, particularly with increasing usage
- Children of alcoholic parent(s)
- Severe mental illness
- Anniversary of death of loved one, job loss, marriage, etc.
- Unusual gathering or new acquisition of things that can cause death, such as purchase of a gun, a large volume of pills, or increased use of alcohol.

Typically, a suicide attempt occurs when a person’s close emotional attachments are in danger, or when the person is seriously ill. Suicidal people often feel unable to manage their lives. They frequently lack self esteem. Every suicidal / homicidal act or gesture should be taken seriously, and the patient should be evaluated by a psychiatrist. Police should always be involved.

Many suicide victims make last minute attempts to communicate their intentions. Most do not really want to die but use the suicide attempt as a way to get attention, receive help, or punish someone. Commonly, family members and friends will note a complete turn-around in the patient’s mood. Such a change commonly occurs for a person who has decided on suicide, because it represents a solution to problems. Regard this kind of turn-around as a warning and be wary.

Whether or not the patient has any of these risk factors, you must be alert to the following warning signs:

- Does the patient have an air of tearfulness, sadness, deep despair, or hopelessness that suggests depression?
- Does the patient avoid eye contact, speak slowly or haltingly, and project a sense of vacancy, as if he or she really isn't there?
- Is there any suggestion of suicide? Even vague suggestions should not be taken lightly, even if presented as a joke.
- Does the patient have any specific plans relating to death? Has the patient recently prepared a will? Given away significant possessions or advised close friends what he or she would like done with them? Arranged for a funeral service? If the patient or family members mention any of the above, these are critical warning signs.
- Is there evidence of self-destructive behaviour (ex. previously cut wrists, large alcohol or drug intake, etc.)?
- Is there an imminent threat to the patient or others?
- Is there an underlying medical problem?

Remember, the suicidal patient may be homicidal as well. Do not jeopardize your safety or the safety of your co-workers. If you have any reason to believe you are in danger, you should obtain police intervention.

A suicidal patient must be taken seriously. Expressions of support and concern that no harm come to the patient are important. There is always a need to listen to crisis victims intently, but in suicide cases this need is heightened. Try to build trust by moving slowly and by avoiding any attempts to hold onto the patient or use physical restraint. It is important to ask directly about suicidal thinking and planning so the patient understands that the paramedic is taking the risk seriously.

Keep the suicidal patient focused on the immediate situation. If the patient's thoughts continue to wander to past troubles, he or she may become more depressed and intent on suicide. The patient's feelings can be validated by letting him or her know that having suicidal thoughts is common but acting on those thoughts is not acceptable. Many patients who are contemplating suicide have a limited range of thinking and do not see any other alternatives. The paramedic must help the patient to see that there are other possibilities for improving the situation.

All patients expressing suicidal thoughts require transport for further evaluation. Paramedics should consult with local police if a mental health "hold" be required to transport against the patient's will. Normally, the legal requirement is that a patient be a danger to himself or herself or others, or be gravely disabled and unable to function independently.

Suicide Risk Factors Using the “SAD PERSONS” Mnemonic

S – Sex (Male)

A – Age (<19 or >45)

D – Depression

P – Previous suicide attempts

E – Excessive alcohol or drug use

R – Rational thinking loss (organic disease or psychosis)

S – Separated, divorced or widowed

O – Organized suicide plan, or actual life-threatening attempt

N – No social support

S – Stated future intent to repeat attempt

Violent Patients / Potentially Violent Patients

A variety of medical, toxicological, and psychological problems can ultimately manifest themselves in violent behaviour, where a patient loses control and strikes out at the environment, endangering self and others. In general, violent behaviour occurs in response to a person's overwhelming inner fear or frustration about his or her surroundings. It can often be averted by helping to prevent or deal with whatever is causing the sense of frustration and helplessness.

Violent patients make up only a small percentage of those undergoing a behavioural or psychiatric crisis. However, the potential for violence by such a patient is always an important consideration. Use the following list of risk factors to assess the level of danger.

1. **Past History:** Has the patient previously exhibited hostile, overly aggressive or violent behaviour? Ask individuals at the scene, or request this information from police or family. Does the scene appear to be safe?
2. **Posture:** How is the patient sitting or standing? Is the patient tense, rigid, or sitting on the edge of his or her seat? Such physical tension is often a warning sign of impending hostility.
3. **The Scene:** Is the patient holding or near potentially lethal objects such as a knife, gun, glass, poker, or bat (near a window or glass door)?
4. **Vocal Activity:** What kind of speech is the patient using? Loud, obscene, erratic, and bizarre speech patterns usually indicate emotional distress. Someone using quiet, ordered speech is not as likely to strike out as someone who is screaming and yelling.
5. **Physical Activity:** The motor activity of a person undergoing a behavioural emergency may be the most telling factor of all. The patient who has tense muscles, clenched fists, or glaring eyes; is pacing; cannot sit still; or is fiercely protecting personal space requires careful watching. Agitation may predict a quick escalation to violence.

6. **Toxic Substances:** is there any recent history of alcohol or drug abuse. Interactions of drugs, alcohol, and moods can increase a patient’s risk of becoming violent.

Other factors to consider in assessing a patient’s potential for violence include the following:

- Poor impulse control
- A history of truancy, fighting, and uncontrollable temper
- Low socioeconomic status, unstable family structure, or inability to keep a steady job
- Tattoos with gang identification or violent statements
- Depression (which accounts for 20% of violent attacks)
- Functional disorder. (If the patient says that voices are telling him or her to kill, believe it.)

Sexual Assault: The Law

“Rape” is not a current legal term used in Canada. Sexual assault is any form of forced sexual activity without consent. The sexual assault will be described as level 1, 2 or 3 depending on the use of threats, weapons, number of assailants, and physical force.

Sexual assault is one of the most devastating life crises that can occur. It involves both emotional and physical trauma. Sexual assault is defined as any touch that the victim did not initiate or agree to and this is imposed by coercion, threat, deception or threats of physical violence. Such crimes are usually committed by someone the victim knows: a relative, friend, classmate, date, neighbour, co-worker or family friend. It is also important to note that sexual assault can be committed against both male and female patients, and each situation requires tact, discretion, and diplomacy.

Sexual Assault Trauma – SAT

The experience of sexual assault has different manifestations for each person. No one knows exactly how any person will react. Sexual assault is a severe emotional and physical violation. Following such an experience, it is natural to feel a whole range of emotions:

Fear	numbness	anger	Revenge	self-blame
Guilt	embarrassment	helplessness	Anxiety	powerlessness
humiliation	lack of trust	hatred	Sadness	depression
dissociation	withdrawal	isolation	Confusion	distraction

The client/patient may experience one, a combination, or all of these emotions at the same time. The emotions may come and go over time. Clients may totally deny the

painful memories. To aid in the client's recovery, individuals from the organizations working with the client must recognize that these emotions are normal responses to an extraordinary experience.

These emotions are a part of the trauma experienced by the sexual assault client. The initial response to the client and the manner in which he/she are attended to, will do much to restore some of their emotional balance. A negative response toward the client can have as big an impact on the client as the assault.

Sexual assault is a difficult and complex problem involving potential physical and emotional trauma, as well as significant legal issues. Supporting these patients is of critical importance, especially during the acute (impact) reaction. The patient's coping system has already been stressed to the limit by the attack itself. Yet, the patient must face your care and interview, the police interview, the family and then undergo medical examination for injuries and possible sexually transmitted disease. Later, the patient may face the trauma of a courtroom trial or have to handle unresolved emotion if the offender is not brought to trial or is found not guilty.

Too often, however, the seriousness of sexual assault is equated to physical damage. This is deceptive. Whether or not physical injury occurs, the patient suffers profound emotional trauma. Because of social and legal tradition, the patient who sustains external physical injury as evidence of the assault is more readily believed and often fares better than the patient who is not beaten or physically marked. Long after physical wounds have healed, the world still appears as a traumatic environment to the patient trying to relearn trust in the presence of hurt and fear.

Managing the Sexual Assault Scene

The following are essential considerations when responding to an alleged sexual assault victim.

- Your immediate reaction is important. Do not impose your feelings on the patient. Try to determine the patient's emotional state.
- Action can minimize the helplessness that the patient may be feeling. Tell the patient what can and should be done immediately.
- While the gender of the paramedic has less impact than the ability to relate well, both male and female patients might be comforted if a female paramedic is available.
- In assessing the patient, do a primary survey as for any patient. Treat any life-threatening injuries as appropriate. Check for trauma, especially around the thighs and lower abdomen. If vaginal or rectal bleeding is significant, give appropriate care.
- Provide normal physical care for existing injuries.
- Do not cleanse the patient. Keep the patient from showering or bathing, brushing teeth, gargling, douching, or urinating. Cleansing could destroy important evidence.
- Once you have cared for the patient's injuries, check the surroundings for evidence. Make police aware of any items found which may be of use in their investigation.

- Documentation should be done with the utmost accurateness and detail as it will quite possibly be used later as evidence.

Manic Disorders

Mania and manic disorders can be thought of as the opposite of severe depression. Mania appears frequently in bipolar disorder, also called manic-depressive disorder. This condition causes tremendous mood swings, from near euphoria to debilitating depression.

In the manic stage, patients appear “high”. Symptoms include an elevated and expansive mood. Patients have a marked increase in activity – either social, work, or sexual – and a decreased need for sleep. In addition, patients are physically restless and speak garrulously. They are unable to concentrate or complete tasks. They may have a sense of inflated self esteem, to a point of delusion. The manic phase of bipolar disorder can last weeks or months.

Manic patients are often prescribed lithium (Lithobid, Eskolith). In addition, they may be taking antipsychotic medications such as haloperidol (Haldol) or chlorpromazine (Thorazine). Some manic states are drug-induced by the abuse of street drugs, such as cocaine (“crack”), amphetamines, or PCP (“angel dust”).

Psychosis

Psychosis can be defined as a severe mental disorder that involves a distorted sense of reality; may include hallucinations (false impressions of the senses) or delusions (imaginary ideas or beliefs).

Alcohol intoxication as well as drug abuse can cause psychosis. Substance abuse is a pathological use of a substance to the point that it significantly interferes with a person’s normal activities. Alcohol abuse, a common problem, often complicates an underlying medical or behavioural condition. Alcohol is a CNS depressant, and alcohol abuse should be suspected in any patient who has a breath odor of ethanol, slurred speech, or unsteady gait. Evidence of recent alcohol consumption often appears in the form of empty cans or bottles or reports from friends or bystanders.

Drug abuse can result from the frequent use of either street or prescription drugs. Because of the wide variety of drugs abused today and the wide variety of clinical symptoms, the drug abuse is often much more difficult to evaluate than the alcohol abuser. Assessment of the patient suspected of drug abuse should include routine examination of the vital signs and pupillary reaction. There is often physical evidence of abuse, such as prescription bottles, drug paraphernalia, odours, or needle tracks. The behaviour of the substance-abuse patient can include withdrawal, suicidal or homicidal actions, violent behaviour, or hysteria.

Schizophrenia

Schizophrenia is a form of mental illness in which a patient loses touch with reality and is no longer able to think or act normally. It is a group of disorders characterized by recurrent episodes of psychotic behaviour, which may include abnormalities of judgement, thought processes, thought content (delusions or paranoia) and perception (hallucinations). Causes are unknown but may be related to genetic predisposition. The disorder is terminal and may be marked by “episodes” of radical disorientation and disorganization. Schizophrenia is characterized by deterioration from a previous level of functioning. The onset of schizophrenia commonly occurs in late adolescence and early adulthood. The onset often manifests itself by a period of social withdrawal, poor hygiene, blunted emotions, and disturbed communications.

The signs and symptoms of schizophrenia vary, but several characteristics frequently emerge. They include:

- **Hallucinations:** May be auditory or visual. The patient may hear voices or see people or things that are not there. Often the hallucinations are persecutory.
- **Delusions:** Schizophrenics often cannot distinguish reality from fiction. They suffer various delusions. Some are persecutory, while others have religious overtones. Some patients have delusions of grandeur, which they imagine themselves to be rich, important, or powerful.
- **Altered Thought:** The patients cannot reason abstractly and thought is concrete.
- **Inappropriate Affect:** The patient’s affect, or emotional state, is generally inappropriate. For example, the patient may laugh or cry at inappropriate times.
- **Disorganization:** Disorganized in thought and dress. Clothing is inappropriate, or on some occasions, absent.

Schizophrenia takes several forms. *Catatonic schizophrenia* is a rare disorder that manifests itself by a catatonic stupor. The patient becomes detached from the environment and may maintain a rigid or bizarre posture for hours at a time. *Paranoid schizophrenia* is characterized by persecutory delusions, grandiose delusions, delusional jealousy, or hallucinations with persecutory or grandiose content. These patients often feel that someone is after them. Some paranoid schizophrenics become delusional and believe that they are famous figures. Another form of schizophrenia, *undifferentiated schizophrenia*, includes patients who do not fit into other categories.

Schizophrenics often remain symptom-free when taking their prescribed medications. Medications commonly used in the treatment of schizophrenia include: haloperidol (Haldol), chlorpromazine (Thorazine), fluphenazine (Prolixin), thioridazine (Mellaril), and thiothixene (Navane).

The management of paranoid reactions associated with schizophrenia should include:

1. Clearly identifying yourself as a paramedic and expressing the intent to provide help.
2. Exhibiting an attitude that is friendly yet somewhat distant and neutral. Kindness and warmth may be interpreted by a patient as an attempt to gain the patient's confidence for ulterior motives.
3. Never respond to a patient's anger.
4. Do not speak with family members or bystanders in hushed or secretive tones.
5. Use tact and firmness in persuading a patient to be transported to hospital
6. Remember that paranoid reactions can lead to violent behaviour. Precautions regarding personal safety must be a priority.

Management

The emergency team has to balance support for the person's emotions with efforts to contain and resolve the problem. The paramedic should move slowly to avoid frightening a distressed patient and establish eye contact or touch the patient to help gain rapport. Reducing outside stimulus is one of the first steps in managing these patients. This can be achieved by isolating the patient from the people or events that are causing additional agitation. It is helpful to reduce noise, movement, and bright lighting, and to control environmental factors, such as heat and cold. The presence of a loved one can do much to calm the patient.

The patient should be well informed as to what steps are being taken to manage the situation. Surprises tend to add to the chaos and cause further distress. The paramedic should offer continual reassurance of the intention to protect and not to hurt the patient.

Delirium Tremens

Delirium tremens is a severe form of alcohol withdrawal that involves sudden and severe mental or neurological changes. Delirium tremens can occur after a period of heavy alcohol drinking, especially when the person does not eat enough food. It may also be triggered by head injury, infection, or illness in people with a history of heavy use of alcohol. It is most common in people who have a history of alcohol withdrawal, especially in those who drink the equivalent of 7 - 8 pints of beer (or 1 pint of "hard" alcohol) every day for several months. Delirium tremens also commonly affects those with a history of habitual alcohol use or alcoholism that has existed for more than 10 years.

Symptoms occur because of the toxic effects of alcohol on the brain and nervous system. They may be severe and get worse very quickly. This is a life-threatening condition that requires immediate medical attention.

Symptoms

- Symptoms of alcohol withdrawal
 - Feeling jumpy or nervous
 - Feeling shaky
 - Anxiety
 - Irritability or easily excited
 - Emotional volatility, rapid emotional changes
 - Depression
 - Fatigue
 - Difficulty thinking clearly
 - Palpitations (sensation of feeling the heart beat)
 - Headache, general, pulsating
 - Sweating, especially the palms of the hands or the face
 - Nausea
 - Vomiting
 - Loss of appetite
 - Insomnia (difficulty falling and staying asleep)
 - Pale skin
- Mental status changes
 - Mood changes rapidly
 - Restlessness, excitement
 - Increased activity
 - Decreased attention span
 - Excitement
 - Fear
 - Confusion, disorientation
 - Agitation, irritability
 - Hallucinations (visual hallucinations such as seeing things that are not present are most common)
 - Sensory hyperacuity (highly sensitive to light, sound, touch)
 - Delirium (severe, acute loss of mental functions)
 - Decreased mental status
 - Stupor, sleepiness, lethargy
 - Deep sleep that persists for a day or longer
 - Usually occurs after acute symptoms
- Seizures
 - Usually generalized tonic-clonic seizures
 - Most common in first 24 - 48 hours
 - Most common in people with previous alcohol withdrawal complications
- Body tremors

Excited Delirium

Excited Delirium (ED) is controversial as a cause of death. Also known as the "in-custody death syndrome" and/or "positional asphyxia" ED seems to happen most often to persons restrained by authorities. Some believe it may be a contributory and sometimes preventable factor in death and others believe ED deaths cannot be prevented.

ED victims frequently present with a combination of natural disease (often exacerbated or caused by drug abuse, evidence of chronic drug abuse and/or recent binging of drugs of abuse and positive current blood levels of cocaine or amphetamine (but not overdose levels), and an extremely high core body temperature. History will often include pre-existing psychiatric disorders (with and without drug abuse), and report of extreme behavioural disturbances. The person may have been very agitated, extremely hyperactive, excited, &/or paranoid. They may have shown abnormal strength, not responded to pain and/or have been very aggressive. Response by authorities may have included restraint, chemical sprays, or blows.

While it is acknowledged that a person who may cause harm to themselves, authorities or the public needs to be halted knowledge of presenting features in this syndrome and the likeliness of unexpected death with these presenting features may allow authorities to develop methods that protect the safety of all parties, including the detainee.

Recommendations for dealing with an apparently crazed person include (local policies and procedures should be consulted before any restraint is used):

1. Containment rather than restraint
2. Maintenance of an open airway
3. Pressure to arms and legs rather than pressure to the trunk or neck if restraint is needed
4. Limiting time restrained if restraints are used
5. Not placing in a prone position if possible
6. Limiting time in prone position if it is used
7. Not using "hog-tie" restraints
8. Constant observation of a person for continued breathing while restrained
9. Not using neck or choke holds
10. Use of wrist-to-wrist and ankle-to-ankle restraints if restraints are needed
11. Not using chemical sprays or forceful water sprays

12. Not using masks or other covers over the mouth/nose of detainee
13. Not using stun guns or other electro-shock devices
14. Not hitting or kicking detainee
15. Transportation by ambulance to an emergency medical facility, not a psychiatric facility
16. Reduction of external sources of further excitement as much as possible (control of crowd, noise and light extremes)

It is believed that a person already in a compromised physical condition and under the influence of drugs and/or experiencing psychosis can have such an extreme adrenaline response to stress that it can potentially kill them. Things that compromise the ability to breath, such as the prone position or pressure on the trunk or neck, chemical sprays or having the face obstructed not only increase stress but in and of themselves may contribute to the death by decreasing the narrow reserve left in the detainee to cope with the very act of breathing and maintaining a normal heart rhythm.

Normal, legal, procedures of restraint may contribute to death in cases of ED. Balancing the need for safety for the authorities, the public and the detainee from his/her own irrational behaviour and the need to treat these cases with a bit more of a kid glove approach is a fine line for authorities. Training is becoming more available and should be sought out by all Regional Health Authorities. This includes, but is not limited to “Professional Assault Response” training.

"The most striking finding of this study was that all of those who died unexpectedly during or after an episode of excited delirium had been physically restrained." From Canadian Medical Association Journal CMAJ 1998

Legal Considerations when dealing with behavioural emergencies

- Consent: Does the patient have the faculties to refuse treatment or transport? Suicidal or disoriented patients do not have this right but law enforcement personnel must be enlisted to assist with treatment and transport.
- Legal authority: law enforcement have the right to take a patient into protective custody, it is not the responsibility of the paramedic to arrest.
- Patient restraint should be utilized as a last resort to ensure the safety of all concerned at the scene. Restraint has been associated with a number of injuries and even death due to positional asphyxias and cardiac events. An option available to some Advanced Care providers is chemical restraint – follow local protocols. Police may be utilized to provide support as well as restraint, and must accompany patients who they have restrained. If paramedics decide to restrain, they must ensure adequate resources, explain all actions to the patient and family, use minimum force, and document well. Pay close attention to the airway in a restrained patient.



Mental Health Act

Order to take into custody

- 9 (5) An order under subsection (3) may be directed to an individual peace officer or to all peace officers of the locality within which the justice has jurisdiction, and shall direct the peace officer or peace officers to take the person forthwith to a place where the person may be detained for the involuntary examination.

R.S.M. 1987 Supp., c. 23, s. 7; S.M. 1991-92, c. 4, s. 4.

Term of order

- 9 (6) An order under subsection (3) is valid for a period of seven days from and including the day on which it is made.

R.S.M. 1987 Supp., 23, s. 7.

Peace Officer

- 10 (1) A peace officer may take a person into custody and take him or her forthwith to a place for involuntary examination by a physician if:
- (a) the peace officer has reasonable grounds to believe that the person
 - (i) has threatened or attempted or is threatening or attempting to cause bodily harm to himself or herself, or
 - (ii) has behaved or is behaving violently towards another person or has caused or is causing another person to fear bodily harm from him or her, or
 - (iii) has shown or is showing a lack of competence to care for himself or herself; and
 - (b) the peace officer is of the opinion that the person is apparently suffering from a mental disorder of a nature that likely will result in
 - (i) serious harm to the person,
 - (ii) serious harm to another person, or
 - (iii) substantial mental or physical deterioration of the person; and
 - (c) the urgency of the situation does not allow for a judicial order for medical examination.

R.S.M. 1987 Supp., c. 23, s. 7.

Pharmacology

Neurotransmitters in the CNS that have major effects on emotion include acetylcholine, norepinephrine, dopamine, serotonin, and monoamine oxidase. Alterations in levels of these neurotransmitters are associated with changes in mood and behaviour. Acetylcholine is released from central neural tissue into the cerebrospinal fluid during activity. Norepinephrine and dopamine have widespread inhibitory effects on functions such as sleep and arousal, affect, and memory. Serotonin levels affect mood and behaviour. Monoamine oxidase is an enzyme that inactivates dopamine and serotonin, which are produced during intense emotional states.

Drug therapy alleviates symptoms by temporarily modifying unwanted behaviour.

Benzodiazepines

Benzodiazepines were introduced in the 1960's as anti-anxiety drugs. Currently they are among the most widely prescribed drugs in clinical medicine. This popularity is partly because of their very high therapeutic index. Overdoses of 1000 times the therapeutic dose have been reported not to result in death unless taken in conjunction with other CNS depressants, such as alcohol. Benzodiazepines are thought to work by binding to specific receptors in the cerebral cortex and limbic system (a major integrating system that governs emotional behaviour). These drugs are highly lipid soluble and are widely distributed in the body tissues. They also are highly bound to plasma protein, usually more than 80%. Benzodiazepines have four actions:

1. anxiety reducing
2. sedative-hypnotic
3. muscle relaxing
4. anticonvulsant

Commonly prescribed benzodiazepines are alprazolam (Xanax), chlordiazepoxide (Librium), clorazepate (Tranxene), diazepam (Valium), flurazepam (Dalmane), prazepam (Centrax), midazolam (Versed), lorazepam (Ativan) and triazolam (Halcion).

Antipsychotic / Neuroleptic Drugs

The primary use of antipsychotic (neuroleptic) drugs is to treat schizophrenia. This class of drugs represents the only clearly effective treatment for this condition. Other psychiatric indications for the use of antipsychotic drugs include Tourette's syndrome and controlling disturbed behaviour in patients with senile dementia associated with Alzheimers disease. Effective antipsychotic or neuroleptic drugs block dopamine receptors in specific areas of the central nervous system. These drugs can be classified into the following groups:

- Phenothiazine derivatives
 - Chlorpromazine (Thorazine)
 - Thioridazine (Mellaril)
 - Fluphenazine (Prolixin)

- Butyrophenone derivatives
 - Haloperidol (Haldol)
- Dihydroindolone derivatives
 - Molindone (Moban)
- Thienbenzodiazepine derivatives
 - Olanzapine (Zyprexa)
- Atypical agents
 - Clozapine (Clozaril)
 - Risperidone (Risperdal)

With the continued use of antipsychotics, some patients develop supersensitivity of dopamine receptors that leads to tardive dyskinesia. Tardive dyskinesia is a potentially irreversible neurological disorder characterized by involuntary repetitious movements of the muscles of the face, limbs, and trunk. Other identifying features include excessive blinking of the eyelids, lip smacking, tongue protrusion, foot tapping and rocking side to side.

Glossary

Affect	The way in which a person's feelings are exhibited.
Delusions	A belief or perception held to be true even though it is illogical and wrong.
Hallucinations	Something sensed that is not caused by an outside event. It can occur and in any of the senses and is named accordingly: auditory (hearing), gustatory (taste), olfactory (smell), tactile (feeling), or visual hallucination.

References

“An Alternative Route to Maintenance of Licensure”, Manitoba Health Emergency Services, Revised March 14, 2001

Brady Emergency Medical Responder, A Skills Approach, Canadian Edition, Keith J. Karren, Brent Q. Hafen, Daniel Limmer, John Mackay, Michelle Mackay, Prentice Hall, Inc., 2003

Basic Patient Care Protocols and Procedures, City of Winnipeg, Fire Paramedic Service, Level I, II, and III

Emergency Care and Transportation of the Sick and Injured, Seventh Edition, Bruce D. Browner, MD, FAAOS; Lenworth M. Jacobs, MD, MPH, FACS; Andrew N. Pollak, MD, EMT-P, FAAOS, AAOS, Jones and Bartlett Publishers 1999

EMT Prehospital Care, Henry Stapleton, W.B. Saunders, 1992

Mosby’s EMT-Intermediate Textbook, Workbook, Bruce Shade, EMT-P, Mosby Lifeline, 1997

Mosby’s Paramedic Refresher and Review, A Case Studies Approach, Alice Dalton, Richard A. Walker, MD, Mosby Inc. 1999

National Occupational Competency Profiles and Curriculum Blueprints, June 29, 2001, Paramedic Association of Canada

Paramedic Emergency Care, Third Edition, Brady, Prentice Hall Inc., 1997

The Peter Stevenson Inquest, Government of Manitoba Office of the Chief Medical Examiner, October 2006

Canadian Medical Association Journal, CMAJ 1998