

# G01: Extreme Agitation and Excited Delirium

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Updated: December 07, 2020

Reviewed:

## Introduction

This guideline applies to patients who present with extreme agitation or aggressive and violent behaviour. It is intended to provide protection for both patients and responders in circumstances where there is a high risk of violence. Chemical sedation is to be used when the patient is a risk to themselves or others, and cannot be safely managed through other means. **It should be applied judiciously, and with sound clinical judgment.**

Paramedic safety is paramount at all times. Ensure that sufficient and necessary assistance is available prior to administration of sedation. Clear communication with all parties involved in restraining the patient will help reduce the risk of injuries.

Sedation may allow for a safer transport, and provide an earlier opportunity for hospital staff to evaluate the patient. In communities where they are available, Advanced Care Paramedics should be considered as a resource to assist in the safe transport of these patients.

In communities where advanced care is not available, do not approach a violent patient: call for police to assist in restraining and securing the patient.

## Essentials

- Consider and treat underlying causes
  - Hypoxia
    - → [A07: Oxygen and Drug Administration](#)
    - → [B01: Airway Management](#)
  - Hypoglycemia
    - → [E01: Hypoglycemia and Hyperglycemia](#)
  - Head injury
    - → [H03: Head Trauma](#)
  - Drug actions or withdrawal
  - Infection (pneumonia, sepsis)
    - → [K02: Sepsis](#)
  - Electrolyte imbalances
- IM ketamine is the preferred drug to gain medical control in severe agitation and excited delirium because of its faster onset, shorter duration, superior efficacy and fewer side effects compared to midazolam.
- Do not titrate ketamine for Excited Delirium (ExDS)
  - Administer 5mg/kg IM
  - Administration may require two or more IM injections
  - Maximum volume for Adult IM injections:
    - Deltoid 2.0 mL
    - Lateral thigh 4.0-5.0 mL
    - Larger Muscles (Gluteal) 5.0 mL
  - Additional administration of midazolam is usually not indicated but may be given if maintenance of sedation is required.

## Additional Treatment Information

WARNING: SUDDEN CESSATION OF RESISTANCE OR VERBALIZATION UNDER RESTRAINED CIRCUMSTANCES CAN REPRESENT A CARDIORESPIRATORY EMERGENCY. PATIENT ADVOCACY IS CRITICAL IN THIS SITUATION, AND A RAPID EVALUATION OF PATIENT VITAL SIGNS IS IMPERATIVE. IMMEDIATE RESUSCITATION MAY BE REQUIRED.

- Sudden death in excited delirium (ExDS) has been associated with prone restraint of patients. If it is necessary

to place the patient prone to gain control, monitor the airway and vital signs closely, and always move the patient to a supine or ¾ prone position as soon as possible.

- Prolonged physical struggle, multiple deployments of conducted energy weapons, posterior pressure restraint (i.e., prone position, neck pressure, posterior chest pressure) and unremitting physical resistance are risk factors for rapid cardiovascular collapse.
- Record the Richmond Agitation Sedation Scale (RASS) score pre- and post-ketamine administration.
  - → [Richmond Agitation Sedation Scale](#)
- Hypersalivation is a known side effect of ketamine. On most occasions, suctioning will be sufficient. If hypersalivation becomes difficult to manage, or the airway becomes compromised, treatment may include administration of atropine.

## Referral Information

All sedated patients must be transported to an emergency department for observation.

## General Information

- Excited Delirium Syndrome (Extreme agitation and delirium)
  - Often requires emergent sedation
  - Often includes a history of drug use and/or psychiatric illness□
  - Most often males with a mean age of 35 years□
  - Associated hyperthermia□
  - Associated severe metabolic acidosis□
  - Shouting Paranoia/panic
  - Violence towards others
  - Insensitivity to pain
  - Unexpected physical strength and endurance
  - Bizarre and/or aggressive behaviour
  - Constant or near constant physical activity
  - Unintelligible words
- Delirium
  - Rarely requires emergent sedation
  - Characterized by an acute onset and changing severity of confusion, disturbances in attention, disorganized thinking and/or decreased level of consciousness□
  - Onset over hours to days□
  - Often worse at night□
  - Fluctuating emotions – outbursts, anger, crying, fearful□
  - Can co-exist with dementia□
- Dementia
  - Does not require emergent sedation
  - Characterized by a gradual and progressive decline in mental processing ability that affects short-term memory, language, communication, judgment and reasoning□
  - Gradual onset over months to years□
  - Frequently present with depression and apathy

## Interventions

### First Responder

- Await police restraint if indicated
- Position the patient 3/4 prone if possible. Be aware of the risks of positional asphyxia.
- Ensure effective respirations

- Provide supplemental oxygen as required, and if safe to do so
  - → [A07: Oxygen and Medication Administration](#)

#### Emergency Medical Responder – All FR interventions, plus:

- Monitor vital signs closely, including temperature
- Correct hypoglycemia
  - → [E01: Hypoglycemia and Hyperglycemia](#)
  - Glucogel 1 package applied to oral mucosa
- If transport is necessary, do not restrain patient prone
- Seek higher level of care intercept where available

#### Primary Care Paramedic – All FR and EMR interventions, plus:

- Correct hypoglycemia
  - [Glucagon](#)
  - [Dextrose](#)

#### Advanced Care Paramedic – All FR, EMR, and PCP interventions, plus:

- Attach cardiac monitor
- Intervene in agitation, aggression or behavioural emergency
  - Complete RASS assessment before and after medication administration
  - If RASS +4: [KetAMINE](#) intramuscularly
  - If RASS 2-3: [MIDAZOLam](#) intramuscularly or intravenously as required
- Consider [atropine](#) if salivation becomes unmanageable with suctioning

#### Critical Care Paramedic – All FR, EMR, PCP, and ACP interventions, plus:

- Consider anti-psychoitics ([haloperidol](#))
  - EPOS orders required for anti-psychotic agents

## Evidence Based Practice

[Violent/Agitated Patients](#)

## References

1. Alberta Health Services. AHS Medical Control Protocols. Published 2020. [\[Link\]](#)
2. Ambulance Victoria. Clinical Practice Guidelines: Ambulance and MICA Paramedics. 2018. [\[Link\]](#)

## G02: Mental Health Conditions

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Updated: December 07, 2020

Reviewed:

### Introduction

A mental health condition is characterized by a varying degree of disorder of thought, mood perception, orientation, memory deficits that causes significant impairment of judgment, altered capacity to recognize reality, or the ability to complete activities of daily life. Patients that suffer from depression, anxiety disorders, schizophrenia, bipolar disorder, or a situational crisis may experience an acute psychiatric episode.

A number of socioeconomic factors and stressors derived from personal, social, economic, toxicological and geographic issues can play significant exacerbating roles to underlying mental health conditions.

Patients with mental health disorders must at all times be treated with respect, understanding, empathy, and patience.

### Essentials

- Ensure safety at all times. Continually re-assess the environment for changing risk factors. Identify dangers for paramedics, patients, and bystanders. Be prepared to rapidly leave the scene if necessary.
- Consider underlying causes of abnormal behaviour: see [CPG F01](#) for altered levels of consciousness.
- High-risk symptoms, necessitating paramedic intervention, include: suicidal ideation, self-harming behaviors, intentional overdose or poisoning, abnormal cognitive impairment, or altered perceptions (i.e., hallucinations or delusions).
- Patients who are intoxicated or cognitively impaired may not be capable of making informed decisions about their own care.
- **Never assume patients do not have a legitimate medical complaint.**

### Additional Treatment Information

- Carefully consider the history of illness, and search for underlying diseases or processes that might result in the abnormal behaviour. Carbon monoxide poisoning, hypoglycemia, hypoxia, head trauma, endocrinological conditions, and seizures may produce mental health-like symptoms.
  - [→ E01: Diabetic Emergencies](#)
  - [→ F02: Seizures](#)
  - [→ J02: Carbon Monoxide](#)
- For patients expressing suicidal ideation or thoughts, the degree of suicidality may be reflected by previous suicide attempts, suicide planning (such as notes or a preconceived method of harm), and a lack of future orientation.
- If the scene becomes unsafe at any time, withdraw immediately and seek additional resources. Do not re-engage with the patient or bystanders unless police are in attendance. Violent or extremely agitated behaviour from a patient is inherently high-risk: these patients must be evaluated in hospital.
- For patients with altered levels of consciousness:
  - [→ F01: Altered Levels of Consciousness](#)
- For severely agitated patients, consider chemical restraint.
  - [→ G01: Extreme Agitation and Excited Delirium](#)

### Referral Information

Some patients with mental health challenges may have a care plan in place, with appropriate support structures. Paramedics may engage these support structures to determine an appropriate disposition for patients, which may include not transporting to hospital in consultation with CliniCall.

Patients who exhibit high-risk behaviors or symptoms must be transported.

## General Information

- The probability of a successful outcome is increased significantly if paramedics exercise patience and work collaboratively with patients, their families, and any other care providers at the scene.
- Assessment of patients with behavioural symptoms must include the following elements:
  - Level of consciousness
  - Attention
  - Memory
  - Cognition
  - Affect and mood
  - Current socioeconomic situation
- Competent patients retain the right to refuse transport or treatment. Patients are not considered competent if:
  - They are likely to cause harm to themselves
  - They are likely to cause harm to others
  - They are significantly disabled due to an acute illness or injury
  - They are intoxicated due to alcohol or drugs
  - They are unable to answer or complete any of the following questions:
    - What is your name?
    - Where are you right now?
    - What day is it?
  - If a patient is not deemed competent, but represents a significant risk of harm to self or others, CliniCall consultation is mandatory.
  - Section 28 of the British Columbia *Mental Health Act* empowers law enforcement officers to apprehend and transport a patient to be formally evaluated by a physician, if in the officer's opinion the patient:
    - Is acting in a manner likely to endanger that person's own safety, or the safety of others, and;
    - Is apparently a person with a mental disorder.
  - The officer does not have to personally observe the patient's behaviour. The officer may act on information obtained from family members, health professions, or others.

## Interventions

### First Responder

- Establish safety of personnel and the patient
- Verbally attempt to de-escalate situation, and offer reassurance
- Facilitate enacting the patient's care plan if available
- Conduct a full history and physical assessment required to rule out underlying medical conditions

### Advanced Care Paramedic – All FR, EMR, and PCP interventions, plus:

- For patients with non-combative anxiety, consider
  - [MIDAZOLam](#)
  - ECG acquisition to rule out rhythm or ischemic abnormalities
    - → [PR16: 12-Lead ECG](#)
  - Vascular access
    - → [D03: Vascular Access](#)

## Evidence Based Practice

[Psychiatric: Depressed/Suicidal](#)

