G01: Extreme Agitation and Excited Delirium

Jon Deakin

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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 and EMR/FR 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 conveyance 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 conveyance 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 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 in the management of severely agitated patients and in excited delirium syndrome (ExDS) because of its faster onset, shorter duration, superior efficacy, and fewer side effects compared to midazolam.
  - Administer 4-5 mg/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 patients presenting with ExDS have been associated with being restrained in the prone position. 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 (e.g., 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 conveyed to an emergency department for observation.

General Information

- Patients presenting with ExDS often experience a collection of symptoms:
  - Require emergent sedation
  - Include a history of drug use and/or psychiatric illness☐
  - Are males with a mean age of 35 years☐
  - Experience hyperthermia☐
  - Experience severe metabolic acidosis☐
  - Display shouting and paranoia/panic
  - Show violence towards others
  - Are insensitive to pain
  - Exhibit unexpected physical strength and endurance
  - Present with bizarre and/or aggressive behaviour
  - Display constant or near constant physical activity
  - Form unintelligible words
- Delirium:
  - Rarely requires emergent sedation
  - Is characterized by an acute onset with changing severity of confusion, disturbances in attention, disorganized thinking, and/or a decreased level of consciousness☐
  - Has an onset over hours to days☐
  - Is often worse at night☐
  - Is accompanied by fluctuating emotions like sudden outbursts, anger, crying, or fear☐
  - Can co-exist with dementia☐
- Dementia:
  - Does not require emergent sedation
  - Is characterized by a gradual and progressive decline in mental processing ability that affects short-term memory, language, communication, judgment, and reasoning☐
  - Has a gradual onset over months to years☐
  - Frequently presents 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 Administration

Emergency Medical Responder – All FR interventions, plus:

- Monitor vital signs closely, including temperature
- Correct hypoglycemia
  - → E01: Hypoglycemia and Hyperglycemia
    - Glucose 40% Oral Gel
- If conveyance is necessary, do not restrain patient in prone position
- Consider intercept with additional resources

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

- Correct hypoglycemia
  - Glucagon
- Consider vascular access
  - → D03: Vascular Access
    - Dextrose

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

- Attach cardiac monitor as soon as clinically practical
- Intervene in cases of 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 a single dose of atropine if salivation becomes unmanageable with suctioning.

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

- Consider antipsychotics (haloperidol)
  - Call ETP prior to antipsychotic agent administration.

Evidence Based Practice

Violent-Agitated

Supportive

- Antipsychotics (Atypical)
- Antipsychotics (Typical)
- Benzodiazepines
- Ketamine
- Loxapine

Neutral

Against

- Field Restraint Devices

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

Phil Yoon and Mike Sugimoto

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Introduction

A mental health condition is characterized by: a varying degree of disorder of thought, orientation, or mood perception; memory deficits that cause significant impairment of judgment; altered capacity to recognize reality; or the inability 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 be treated with respect, understanding, empathy, and patience.

Essentials

Never assume patients with mental health conditions do not have a legitimate medical complaint.

- Ensure safety at all times. Continually reassess the environment for changing risk factors. Identify dangers for paramedics and EMRs/FRs, patients, and bystanders. Be prepared to rapidly vacate the scene if necessary.
- Consider underlying causes of abnormal behaviour: see F01: Altered Levels of Consciousness.
- High-risk symptoms necessitating paramedic or EMR/FR intervention include: suicidal ideation; self-harm behaviours; intentional overdose or poisoning; abnormal cognitive impairment; or altered perceptions (e.g., hallucinations or delusions).
- Patients with mental health conditions who are intoxicated or cognitively impaired may not be capable of making informed decisions about their own care.

Additional Treatment Information

- Carefully consider a 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 a 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

General Information

- The probability of a successful outcome is increased significantly if paramedics and EMRs/FRs 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 conveyance 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?
  - CliniCall consultation required if a patient is deemed competent but still represents a significant risk of harm to self or others and is declining conveyance to hospital (1-833-829-4099).
  - Section 28 of the British Columbia *Mental Health Act* empowers law enforcement officers to apprehend and convey 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

Emergency Medical Responder – All FR interventions, plus:

- CliniCall consultation required if a patient is deemed competent but still represents a significant risk of harm to self or others and is declining conveyance to hospital.

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

Depressed Suicidal

Supportive

- Field medical clearance

Neutral

Against