P-01 SEVERE AGITATION/ DELIRIUM		First Responder EMT AEMT Paramedic

Universal Care 1-01

Determine **Sedation Assessment Tool (SAT)** Score:

SCORE	RESPONSIVENESS	SPEECH
+3	Combative, violent, out of control	Continual loud outbursts
+2	Very anxious and agitated	Loud outbursts
+1	Anxious and restless	Normal
0	Responds easily to name, speaks in normal tone	Normal

SAT +2 or +3

Call for Law Enforcement/ Additional Resources as needed

Reevaluate SAT Score

Verbal De-escalation *below*

Reevaluate SAT Score

Physical Restraint P-02

Reevaluate SAT Score

Chemical Sedation Guideline RX-03

SAT +1 or Less

Continue Monitoring and Supportive Care

If Physical Restraint and/or Chemical Sedation has been performed, the below are mandatory

Continuous Monitoring

ECG, pulse oximetry and EtCO2
(unless a physical threat to the patient/providers)

Glucose Check/ Management 1-04

Supportive Care

Airway/O2 Maintenance **High-flow O2 (NRB)** A-01

IV/IO Insertion **1L NS/LR Bolus** 1-03

Evaluate for a Medical Cause of altered mental status

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Post-Resistance Syndrome (PRS)

- PRS is a life-threatening syndrome associated with hyperthermia, hyperkalemia, and rhabdomyolysis that can lead to sudden cardiac death in more than 9% of cases.
- PRS patients have a combination of
  - Non-compliance due to delirium (i.e. failure to recognize police presence),
  - Hyper-aggressive, violent and/or bizarre behavior, and
  - Unusual strength with a lack of tiring and increased pain tolerance.
- The typical presentation of PRS:
  - First responders are called concerning a person with bizarre and/or aggressive behavior.
  - Delirium causes the patient to be non-compliant with EMS or law enforcement efforts to question or control the patient.
  - If restraint is attempted, the patient's agitation and combativeness escalates, often leading to an ongoing struggle--many times associated with physical, noxious chemical (e.g. pepper spray) and/or ECD (Taser®) use.
  - Death is typically preceded by a period of "compliance" in which the patient's behavior improves briefly, followed by sudden cardiac arrest with an inability to be resuscitated.
- The pathophysiology of PRS is complex and poorly understood. Clinical case reports show ventricular arrhythmias are rare with most presentations initially being bradyasystole (PEA). The suspected end mechanism is a profound metabolic acidosis likely due to the loss of mental control of skeletal motor function and the loss of physiologic control of autonomic functions in a state of sympathetic surge.

Goals of Patient Care following Physical Restraint and/or Sedation (expanded below):

- **The primary goal with possible PRS is to get as safely and as quickly as possible to a point where a thorough medical assessment may be performed and appropriate monitoring and interventions can be initiated.**
- The patient's dignity must be protected to the best extent possible.
- Control should be accomplished in the least restrictive manner possible.
  - Verbal de-escalation should <u>always</u> be attempted prior to physical restraint or sedation.

- Physical restraint should be minimized in an actively combative patient due to the concern of ongoing struggle and the associated metabolic acidosis.
- Pharmacologic sedation should be initiated as soon as possible if a patient is not compliant and continues to struggle despite verbal de-escalation and physical restraint.

- A rapid and thorough assessment should be performed as quickly as possible.
- EMS should be prepared for sudden cardiac arrest and be trained for and capable of providing the appropriate life-saving interventions.

Clinical Interventions

- **As sudden cardiac arrest can arise from a severe metabolic acidosis, the primary treatments for PRS are directed towards clearing the acidosis by supporting perfusion, oxygenation and ventilation.**
- *Patient Assessment*
  - A thorough assessment should be performed as soon as provider safety is assured.
  - Vital signs should be taken immediately and monitored similarly to any critically ill patient.
  - Continuous pulse oximetry, cardiac (ECG) monitoring and EtCO2 should be initiated as soon as safely possible.
- *Perfusion:*
  - All ExDS patients should have at least one and preferably two or more quality peripheral IV lines placed. IO should be utilized immediately if easy peripheral IV access cannot be obtained.
  - ExDS patients should be assumed to have a severe metabolic acidosis and fluid resuscitation with appropriate solution should be administered as soon as possible. Fluid boluses in the range given for severe sepsis (30 mL/kg) are generally recommended.
- *Oxygenation:* High-flow oxygen (via non-rebreather or similar device) should be initiated on any ExDS patient with continued altered mental status, regardless of pulse-oximetry reading.
- *Ventilation:*
  - A state of mild hyperventilation (mildly elevated respiratory rate) should be maintained to balance the possible metabolic acidosis.
  - If the patient is unable to maintain their respiratory rate (i.e. tidal volume) themselves, early ventilatory assistance should be initiated.

- EMS personnel should be trained, prepared and have the appropriate equipment immediately available for advanced airway procedures to assist/control the patient's ventilatory efforts.

- *Evaluation & Treatment of other Medical Causes of Altered Mental Status:* While substance abuse and psychiatric disease (or likely a combination of the two) play the predominant role in many PRS presentations, other potentially life-threatening medical causes must be assessed for and treated, including hypoxia, hypoglycemia, head Injury and other neurologic disease--including strokes or seizures/postictal state, CNS infection, etc.

Verbal De-escalation (10 key elements)

- Respect personal space
- Do not be provocative
- Establish verbal contact
- Be concise
- Identify wants and feelings
- Listen closely
- Agree or agree to disagree
- Lay down the law and set clear limits
- Offer choices and optimism
- Debrief the patient and staff

Physical Restraint

- Physical restraint should only be used if the patient displays uncontrollable behavior that indicates potential imminent harm to themselves, others and/or damage to the environment, or causes a significant disruption of important medical treatment/evaluation.
- Restraint should be accomplished in the least restrictive manner possible (i.e. never face down).
- Restraint devices should be removed as soon as possible once a patient is compliant.
- Restraint techniques that compromise the airway or restrict respiratory effort (i.e. neck or chest) will be avoided, and continued physical restraint is unsuitable for any patient who needs continued close monitoring (i.e. PRS with hemodynamic instability, overdose with respiratory depression, etc.)

- If a law-enforcement based restraint intervention (e.g. handcuffs, flex cuffs, zip-ties, etc.) must be continued during patient care and transport, a law enforcement officer should either accompany the patient during transport by ambulance or the intervention, should be discontinued in favor of an EMS-based restraint intervention.

Pharmacologic (Chemical) Sedation - See RX-03 for further

- Early, aggressive pharmacologic sedation should be utilized as physical struggle is a much greater contributor to catecholamine surge and metabolic acidosis than other causes of exertion or noxious stimuli.
- **EMS Practitioners will NOT administer sedating medications to an individual to facilitate arrest or assist law enforcement to take the individual into custody.**
- **Any patient receiving sedating medications must be continuously monitored and treated by EMS practitioners and must be transported to an emergency department for evaluation.**
- In all circumstances, the decision to use pharmacologic management is a patient-specific, healthcare decision that is at the sole discretion of an appropriately trained and credentialed EMS practitioner (paramedic) with oversight by an EMS Medical Director.
- Medications should be administered in the safest and most effective manner possible.