
CHAPTER	II	Operations
SUBJECT	4	Emergency Medical Services
TOPIC	19	Evaluation, Restraint, and Transport of Combative Patients

Background And Significance

- A. There have been reports in the medical literature that described the prehospital deaths of agitated and combative individuals that occurred while under restraint.
- B. Although most of the reported deaths occurred in police custody, there have been deaths during transport by advanced life support (ALS) services as well.
- C. Cases similar to those described in the medical literature have also occurred in Cincinnati.
- D. There are two common threads present prior to sudden death during transport of agitated patients:
 - 1. A state of “exited delirium”, which refers to qualities of irrational behavior, aggression, violence, and paranoia in the patient. This state can result from a number of causes including cocaine intoxication, psychiatric illness, hypoglycemia, and other medical illnesses. During the exited delirium, the patient often becomes significantly hyperthermic. Excited delirium increases the body’s need for oxygen by increasing the workload and stress on the heart while at the same time the hyperactivity increases the use of oxygen by all the muscles.
 - 2. The second factor which contributes to death in these patients is restraint. The term “positional asphyxia” has been used to describe the situation where the placement of the body interferes with breathing, resulting in a lack of oxygen delivery to the blood cells. Once the blood oxygen level falls below that needed to support life, the brain begins to die. The deleterious positional effect may result either from interference with the muscular or mechanical component of respiration or from obstruction of the upper airway. These patients have a combination of high demand for oxygen coupled with a decreased supply because of the way they are restrained. This combination is sometimes lethal.
 - 3. Nearly all of the patients who have died were restrained in the prone position. Most were additionally controlled with their arms and legs bound in the “hog-tied” or hobble restraints.

Policy

- A. Violent and delirious patients may have a variety of life-threatening medical problems that necessitate evaluation and treatment in a hospital.
 - 1. Sometimes gentle talking will persuade the patient to calm down, and Fire Division personnel will be able to gain control of the patient.
 - 2. However, the safety of the patient and the rescuers frequently demands that the patient be forcibly restrained, so that proper medical procedures can be implemented.
 - a. It is necessary to use overwhelming force to restrain patients with minimal risk to the rescuers and patient. Therefore it is often

required to wait for police assistance before attempting to restrain agitated patients. A good rule of thumb is that four to six people are needed to adequately restrain a patient and position the patient on his back.

b. If the police need to restrain a patient in the prone position in order to gain control of the patient, then the patient must be turned over onto his back immediately after control is gained.

- B. Because of the clear relationship between restraint in the prone position and death during transport, **all patients must be transported in the supine position (on their backs)**. A variety of restraint techniques are available:
1. Most times the patient may be safely restrained by securing both arms and legs to a long backboard or the rails of the stretcher to keep the patient in position.
 2. At times it may be necessary to restrain the patient with handcuffs behind the patient's back.
 3. A rolled up sheet may be placed loosely across the patient's chest and secured under both axillae to keep the patient from sitting up. This sheet must not be so tight that it inhibits breathing.
 4. A surgical mask or an oxygen mask that is connected to high flow oxygen may be tied over the patient's mouth and nose if necessary to prevent the patient from spitting at the rescuers.
- C. Police officers are experts in safety restraining violent individuals. Therefore the police officer on the scene is ultimately responsible for deciding on appropriate restraint techniques to maximize safety of the rescuers and the patient.

D. It is not easy to decide in the field which delirious patient has a life-threatening medical illness and which has a psychiatric disorder. Since these patients are often complex and may have a variety of potentially treatable medical problems, the method of transport should lean toward ALS transport. Patients who have **ANY** of the following signs should be transported in a paramedic rescue unit using ALS procedures:

1. Delirious mental state as demonstrated by disorientation to person or place or by a score on the verbal component of the Glasgow Coma Scale that is less than 5, OR
2. Pulse rate less than 50 or greater than 120 beats per minute, OR
3. Systolic blood pressure less than 90 or greater than 180 mm Hg, OR
4. Any other patient whom the paramedics have examined may be transported using ALS procedures if the paramedics believe that the patient may need advanced care.

E. Oxygen should be placed on the patient unless the pulse oximeter reading is consistently greater than 94%. Patients transported in a rescue unit should be placed on a cardiac monitor. A finger stick glucose level should be obtained to evaluate the possibility of

hypoglycemia as a cause of the agitated behavior. The altered level of consciousness protocol should be followed. If a patient is both violent and ill or injured, it may be necessary to have police ride in the ambulance or rescue unit.

F. If the patient is completely oriented to person and place with an intact ability to reason and has normal vital signs, then the patient may be transported in a basic ambulance. In general, these patients would exhibit disorders such as painful, swollen, deformed extremities or other medical conditions that would routinely be transported in a basic ambulance.

G. If the patient is completely oriented to person and place with an intact ability to reason and has normal vital signs and **NO** other medical illnesses or injuries, and if there are symptoms of mental illness and the patient has exhibited dangerousness toward self or others, the Fire Division personnel may suggest that the police transport the patient.

H. If there are questions about the management of a particular patient, then the Rescue 2 Lieutenant on duty, the medical control physician, or the Medical Director should be consulted.