

# **Appendix 5**

# **Trauma Transport Protocol**

# Trauma Transport Protocol

## I. DISPATCH CENTER PROCEDURE

A. Brevard County EMS uses enhanced 911 Computer Aided Dispatch (CAD). All 911 calls are answered in the jurisdictional law enforcement dispatch center, and then transferred. Requests for emergency medical services are directed to the Brevard County Fire Rescue Department Emergency Communications Center (hereafter referred to as Brevard). This center dispatches EMS transport units to all requests for emergency medical services within Brevard County. The enhanced 911 system provides the dispatcher the following information:

- Callers phone number
- Callers address
- Name of phone listing
- Community where call is being placed
- Emergency Services Number
- Victim(s) location
- Appropriate law enforcement agency
- Appropriate fire station response area
- Appropriate EMS station response area
- Appropriate extrication equipped agency

B. Brevard will determine the nature of the 911. The dispatcher will, using a topical question guide, ask the caller a series of questions to determine the extent and severity of injuries. The following are examples of situations and pertinent questions to be asked (from the Clawson protocols):

1. VEHICLE INCIDENT:

- a. How many and what type of vehicles are involved?
- b. How many people are injured?
- c. Is anyone trapped?
- d. Is fuel leaking?
- e. Is any fuel fire visible?

2. TRAUMATIC INJURY:

- a. Is the patient awake?
- b. Is the patient reporting chest pain?
- c. Is the patient reporting difficult breathing?
- d. Is any bleeding controlled?
- e. Is the patient trapped?
- f. Is there any amputation?

3. SHOOTING OR STABBING:

- a. Is the patient awake?
- b. Is the patient breathing?
- c. What is the type and location of wound?
- d. Is the assailant still on the scene?

4. FALL:

- a. Is the patient awake?
- b. Is the patient having problems breathing?
- c. Where is the patient experiencing pain?
- d. From what height did the patient fall?

- C. The Emergency Services Number (ESN) is used by Brevard to identify the geographic location of the caller. The ESN system identifies the first, second, and third response fire and medical units for those locations in the Brevard County service area. Brevard will dispatch units according to the location and proximity of the closest unit. Any available unit, which is closer to the incident than a dispatched unit, will notify Brevard and respond as instructed.
- D. Brevard may request other agencies to respond on a mutual aid basis if an ALS unit is not available. Mutual aid requests between agencies will be directed to Brevard by the Incident Commander. Other agencies that may be requested for assistance include the Coast Guard, Florida Marine Patrol, and law enforcement.
- E. The first (ALS or BLS) emergency services unit on the scene of an incident will use the Trauma Scorecard Methodology to evaluate trauma alert criteria. If the unit on scene issues a Trauma Alert, Brevard will document the time and notify the supervisor, other responding units, and the closest appropriate trauma center.

## II. ON SCENE PROCEDURE

- A. The arriving provider will evaluate the scene, Trauma Alert Criteria, the safety of the scene, the severity and number of patients, the need for extrication, and the need for additional help. A Trauma Alert will be issued if the patient meets the Trauma Scorecard Methodology Criteria.
- B. The paramedic providing patient care shall advise Brevard to which facility the patient will be transported, the criteria for which the alert was issued, and the mechanism(s) of injury.

## III. TRAUMA ALERT CRITERIA

- A. Adult Trauma (age 16 and older)
  - 1. Any **One** of the following:
    - The patient requires active airway assistance (other than supplemental O<sub>2</sub>).
    - The heart rate is greater than 120 bpm without radial pulse.
    - The systolic BP is less than 90mm/hg without a radial pulse.
    - Best motor response is less than or equal to 4 or the Glasgow coma scale is less or equal to 12.
    - There is 2<sup>nd</sup> or 3<sup>rd</sup> degree or burns greater to or equal 15% or more of the total body surface area.
    - There is amputation proximal to the wrist or ankle.
    - There is penetration injury to the head, neck, or torso excluding superficial wounds where the depth of the wound can be determined.
    - There are two or more long-bone fracture sites (i.e. forearm and lower leg).
    - There is paralysis, loss of sensation, or suspicion of spinal injury.
  - 2. Or any **Two Or More** of the following:
    - The respiratory rate is 30 or more.
    - Sustained heart rate is 120 beats per minute or more.
    - Best motor response is 5 or less on the Glasgow coma scale.
    - There is major de-gloving injury of a flap avulsion greater than 5".
    - There is a gunshot wound (GSW) to an extremity.
    - There is one long-bone fracture from a MVC or a fall of 10 feet or greater.
    - The patient's age is 55 or older.
    - The patient was ejected from a motor vehicle, including motorcycle, moped, ATV, or open body of a pick-up truck.
    - The patient caused steering wheel deformity by impact.

3. The EMT or paramedic can also issue a “Trauma Alert” if in his judgment, the trauma patient’s condition warrants it. This will be documented as required in section 64J-2, F.A.C.
- B. Pediatric Trauma Alert Criteria: A pediatric patient is any patient with a physical and anatomical characteristic of a person 15 years of age or younger.
1. A pediatric Trauma Alert shall be issued if **One** of the following:
    - Airway: The patient requires intubation, or the patient’s breathing is assisted with manual jaw thrust, single or multiple suctioning, or through the use of other adjuncts to assist ventilatory efforts.
    - Consciousness: The patient presents with an altered mental status that includes drowsiness, lethargy, the inability to follow commands, unresponsiveness to voice, totally unresponsive, or there is the presence of paralysis; or the suspicion of a spinal cord injury or loss of sensation.
    - Circulation: The patient has a faint or non-palpable radial or femoral pulse, a systolic blood pressure of less than 50mmHg, or sustained tachycardia greater than 160 beats per minute.
    - Fracture: There is evidence of an open long bone (humerus, radius, ulna, femur, tibia or fibula) fracture. There are multiple fracture sites, or multiple dislocations (except for isolated wrist or ankle fractures or dislocations).
    - Skin: The patient has a major soft tissue disruption including major de-gloving injury, major flap avulsions, 2<sup>nd</sup> or 3<sup>rd</sup> degree burns to 10 percent or more of the total body surface area, amputation proximal to a wrist or ankle, or any penetrating injury to the head, neck or torso (excluding superficial wounds where the depth of the wound can be determined).
  2. A pediatric Trauma Alert shall be issued if **Two Or More** of the following:
    - Consciousness: The patient exhibits symptoms of amnesia, or there was a loss of consciousness.
    - Circulation: The carotid or femoral pulse is palpable, but the radial or pedal pulses are not palpable or the systolic blood pressure is less than 90mmHg.
    - Fracture: The patient reveals signs or symptoms of a single closed long bone fracture. Long bone fractures do not include isolated wrist or ankle fractures.
    - Size: The pediatric trauma patient has a weight less than 11 kilograms or the body length is equivalent to this weight on a pediatric length and weight emergency tape.
  3. The EMT or paramedic can issue a “Trauma Alert” if in his judgment, the trauma patient’s condition warrants it. This will be documented as required in section 64J-1.014 and 64J-2.002, F.A.C.

#### IV. TRANSPORTATION

All Trauma Alert patients will be transported to the nearest State Approved Trauma Center (SATC) or State Approved Pediatric Trauma Center (SAPTC). Guidelines for transportation follow:

- A. Pediatric Trauma Alert patients should be transported to a SAPTC
- B. Burn patients meeting the Trauma Alert Criteria should be transported to SATC with burn services.
- C. Trauma Alert patients will be transported to an Initial Receiving Facility as follows:
  - 1. Cardiac Arrest: Cardiac Arrest secondary to trauma will be transported to the nearest hospital.
  - 2. Lack of Patient Airway: A trauma patient without a patent airway will be transported to the nearest receiving facility.
  - 3. Mass Casualty Incidents patients will be transported as designated by the Incident Commander.
  - 4. Patients, who in the opinion of the transportation crew will not survive transport to a trauma center, may be transported to an initial receiving facility.
- D. Air Transportation Guidelines:
  - 1. Trauma meeting the Trauma Alert Criteria, **(and)**
  - 2. Located in an air transport zone, which is outside a 5 mile radius or greater than 12 (driving) minutes from a SATC, prolonged extrication, or severe traffic conditions.
- E. Ground Transportation will be used for the trauma alert patient when:
  - 1. Air transport is not available.
  - 2. Air transport is in excess of 30 minutes or their arrival takes longer than ground transport.
  - 3. The incident is located within a 5 mile radius or 12 driving minutes from the SATC.
  - 4. The patient has been exposed to hazardous materials.

#### V. DESIGNATED FACILITIES

Trauma Alert patients will be transported to the nearest appropriate trauma center. If that trauma center is unable to provide adequate trauma care, the patient will be transported to the next closest trauma center.

- A. Brevard County Fire-Rescue providers will transport adult “Trauma Alert” patients to:

Holmes Regional Medical Center  
1350 South Hickory Street  
Melbourne, Florida

Halifax Medical Center  
Clyde Morris Boulevard  
Daytona Beach, Florida

- B. Brevard County EMS providers will transport pediatric and burn “Trauma Alert” patients to Orlando Regional Medical Center located at 1414 South Kuhl Avenue in Orlando.

- C. Patients who **Do Not Meet** trauma alert criteria may be transported to the closest appropriate receiving facility:

Parrish Medical Center  
951 North Washington Avenue  
Titusville, Florida

Wuestoff Memorial Hospital  
110 Longwood Avenue  
Rockledge, Florida

Cape Canaveral Hospital  
701 West Cocoa Beach Causeway  
Cocoa Beach, Florida

Holmes Regional Medical Center  
1350 South Hickory Street  
Melbourne, Florida

Wuestoff Medical Center-Melbourne  
250 N. Wickham Road  
Melbourne, Florida

Palm Bay Community Hospital  
1425 Malabar Road North East  
Palm Bay, Florida

Sebastian Medical Center  
13695 US Highway One  
Sebastian, Florida

## **VI. DOCUMENTATION**

- A. Providers will complete an EMS report on all trauma patients including those who are pronounced dead on scene.
- B. The provider who transfers a patient to an air ambulance will complete the state approved abbreviated report and give it to the transport agency. Every attempt should be made to complete this form (abbreviated) prior to air transport; however, a verbal report will be acceptable. The on-scene unit will subsequently fax a copy of the complete EMS report to the receiving facility.
- C. The transport unit will submit or fax the completed report to the receiving facility.

## **VII. EMERGENCY TRAUMA INTER-HOSPITAL PROCEDURE**

Brevard County Fire-Rescue does not transport trauma patients between receiving facilities. Coastal Health Systems of Brevard, Inc. will provide any transport deemed necessary by the initial receiving Trauma Center to another Trauma Center for any higher levels of care necessary or unable to be performed at the initial receiving State Approved Trauma Center.

## **VIII. TRANSPORTATION DEVIATION**

Any deviation from this Trauma Transport Protocol must be documented in the EMS report.