

Health, Department of

Emergency Medical Services - General

Chapter 15: Assessment, Triage, Treatment and Transport of Time Sensitive Emergencies

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CHAPTER 15

ASSESSMENT, TRIAGE, TREATMENT AND TRANSPORT OF TIME SENSITIVE EMERGENCIES

Section 1. Authority. The authority for this chapter is Wyo. Stat. Ann. §§ 35-1-801 and 35-2-1001.

Section 2. Definitions.

(a) For the purposes of this chapter and enforcement of other rules in relation to this chapter, the following definitions shall apply:

(i) “Advanced Life Support personnel” or “ALS personnel” means EMS providers licensed to function with a scope of practice that exceeds that of an Advanced Emergency Medical Technician as defined in chapter 5 of these rules and functioning as a crew member assigned to an EMS agency that maintains the equipment and medications allowable to these scopes of practice.

(ii) “Acute stroke patient” means a patient who has been exhibiting the signs and symptoms of stroke for less than six (6) hours and is not hypoglycemic.

(iii) “Decisional boundary” means a geographical point at which the clinical benefits to the patient of transport to one facility outweigh the benefits of transport to another facility.

(iv) “Effective treatment window” means that period of time in which a patient may experience a better clinical outcome if they receive appropriate treatment. Effective treatment windows vary by treatment and pathophysiology.

(v) “Evidence-based prehospital care protocols” means those treatment modalities that reflect the most current and recommended standards of medical practice based on significant clinical evidence.

(vi) “EMS agency” means an EMS agency as defined in chapter 4 of these rules.

(vii) “Emergency medical service providers” or “EMS providers” means an employee of an EMS agency or a person acting as an agent or otherwise on behalf of an EMS agency.

(viii) “FAST” means the acronym developed by the American Stroke Association (ASA) for the rapid identification of an acute stroke patient and activation of the 911 system. FAST stands for: Facial droop; Arm droop; Slurred speech; and Time to call for help.

(ix) “High index of suspicion” means the provider has sufficient or significant cause to believe that the patient is or may soon be acutely ill or injured.

(x) “Index of suspicion” means the degree to which a healthcare provider suspects that a patient may be suffering from a particular illness or injury based on the provider’s training and experience, the patient’s clinical presentation of signs and symptoms, and the mechanism of injury if applicable.

(xi) “Local system design” means the interrelation of the structure, hierarchy, and relationship of all of the components of the comprehensive EMS and trauma system within a specific community. In well-designed local systems of care, hospitals, TSE facilities, EMS agencies, dispatch organizations, and other healthcare and public health providers work cooperatively to ensure that patients are receiving care that is based on current clinical evidence and recommended practice, and are transported to a facility best suited for providing optimal care in the shortest time possible.

(xii) “Operational procedures” means those policies and procedures adopted by an EMS agency under these rules that direct the administrative and operational practices affecting the decision making process of the individual.

(xiii) “Scene time” means that portion of time between when an ambulance arrives at the location of the patient and when the ambulance departs the scene.

(xiv) “Stroke Alert” means a notification given by EMS providers to a Stroke Center that will be receiving a patient that has a positive FAST assessment.

(xv) “System design” means the structure, hierarchy, and relationship of all of the components of the comprehensive EMS and trauma system.

(xvi) “Time sensitive emergency” or “TSE” means a condition for which there is substantial clinical evidence demonstrating that minimal time delays in the provision of correct treatment and transport to the most appropriate facility results in improved clinical outcomes. For the purposes of these rules time sensitive emergencies are limited to traumatic injuries, heart attacks, and strokes.

(xvii) “Trauma Center” means a hospital designated as a “Regional Trauma Center” under *Rules Wyoming Department of Health, Trauma Program*, Chapter 4 or a hospital verified by the American College of Surgeons as a Level I or Level II Trauma Center.

(xviii) “Triage” means the process of assessing a patient or patients to determine the priority of patient treatment or transport based on the severity of injury or illness. In the case of a single patient, triage is utilized to determine the need for transport to a TSE facility. In the case of multiple patients, triage is used to determine the need for transport to a TSE facility, as well as the priority of needs of all of the patients.

(xix) “TSE facility” means:

(A) A Wyoming hospital that has been designated in one of the categories specified in Chapter 13, Section 4(a) of these rules;

(B) A hospital outside of the state that is accredited by the American Heart Association (AHA), the Society for Cardiovascular Patient Care or the Joint Commission as a hospital equivalent to one of the categories in Chapter 13, Section 4(a) of these rules;

(C) A Trauma Center or a facility designated in one of the categories specified in *Rules Wyoming Department of Health, Trauma Program*, Chapter 4.

Section 3. General Operation Requirements for EMS Agencies.

(a) The Division adopts the standards listed in this subsection. These standards shall control except as otherwise provided in this chapter. The adoption of these standards does not include later amendments or editions of the incorporated matters and shall not be interpreted as adding to or subtracting from the scope of practice for EMS providers. EMS agencies and EMS providers shall incorporate these standards into their local system design to the extent possible.

(i) The triage decision scheme for trauma patients shall be U.S. Dep't of Health and Human Servs., Ctrs. for Disease Control and Prevention, *Guidelines for Field Triage of Injured Patients* (2012). Copies are available from the Division upon request, and may be obtained through the CDC at: <http://www.cdc.gov/mmwr/pdf/rr/rr6101.pdf>.

(ii) The basis for the development of local systems of cardiac care shall be Am. Heart Ass'n, *2015 Guidelines for CPR and ECC* (2015). Copies are available from the Division upon request, and may be obtained through the AHA at: <https://eccguidelines.heart.org/index.php/circulation/cpr-ecc-guidelines-2/>.

(iii) The basis for the development of local systems of stroke care and evidence based prehospital care protocols shall be:

(A) Am. Heart Ass'n & Am. Stroke Ass'n, *Guidelines for the Early Management of Patients with Acute Ischemic Stroke* (2013); copies are available from the Division upon request, and may be obtained through the AHA at: <http://stroke.ahajournals.org/content/44/3/870.full.pdf+html>; and

(B) Am. Heart Ass'n & Am. Stroke Ass'n, *2015 AHA/ASA Focused Update of the 2013 Guidelines for the Early Management of Patients with Acute Ischemic Stroke Regarding Endovascular Treatment* (2015); copies are available from the Division upon request, and may be obtained through the AHA at: <http://stroke.ahajournals.org/content/early/2015/06/26/STR.0000000000000074.full.pdf+html>.

(b) EMS agency operations shall be conducted in accordance with the standards adopted in subsection (a) of this section and in accordance with the following principles:

(i) Ambulances shall transport patients to the facility best suited to care for the patient suffering a TSE, based on achieving the following principles:

(A) Transport of the trauma patient to a Trauma Center within one (1) hour of the time of injury;

(B) Transport of the patient suffering an acute heart attack to a facility with the capability to perform cardiac percutaneous coronary intervention (PCI) that minimizes the time between the onset of symptoms and the PCI procedure. Current evidence shows improved clinical outcomes when the PCI is performed less than 90 minutes from the onset of symptoms;

(C) Transport of the patient suffering an acute stroke to a primary or comprehensive stroke center as soon as possible. Current evidence indicates that the effective treatment window for the acute stroke patient is up to six hours.

(ii) The times listed in subsection (b)(i)(A)-(C) reflect benchmarks for ideal care. Patients may still benefit from transport to or treatment by a higher level TSE facility when these times are exceeded.

(iii) The bypass of a facility in favor of a facility with a higher capability shall be considered even if the required transport time exceeds that of the transport time to a closer facility. Factors influencing the decision to bypass include, but are not limited to:

(A) The additional time required to reach the facility with higher capability;

(B) The stability of the patient's condition;

(C) The scope of practice of the EMS providers and their capabilities for management of the TSE;

(D) The time that will be expended at the initial facility prior to the transfer of the patient.

(c) EMS agencies shall adopt in writing:

(i) Evidence-based prehospital care protocols using the standards adopted in subsection (a) of this section;

(ii) Operational procedures that address the requirements of this chapter and incorporate the principles of section 3(b) within the specific resources of the local community and region. The operational procedures shall include, but are not limited to:

(A) Procedures for limiting the scene time for each TSE;

(B) Procedures for assessing the incident scene to determine:

- (I) Hazards to EMS providers, the patient, and bystanders;
 - (II) The number of patients and the mechanism of injury;
 - (III) The need for additional resources and the benefits and risks of waiting for additional resources rather than providing rapid transport to definitive care;
 - (IV) The need to declare a mass casualty incident;
- (C) The proximity of hospitals and TSE facilities relative to the EMS response area and their specific capability to treat a TSE;
- (D) Decisional boundaries where the transport of a patient to a TSE specific facility may prove to be beneficial to a patient experiencing a TSE;
- (E) Procedures for the intercept of an ambulance service by another ambulance service capable of providing a higher level of care;
- (F) The optimal course of action for the treatment and transport of a TSE during normal, day-to-day operations;
- (G) Alternative courses of action that address circumstances under which the optimal course of action is prohibited or would not prove of benefit to the patient including, but not limited to:
- (I) Adverse weather conditions;
 - (II) Permanent or temporary factors that increase the time required to transport a patient to the ideal TSE facility such as road closures;
 - (III) Closure of or non-availability of the optimal TSE facility due to compromised infrastructure or loss of specialized equipment, personnel, or resources;
 - (IV) Transport to alternative destinations in the event of mass-casualty incidents or public health emergencies.
- (H) The means and circumstances for requesting additional resources;
- (I) Standardized methods of notifying receiving facilities of the arrival of a possible TSE as soon as practicable;
- (J) The means and circumstances for requesting the dispatch of air medical resources to the scene to facilitate rapid transport.

(d) An EMS agency shall not prohibit EMS providers from requesting an air ambulance transport from the field.

Section 4. Assessment, Triage, Treatment and Transport of the Trauma Patient by EMS Providers.

(a) Assessment of the Trauma Patient.

(i) An initial assessment shall be performed to identify patients with major hemorrhage, hemodynamic instability, penetrating torso trauma, or signs of traumatic brain injury who may require immediate management of life-threatening injuries or rapid surgical intervention.

(ii) After the initial assessment is complete and immediately identifiable life threatening injuries or conditions have been addressed, a secondary assessment to identify other injuries shall be performed unless a patient's condition and the requirement to continue treating an injury or condition prohibits the completion of an entire secondary assessment.

(iii) Continuous monitoring for deterioration over time, including serial vital signs and repeated neurologic status assessment, shall be performed.

(b) Treatment of the Trauma Patient.

(i) All treatment provided to the trauma patient shall be done in conjunction with the preparation of the patient for rapid transport to a trauma facility.

(ii) Hemorrhage control shall include appropriate dressing and bandaging and the early application of tourniquets in extremity trauma.

(iii) Airway management shall be done with an appropriate level of cervical spine precautions.

(iv) Spinal immobilization is not warranted in every trauma patient, and EMS protocols may be developed to allow discretion in determining which patients should receive this treatment.

(v) The management of the patient may incorporate the concepts of permissive hypotension.

(vi) EMS providers may withhold or terminate resuscitative efforts in the presence of:

(A) Decapitation;

(B) Hemicorpectomy;

(C) Signs of rigor mortis or dependent lividity;

(D) A mechanism of blunt trauma, and the patient is apneic, pulseless, and has no organized electrical activity on a cardiac monitor;

(E) Cardiac arrest after a mechanism of trauma and who have no return to spontaneous circulation after 15-30 minutes of resuscitative efforts, including minimally interrupted cardiopulmonary resuscitation.

(c) Transport of the Trauma Patient.

(i) Patients who are assessed to have injuries consistent with Step One or Step Two as specified under Section 3(c)(i) of this chapter should be considered priority for transport to the facility with the highest level of capability.

(ii) Any patient who does not qualify for immediate transport to a Trauma Center, but is determined to have injuries consistent with Step Three and Step Four as specified in Section 3(c)(i) of this chapter may be transported to the most appropriate facility in accordance with regional or local system guidelines.

(iii) A transport may be refused, or an alternate destination requested, if the patient is determined to be of legal age, has the mental capacity to make an informed decision related to healthcare, and is not otherwise legally constrained from making such a decision. Under these circumstances, non-transport of the patient or transport of the patient to an alternate destination shall not violate this rule and shall not constitute refusal of care.

(iv) When the required transport time is equal to or less than the required transport time to a facility with a lower level of capability, the ambulance shall transport to the higher level of capability as listed below in descending order of capability:

(A) Trauma centers as defined in this chapter.

(B) Area Trauma Hospital

(C) Community Trauma Hospital

(D) Trauma Receiving Facility

(v) The following exceptions apply to this subpart:

(A) Ambulances will not transport chemical or radiation contaminated patients prior to decontamination;

(B) If the Trauma Center chosen as the patient's destination is overloaded and cannot treat the patient, then the patient's destination shall be determined pursuant to regional or local system guidelines;

(C) A transport may be diverted from the original destination if a patient's condition becomes unmanageable or exceeds the capabilities of the transporting ambulance.

(vi) Situations giving rise to any exceptions listed in subpart (v) of this subsection should prompt review of that transport by the quality improvement process of the entire system.

Section 5. Assessment, Triage, Treatment and Transport of the Heart Attack Patient by EMS Providers.

(a) Assessment of the Heart Attack Patient.

(i) EMS providers shall maintain a high index of suspicion that a patient may be suffering a myocardial infarction or acute coronary syndrome when the patient presents with signs or symptoms that include, but are not limited to:

(A) A prior history of myocardial infarction, acute coronary syndrome, or other cardiac related health problems;

(B) Chest pain;

(C) Pain or discomfort in other areas of the body (e.g. arm, jaw or epigastrium) of suspected cardiac origin;

(D) Shortness of breath;

(E) Sweating;

(F) Nausea or vomiting;

(G) Dizziness;

(H) Atypical or unusual symptoms, particularly in women, the elderly, and diabetic patients;

(I) Congestive heart failure (CHF);

(J) Syncope or shock.

(ii) The 12-lead ECG is the primary diagnostic tool that identifies an ST segment elevation myocardial infarction (STEMI). EMS providers shall acquire a 12-lead ECG, and transmit the recording as soon as possible for all patients.

(b) Triage of the Heart Attack Patient. Heart attack patients shall be triaged to the most appropriate facility based on the index of suspicion formed by the cumulative assessed findings.

(c) Treatment of the Heart Attack Patient. The care provided by EMS providers shall be directed toward reducing the following time factors:

(i) The time between the first indication of a myocardial infarction or acute coronary syndrome and the administration of aspirin;

(ii) The time between the arrival on scene to the time of 12-lead ECG acquisition;

(iii) The time between 12-lead ECG acquisition and transmission of the recording;

(iv) The time between 12-lead ECG acquisition and the identification of a STEMI;

(v) The time between the identification of a STEMI and notification of the findings to the receiving facility;

(vi) The time between the onset of a STEMI patient's symptoms and their ultimate arrival at a PCI center;

(vii) The time between EMS agency notification and the time of activation of a cardiac catheterization laboratory;

(viii) The time between arrival at the PCI center and the time of cardiac catheterization (door-to-balloon time);

(ix) The time between prehospital 12-lead ECG acquisition and the time of cardiac catheterization (ECG-to-balloon time).

(d) ALS personnel shall assess the patient's cardiac rhythm utilizing a cardiac monitor and 12-lead ECG and treat in accordance with the appropriate local protocols and standing orders.

(e) If the patient is dyspneic, hypoxemic, or has obvious signs of heart failure and there are no other contraindications, EMS providers shall perform the following to the extent allowed by the individual's scope of practice:

(i) Titrate oxygen therapy to achieve an oxygen saturation of greater than or equal to 94%;

(ii) Administer aspirin - chewable, non-enteric-coated, 160 to 325 mg is preferred;

(iii) Establish intravenous access;

(iv) Transmit a 12-lead ECG at the earliest opportunity for remote interpretation or confirmation by a physician;

(v) Provide advance notification as soon as possible to the receiving hospital for patients identified as having STEMI;

(vi) Perform serial ECGs and make copies of all ECGs available to treating personnel at the receiving hospital, whether they are presented in hard copy or transmitted from the field;

(vii) Administer nitroglycerin (tablets or spray) every three to five minutes as long as the patient's systolic blood pressure remains greater than 100mmHg.

(A) Nitrates in all forms are contraindicated in patients with a systolic blood pressure less than 90 mmHg, in patients with suspected right ventricular infarction, or when patients have taken an erectile dysfunction medication within 24 hours, or within 48 hours of the use of tadalafil (Adcirca, Cialis);

(viii) Analgesia is indicated in STEMI when chest discomfort is unresponsive to nitrates. Morphine should be used with caution in unstable angina due to an association with increased mortality.

(f) Transport of the Heart Attack Patient. Ambulance destination decisions shall be preferential based on the following descending order of preference and capability:

(i) Heart Attack Receiving Center or a hospital with a PCI facility;

(ii) Heart Attack Referring Center;

(iii) A hospital with an emergency department.

Section 6. Assessment, Triage, Treatment and Transport of the Stroke Patient by EMS Providers.

(a) Assessment of the Stroke Patient.

(i) Adult patients exhibiting signs and symptoms of a stroke or transient ischemic attack (TIA) shall be assessed with a validated stroke screening scale such as the Miami Emergency Neurologic Deficit (MEND) checklist or the Cincinnati Stroke Scale.

(ii) EMS providers shall maintain a high index of suspicion that the patient is experiencing a stroke or TIA when the patient is exhibiting signs and symptoms that include, but are not limited to:

(A) Neurologic deficits, such as facial droop, localized weakness, gait disturbance, slurred speech or altered mentation;

(B) Hemiparesis or hemiplegia;

(C) A dysconjugate, forced, or crossed gaze accompanied by a low level of consciousness (LOC), including an inability to follow commands, complete tasks, or make a discernible effort to respond;

(D) Severe headache, neck pain or stiffness, or difficulty seeing.

(iii) In assessing a patient exhibiting signs and symptoms of a stroke EMS providers shall:

(A) Utilize the FAST exam to rapidly evaluate patients;

(B) Perform a blood glucose analysis;

(C) Attempt to determine the time of onset of symptoms.

(b) Triage of the stroke patient.

(i) Acute stroke patients shall be triaged to the most appropriate facility based on the index of suspicion formed by the cumulative assessed findings.

(ii) Notification of a Stroke Alert shall be made as soon as possible to enable the receiving facility to take necessary steps to ensure the facility is prepared to receive the patient.

(c) Treatment of the stroke patient.

(i) For the adult patient exhibiting the signs and symptoms of stroke or TIA, EMS providers shall:

(A) Provide oxygen only if the patient's oxygen saturation is determined to be less than 94% and titrated to achieve a saturation of 94%;

(B) Manage seizures according to local protocol;

(C) Provide glucose only if the patient's blood glucose level is determined to be less than 60 milligrams per deciliter (60mg/dcl);

- (D) Acquire and transmit a 12-lead electrocardiogram (ECG);
- (E) Provide continuous cardiac monitoring.

(ii) Generally, hypertension should not be treated with pharmacological agents. Management of the blood pressure may include:

(A) Positioning the patient in the supine position if the systolic blood pressure is less than 120 mmHg;

(B) Positioning the patient with the head and torso at approximately a 30 degree angle if the systolic blood is greater than 120 mmHg;

(C) If the patient's systolic blood pressure is greater than 220 mm Hg, and if the heart rate is at least forty-five beats per minute, administer labetalol, ten (10) milligrams every ten (10) minutes, if authorized by scope of practice.

(iii) Patients exhibiting signs and symptoms of acute stroke shall be considered "nothing passed orally" (NPO), unless the patient is in need of glucose and intravenous glucose cannot be given, and the patient has been cleared for swallowing.

(d) Transport.

(i) Ambulance destination decisions shall be preferential based on the following descending order of preference and capability:

- (A) Comprehensive Stroke Center;
- (B) Primary Stroke Center;
- (C) Acute Stroke Ready Hospital;
- (D) A hospital with an emergency department.

(ii) Transport to a more distant, designated facility, with a higher level of designation, shall be considered if the additional transport time is less than sixty (60) minutes more than the transport time to the nearest designated facility.