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# ODEMSA Regional Trauma Triage Performance Improvement

The Old Dominion EMS Alliance believes an effective quality improvement process is essential to improve trauma patient outcomes. In response to state requirements, ODEMSA has established the Regional Performance Improvement Committee. This committee will work in cooperation with other regional councils and the Virginia Office of EMS (OEMS). OEMS will coordinate a program for monitoring the quality of trauma care. This program will provide for the collection and analysis of data on emergency medical, trauma and trauma triage services from existing validated sources, including but not limited to the Prehospital Patient Data Reporting (PPDR) Program and the Trauma Registry.

## Committee Voting Representation

The Old Dominion EMS Alliance (ODEMSA) is made up of four planning districts each of which has three members on the ODEMSA Board of Directors. Each planning district has a local EMS Sub-Council made up of representatives of licensed EMS agencies and hospitals within the planning district. The local sub-councils; Southside (PD13), South Central (PD14), Metro Richmond (PD15) and Crater (PD19) meet separately at least once each quarter.

ODEMSA's Regional Performance Improvement Committee, shall use the local planning district EMS sub-councils as local PI subcommittees. The groups consider local medical, trauma and trauma triage PI issues at least quarterly during meetings that precede the regular council meeting. Separate minutes and agendas of those meetings are kept.

The voting members for ODEMSA's Regional Performance Improvement Committee(s) shall consist of two (2) persons selected by the entity, one primary and one alternate, who will represent the interests of each of the following agencies, organizations or Planning Districts (PD) as outlined below. A vote may be cast in person by either the primary or alternate committee member. A vote may also be cast by written or reproducible electronic written media; however, proxy voting shall not be authorized.

1. There shall be one primary and one alternate selected from each of the following Planning District Sub-Councils. It is their responsibility to bring forward to the regional committee any PI Issues requested by the local PI Sub-Committee and then relay PI Committee reports and requests back to the Planning District Sub-Committee.
  - a. PD 13 – Southside EMS Sub-Council
  - b. PD 14 - South Central EMS Sub-Council
  - c. PD 15 – Metro Richmond EMS Sub-Council
  - d. PD 19 – Crater EMS Sub-Council.
2. There shall be one primary and one alternate selected who will represent the interests of each of the five (5) Trauma Centers in the ODEMSA region.





# Appendix A -Regional Trauma Plan Requirements

Each Regional EMS Council will be responsible for maintaining a Regional Trauma Triage Plan and updating the plan on an annual basis. The Regional Trauma Triage Plan should be developed in the outline below.

- Cover Page
- Executive Summary (should incorporate the State Trauma Triage Plan Executive Summary and additional information needed for the individual Regional Council)
- Definition of a Trauma Victim – from state plan, Trauma Patient Transport & Transfer Criteria section
- Trauma Patient Transport & Transfer Criteria; to include prehospital trauma patient criteria for both adult and pediatric patients, Interhospital trauma patient transfer guidelines, burn injury and Medevac/air medical guidelines for trauma patients. Regions should include when the MCI plan is to be initiated in place of the trauma triage plan
- Regional point of entry plan that identifies transport considerations for the trauma patient that is consistent with the regions Medical Control and Trauma Patient Care Protocols
- Performance Improvement Process Schematic accompanied by a clearly documented method for EMS providers, agencies and hospitals to enter a patient and/or other concerns into the Trauma PI process (regulation and compliance issues should be referred to the State TPI Committee or OEMS Regulation & Compliance Program as a last resort)
- Trauma center description (names, locations and Levels of trauma center designation with a description of the services offered at the different levels of trauma centers)
- Regional Demographics/Trauma Care Resources. This section should provide region specific information such as, the geography, demography, trauma centers, hospitals, burn centers, EMS agencies, personnel, EMS vehicles, communications and trauma related education for both providers and the public within the region
- The Code of Virginia § 32.1-111.3. This section of the Code clearly documents the ability for EMS agencies, hospitals and entities such as the Regional Councils to exchange patient care information for the purposes of quality monitoring. Patient care information can be exchanged by anyone acting under the authority of the Health Commissioner or the EMS Advisory Board without violating requirements of HIPAA
- Should include notation of the current EMS Regulations related to compliance with the Trauma Triage Plan



# Appendix C - Trauma Centers in Virginia

## Level 1 Trauma Centers

<b>Carilion Roanoke Memorial Hospital</b>	Bellevue @ Jefferson Streets Roanoke, VA (540) 266-6000
<b>Inova Fairfax Hospital</b>	300 Gallows Road Falls Church, VA (703) 776-4001
<b>Sentara Norfolk General Hospital</b>	600 Gresham Drive Norfolk, VA (757) 388-3000
<b>UVA Medical Center</b>	1224 W. Main Street Charlottesville, VA (434) 924-0211
<b>CJW Medical Center – Chippenham (ODEMSA)</b>	7101 Jahnke Road Richmond, VA (804) 320-3911
<b>VCU Medical Center (ODEMSA)</b>	12 <sup>th</sup> & Marshall Streets Richmond, VA (804) 828-9000

## Level 2 Trauma Centers

<b>Lynchburg General Hospital</b>	1901 Tate Springs Road Lynchburg, VA (434) 947-3000
<b>Mary Washington Hospital</b>	1201 Sam Perry Boulevard Fredericksburg, VA (540) 741-1542
<b>Riverside Regional Medical Center</b>	500 J. Clyde Morris Boulevard Newport News, VA (757) 594-2000
<b>Winchester Medical Center</b>	1840 Amherst Street Winchester, VA (540) 536-8000
<b>HCA Henrico Doctors' Hospital Forest Campus (ODEMSA)</b>	1602 Skipwith Road Richmond, VA 23229 (804) 289-4500

### Level 3 Trauma Centers

<b>Carilion New River Valley Medical Center</b>	2900 Lamb Circle Christiansburg, VA (540) 731-2000
<b>CJW Medical Center – Johnston-Willis (ODEMSA)</b>	1401 Johnston-Willis Drive Richmond, VA 23235 (804) 330-2000
<b>Montgomery Regional Hospital</b>	3700 S. Main Street Blacksburg, VA (540) 951-1111
<b>Sentara Virginia Beach General Hospital</b>	1060 First Colonial Road Virginia Beach, VA
<b>Southside Regional Medical Center (ODEMSA)</b>	200 Medical Park Boulevard Petersburg, VA (804) 765-5000

## Minimum Surgical Specialties for Trauma Designation by Level of Designation

Surgical Clinical Capabilities: (On call and promptly available)	Level of Designation		
	I	II	III
Trauma/General Surgery	X	X	X
Anesthesiology	X	X	X
Orthopedic Surgery	X	X	X
Thoracic Surgery	X	X	
Pediatric Surgery	X		
Hand Surgery	X		
Microvascular Surgery	X		
Neurological Surgery	X	X	
Plastic Surgery	X	X	
Maxillofacial Surgery	X	X	
Ear, Nose & Throat Surgery	X	X	
Oral Surgery	X		
Ophthalmic Surgery	X	X	
Gynecological Surgery/Obstetrical Surgery	X	X	

Source: Virginia Statewide Trauma Center Designation Program Hospital Resource Manual (Health, 2006)

## Minimum Medical Specialties for Trauma Designation by Level of Designation

Medical Clinical Capabilities: (On call and promptly available)	Level of Designation		
	I	II	III
Cardiology	X	X	
Pulmonology	X		
Gastroenterology	X		
Hematology	X		
Infectious Disease	X		
Internal Medicine	X	X	X
Nephrology	X		
Pathology	X	X	X
Pediatrics	X		
Radiology	X	X	X
Interventional Radiology	X	X	

Source: Virginia Statewide Trauma Center Designation Program Hospital Resource Manual (Health, 2006)

# Appendix D -Virginia's Regional EMS Councils

<b>Blue Ridge EMS Council (BREMS)</b> 1900 Tate Springs Road, Suite 14 Lynchburg, VA 24501	<b>Central Shenandoah EMS Council (CSEMS)</b> 2312 West Beverly Street Staunton, VA 24401
<b>Lord Fairfax EMS Council (LFEMSC)</b> 117 W. Boscawen Street Winchester, VA 22601	<b>Northern Virginia EMS Council (NOVA)</b> 44983 Knoll Square, Suite 75 Ashburn, VA 20147
<b>Old Dominion EMS Alliance (ODEMSA)</b> 7818 East Parham Road, Suite 911 Henrico, VA 23294	<b>Peninsulas EMS Council (PEMS)</b> P. O. Box 2348 Gloucester, VA 23061
<b>Rappahannock EMS Councils (REMS)</b> 2301 Fall Hill Avenue, Suite 101 Fredericksburg, VA 22401	<b>Thomas Jefferson EMS Council (TJEMS)</b> 2205 Fontaine Avenue, Suite 302 Charlottesville, VA 22903
<b>Tidewater EMS Council (TEMS)</b> 855 W. Brambleton Avenue Norfolk, VA 23510	<b>Southwest Virginia EMS Council (SWVAEMS)</b> 329 W. Main Street Abingdon, VA 24210
<b>Western Virginia EMS Council (WVEMS)</b> 3229 Brandon Avenue, Suite 7 Roanoke, VA 24018	

# Appendix E – Demographics

Residents of Virginia	8.0 million
Square Miles in Virginia	42,769
Localities	135
Trauma Centers in Virginia	15
Level I	5
Level II	7
Level III	5
Licensed Hospitals	89
Regional EMS Councils	11
Licensed EMS Agencies	680
Medevac Agencies	13
EMS Vehicles	4283
EMS Providers	36,311
First Responders	1,253
BLS Providers	25,085
ALS Providers	9,970

***Virginia Demographics, 2018***

Residents in ODEMSA	2.2 million
Square Miles in ODEMSA	9,000
Counties/Cities	22/5
Trauma Centers in ODEMSA	3
Level I	1
Level II	2
Level III	2
Acute Care Hospitals	17
Free Standing ED's	7
EMS Providers/ALS Providers	5697/1,303
Licensed EMS Agencies	107
Air Medical Agencies	2
EMS Vehicles	664

***ODEMSA Demographics, 2018***

# Appendix F- EMS Regulations & Code of Virginia

## **12 VAC 5-31-390. Destination / Trauma Triage.**

An EMS agency shall participate in the Regional Trauma Triage Plan established in accordance with § 32.1-111.3 of the Code of Virginia.

## **§ 32.1-111.3. Statewide Emergency Medical Care System.**

- A. The Board of Health shall develop a comprehensive, coordinated, emergency medical care system in the Commonwealth and prepare a Statewide Emergency Medical Services Plan which shall incorporate, but not be limited to, the plans prepared by the Regional Emergency Medical Services Councils. The Board shall review the Plan triennially and make such revisions as may be necessary. The objectives of such Plan and the system shall include, but not be limited to, the following:
1. Establishing a comprehensive statewide emergency medical care system, incorporating facilities, transportation, manpower, communications, and other components as integral parts of a unified system that will serve to improve the delivery of emergency medical services and thereby decrease morbidity, hospitalization, disability, and mortality;
  2. Reducing the time period between the identification of an acutely ill or injured patient and the definitive treatment;
  3. Increasing the accessibility of high quality emergency medical services to all citizens of Virginia;
  4. Promoting continuing improvement in system components including ground, water and air transportation, communications, hospital emergency departments and other emergency medical care facilities, consumer health information and education, and health manpower and manpower training;
  5. Improving the quality of emergency medical care delivered on site, in transit, in hospital emergency departments and within the hospital environment;
  6. Working with medical societies, hospitals, and other public and private agencies in developing approaches whereby the many persons who are presently using the existing emergency department for routine, non-urgent, primary medical care will be served more appropriately and economically;
  7. Conducting, promoting, and encouraging programs of education and training designed

to upgrade the knowledge and skills of health manpower involved in emergency medical services

8. Consulting with and reviewing, with agencies and organizations, the development of applications to governmental or other sources for grants or other funding to support emergency medical services programs;
  9. Establishing a statewide air medical evacuation system which shall be developed by the Department of Health in coordination with the Department of State Police and other appropriate state agencies;
  10. Establishing and maintaining a process for designation of appropriate hospitals as trauma centers and specialty care centers based on an applicable national evaluation system;
  11. Establishing a comprehensive emergency medical services patient care data collection and evaluation system pursuant to Article 3.1 (§ 32.1-116.1 et seq.) of this chapter;
  12. Collecting data and information and preparing reports for the sole purpose of the designation and verification of trauma centers and other specialty care centers pursuant to this section. All data and information collected shall remain confidential and shall be exempt from the provisions of the Virginia Freedom of Information Act (§ 2.2-3700 et seq.); and
  13. Establishing a registration program for automated external defibrillators, pursuant to § 32.1-111.14:1.
- B. The Board of Health shall also develop and maintain as a component of the Emergency Medical Services Plan a statewide prehospital and Interhospital Trauma Triage Plan designed to promote rapid access for pediatric and adult trauma patients to appropriate, organized trauma care through the publication and regular updating of information on resources for trauma care and generally accepted criteria for trauma triage and appropriate transfer. The Trauma Triage Plan shall include:
1. A strategy for implementing the statewide Trauma Triage Plan through formal regional trauma triage plans developed by the Regional Emergency Medical Services Councils which can incorporate each region's geographic variations and trauma care capabilities and resources, including hospitals designated as trauma centers pursuant to subsection A of this section. The regional trauma triage plans shall be implemented by July 1, 1999, upon the approval of the Commissioner.
  2. A uniform set of proposed criteria for prehospital and inter hospital triage and transport of trauma patients, consistent with the trauma protocols of the American College of Surgeons' Committee on Trauma, developed by the Emergency Medical Services Advisory Board, in consultation with the Virginia Chapter of the American College of Surgeons, the Virginia College of Emergency Physicians, the Virginia Hospital and Healthcare Association, and prehospital care providers. The Emergency Medical



**§32.1-116.2. Confidential nature of information supplied; publication; liability protections.**

- A. The Commissioner and all other persons to whom data is submitted shall keep patient information confidential. Mechanisms for protecting patient data shall be developed and continually evaluated to ascertain their effectiveness. No publication of information, research or medical data shall be made which identifies the patients by names or addresses. However, the Commissioner or his designees may utilize institutional data in order to improve the quality of and appropriate access to emergency medical services.
  
- B. No individual, licensed emergency medical services agency, hospital, Regional Emergency Medical Services Council or organization advising the Commissioner shall be liable for any civil damages resulting from any act or omission performed as required by this article unless such act or omission was the result of gross negligence or willful misconduct.(1987, c. 480.)

## Appendix G - Definitions

**AAA** – American Automobile Association – A publicly held organization serving the needs of the automobile drivers in the U.S., which offers a wide variety of traffic safety education materials.

**APLS** – Advanced Pediatric Life Support – A course jointly developed and sponsored by the American College of Emergency Physicians and the American Academy of Pediatrics which covers the knowledge and skills necessary for the initial management of pediatric emergencies, including trauma.

**ATLS** – Advanced Trauma Life Support – A course developed and sponsored by the American College of Surgeons Committee on Trauma for physicians, which covers trauma knowledge and skills.

**BTLS** – Basic Trauma Life Support – A course for prehospital providers sponsored by the American College of Emergency Physicians

**CATN** – Course in Advanced Trauma Nursing – A two-day course developed and sponsored by the Emergency Nurses Association.

**Citizen Access** – The act of requesting emergency assistance for a specific event.

**Designation** – Formal recognition of hospitals as providers of specialized services to meet the needs of the severely injured patient; usually a contractual relationship and is based on adherence to standards.

**EMS** – Emergency Medical Services – A system that provides for the arrangement of personnel, facilities, and equipment for the effective and coordinated delivery of health care services in appropriate geographical areas under emergency conditions.

**EMTALA** – Emergency Medical Treatment and Active Labor Act - Establishes requirements for emergency departments to provide medical screening examination to anyone on whose behalf a request is made to determine whether or not the individual is in an emergency medical condition. If the hospital has determined that the individual is in an emergency medical condition, the hospital must provide further medical examination and treatment to stabilize the medical condition.

**ENPC** – Emergency Nurses Pediatric Course – A two-day pediatric trauma course developed and sponsored by the Emergency Nurses Association.

**EOC** – Emergency Operations Center – A communication network where emergency calls are received and dispatched.

**Injury** – The result of an act that damages, harms, or hurts; unintentional or intentional damage to the body resulting from acute exposure to thermal, mechanical, electrical or chemical energy or from the absence of such essentials as heat or oxygen.

**Injury Control** – The scientific approach to injury that includes analysis, data, acquisition, identification of problem injuries in high-risk groups, option analysis and implementing and evaluating countermeasures.

**Injury Prevention** – Efforts to forestall or prevent events that might result in injuries.

**Lead Agency** – An organization that serves as the focal point for program development on the local, regional, or State level.

**MADD** – Mothers Against Drunk Drivers – A 501©(3) non-profit grass roots organization whose focus is to look for effective solutions to the drunk driving and underage drinking problems, while supporting those who have already experienced the results of these crimes.

**Major Trauma** – That subset of injuries that encompasses the patient with or at risk for the most severe or critical types of injury and therefore requires a system approach in order to save life and limb.

**Mass Casualty Incident** - A mass casualty incident is one that generates a sufficient number of injured to exceed a system's capability to deal with the incident using normal procedures and resources.

**Mechanism of Injury** – The source of forces that produce mechanical deformations and physiologic responses that cause an anatomic lesion or functional change in humans.

**Medical Control** – Physician direction over prehospital activities to ensure efficient and proficient trauma triage, transportation, and care, as well as ongoing quality management.

**Morbidity** – The relative incidence of disease.

**Mortality** – The proportion of deaths to population.

**National Incident Management System (NIMS)** – A standardized, organized on-scene emergency management system used by the emergency response community to respond



**Regionalization** – The identification of available resources within a given geographic area, and coordination of services to meet the needs of a specific group of patients.

**Rehabilitation** – Services that seek to return a trauma patient to the fullest physical, psychological, social, vocational, and educational level of functioning of which he or she is capable, consistent with physiological and anatomical impairments and environmental limitations.

**SAFE Kids** – A national organization that seeks to reduce unintentional injuries to children by concerted community action, including promoting public awareness of unintentional childhood injury prevention strategies and facilitating public appreciation for the safety measures necessary to protect children.

**Trauma** – A term derived from the Greek for “wound”; it refers to any bodily injury.

**Trauma Center** – A specialized hospital facility distinguished by the immediate availability of specialized surgeons, physicians specialists, anesthesiologists, nurses, and resuscitation and life support equipment on a 24 hour basis to care for severely injured patients or those at risk for severe injury.

**TNCC** – Trauma Nursing Core Course – A verification course providing core-level trauma knowledge and psychomotor skills associated with the delivery of professional nursing care to trauma patient. Developed and sponsored by the Emergency Nurses Association.

**Trauma Registry** – A collection of data on patients who receive hospital care for certain types of injuries. Such data are primarily designed to ensure quality trauma care and outcomes in individual institutions and trauma systems, but have the secondary purpose of providing useful data for the surveillance of injury morbidity and mortality.

**Triage** – The process of sorting injured patients based on the actual or perceived degree of injury and assigning them to the most effective and efficient regional care resources, in order to insure optimal care and the best chance of survival.

**Triage Criteria** – Measures or methods of assessing the severity of person’s injuries that are used for patient evaluation, especially in the prehospital setting, and that use anatomic and physiologic considerations and mechanism of injury.

**Uncompensated Care** – Care for which no reimbursement is made.

**Under triage** – Directing fewer patients to trauma centers than is warranted because of

