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Executive Summary and Vision

This Regional Trauma Triage Plan for the Old Dominion EMS Alliance (ODEMSA) region is the product of the Central Virginia emergency medical services (EMS) system working as a cohesive team. It is designed to enhance out-of-hospital and in-hospital trauma care available to residents in, and visitors to, the 9,000-square-mile ODEMSA region. It is meant to complement the State Trauma Triage Plan as most recently revised. Other goals include maintaining and continually enhancing the region's trauma care system, and encouraging the continued excellent level of cooperation among the various acute care hospitals and out-of-hospital agencies and individuals that are essential and valued components of that system.

ODEMSA recognizes that under the *Code of Virginia* § 32.1-111.3, the Office of Emergency Medical Services (OEMS), acting on behalf of the Virginia Department of Health, is charged with the responsibility of developing a statewide Trauma Triage Plan. It also recognizes that the State Office of EMS is the enforcement body for the State Trauma Triage Plan. However, EMS leaders in the ODEMSA region also recognize that a statewide plan depends to some degree on effective regional plans that incorporate planning for trauma centers to care for the most severely injured patients while providing for additional trauma care at other acute care hospitals.

It is a goal of ODEMSA, therefore, to support a regional trauma plan that enhances the comprehensive statewide emergency medical care system. It incorporates on a regional basis, healthcare facilities, transportation, human resources, communications, and other components as integral parts of a unified system. That regional system will serve to improve the delivery of emergency medical services and thereby decrease morbidity, hospitalization, disability, and mortality.

It is the vision of ODEMSA that victims of traumatic injuries in this region will:

- ✓ Be promptly entered into the EMS system by knowledgeable family members or bystanders through the universal 911 emergency phone access.
- ✓ Be assisted and reassured by family members or bystanders, until EMS assistance arrives, through guidance provided by trained emergency medical dispatchers (where available) with specific emphasis on maintaining a viable airway, bleeding control, appropriate spinal motion restriction, and the prevention of shock.
- ✓ Receive prompt and efficient on-scene treatment and stabilization by EMS providers with appropriate basic and advanced trauma care training, and other trained first responders, in accordance with ODEMSA's Prehospital Patient Care Protocols. This on-scene care will be followed by prompt and safe transportation to the nearest, most appropriate hospital or trauma center, using the quickest ground and/or air transportation available.
- ✓ Be promptly and appropriately treated and stabilized at a receiving hospital before being transferred to a more appropriate trauma critical care unit for continuing care.
- ✓ Receive continuing care and rehabilitation in such a manner as to provide for the highest chance of complete recovery in the shortest time possible.

ODEMSA will be responsible for implementing and monitoring the Regional Trauma Triage Plan through its Staff, Board of Directors, Performance Improvement Committee and local EMS Councils representing Planning Districts 13, 14, 15 and 19. It will do so in cooperation with the OEMS Trauma/Critical Care Coordinator and State Trauma System Oversight and Management Committee of the Virginia EMS Advisory Board.

The Virginia Trauma System defines a “trauma victim” as a person who has acquired serious injuries and or wounds brought on by either an outside force or an outside energy. These injuries and or wounds may affect one or more body systems by blunt, penetrating, or burn injuries. These injuries may be life altering, life threatening or ultimately fatal wounds.

Trauma patient recognition and triage is a two-tiered system:

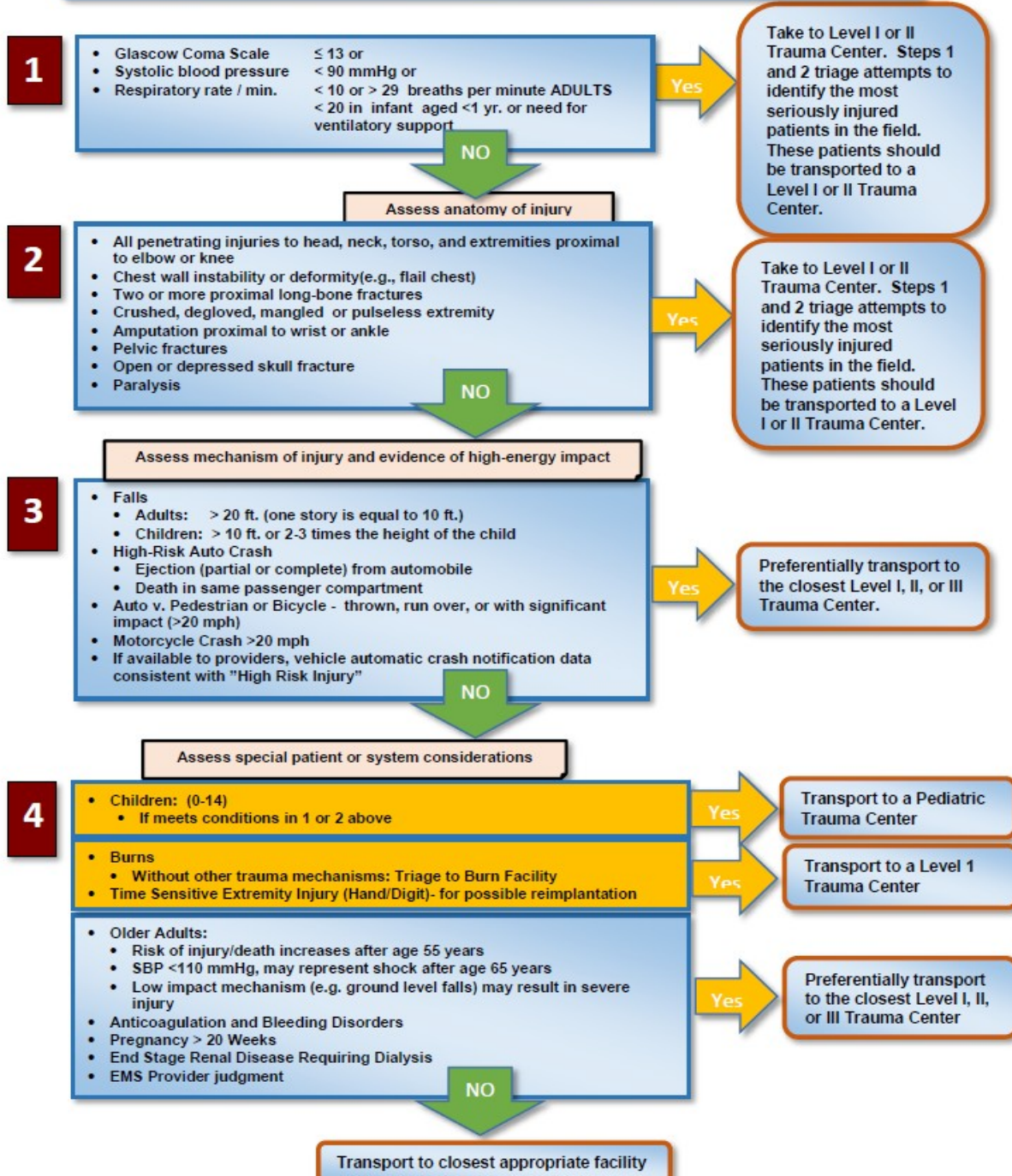
- ✓ Initial field triage in the prehospital environment (pre-hospital criteria), and;
- ✓ Secondary triage or trauma patient recognition and appropriate timely triage by all Virginia hospitals.

Field Trauma Triage Decision Scheme

The ODEMSA Regional Trauma Triage Decision Scheme was developed by members of the Regional Trauma Triage Plan Committee with input from: (1) ODEMSA standing committees, (2) Guidance from the Virginia Department of Health and/or Office of EMS, and (3) Statewide Trauma Triage Plan. The CDC Guidelines for Field Triage of Injured Patients: Recommendations of the National Expert Panel on Field Triage, 2011 was used as a basis for the development of the ODEMSA scheme

Measure vital signs and level of consciousness

Patient's with an unstable airway, airway obstruction, uncontrolled bleeding or in cardiac arrest should be taken immediately to the closest facility.



With any type patient, when in doubt, transport to a trauma center.

Medical Control and Transport Considerations:

These guidelines will be used to determine when direct transport or transfer of a Trauma Patient to a Trauma Center should be considered. It is recognized that the Guidelines will involve the 15 to 20 percent of trauma cases that are classified as serious or critical. However, each trauma case is unique and transport or transfer considerations are impacted by the specific needs of the Trauma Patient. These Regional Transport Guidelines may help in making decisions, but should not dictate those decisions.

Prehospital providers and local hospitals should be aware of regional protocols that deal with issues of where to transport trauma patients with uncontrolled airway, uncontrolled hemorrhage or if there is CPR in progress in the trauma patient.)

Transport of the trauma patient from scene:

When there are questions about hospital destination in an out-of-hospital trauma situation, the prehospital Attendant-in-Charge (AIC) should contact the local hospital or trauma center as early as possible for destination guidance.

- Considerations for hospital destination, including bypass, should include the emergent needs of the trauma patient and the ability of the on-scene AIC to care for those needs.
- Considerations for hospital destination, including bypass, should include the local hospital's ability to assemble necessary resources (an immediately available trauma team or level of staff expertise, the capability to do ICP monitoring) when the patient clearly needs them.

Destinations, including bypass, will be based on patient information and include following factors:

- Injuries sustained by the trauma patient, the patient's vital signs, the age of the patient and the stability of the patient. **defined in the Statewide Trauma Triage Criteria.
- The level of training and experience of the prehospital providers compared with the need of the trauma patient.
- The ability of the local hospital to handle the trauma situation (i.e. open pelvis needing external fixator, multiple patients, the immediate need for a staff Operating Room at odd hours, etc.).
- The number of patients, especially if the traumatic event occurs in a rural area.
- The actual transport time required to a trauma center versus to the local hospital. Weather conditions and availability of air medical evacuation must be considered.
- The effect of transport time on the trauma patient's survivability.

Patients with airway obstruction, uncontrolled airway, uncontrolled bleeding, or with CPR in progress should be taken immediately to the closest hospital.

Burn Related Injury Table

The American Burn Association has identified that the following Burn Related Injuries that usually require referral to a burn center

- Partial thickness and full thickness burns greater than 10% of the total body surface area (BSA) in patients under 10 or over 50 years of age.
- Partial thickness burns and full thickness burns greater than 20% BSA in other age groups.
- Partial thickness and full-thickness burns involving the face, eyes, ears, hands, feet, genitalia or perineum of those that involve skin overlying major joints.
- Full-thickness burns greater than 5% BSA in any age group.
- Electrical burns, including lightning injuries; (significant volumes of tissue beneath the surface may be injured and result in acute renal failure and other complications).
- Significant chemical burns.
- Inhalation injuries.
- Burn injury in patients with pre-existing illness that could complicate management, prolongs recovery, or affects mortality.
- Any burn patient in whom concomitant trauma poses an increased risk of morbidity or mortality may be treated initially in a trauma center until stable before transfer to a burn center.
- Children with burns seen in hospitals without qualified personnel or equipment for their care should be transferred to a burn center with these capabilities.
- Burn injury in patients who will require special social and emotional or long term rehabilitative support, including cases involving child abuse and neglect.

Transport from Local Hospital to Trauma Center:

When there are questions about hospital destination in an out-of-hospital trauma situation, the prehospital Attendant-in-Charge (AIC) should contact the local hospital or trauma center as early as possible for destination guidance.

- Considerations for hospital destination, including bypass, should include the emergent needs of the trauma patient and the ability of the on-scene AIC to care for those needs.
- Considerations for hospital destination, including bypass, should include the Local Hospital's ability to assemble necessary resources (an immediately available trauma team or level of staff expertise, the capability to do ICP monitoring) when the Patient clearly needs them.

Destinations, including bypass, will be based on patient information and include following factors:

- Injuries sustained by the trauma patient, the patient's vital signs, the age of the patient and the stability of the patient. **

***Note: As referenced within these guidelines, an unstable critical trauma patient is as defined in the Statewide Trauma Triage Criteria.*

- The level of training and experience of the prehospital providers compared with the need of the trauma patient.
- The ability of the local hospital to handle the trauma situation (i.e. open pelvis needing external fixator, multiple patients, the immediate need for a staff operating room at odd hours, etc.).
- The number of patients, especially if the traumatic event occurs in a rural area.
- The actual transport time required to a trauma center versus to the local hospital. Weather conditions and availability of air medical evacuation must be considered.
- The effect of transport time on the trauma patient's survivability. Transfer from local hospital to trauma center:

The final decision on a Trauma patients' transfer from a local hospital to a trauma center must be made by a physician at the local hospital. This decision may be made in consultation with other local physicians, a physician/surgeon or physicians/surgeons at a trauma center, and the patient/family.

Minimum stabilization of a trauma patient for transfer must include controlled airway, established breathing (spontaneous, BVM or respirator), any external exsanguination (hemorrhage) controlled or stopped; two-large-bore IVs or a central line established at an appropriate fluid rate for the trauma patient's needs; and appropriate spinal motion restriction.

If surgery is required at the local hospital, a post-operative transfer may be considered if intensive post-operative care will be required, or that definitive care beyond the surgical emergency exceeds the resources of the local hospital. The physician at the local hospital should consult with the surgeon at the receiving trauma center to decide the best time for this transfer.

All transfers must be made in accordance with the Emergency Treatment and Active Labor Act (EMTALA) or the Consolidated Omnibus Budget Reconciliation Act of 1986 (COBRA).

The local hospital should notify the trauma center as soon as it is apparent that the patient's needs exceed the capabilities of the transferring hospital. The physician at the local hospital will decide if the patient can be sufficiently stabilized prior to transport.

- ✓ The decision to transfer is based on the resources needed by the trauma patient and must be done rapidly as possible. Once the decision has been made, the patient should be transferred to a trauma center by the most efficient means available.
- ✓ Any consideration for air medical transport should be based on the time involved, road and weather conditions, medical equipment requirements, and the expertise needed to maintain the trauma patient's level of care.

The following requirements must be met before a trauma patient is transferred:

- ✓ Physician at the receiving trauma center must agree to accept the patient.
- ✓ The receiving facility must have appropriate resources and qualified personnel to provide comprehensive and timely care for the patient.
- ✓ The inter-hospital transport team must have the equipment and expertise to maintain the level of care needed for the trauma patient's condition (i.e. Respiratory Therapist, or EMT-Intermediate or EMT-Paramedic to care for a patient on a respirator).
- ✓ All relevant medical records, including X-rays, must be submitted to the receiving hospital by the transferring hospital, by any means necessary (accompanying the patient or sent electronically), upon patient arrival.

Mass Casualty Incidents / Natural Disasters

Both prehospital and hospital providers should become familiar with other related ODEMSA plans. These plans represent a tiered response to a growing number of patients:

- ✓ ODEMSA Mass Casualty Incident (MCI) Plan
- ✓ ODEMSA Hospital Diversion Plan
- ✓ Central Virginia Hospital Disaster Planning Committee (CVHDPC) Surge Capacity Plan and/or your local Emergency Operations Plan (EOP).

The plans build upon one another. This Trauma Triage Plan is intended to guide treatment for a smaller number of patients that can be managed by resources available during normal day-to-day operations. MCI Plans provide additional guidance to agencies, municipalities and medical facilities when their normal resources are being strained. Surge plans are developed to meet the large-scale events that may require caring for hundreds or even thousands of patients. The Trauma Triage Plan is intended for incidents that occur during normal EMS operations.

During major disaster situations, the ODEMSA region has local government emergency plans that take effect and a regional Mass Casualty Incident Plan that can be enacted to bring about a coordinated regional approach to the triage, treatment and transfer of patients from a site to one or more of the four trauma centers or 17 acute care hospitals and 7 free standing emergency departments in the region. The main part of the plan is the Guide for Mutual Aid Response Guide. All 22 counties and five cities in the ODEMSA region have signed Memorandums of Understanding to use the plan when an incident demands a regional response. All 17 acute care hospitals also have signed the MOUs.

Keystone of the plan is the agreement among hospitals and agencies that Virginia Commonwealth University Medical Center (VCUMC) is the primary medical control hospital during disasters. The medical control hospital (MCH) acts to collect information on hospital resources and then distribute patients to hospitals based on that information. Other key documents representative of Regional planning efforts include: the regional Hospital Diversion Policy; NDMS Operations Plan and Regional Air Medical Evacuation Guidelines. ODEMSA recommends that prehospital emergency care providers become familiar with this document. Copies of the all documents are available from ODEMSA and posted on the website.

Criteria for Air Medical Transport

The use of Medevac services can assist with trauma patients reaching definitive trauma care in a timely fashion. EMS providers will have to weigh the risks and benefits, including conditions such as transport time and weather conditions. When air medical transport is determined applicable, the MOST appropriate Medevac service [Helicopter EMS (HEMS)] available at the time of the incident should be utilized to transport the trauma patient to the closest appropriate hospital.

Scene transports by helicopter:

- ✓ All patients transported by air should meet the clinical triage criteria for transport the closest appropriate Level I or II trauma center or burn center; *OR*
- ✓ The patient requires a level of care greater than can be expected by the local ground provider.

AND any one (1) of the following:

- ✓ Difficult access situations: Wilderness rescue, Ambulance egress or access impeded at the scene by road conditions, weather or traffic.
- ✓ Time/distance factors
- ✓ ETA to a local hospital by ground greater than ETA to the trauma center by helicopter.

Interhospital transport by helicopter:

- ✓ All trauma patients transported by air should meet the clinical trauma triage criteria for transport to the closest Level I or Level II trauma center or burn center
- ✓ The patient must require a level of care greater than can be provided by the local hospital.
- ✓ The patient requires time critical intervention, out-of-hospital time needs to be minimal, or distance to definitive care is long.

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.

- a. Virginia Commonwealth University Health System - Level I Trauma Center
 - b. Chippenham Medical Center – Level I Trauma Center
 - c. Johnston-Willis Hospital - Level III Trauma Center
 - d. Southside Regional medical Center – Level III Trauma Center
 - e. Henrico Doctors’ Hospital Forest – Level II Trauma Center
3. There shall be one primary and one alternate selected from each of the following Health Systems with facilities in ODEMSA:
 - a. BSHSI - Bon Secours Health System Centra Health
 - b. CHS - Community Health System/VCU health system
 - c. Community Memorial Hospital
 - d. Halifax Regional
 - e. HCA - Hospital Corporation of America
 - f. McGuire VA Medical Center
 4. There shall be one primary and one alternate selected who will represent the interests of each of the following committees which are involved in performance improvement issues:
 - a. Air Medical
 - b. Medical Control
 - c. Professional Development
 5. Each Planning District, shall have one primary and one alternate selected at-large representative for each of the following, if applicable::
 - a. Fire based EMS agency representative
 - b. Career EMS agency representative
 - c. Volunteer EMS agency representative

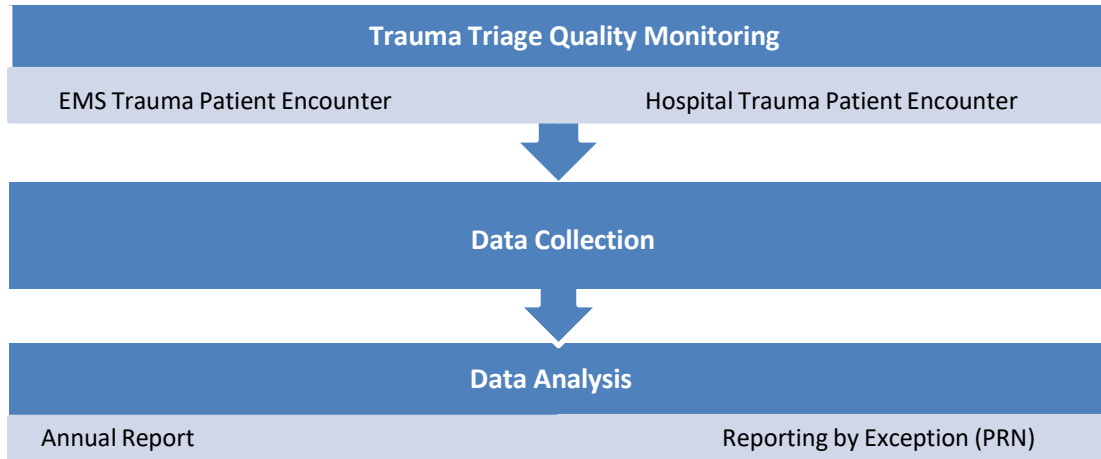
Each entity shall submit two (2) names, one primary and one alternate to the committee as their official representatives. Each entity shall have one (1), and only one (1), vote regardless of size of the organization or numbers of individual bases. These representatives (four planning districts, four trauma centers, seven acute care hospital systems, three committees and planning district At-Large EMS career, volunteer and Fire based EMS), provide an ideal team to address local and regional TTPI issues and generate meaningful reports within ODEMSA. The Committee also believes this arrangement meets the stated goal of the Virginia Office of EMS to provide maximum regional involvement in the TTPI process.

Member Responsibilities

1. An additional OEMS mandate imposed upon ODEMSA is that of membership participation. In order to comply with ODEMSA’s contract with the Virginia Office of EMS, the representative, or that person’s alternate, must attend 75% of PI Committee meetings to remain in the position of an active member or representative.
2. The ODEMSA Performance Improvement Committee is responsible for monitoring and striving to ensure the quality of trauma triage. To that end, quality monitoring and assurance shall be facilitated through several means including, but not limited to, analysis of data from the EMS Patient

Care

Information System (EMS and trauma registries/dbase) and from other existing validated sources such as the trauma and medical performance improvement committee, feedback mechanisms and performance improvement groups through the sub-councils. The below figure illustrates the quality monitoring and assurance process quality monitoring and assurance process.



As a result of the process, ODEMSA will report aggregate trauma triage findings annually to assist in the subsequent development/refinement of EMS and Trauma Systems documents to improve local and regional trauma triage within the Council. It is reasonably expected that as a result of the trauma triage quality monitoring process, specific to the provider, agencies and facilities shall be informed of any patterns of incorrect prehospital or interfacility missed triages, and/or delayed/missed interfacility transfers, as defined in this plan.

- ✓ **Methodology** – Any provider, agency, or hospital may enter trauma patient and/or other trauma concerns into the performance improvement process by filling out a trauma systems referral form and sending it to ODEMSA. Compilation of data will be done by a designated staff member. Data will be submitted regularly.
- ✓ **Action taken** – Will be dependent upon reviews. It may include education and remediation; disposition of patients; continued monitoring and looking for trends; feedback to agencies and hospitals; and/or trauma system modification.
- ✓ **Regulation or Compliance Issues** – Should be reviewed by the ODEMSA Performance Improvement Committee and referred to the State Trauma Performance Improvement Committee or the State Office of EMS as a last resort.

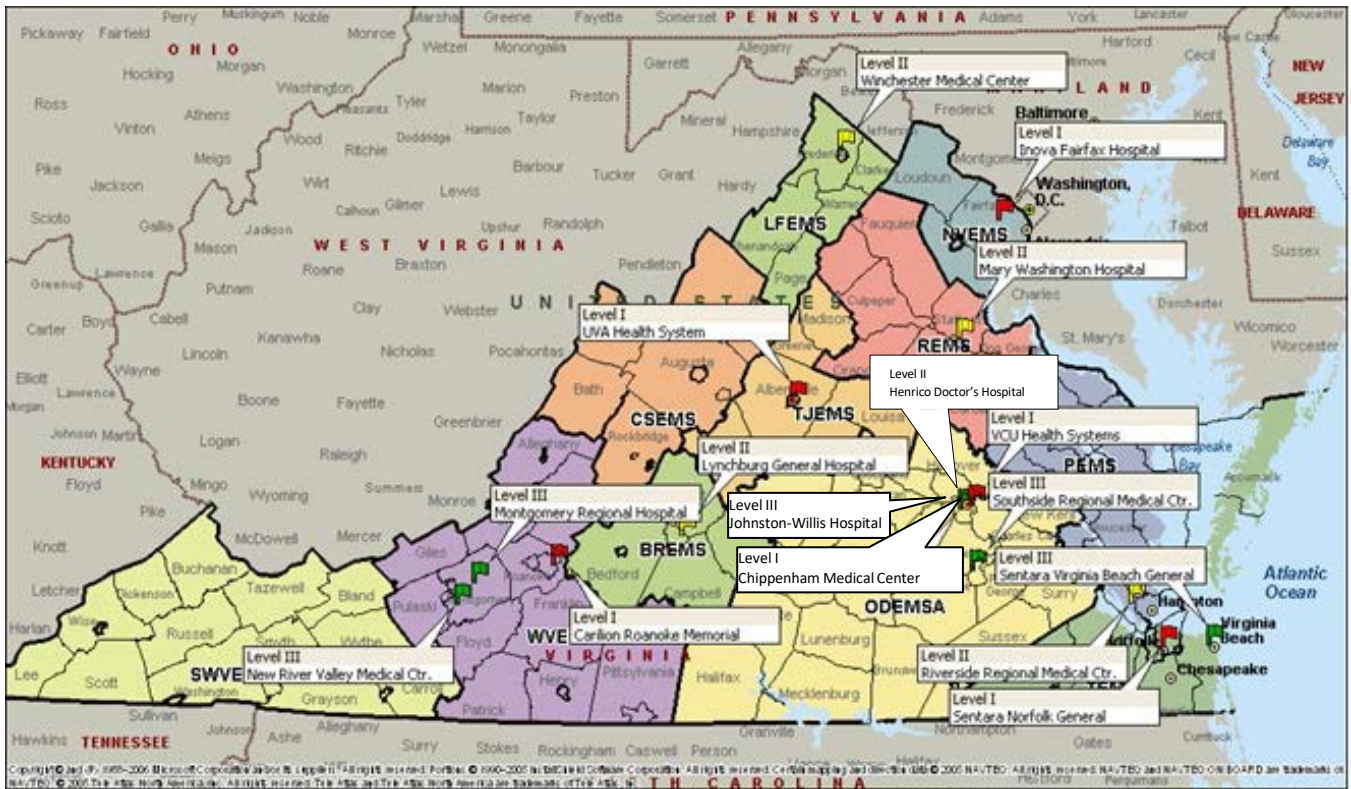
The committee chair(s) shall ensure the confidentiality of patient information, in accordance with §32.1-116.1 (See Appendix F).

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 B – Trauma Center Map and Definitions



Trauma Center Designations Defined

Level I

Level I trauma centers have an organized trauma response and are required to provide total care for every aspect of injury, from prevention through rehabilitation. These facilities must have adequate depth of resources and personnel with the capability of providing leadership, education, research and system planning.

Level II

Level II trauma centers have an organized trauma response and are also expected to provide initial definitive care, regardless of the severity of injury. The specialty requirements may be fulfilled by on call staffs that are promptly available to the patient. Due to some limited resources, Level II centers may have to transfer injuries that are more complex to a Level I center. Level II centers should also take on responsibility for education and system leadership within their region.

Level III

Level III centers, through an organized trauma response, can provide prompt assessment, resuscitation, stabilization, emergency operations and also arrange for the transfer of the patient to a facility that can provide definitive trauma care. Level III centers should also take on responsibility for education and system leadership within their region.

Appendix C - Trauma Centers in Virginia

Level 1 Trauma Centers

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

Level 2 Trauma Centers

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

Level 3 Trauma Centers

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

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

Services Advisory Board may revise such criteria from time to time

3. Consulting with and reviewing, with agencies and organizations, the development of analyses of data on patient outcomes. Such criteria shall be used as a guide and resource for health care providers and are not intended to establish, in and of themselves, standards of care or to abrogate the requirements of § 8.01-581.20. A decision by a health care provider to deviate from the criteria shall not constitute negligence per se.
4. A program for monitoring the quality of care, consistent with other components of the Emergency Medical Services Plan. The program shall provide for collection and analysis of data on emergency medical and trauma services from existing validated sources, including but not limited to the emergency medical services patient care information system, pursuant to Article 3.1 (§ 32.1-116.1 et seq.) of this chapter, the Patient Level Data System, and mortality data. The Emergency Medical Services Advisory Board shall review and analyze such data on a quarterly basis and report its findings to the Commissioner. The first such report shall be for the quarter beginning on July 1, 1999. The Advisory Board may execute these duties through a committee composed of persons having expertise in critical care issues and representatives of emergency medical services providers. The program for monitoring and reporting the results of emergency medical and trauma services data analysis shall be the sole means of encouraging and promoting compliance with the trauma triage criteria. The Commissioner shall report aggregate findings of the analysis annually to each Regional Emergency Medical Services Council, with the first such report representing data submitted for the quarter beginning July 1, 1999, through the quarter ending June 30, 2000. The report shall be available to the public and shall identify, minimally, as defined in the statewide plan, the frequency of (i) incorrect triage in comparison to the total number of trauma patients delivered to a hospital prior to pronouncement of death and (ii) incorrect interfacility transfer for each region. The Advisory Board shall ensure that each hospital or emergency medical services director is informed of any incorrect interfacility transfer or triage, as defined in the statewide plan, specific to the provider and shall give the provider an opportunity to correct any facts on which such determination is based, if the provider asserts that such facts are inaccurate. The findings of the report shall be used to improve the Trauma Triage Plan, including triage, and transport and trauma center designation criteria. The Commissioner shall ensure the confidentiality of patient information, in accordance with § 32.1-116.2. Such data or information in the possession of or transmitted to the Commissioner, the Advisory Board, or any committee acting on behalf of the Advisory Board, any hospital or prehospital care provider, or any other person shall be privileged and shall not be disclosed or obtained by legal discovery proceedings, unless a circuit court, after a hearing and for good cause shown arising from extraordinary circumstances, orders disclosure of such data.

§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

safely, operate efficiently, and protect the public during incident scene operations. The term “incident command system” (ICS) is also used.

NHTSA – National Highway Traffic Safety Administration, part of the Department of Transportation. It is responsible for reducing deaths, injuries and economic losses resulting from motor vehicle crashes.

NRA – National Rifle Association, an association incorporated in 1871 to provide firearms training and encourage interest in the shooting sports.

OEMS – Office of Emergency Medical Services, an agency of the Virginia Department of Health (VDH) that regulates emergency medical services in Virginia.

Off-Line Medical Control – The establishment and monitoring of all medical components of an EMS system, including protocols, standing orders, education programs, and the quality and delivery of direct medical control.

On-Line Medical Control – Immediate medical direction to prehospital personnel in remote locations provided by a physician or an authorized communications resource person under the direction of a physician.

PALS – Pediatric Advanced Life Support, a course developed and sponsored by the American Heart Association and the American Academy of Pediatrics, for healthcare workers covering the application of advanced life support therapies to pediatric patients.

PEMSTP – Pediatric Emergency Medical Services Training Program, a five-day course taught to prehospital providers by the Children’s National Medical Center.

PHTLS – Prehospital Trauma Life Support – A verification course for prehospital care providers that teaches concepts of basic and advanced trauma life support. It is developed and sponsored by the National Association of Emergency Medical Technicians in cooperation with the American College of Surgeons Committee on Trauma.

Protocols – Standards for EMS practice in a variety of situations within the EMS system.

Performance Improvement – A method of evaluating and improving processes of patient care which emphasizes a multidisciplinary approach to problem solving, and focuses not on individuals, but systems of patient care which might be the cause of variations.

Quality Management – A broad term that encompasses both quality assurance and quality improvement, describing a program of evaluating the quality of care using a variety of methodologies and techniques.

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

incorrect identification of patients as having minor injuries when retrospective analysis indicates severe injuries.

VDOT – Virginia Department of Transportation – Is responsible for building, maintaining and operating the state’s roads, bridges and tunnels. Through the Commonwealth Transportation Board, it also provides funding for airports, seaports, rail and public transportation.

9-1-1 – A three-digit telephone number to facilitate the reporting of an incident or situation requiring response by a public safety agency.

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