

Physician's Guide To Helicopter EMS Use in Virginia

Objectives

- Describe the air medical system (Medevac) in a manner relevant for physicians.
- Elucidate Virginia specific data concerning Medevac utilization in the Commonwealth.
- Define utilization guidelines for Medevac services.
- Identify the coverage of Medevac services in the Commonwealth of Virginia.
- Explain access to Medevac services for all patients.
- Define Medevac response in the event of a Mass Casualty Incident (MCI).

Medevac Defined

In Virginia, we commonly use the term “Medevac” when referring to our air medical evacuation system and/or licensed EMS agencies that provide air medical services. The terms air medical services (AMS), helicopter emergency medical services (HEMS), and other terms are commonly used by other states and national organizations to describe their systems or agencies.

Medevac Defined

In the majority of cases, Medevac refers to EMS agencies operating helicopters, or “rotor-wing” aircraft, performing patient transports from the field to hospitals or directly from hospital to hospital.

Traditional airplanes, “fixed-wing” aircraft, may also be used for longer distance patient transports and are obviously restricted to operations between airfields or airports.

Medevac Programs

- Medevac programs can be generally divided into three categories:
 - Hospital based
 - Commercial
 - Public service

Medevac Programs

- Hospital based programs
 - Historically, helicopter EMS services began as hospital based services, generally based at large, tertiary care hospitals or health care systems
 - Hospital based services are generally staffed by medical crews from the sponsoring hospital, while the flight services are provided by a contracted operator
 - Hospital based Medevac services frequently function as a component of a comprehensive patient transport program that might include ground transport and specialty (e.g. neonatal) transport services

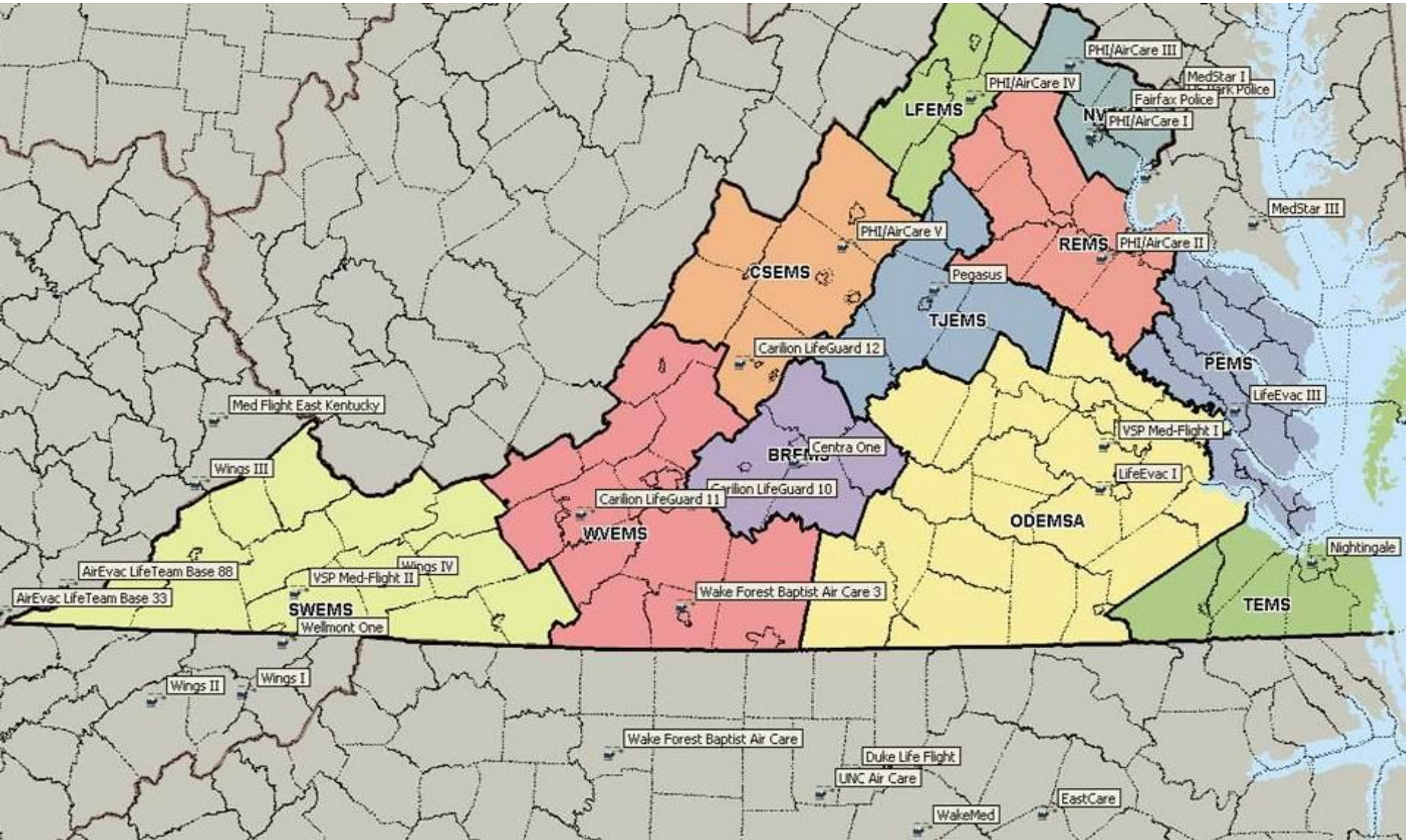
Medevac Programs

- Commercial
 - Over the past decade, many commercial programs have been established that provide Medevac services without being based at or affiliated with a specific hospital or health care system
 - Commercial programs are generally staffed, both medical and flight crew, and operated by a parent company that may operate Medevac programs at many sites
 - Commercial programs are frequently based at airports or other non-hospital bases

Medevac Programs

- Public service
 - Public service programs are generally operated by agencies of local, state, or federal government and frequently fulfill multiple roles such as EMS, law enforcement, and search and rescue
 - Medical staff may be provided by the operating agency, or provided cooperatively by local EMS agencies
 - Generally public service agencies participate in pre-hospital responses and less frequently in inter-facility transports

Medevac Resources Serving Virginia



Utilization of Medevac Services

- Whether considering field-to-hospital or hospital-to-hospital transfers, the first step in effective utilization of Medevac services is to have a working relationship with the Medevac agencies providing services in a specific area
- All Medevac services have outreach programs and can provide specific in-service training to EMS agencies, EMS providers, hospital staff, and physicians regarding the scope of their services and safe and effective interactions with aircraft and crews

Utilization of Medevac Services

- Areas for coordination with Medevac services include:
 - Communication requirements including requests for transports and in-flight communications
 - Landing zone and safety requirements
 - Scope of practice and resources of the Medevac service
 - Specific patient care issues such as medication protocols, IV pumps, monitors, and ventilators

Utilization of Medevac Services

- Physicians and hospital staff should be familiar with the availability of local ground transport services, their scope of care and resources.

Utilization of Medevac Services

- When considering the use of Medevac services, physicians should consider several factors in making their decision:
 - Is there a critical need for the timeliness of transfer that a helicopter might offer?
 - It is important to remember that the time required to effect a Medevac transfer can be significantly longer than the flight time alone between the transferring and receiving facilities.

Utilization of Medevac Services

- Does the Medevac crew provide a level of care that cannot be provided by other local resources?
 - Medevac services typically offer a flight crew experienced in the management of critically ill and injured patients during transports from the scene of illness or injury as well as between hospitals.
 - Medevac services may also offer technology not available to other local transport services, such as intra-aortic balloon pumps.

Utilization of Medevac Services

- The decision regarding the transport of a patient should be an informed decision considering a number of factors.
- Physicians utilizing Medevac services should be aware that there is an increased risk of mishap during transport, and a significant increase in cost of a Medevac transport compared to a ground transport.

Utilization of Medevac Services

- **Hospital-to-hospital transfers**

- Physicians should be familiar with the hospitals and services that they most frequently refer to; again, those services can provide information that can help make transfers as smooth as possible

Utilization of Medevac Services

- **Hospital-to-hospital transfers**

- Although most hospital to hospital transports occur to and from the emergency department, many are from inpatient units (e.g. intensive care units, newborn nurseries, cardiac catheterization labs), requiring familiarity with the process involved of all physicians who might initiate Medevac transfers
- In some hospitals, requests for Medevac services are coordinated through a specific group of staff familiar with the procedure, such as the emergency department

Utilization of Medevac Services

- **Hospital-to-hospital transfers**

- It is important for the transferring physician to remember that activation of a Medevac resource is independent from the physician-to-physician communication and receiving physician acceptance of a transferred patient dictated both by accepted patient care practices and regulations (e.g. EMTALA).
- Although the initial request for activation of a program may be, and frequently is, delegated by the physician to hospital staff, the transferring physician must participate in transfer arrangements.
- Transporting Medevac units can not complete the transfer until they are notified that a specific physician has accepted the patient and that there is an accepting unit for the patient to be transferred to, unless a prior agreement or process has been established with the receiving facility.

Utilization of Medevac Services

- EMS physicians should work with their EMS agencies, dispatch centers, and providers to develop guidelines for the request of Medevac services
 - Requests should take into account the need for an increased level of care or a specific skill set offered by the Medevac crew, as well as potential time benefits offered by Medevac transport in time-critical illness or injury

Utilization of Medevac Services

- Ideally, a protocol would be developed for pre-hospital providers to request Medevac services through their dispatch center that would ensure an organized and streamlined approach to requesting services from the closest available Medevac service.

Non-hospital Medevac Activation Algorithm

1. First providers notify local EMS (via 911), EMS responds.
2. EMS Dispatch notifies HEMS Dispatch
3. Closest appropriate Helicopter is launched
4. Helicopter contacts Ground EMS (Obtains Landing Zone [LZ] brief)
5. Safe landing
6. Patient contact/assessment/treatment
7. Transport to closest appropriate hospital

Hospital Medevac Activation Algorithm

1. Hospital notifies HEMS Dispatch
2. HEMS Dispatch notifies appropriate Helicopter
3. Helicopter contacts Hospital
(Obtains LZ brief)
4. Safe landing
5. Patient contact/assessment/treatment
6. Transport to receiving hospital

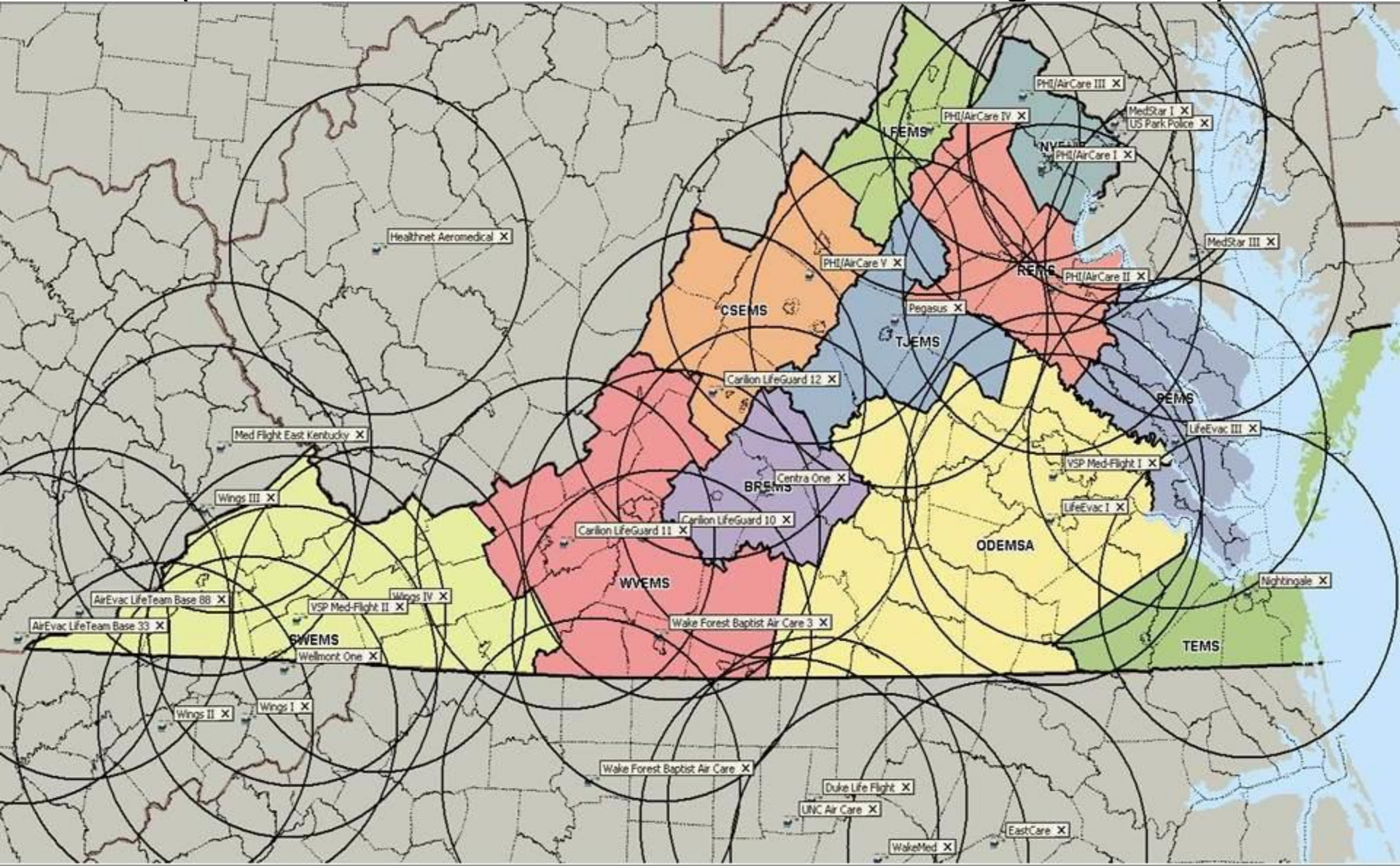
Hospital Landing Pad Rendezvous

- In some cases, Medevac programs have used hospital landing pads to effect transfer of a patient from a ground EMS unit to a Medevac aircraft.
 - The federal government has rendered an opinion that if the landing pad is being used solely to effect transfer of the patient between the EMS unit and the aircraft, then the presence of the EMS unit and patient on hospital grounds does not incur an EMTALA obligation for a screening examination and stabilization.

Virginia Commonwealth Medevac Coverage

Virginia Medevac Service Map

(50 Mile Radius – 20-25 Minute Flight Time)



Access to Medevac Service

- HEMS agencies will transport patients regardless of:
 - State of residency
 - Insurance status (patient may be responsible for all or part of bill depending upon insurance coverage)
 - Citizenship

Medevac Response to Mass Casualty Incidents (MCI)

MedEvac Disaster Response Planning

- Listed in EMS surge planning template & toolbox for mass casualty incidents (MCI) in Virginia.
- All regional MCI plans include medevac response (revised and updated yearly).

Disaster Coordination

- Virginia “Helicopter EMS”
 - Web-based module within WebEOC (<https://www.vhha-mci.org/index.cfm>) in the Virginia VHHA Emergency Website.
 - Provides Regional Hospital Coordinating Centers, VDH, and other Emergency Management Officials with an instant update of current available Medevac resources.

“Helicopter Shopping”

- Refers to the practice of calling, in sequence, various HEMS operators until an operator agrees to accept a flight assignment, without sharing with subsequent operators the reason(s) the flight was declined by the previously called operator(s).¹
- This practice can lead to an unsafe condition in which an HEMS operator initiates a flight.

1 – FAA Letter on Helicopter Shopping

Acknowledgements

This presentation was developed with the cooperation of the Virginia Department of Health's Office of EMS, and the Medevac Agencies in Virginia.

Questions?

Virginia Office of EMS Contacts:

George Lindbeck, MD
State EMS Medical Director

George.Lindbeck@vdh.virginia.gov

804.888.9112

Timothy J. Perkins, BS, EMT-P
EMS Systems Planner

tim.perkins@vdh.virginia.gov

804.888.9100/800.523.6219 (Toll-free)

<http://www.vdh.virginia.gov/emergency-medical-services/other-ems-programs-and-links/medevac-system/>

Resources/Reference Materials

Pre-designated Landing Zone (LZ)

- Pre-designated LZ – A location that has been approved by local EMS and HEMS as a safe location for helicopter landings.
 - These locations are reviewed periodically by designating agencies.
 - Identified Hazards and Coordinates are preset in dispatch information.
 - For medevac, hospital helipads are the most common form of pre-designated landing zones.
 - Other LZs may include areas large enough to accommodate a safe landing, ie. parking lots, ball fields, secure roads.

Medevac Dispatch Centers

- **LifeEvac** **1-877-902-7779**
 - VCU Health System/LifeEvac 1 (Dinwiddie)
 - LifeEvac 3 (West Point)
- **VSP Med Flight 1 (Chesterfield)** **1-800-468-8892**
- **VSP Med Flight 2 (Abingdon)** **1-800-433-1028**
- **Sentara Nightingale (Norfolk)** **1-800-572-4354**
- **UVA-Pegasus (Charlottesville)** **1-800-552-1826**
- **PHI AirCare** **1-800-258-8181**
 - PHI AirCare 1 (Manassas)
 - PHI AirCare 2 (Fredericksburg)
 - PHI AirCare 3 (Leesburg)
 - PHI AirCare 4 (Winchester)
 - PHI AirCare 5 (Weyers Cave)
- **Carilion Clinic** **1-888-377-7628**
 - Life-Guard 10 (Westlake)
 - Life-Guard 11 (Radford)
 - Life-Guard 12 (Lexington)
- **Fairfax Police (Fairfax)** **1-703-691-2131**
- **Centra One (Lynchburg)** **1-800-258-8181**
- **Wings Air Rescue (Marion)** **1-800-WINGS-01**

Medevac Dispatch Centers

- **MedSTAR (Washington D.C)** 1-800-824-6814
- **U.S. Park Police (Washington, DC)** 1-202-690-0808
- **Maryland State Police (Maryland)** 1-410-783-7525
- **East Care (Pitt County, NC)** 1-252-847-5285
- **Duke (Durham, Burlington, NC)** 1-800-362-5433
- **WellmontOne (Bristol, TN)** 1-866-884-3117
- **Wake Forest Air Care (Elkin, NC)** 1-800-336-6224

Utilization Guidelines/Launch Criteria

- **Several national organizations have developed position papers to further address the allocation and utilization of air medical services:**
 - www.ampa.org
 - www.aams.org
 - www.naemsp.org
- **Virginia Office of Emergency Medical Services (OEMS)**
 - **Statewide Trauma Triage Plan**
 - <http://www.vdh.virginia.gov/content/uploads/sites/23/2016/06/StatewideTraumaTriagePlan-1.pdf>
 - No specific state guidelines for medical scene responses