PRE-HOSPITAL PATIENT CARE PROTOCOL

REFERENCE SECTION

Section V

Rappahannock EMS Council
250 Executive Center Parkway
Fredericksburg, VA 22401

BASIC LIFE SUPPORT/ADVANCED LIFE SUPPORT
ADMINISTRATIVE PATIENT CARE PROTOCOL

REVISED 6/07, 12/09, 6/11, 12/15, 10/17, 05/19, 07/22, 01/23
BOARD APPROVED 06/07; 06/11; 12/15; 10/17, 06/19

Trauma Designation

All licensed hospitals are required by the *Code of Virginia* to submit data on their trauma cases to the Virginia Statewide Trauma Registry. Of those 94 licensed hospitals, 14 have been designated as a trauma center.

Level I Trauma Centers	***Level II Trauma Centers***	***Level III Trauma Centers***
Carillion Roanoke Memorial Hospital	Lynchburg General Hospital	Carilion New River Valley Medical Center
Inova Fairfax Hospital	Riverside Regional Medical Center	CJW Medical Center, Chippenham Campus
Sentara Norfolk General Hospital	Winchester Medical Center	Montgomery Regional Hospital
UVA Health System	Mary Washington Hospital	Sentara Virginia Beach General Hospital
VCU Health Systems		Southside Regional Medical Center

Level I

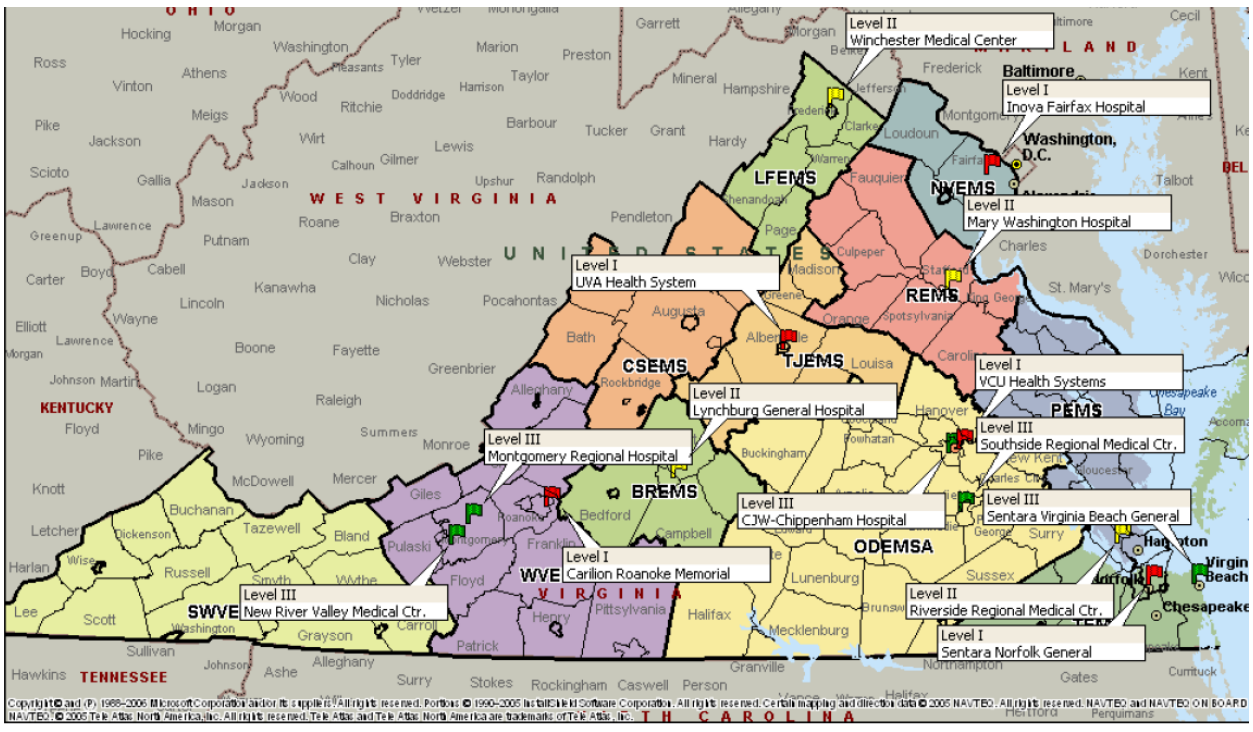
Level I trauma centers have an organized trauma response and are required to provide total care for every aspect of injury, from prevention through rehabilitation. These facilities must have adequate depth of resources and personnel with the capability of providing leadership, education, research, and 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 staff, that are promptly available to the patient. Due to limited resources, Level II centers may have to transfer more complex injuries to a Level I center. Level II centers should also take on responsibility for education and system leadership within their region.

Level III

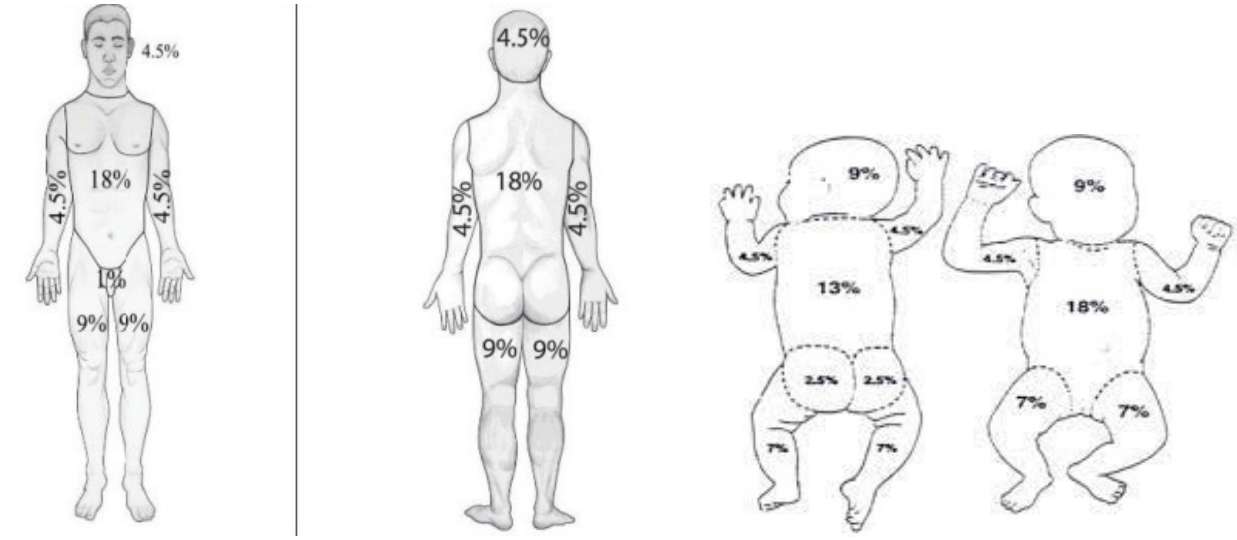
Level III trauma centers, through an organized trauma response, can provide prompt assessment, resuscitation, stabilization, emergency operations and also arrange for the transfer of the patient to a facility that can provide definitive trauma care. Level III centers should also take on responsibility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



Burn Classifications:

1. Critical Burns (**Burn Center Referral Criteria**)
    a. Partial-thickness and full-thickness >10% TBSA in patients under 10 or over 50 years
    b. Partial-thickness and full-thickness >20% TBSA in all other age groups
    c. Inhalation, significant chemical, or circumferential burns
    d. Any Third-degree (full-thickness) burns >5% in any age group
    e. Burns involving face, hands, feet, genitalia, perineum, or major joints
    f. Pediatric burns
2. Moderate Burns
    a. Full-thickness of <10% TBSA excluding face, hands, feet, genitalia, perineum, or major joints
    b. Partial-thickness of 15-30% TBSA *(less than 5 years: 10%-20% TBSA)*
    c. Superficial involving more than 50% TBSA
3. Minor Burns
    a. Full-thickness <2% TBSA excluding face, hands, feet, genitalia, perineum, or major joints.
    b. Partial-thickness burns <15% *(less than 5 years: less than 10%)*
    c. Superficial burns of less than 50%

First-degree burns (Superficial w/o blister formation) are not included in TBSA calculation



Rappahannock EMS Council
Protocol Reference

DESIGNATED STROKE CENTERS

The following hospitals have been designated as a Primary Stroke Center (or higher) as provided by the Virginia Stroke System Task Force web page:

Geographic Area	Hospital	Type of Stroke Center
Designated Stroke Centers within the REMS Region		
Fredericksburg	**Mary Washington Hospital**	Primary
Spotsylvania	**Spotsylvania Regional Medical Center**	Primary
Warrenton	**Fauquier Hospital**	Primary
Stroke Centers Outside the REMS Region Used by REMS Agencies		
Alexandria	**Inova Alexandria Hospital**	Thrombectomy Capable
	Inova Mount Vernon Hospital	Primary
Charlottesville	**Martha Jefferson Hospital**	Comprehensive
	University of Virginia Hospital	Comprehensive
Falls Church	**Inova Fairfax Hospital**	Comprehensive
Mechanicsville	**Bon Secours Regional Medical Center**	Primary
Richmond	**Augusta Medical Center**	Primary
	Bon Secours Richmond Community	Primary
	Bon Secours-St. Mary' Hospital	Comprehensive
	CJW Hospital	Comprehensive
	Henrico Doctor's Hospital	Thrombectomy Capable
	Johnston Willis Hospital	Primary
	Parham Doctors' Hospital	Primary
	Retreat Doctors' Hospital	Primary
	VCU Health Systems	Comprehensive
Winchester	**Winchester Medical Center**	Comprehensive
Woodbridge	**Sentara Northern VA Medical Center**	Primary

A current list of all Virginia Stroke Centers may be found on the Virginia Stroke System Task Force web page: http://www.vdh.virginia.gov/stroke/virginia-stroke-systems-task-force/

Rappahannock EMS Council Pre-Alert Procedures: General

Pre-Alerts at First Medical Contact (FMC[1]) for certain medical emergencies are critical to good patient care. It should occur immediately once the EMS provider determines the patient may be suffering from one of the conditions below. The pre-alert does not replace the standard patient report given enroute, but gives the ED physician and ED Staff enough information and time to activate the appropriate response teams, and look up patient's history, previous EKGs, previous care, etc., as appropriate.

REMS Pre-Alert Guidelines at First Medical Contact			
AMI	**Stroke**	**Serious Trauma**	**Sepsis**
12L EKG taken and transmitted to ED[2]	BEFAST/VAN Stroke Test Conducted	ITLS/PHTLS Assessment indicative of Load and Go Patient	SIRS + suspected infection and/or measured Lactate levels are >4 mmol/L
Initial pre-alert is given at FMC, and consists of the following:			
Time of Symptom Onset	Last Known Well Time	Mechanism of injury[3]	Presentation indicative of sepsis[4]
Age of Patient	Age of Patient	Age of Patient	Age of Patient
Signs and Symptoms	Signs and Symptoms	Signs and Symptoms	Signs and Symptoms
12L EKG interpretation (device or provider)	Results of BEFAST/VAN Stroke Test	GCS + vital signs (if available)	Lactate levels & temperature (if available), and BP
Name of Patient[5] and other pertinent information[6]	Name of Patient[5] and other pertinent information[6]	N/A	N/A
The standard, follow-on HEAR report is given en route.			

[1] FMC = First Medical Contact; in this context, first contact by EMS.

[2] If the 12L EKG cannot be transmitted by EMS or received by the hospital, trained ALS provider interpretation is sufficient to activate the AMI/STEMI response per AHA STEMI Guidelines.

[3] The ED may not have enough information during a pre-alert to initiate a trauma activation; that data may come during the normal HEAR report after a rapid trauma or head-to-toe assessment has been accomplished. Some scenarios may initiate an ED trauma alert during the EMS pre-alert without a complete assessment: gunshot to the chest, flail chest, ejection from a vehicle, multi-system trauma, unconscious, etc.

[4] Systemic Inflammatory Response Syndrome (SIRS) is the body's response to an infection and consists of 4 findings …

[5] HIPAA permits the use of a patients name over an unencrypted radio if needed for patient care.

[6] Other pertinent information includes terminal illness, hospice, blood thinner status, etc. (2022-07)

Standard Medication Infusions

Amiodarone:

VT with a Pulse: Mix 150 mg in 250 ml of D5W
- Administer over 10 minutes
- Using a macrodrip (10 gtts/ml): Run at 250 gtts/min

Post arrest infusion: Mix 250 mg in 250 ml of D5W
- Administer 1 mg/min
- Using a microdrip (60 gtts/ml): Run at 60 gtts/min
- Using a macrodrip set (10 gtts/ml): Run at 10 gtts/min

Pediatric: Mix desired dose (5 mg/kg) in 100 ml of D5W
- Using a microdrip (60 gtts/min): Run at 120 gtts/min
- Using a macrodrip set (10 gtts/ml): Run at 20 gtts/min

Dopamine: Mix 400 mg in 250 ml of D5W
OR Mix 1600 mg in 1000 ml; the concentration is 1600mcg/ml
- Using a microdrip (60 gtts /ml) – 1600 mcg / 60 gtts
  - 60 gtts/min (1 drop every second) = 1600 mcg / min
  - 45 gtts /min (1 drop every 1.5 seconds) = 1200 mcg / min
  - 30 gtts /min (1 drop every 2 seconds) = 800 mcg / min
  - 15 gtts /min (1 drop every 4 second) = 400 mcg / min

Epinephrine: Mix 1 mg in 1L of Normal Saline or Lactated Ringers; the concentration is 1 mcg/ml

ADULT DOSING: 10 gtts/ml set	ADULT DOSING: 15 gtts/ml set
1 mcg/min = 10 gtts/min	1 mcg/min = 15 gtts/min
2 mcg/min = 20 gtts/min	2 mcg/min = 30 gtts/min
3 mcg/min = 30 gtts/min	3 mcg/min = 45 gtts/min
4 mcg/min = 40 gtts/min	4 mcg/min = 60 gtts/min
5 mcg/min = 50 gtts/min	5 mcg/min = 75 gtts/min
6 mcg/min = 60 gtts/min	6 mcg/min = 90 gtts/min
7 mcg/min = 70 gtts/min	7 mcg/min = 105 gtts/min
8 mcg/min = 80 gtts/min	8 mcg/min = 120 gtts/min
9 mcg/min = 90 gtts/min	9 mcg/min = 135 gtts/min
10 mcg/min = 100 gtts/min	10 mcg/min = 150 gtts/min

Magnesium Sulfate: Mix 2 – 4 g (desired dose) in 250 ml of D5W
2000 mg/250ml = 8 mg/ml = 200 mg/min (60 gtts set) wide open
3000 mg/250ml = 12 mg/ml = 300 mg/min (60 gtts set) wide open
4000 mg/250ml = 16 mg/ml = 400 mg/min (60 gtts set) wide open

Mass Casualty Incident – First Unit on Scene Checklist from MCI Plan

Mission/Tasks: First unit on scene gives visual size-up, assumes and announces command, and confirms incident location, then performs the 5 S's:

SAFETY assessment. Assess the scene observing for:

- □ Electrical hazards.
- □ Flammable liquids.
- □ Hazardous Materials
- □ Other life threatening situations.
- □ Be aware of the potential for secondary explosive devices.

SIZE UP the scene: How big and how bad is it? Survey incident scene for:

- □ Type and/or cause of incident.
- □ Approximate number of patients.
- □ Severity level of injuries (either Major or Minor).
- □ Area involved, including problems with scene access.

SEND information:

- □ **Contact dispatch with your size-up information and declare a Multiple or Mass Casualty Incident.**
- □ **Request additional resources.**
- □ **Notify the closest hospital / emergency department of the incident.**

SETUP the scene for management of the casualties:

- □ Establish staging.
- □ Identify access and egress routes.
- □ Identify adequate work areas for Triage, Treatment, and Transportation.

START (Simple **T**riage **A**nd **R**apid **T**reatment) and **JumpSTART** (for pediatric patients).

- □ Begin where you are.
- □ Ask anyone who can walk to move to a designated area.
- □ Use surveyor's tape to mark patients.
- □ Move quickly from patient to patient.
- □ Maintain patient count.
- □ Provide only minimal treatment.
- □ Keep moving!
- □ **Remember…**Establish COMMAND, **S**AFETY, **S**URVEY, **S**END, **S**ET-UP AND **S**TART/JumpSTART

REMS Hospital Diversion Policy for Emergency Patients

A. PURPOSE: To maintain an orderly, systematic and appropriate distribution of emergency patients transported by ambulances during a single or multiple hospital diversion situation within the Rappahannock EMS Council region.

B. SCOPE: This policy pertains to all 6 acute care hospitals and all licensed EMS agencies providing ground ambulance transportation as defined in Virginia Department of Health regulations.

C. POLICY ELEMENTS:

1. **INDICATIONS:** Acute care hospitals (those with emergency departments) occasionally become overwhelmed with patients, exceeding the capacity for the medical staff to adequately treat and monitor those patients. To alleviate this temporary situation, a receiving hospital – after completing an established process, may declare a diversion of acute patients, whereby ambulances are diverted to other area hospitals.

   Ambulance diversion should occur only after the hospital has exhausted internal mechanisms to relieve the situation. When a hospital declares a diversion online medical control will recommend to the EMS ambulance crew to transport the patient to another hospital. A representative of the hospital will contact VHHA (Virginia Hospital and Healthcare Assoc.) and request a period of diversion.

2. **CONTRAINDICATIONS:** Patients with airway obstruction, uncontrollable airway, uncontrollable bleeding, who are in extremis, or with CPR in progress should immediately be taken to the closest appropriate hospital, without regard to the hospital's diversion status.

3. **DIVERSION OVERRULE:** Pre-hospital EMS providers may overrule diversion if a patient is in extremis, or significant weather/traffic delays, mechanical problems, etc. An EMS provider who believes an acute decompensation is likely to occur if the patient is diverted to a more distant hospital ***always*** has the option to take that patient to the closest Emergency Department regardless of the diversion status.

4. **CONSIDERATIONS:** When there are questions about hospital destination in and out of hospital situations, the pre-hospital attendant-in-charge should contact the local hospital as early as possible by radio or phone for destination guidance.

CATEGORIES OF HOSPITAL STATUS	
Open	When a hospital has a full capacity for receiving its usual patient load.
Special Diversion	When a hospital is unable to handle certain types of patient.
Closed	When the hospital is unable to accept patients due to closure of business operations or experiencing events dangerous to life safety. The Emergency Department is closed to all EMS traffic except those noted in the Contraindications.

HOSPITAL SECTOR	
Culpeper Sector	UVA Culpeper Hospital
Fauquier Sector	Fauquier Hospital
Fredericksburg Sector	Mary Washington Hospital (**Level II Trauma Center**)
Spotsylvania Sector	Mary Washington Free Standing ED- Lee's Hill Spotsylvania Regional Medical Center
Stafford Sector	Stafford Hospital

Regional EMS Chempack Activation

The Centers for Disease Control and Prevention (CDC) has partnered with the Virginia Department of Health (VDH) and local agencies to place nerve agent antidotes in various facilities throughout Virginia.

Each CHEMPACK container weighs about 700 pounds. Individual boxes may be removed from the container and transported to the field or to another hospital. Pharmaceuticals found in the container include Atropine, Pralidoxime, Diazepam, Atropen and Mark-1 Nerve Agent Antidote Kits. Medications distributed to the EMS field are provided as auto-injectors.

When to Use Regional Chempack

[] An event in Rappahannock EMS region involving a suspected or confirmed nerve agent and normally available supplies are of insufficient quantity to provide treatment

[] Field or Hospital Competent Authority recognizes need for additional Resources

Competent Authority is defined as:
Incident Commander, EMS Operations Officer, Hazardous Materials Officer, Hospital ED Senior Physician or Nursing Supervisor, District Health Director, VDH Local Chempack Coordinator, VA State Health Commissioner

YES →

Competent Authority makes request to Mary Washington Hospital ED by HEAR radio or phone (540) 373-0348

Provide MWH ED the Following Information

[] Caller / Competent Authority's Name

[] Caller Contact Phone Number

[] Type of Incident / Number of Casualties

[] Chempack Delivery Location / Physical Address of Incident

[] Receiving Agency Name / Point of Contact on Scene

[] Radio channel and phone number of Fire/EMS agent on scene to use for ongoing communications during the event

← Hospital will complete Chempack Deployment Intake form and activate deployment procedures with Chempack Delivery Agency

Prepare to Receive Chempack from Delivery Agency

[] Delivery agency will contact incident scene enroute

[] Documentation of Transfer of Chempack Contents / Diazepam Custody required to be signed by receiving agency (Chempack Controlled Substance Transfer Form)

[] Follow your regional or agency patient treatment protocols for administration

[] Field Incident Commander should notify the RHCC of incident and Chempack use. RHCC will support field transport destination decisions for NVHA Hospitals

→ Unused Chempack Medications and Completed Chempack Controlled Substance Transfer form returned to Regional VDH Chempack Coordinator (on scene or call 1-866-531-