Virginia Department of Health

Office of Emergency Medical Services

Quarterly Report to the

State EMS Advisory Board

Friday, May 10, 2013

Executive Management, Administration & Finance

Office of Emergency Medical Services
Report to The
State EMS Advisory Board
May 10, 2013

MISSION STATEMENT:

To reduce death and disability resulting from sudden or serious injury and illness in the Commonwealth through planning and development of a comprehensive, coordinated statewide emergency medical services (EMS) system; and provision of other technical assistance and support to enable the EMS community to provide the highest quality emergency medical care possible to those in need.

I. Executive Management, Administration & Finance

a) Action Items before the State EMS Advisory for February 15, 2013

Action Items in the OEMS Quarterly Report to the State EMS Advisory Board for May 10, 2013.

1. To adopt the revised Procedures and Formulary grids using evidence-based best practice medicine to enhance prehospital care in Virginia – **Appendix A.**

2. Approval of White Paper for Seatbelt Use in Ambulances – **Appendix B.**

3. Re-designation of Regional EMS Councils per Section 32.1-111.11 of the Code of Virginia – **Appendix C.**

b) EMS Legislation, Studies and Budget Amendments: Summary of 2013 Virginia General Assembly

- **HB1856 work assignments approved by the State EMS Advisory Board on February 15, 2013:**

  Training Disparities, Delivery and Availability of Training
  Assigned to the Training and Certification Committee - Larry Oliver, Chair
  Professional Development Coordinator – Larry Oliver
  OEMS Staff – Warren Short

BLS Template
Assigned to Guidelines Workgroup of Medical Direction – George Lindbeck, M.D., Chair
Patient Care Coordinator – Allen Yee, M.D.
OEMS Staff – Warren Short

OMD Appeals Process
Assigned to Medical Direction Committee – Marilyn McLeod, M.D., Chair
Assigned to Rules and Regulations Committee – Gary Samuels, Chair
Patient Care Coordinator – Allen Yee, M.D.
Administrative Coordinator – Gary Samuels
OEMS Staff – Mike Berg and Warren Short

- **The following OEMS staff are responsible for the following requirements:**

Funding Provided to Trauma Centers – Appropriation Act, Item 290D
Assigned to Paul Sharpe, OEMS Trauma and Critical Care Division Manager

Criminal History Checks of EMS Personnel – HB1383 and SB1288
Assigned to Mike Berg, OEMS Regulations and Compliance Division Manager

Recertification of EMS Providers – HB1622 and SB790
Assigned to Warren Short, OEMS Educational Development Division Manager

Changes to VAVRS Financial Report – HB2315
Assigned to Dennis Molnar, OEMS Administration and Finance Division Manager

- **VDH Studies/Reports 2013**

Topic: 1) Implement a process by which EMS provider who has received an adverse decision by an agency operational medical director shall be informed of the appeals process 2) Implement a standard operating procedure template to be used in the development of local protocols for EMS personnel. 3) Review of the training for EMS personnel to identify and address disparities in the delivery and availability of training. Report on progress to the GA.

Date Due to Commissioner: 10/16/13
Date Due to Secretary: 11/1/13
Date Due to GA: Due to HWI and Education and Health by 12/1/13
Requirement/Authority: HB1856 of 2013

Topic: The Commissioner of Health shall review current funding provided to trauma centers to offset uncompensated care losses, report on feasible long-term financing mechanisms, and examine and identify potential funding sources on the federal, state

and local level that may be available to Virginia's trauma centers to support the system's capacity to provide quality trauma services to Virginia citizens.

Date Due to Commissioner: 08/15/13
Date Due to Secretary: 08/30/13
Date Due to GA: Due to HWI and Education and Health by 10/1/13
Requirement/Authority: 2012 Appropriation Act, Item 290D

- **VDH Implementation of Legislation Enacted by 2013 General Assembly**

Bill Number: HB1383/SB1288
Description: Criminal history checks of emergency medical services personnel
VDH Actions Required: Develop process and implementation plan to require each person who applies to be a volunteer with or employee of an EMS agency to EMS agency to submit fingerprints and provide personal descriptive information to be forwarded to the FBI for the purpose of obtaining criminal history record information.
Milestones/Deadlines: Develop process and implementation plan by 5/31/13.
Implementation effective: 7/1/13.

Bill Number: HB1622/SB790
Description: Recertification of emergency medical services providers
VDH Actions Required: Revise policies/procedures and regulations for the recertification of EMS providers.
Milestones/Deadlines: Revise policies and procedures by and submit regulatory changes to OCOM by 5/31/13.

Bill Number: HB2315
Description: Changes to the Virginia Association of Volunteer Rescue Squads annual financial report to the OEMS Advisory Board
VDH Actions Required: Change the policies and procedures as necessary and appropriate to ensure implementation.
Milestones/Deadlines: Revise policies and procedures by 5/31/13.

- **Approved Budget Amendments**

Budget Amendment Item 290 #1c

Language:

Page 251, after line 50, insert:

"G. Out of this appropriation, up to $400,000 the second year from the Virginia Rescue Squad Assistance Fund shall be used for grants to emergency medical services organizations to purchase 12-lead electrocardiograph monitors."

Explanation:

(This amendment adds language to allocate up to $400,000 from existing revenues in the Virginia Rescue Squad Assistance Fund for grants to local emergency medical services (EMS) organizations to purchase 12-lead electrocardiograph (ECG) monitors for ambulances to identify a patient who is suffering from a severe and often fatal heart attack known as a ST-segment elevation myocardial infarction (STEMI). One out of four heart attacks is classified as a STEMI heart attack and less than half of the patients receive treatment within the recommended 90-minute window. The cost of this equipment, estimated at $20,000 to $30,000 per unit, makes it difficult for EMS providers to obtain.)

Budget Amendment Item 290 #2c

Language:

Page 251, after line 50, insert:

"G. Out of this appropriation, $90,000 the second year from the Virginia Rescue Squad Assistance Fund shall be provided for national background checks on persons applying to serve as a licensed provider in a licensed emergency medical services agency. The Office of Emergency Medical Services may transfer funding to the Office of State Police for national background checks as necessary."

Explanation:

(This amendment adds language to provide funding in the second year from the Virginia Rescue Squad Assistance Fund (VRSAF) to provide national background checks on persons applying for positions as a licensed provider in licensed emergency medical services agencies, contingent on the final passage of House Bill 1383/Senate Bill 1288. Language also allows the transfer of funding to the Office of State Police for background checks as necessary. Current law allows VRSAF revenue to pay for state-mandated background checks.)

Budget Amendment Item 297 #3c

Language:

Page 256, line 42, strike "$12,497,162" and insert "$13,497,162".
Page 259, line 25, after "year" insert "and $1,000,000 the second year".
Page 259, line 26, strike "two" and insert "three".
Page 259, line 26, after "Centers.", insert:

"The appropriation of general fund amounts the second year shall be divided between the three poison control centers in proportion to the Virginia population served by the centers."

Page 259, after line 31, and insert:

"3. The State Health Commissioner shall work with the poison control centers to ensure continued statewide coverage of poison control services through the existing centers."

Explanation:

(This amendment adds $1.0 million the second year from the general fund to restore funding to operate the current three poison control centers serving Virginia. Chapter 3, 2012, Special Session 1, Virginia Acts of Assembly provides $500,000 from the general fund in the first year only for the operation of two poison control centers instead of three. This additional funding will ensure continued support for statewide operation of poison control services for the Commonwealth. Language is added requiring the State Health Commissioner to ensure statewide coverage of poison control services through existing centers.)

c) Your Opinion Matters. Tell Us What You Think.

In order to assist the Office of EMS to provide the best customer service possible, an on-line feedback form has been created to capture comments from the public. This form will be an essential tool that will help OEMS continue providing excellent programs and customer service while allowing us to measure our successes and improve upon any weaknesses.
OEMS began collecting feedback in mid-February 2013. In the initial 45 days the form was available, approximately 30 individuals provided some degree of feedback. A majority of the individuals providing feedback about OEMS staff indicated the staff was courteous and helpful, the staff provided complete and accurate information, a timely response was provided, and their overall experience was positive. According to the respondents, the type of assistance requested was primarily related to EMS education, training and certification (52%), regulation and compliance (16%) and technical assistance (13%).

- **Your feedback is critical**

If there is ever a time you feel that the office fell short of your expectations, please describe the situation in detail, include the name(s) of the OEMS staff person(s) involved and the date of the occurrence.

- **Commend A Job Well Done or Recommend Improvements**

Please let us know when we've done a good job! This feedback form offers a great outlet to commend an OEMS staff member for their positive and exceptional service, or to provide recommendations for service-related improvements. Always remember to include the name of the person who provided you with assistance when leaving feedback.

While feedback may be left anonymously, please note that there's an additional feature which allows you to leave contact information for follow-up purposes. However, it is not required when submitting feedback.

The Office of EMS is interested in hearing what you think and we look forward to reviewing your input and suggestions.

You may submit your feedback by visiting the OEMS homepage at www.vdh.virginia.gov/oems, then scroll to the bottom of the page and click on the link that says *Customer Service Feedback Form*. The link can be found below the office's address and telephone numbers.
If you have questions about this feedback form or any customer-related issues, please contact Marian Hunter, Public Relations Coordinator at marian.hunter@vdh.virginia.gov or Scott Winston, Asst. Director, at scott.winston@vdh.virginia.gov or by telephone at 1-800-523-6019 (toll free in VA) or at 804-888-9100.

d) EMS Voluntary Event Notification Tool (E.V.E.N.T.) - Online EMS event notification system

Within EMS, very little data exists about many aspects of the profession. In an effort to address this shortfall, NAEMT, in collaboration with the Center for Leadership, Innovation and Research (CLIR) in EMS, developed an anonymous system for EMS practitioners to report near-miss and line of duty death (LODD) incidents by answering a series of questions in an online format. The system was originally introduced by NAEMT President Connie A. Meyer and Gary Wingrove of the Center for Leadership, Innovation and Research in EMS on March 1, 2011 at the opening ceremonies of EMS Today, the JEMS conference and exposition in Baltimore.

The purpose of the system is to collect and aggregate data that will then be analyzed and used in the development of EMS policies and procedures, and for use in training, educating and preventing similar events from occurring in the future. No individual responses will be shared or transmitted to other parties. These Near Miss and LODD Online Reporting Tools are available at www.emseventreport.org. Near Miss and LODD Online Reporting Tools, along with an already existing tool to report patient safety events, form the EMS Voluntary Event Notification Tool (E.V.E.N.T.).

The aggregated data collected will be provided to state EMS offices and the appropriate federal agencies with jurisdiction over EMS on a quarterly and annual basis. Timely aggregated reports submitted through a variety of venues will make E.V.E.N.T. a living mechanism for change. It is envisioned that one of the primary end users of this data will be those responsible for the development of EMS policies at the state and federal levels.

- **System 'connects the dots'**

"As healthcare providers, we need to be mindful of what is happening in the other sectors of health as change occurring for hospitals and clinics inevitably eventually makes its way to EMS," says Wingrove. He explains that the reporting of performance has gone beyond a few simple measures to now address both 'never events' and preventable readmissions. As other parts

of healthcare have evolved in their new environment, patient safety has hit the national spotlight. The E.V.E.N.T. system is structured now to not only address patient safety, but also practitioner safety. “We provide an opportunity for the EMS community to collectively learn about how and why the things we do, or the tools we work with, sometimes end with bad outcome,” he says. “We can use E.V.E.N.T. to aggregate data from the U.S. and Canada to spot trends, discover practices that are safe or risky, and periodically provide analysis back to the EMS community.”

Wingrove explains one of the ways it can be used: If a piece of equipment has a failure in more than one state or Canadian province, until now there has been no system to connect the dots. Each of the providers only knows that they had an issue, and no one knows there were really four events. Therefore, there is no way to alert a manufacturer of a product defect, or to alert the EMS community about changes in practice that may prevent failures altogether. This much-needed system should be able to change that.

- **Virginia OEMS urges EMS providers and agencies to support system**

Support of this online reporting tool by EMS organizations across the nation is key to its successful use. Urging the EMS community to embrace and use E.V.E.N.T., NAEMT asks local and state EMS organizations to become site partners for E.V.E.N.T. The Virginia Office of EMS was recently recognized as a site partner and is recognized by our logo posted on the E.V.E.N.T. site. A link to the E.V.E.N.T. site is currently posted on the OEMS Web site homepage at www.vdh.virginia.gov/oems and at http://www.vdh.virginia.gov/OEMS/EO/EMSSafety.htm. The link to the E.V.E.N.T. Web site will remain on the OEMS homepage for the next several months in order to encourage more widespread use of the system by EMS providers and agencies in Virginia. After that time, you will be able to find the link to the E.V.E.N.T. Web site on the “Provider Health and Safety” page of the OEMS Web site. EMS agencies that already have internal reporting processes are asked to also submit their events into E.V.E.N.T.

“Since EMS first began, data collection has not been our strong suit. This project allows us to start collecting information which will help reduce injuries and possibly save lives of those of us in the profession,” says Don Lundy, NAEMT President. “We have no idea how many 'near-misses' are not recorded and, later on, become a 'hit' – creating a devastating injury,” he says.

Visit the E.V.E.N.T. system at www.emseventreport.org.

e) Guide to Infection Prevention in Emergency Medical Services

The Office of EMS has distributed to all licensed EMS agencies a newly released guide and outstanding reference--*Guide to Infection Prevention in Emergency Medical Services* from the Association for Professionals in Infection Control and Epidemiology (APIC). The purpose of this guide is to provide Emergency Medical Services (EMS) system responders and their organizations with a practical resource to infection recognition and prevention in the EMS environment. This guide contains current information, recommendations, regulations, resources, program examples, and forms to utilize in the EMS system responder setting.

This document is also being posted to the OEMS web site. From the home page: http://www.vdh.virginia.gov/oems/ follow the links as listed:

1. Select Agency & Leadership Resources (Box in the middle of the home page between the two green banner markers. Second box on the left)

2. Select Regulation & Compliance

3. Select Compliance

4. Scroll down to "EMS Agency Materials"

5. Select "Guide to Infection Prevention in Emergency Medical Services – APIC Implementation Guide.

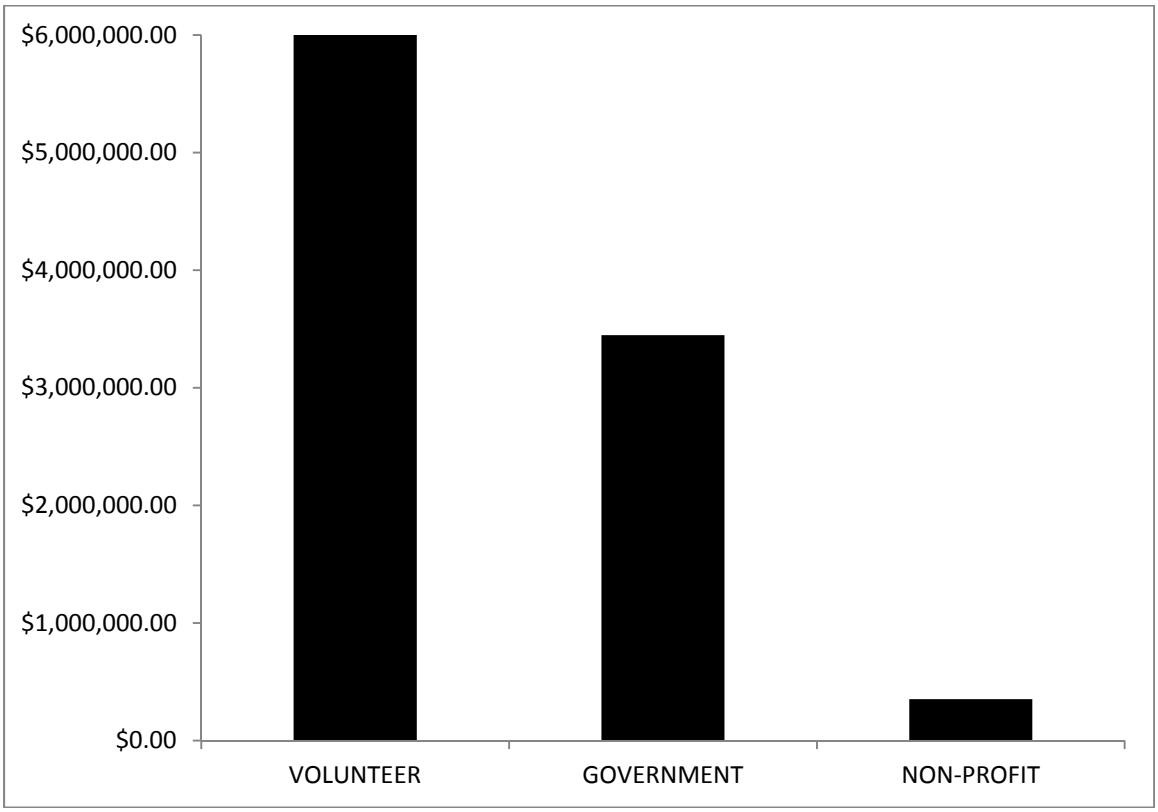
OEMS recommends that all agency members are made aware of this document and that the respective agency post it where all members can gain access. It was also recommended that this guide be shared with the agency OMD(s).

OEMS also encourages agencies contact an education coordinator as this would make a good continuing education program awarding category 1 for all levels. The respective Regional EMS Councils can also assist in locating education coordinators for the agency.

f) Financial Assistance for Emergency Medical Services (FAEMS) Grant Program, known as the Rescue Squad Assistance Fund (RSAF)

The RSAF grant deadline for the Spring 2013 grant cycle was March 14, 2013, OEMS received 140 grant applications requesting $9,810,049.00 in funding.

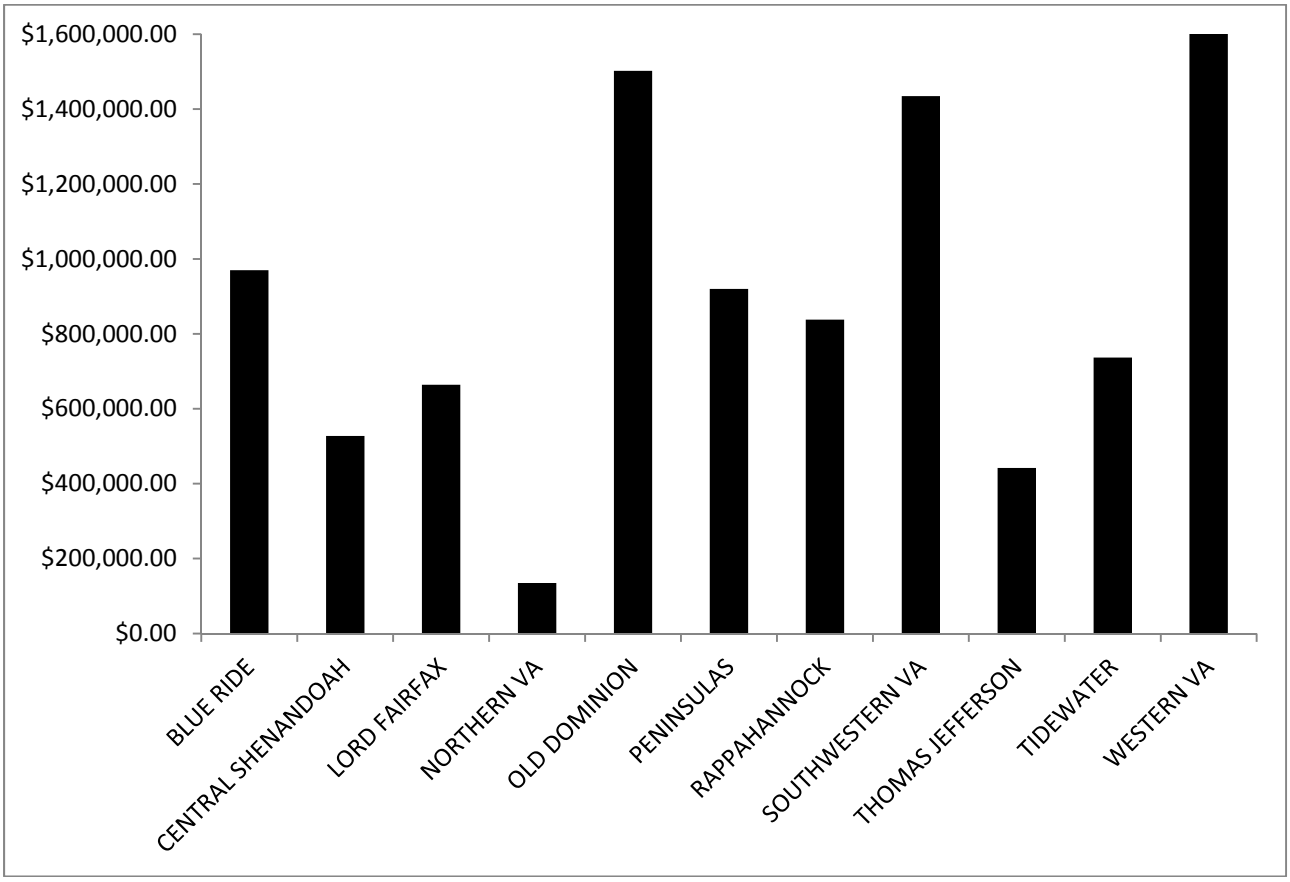
Figure 1: Agency Category by Amount Requested



Funding amounts are being requested in the following agency categories:

- 87 Volunteer Agencies requesting $6,010,943.00
- 41 Government Agencies requesting $3,447,273.00
- 12 Non-Profit Agencies requesting $351,833.00

Figure 2: Regional Area by Amount Requested

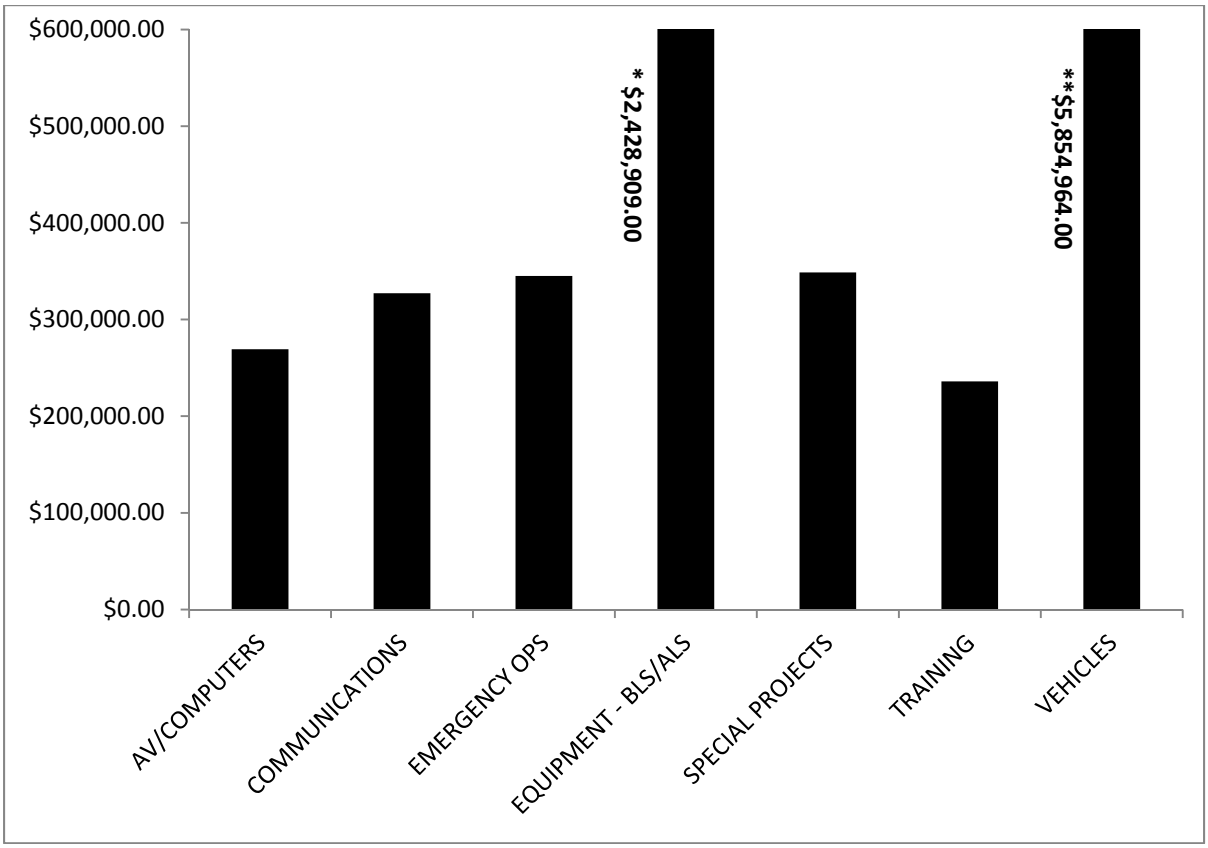


Funding amounts are being requested in the following regional areas:

- Blue Ridge – 9 agencies requesting funding of $970,083.00
- Central Shenandoah – 11 agencies requesting funding of $527,521.00
- Lord Fairfax – 10 agencies requesting funding of $664,262.00
- Northern Virginia – 4 agencies requesting funding of $134,995.00
- Old Dominion – 20 agencies requesting funding of $1,502,110.00
- Peninsulas – 14 agencies requesting funding of $919,916.00
- Rappahannock – 13 agencies requesting funding of $837,796.00
- Southwestern Virginia – 23 agencies requesting funding of $1,434,876.00
- Thomas Jefferson – 5 agencies requesting funding of $441,734.00

- Tidewater – 8 agencies requesting funding of $736,708.00
- Western Virginia – 23 agencies requesting funding of $1,640,048.00

Figure 3: Item Requested by Amount Requested



***NOTE**: The EQUIPMENT – BLS/ALS category request amount was $2,428,909.00, the graph only represents items requested up to $600,000.00 to visually display other items requested.

****NOTE**: The AMBULANCES category request amount was $5,854,964.00, the graph only represents items requested up to $600,000.00 to visually display other items requested.

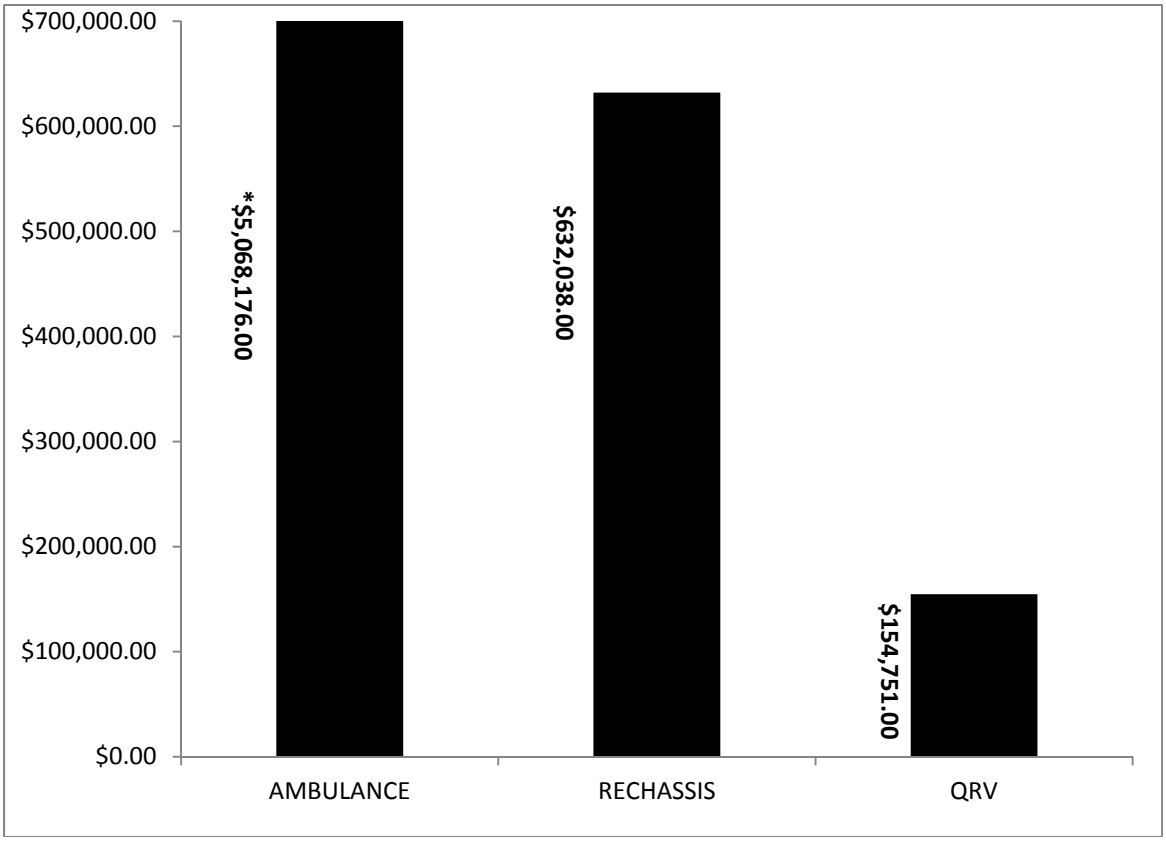
Funding amounts are being requested for the following items:

- Audio Visual and Computers - $269,218.00
  - Includes projectors, computer hardware/software, toughbooks, and other audio visual equipment.
- Communications - $327,154.00
  - Includes items for mobile/portable radios, pagers, towers, repeaters and other communications system technology.
- Emergency Operations - $345,116.00

- Includes items such as extrication equipment, rescue diving, generators and equipment for mass casualty incidents (MCI). The Emergency Operations category also includes any other equipment or items needed in order to rapidly mobilize and dispatch help in emergency situations.

- Equipment - Basic and Advanced Life Support Equipment - $2,428,909.00
  - Includes any medical care equipment for sustaining life, including defibrillation, airway management, and supplies.
- Special Projects - $348,732.00
  - Includes projects such as Recruitment and Retention, Special Events Material, Emergency Medical Dispatch (EMD), equipment needed to migrate to NEMSIS 3.0 version and other innovative programs.
- Training - $235,957.00
  - This category includes all training courses and training equipment such as manikins, simulators, skill-trainers and any other equipment or courses needed to teach EMS practices.
- Vehicles - $5,854,964.00
  - Includes ambulances, 1st Response/Quick Response Vehicles (QRV) and rechassis/remount of ambulances.

Figure 4: Vehicle Category by Amount Requested



***NOTE**: The AMBULANCE category request amount was $5,068,176.00, the graph only represents items requested up to $700,000.00 to visually display other items requested.

Emergency Grant Requests – 02-13 Grant Cycle

Central Shenandoah EMS Council
1 Other (Equipment to set up a VUE testing – (80/20) - $7,172.44

Request – To purchase capital outlay to sustain and continue operations of the Pearson VUE Testing Center (PVTC) to serve the CSEMS Council region and surrounding jurisdictions to include Albemarle, Charlottesville, Greene, Nelson, Page, Shenandoah, Botetourt and Allegheny. On
January 26, 2013 CSEMS was notified by OEMS that the National College in Harrisonburg pulled out of its agreement with Pearson VUE and the National Registry of EMT's as a designated PVTC. This grant award allowed CSEMS council to service the EMS providers in the region to sit for the National Registry testing locally which would have not been covered otherwise based on the geography of the region.

The **next RSAF cycle** will open on August 1, 2013 and the deadline will be September 16, 2013 (September 15 deadline falls on a weekend).

12-Lead Electrocardiograph Monitors

Regarding Budget Amendment Item 290 #1c "Out of this appropriation, up to $400,000 the second year from the Virginia Rescue Squad Assistance Fund shall be used for grants to emergency medical services organizations to purchase 12-lead electrocardiograph monitors" - for the RSAF grant period that begins July 1, 2013, OEMS has received 35 RSAF applications requesting a total of $1,499,183.78 for 76 12-lead monitors.

EMS on the National Scene

II. EMS On the National Scene

a) Senate Backs Disaster Preparedness Bill

According to the Congressional Quarterly News, the Senate recently advanced a measure to extend several medical-disaster-preparation programs. The bill (HR 307), passed by unanimous consent, would reauthorize a set of programs created almost a decade ago under the Project BioShield Act (PL 108-276) and the Pandemic and All-Hazards Preparedness Act (PL 109-417). The legislation would reauthorize the National Disaster Medical System, which helps manage the government's medical response in emergencies and disasters. It also would extend the Public Health Emergency Preparedness Cooperative Agreement, which provides grants to state and local health departments to aid in the response to public health hazards. The Senate Health, Education, Labor and Pensions Committee adopted an amendment that would reauthorize both programs through fiscal 2018, as opposed to 2017, at current spending levels: $53 million annually for the National Disaster Medical Program and $642 million annually for the Public Health Emergency Preparedness Cooperative Agreement. The amendment also would make technical changes. The legislation would allow the Food and Drug Administration to collect and analyze information about the safety and effectiveness of products used under the emergency authority. In addition, the FDA would be permitted to use medical countermeasures under emergency circumstances even if they are not yet approved by the agency.

b) Presidential Plan for Returning Military Personnel Includes EMS Integration

A new report by the Executive Office of the President, "The Fast Track to Civilian Employment: Streamlining Credentialing and Licensing for Service Members, Veterans and their Spouses," details the barriers that veterans and their families face as they seek employment; the Administration's commitment to help them leverage their skills to good, meaningful jobs; and the progress that has already been made. For a copy of the report, please go to: http://www.whitehouse.gov/sites/default/files/docs/military_credentialing_and_licensing_report_2-24-2013_final.pdf.

c) PAHPA Reauthorization Signed by the President

The Senate and House have passed the Pandemic and All-Hazards Preparedness Act of 2013 and the bill has been signed by President Obama. The final changes strengthen the National Health Security Strategy (NHSS) to not only increase the surge capacity of emergency medical service systems and other providers, but also optimizes a coordinated and flexible approach to surge capacity.

Please go to: http://www.gpo.gov/fdsys/pkg/BILLS-113hr307enr/pdf/BILLS-113hr307enr.pdf. To read Assistant Secretary Nicole Lurie's statement on the Pandemic and All Hazards Preparedness Reauthorization Act please go to: http://www.hhs.gov/news/press/2013pres/03/20130313a.html.

d) Field EMS Bill Reintroduced in Congress

H.R.809 - Field EMS Quality, Innovation, and Cost Effectiveness Improvements Act of 2013 has been reintroduced in the 113th Congress by Rep. Larry Bucshon (IN). The Bill is identical to last year's version and has been referred to the Subcommittee on Health. For your convenience, the bill is summarized as follows:

- Field EMS Quality, Innovation, and Cost Effectiveness Improvements Act of 2013 - Designates the Department of Health and Human Services (HHS) as the primary federal agency for emergency medical services (EMS) and trauma care.
- Establishes the Office of Emergency Medical Services and Trauma within HHS. Gives the Office responsibilities related to emergency medical services and authorizes the Secretary of HHS to delegate additional responsibilities related to EMS.
- Requires the Director of the Office to: (1) implement a national EMS strategy; (2) establish the EQUIP grant program to promote excellence, quality, universal access, innovation, and preparedness in field EMS; and (3) establish the SPIA grant program to improve EMS system performance, integration, and accountability, to ensure preparedness, to enhance oversight and data collection, and to promote standardization of certifications.
- Requires the Secretary to improve medical oversight of field EMS, including by: (1) promoting the development and adoption of national guidelines for medical oversight, and (2) convening a Field EMS Medical Oversight Advisory Committee.
- Directs the Comptroller General to study issues related to emergency medical care in the field of EMS.
- Authorizes the Administrator of the National Highway Traffic Safety Administration (NHTSA) to maintain, improve, and expand the National EMS Information System.
- Sets forth reporting requirements relating to data collection and electronic health records.
- Declares that the Health Insurance Portability and Accountability Act of 1996 (HIPAA) shall not be construed to prohibit certain exchanges of information between field EMS practitioners, hospital personnel, state EMS offices, and the National EMS Database. Requires the Secretary to establish guidelines for the exchange of information between field EMS practitioners and hospital personnel.
- Authorizes the Director of the Office to make grants for the development, availability, and dissemination of field EMS education programs and courses that improve the quality and capability of field EMS personnel.
- Requires the Director to conduct or support demonstrations projects relating to alternative dispositions of field EMS patients.
- Amends title XI (General Provisions, Peer Review, and Administrative Simplification) of the Social Security Act to include field EMS as a model for testing by the Center for Medicare and Medicaid Innovation.
- Amends the Public Health Service Act to require the Secretary to conduct research and evaluation relating to field EMS through the Agency for Healthcare Research and Quality (AHRQ) and the Center for Medicare and Medicaid Innovation.

- Requires the Director of AHRQ to establish a Field EMS Evidence-Based Practice Center.
- Amends the Internal Revenue Code to: (1) establish the Emergency Medical Services Trust Fund, and (2) allow taxpayers to designate a portion of any income tax overpayment and make additional contributions to finance such Fund.

e) AHA Issues Ischemic Stroke Guidelines

The American Heart Association/American Stroke Association has updated its comprehensive acute stroke care guidelines, which were previously updated in 2009. The guidelines followed the usual AHA/ASA classification of recommendations and levels of evidence. Updates include added emphasis on the need to transport patients to stroke centers and door to needle times for tissue plasminogen activator (TPA). For more information please go to: http://stroke.ahajournals.org/content/44/3/870.

f) Pediatric Inter Facility Transfer Tool Kit Released

The EMSC National Resource Center, the Emergency Nurses Association, and the Society of Trauma Nurses have developed an interactive tool kit designed to assist hospitals in developing preplanned processes for inter facility transfer of children. The toolkit can be downloaded at: http://www.childrensnational.org/emsc/.

g) NAEMT Announces EMS Fitness Guidelines

Lack of physical fitness within EMS agencies contributes to injuries and an increase in chronic diseases. EMS practitioners are seven times more likely than the average worker to miss work as a result of injury, and one in four EMS practitioners will suffer a career-ending injury within the first four years of service. Back injury alone is the primary reason practitioners leave EMS. In an effort to reduce injuries from patient movement, improve practitioner health and create a safer EMS work environment, NAEMT established a formal relationship with the American Council on Exercise (ACE) to create the *Task Performance and Health Improvement Recommendations for Emergency Medical Service Providers*. ACE exercise physiologists observed EMS practitioners bending, twisting, reaching, pushing, pulling and maneuvering while providing patient care. These repetitive motions were often done in tight spaces. ACE personnel also observed the external loads imposed by carrying or moving patients and equipment. The team used the site visits, ride-along encounters and staff interviews to generate initial observations and a practitioner task analysis. The results of the efforts were found to be consistent from site to site. The recommendations are designed to achieve the following primary outcomes: improve job-related physical capacity, improve overall wellness; and create self-reliance.

h) Next-Generation Communications for Public Safety: Issues for Congress

A new report from the Congressional Research Service (CRS), *The First Responder Network and Next-Generation Communications for Public Safety: Issues for Congress*, discusses the importance of wireless and mobile communications in emergency response across all sectors of the American economy. Fixing the problems of communications interoperability and operability

that hampered response and recovery in catastrophic events has been and remains a long-term goal of policy makers. The CSR recommendations to Congress to improve the Nation's capacity in this important sector can be found at: http://www.fas.org/sgp/crs/homesec/R42543.pdf.

i) FDA Issues Proposal to Improve the Quality of AEDs

The U.S. Food and Drug Administration has issued a proposed order aimed at helping manufacturers improve the quality and reliability of automated external defibrillators (AEDs). The proposed order, if finalized, will require manufacturers of these life-saving devices to submit pre-market approval (PMA) applications. Although these devices have saved lives over the years, the FDA has received approximately 45,000 adverse event reports between 2005 and 2012 associated with the failure of these devices. Manufacturers have also conducted dozens of recalls. The problems the FDA is seeing with AEDs are preventable and correctable. The most common issues involve the design and manufacture of the devices and inadequate control of components purchased from other suppliers.

For more information go to:
http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm345062.htm.

National Association of State EMS Officials (NASEMSO)

Note: The Virginia Office of EMS is an active participant in the NASEMSO and has leadership roles in each NASEMSO Council. The National Association of State EMS Officials is the lead national organization for EMS, a respected voice for national EMS policy with comprehensive concern and commitment for the development of effective, integrated, community-based, universal and consistent EMS systems. Its members are the leaders of their state and territory EMS systems.

j) NAEMSE Announces Additional Course Opportunities for EMS Instructors

NASEMSO has announced the National Association of EMS Educators' (NAEMSE) Level 1 and Level 2 Instructor Courses for persons interested in becoming or honing their skills as an EMS instructor. Course opportunities will be listed on the NASEMSO web site for the convenience of state EMS officials and the EMS community. The NAEMSE EMS Instructor Courses (Level 1 and Level 2) has been designed and developed as a result of the DOT/NHTSA National Guidelines for Educating EMS Instructors. The Level 1 Course represents the didactic component and practical application of the education process necessary to become an EMS instructor. The Level 2 course will provide educators and program directors with the tools and information needed to further build their leadership skills and better evaluate programs, students, and faculty. This course also includes an online portion that will enhance the two-day in-person sessions. Individuals who attend the entire course and pass the post test will receive a Certificate of Course Completion from NAEMSE with CEU's which is accredited by the Continuing

Education Coordinating Board for Emergency Medical Services (CECBEMS). For more information got to: http://www.naemse.org/.

k) NASEMSO - Model EMS Clinical Guidelines Project

- Purpose of the Project

The National Association of State EMS Officials (NASEMSO) Medical Directors Council is leading a multi-organizational, collaborative effort to develop Model EMS Clinical Guidelines. This 24-month project is funded by the National Highway Traffic Safety Administration, Office of EMS (NHTSA OEMS) and the Health Resources and Services Administration (HRSA) Emergency Medical Services for Children (EMSC) Program through a Cooperative Agreement with NASEMSO. Not intended to be all-inclusive, a basic set of clinical guidelines could serve as an important starting point for any EMS agency or region. By focusing on a core set of guidelines, the project is intended to begin a process that could be expanded and updated over time. The guidelines will be offered as an optional model for state, regional and local EMS systems to adopt.

NASEMSO recognizes that model guidelines could promote uniformity and quality of pre-hospital care, improve EMS data collection efforts, assist state, regional and local guideline development and promote nationwide consistency and mobility among EMS providers. The project will complement the EMS evidence-based guideline development process sponsored by the NHTSA, OEMS and HRSA, EMSC.

- Project Deliverables

The project is comprised of three phases, each producing distinct deliverables.

Phase 1 Deliverable: Develop a list of core EMS clinical guideline titles (e.g., chest pain, asthma/respiratory distress, diabetic emergencies).

Phase 2 Deliverable: Create the necessary components for each EMS clinical guideline (e.g., inclusion/exclusion criteria, quality assurance/performance points).

Phase 3 Deliverable: Draft the core guidelines identified in phase 1 using the necessary components identified in phase 2.

- Co-Principal Investigators

  Dr. Carol Cunningham (State EMS Medical Director, Ohio).
  Dr. Richard Kamin (State EMS Medical Director, Connecticut).

- For More Information

  Dr. Carol Cunningham, docmaynard@earthlink.net.
  NASEMSO Program Manager Mary Hedges, hedges@nasemso.org or 612-669-2076.

l) NASEMSO - Statewide Implementation of an Evidence-Based Guideline

- Purpose of the Project

This three-year project is funded by the National Highway Traffic Safety Administration, Office of EMS (NHTSA OEMS) and the Health Resources and Services Administration (HRSA) Emergency Medical Services for Children (EMSC) Program, and was awarded to NASEMSO through a competitive application process. The objective of this grant is to support the use and further refinement of the National Evidence-Based Guideline (EBG) Model Process, developed under the auspices of the Federal Interagency Committee on EMS (FICEMS) and the National EMS Advisory Council (NEMSAC). Using a Pain Management Guideline (with special attention paid to pediatric patients), this project will focus on the last three steps of the EBG Model Process: Dissemination, Implementation and Evaluation. Five states have been chosen to participate in this project with the purpose of achieving diversity in EMS configurations, to include areas with mandatory protocols, voluntary model guidelines and no statewide guidelines.

- Project Team

  Co-Principal Investigators

  Matt Sholl, MD (State EMS Director, Maine)
  Peter Taillac, MD (State EMS Director, Utah)

  Rachael Alter (NASEMSO, Project Lead)
  Dia Gainor (NASEMSO)
  Jeff Lindsey, PhD (Lead Educator)
  Kristin Lauria Gurley (Lead Assessment & Evaluation Designer)
  Kathleen Adelgais, MD (Pediatric Emergency Medicine Specialist)
  Janet Houston (NASEMSO PEC Council Representative)
  Joe Ferrell (NASEMSO EPS Council Representative)

- For More Information

  Rachael Alter, NASEMSO Program Manager, alter@nasemso.org

m) NASEMSO - Model Interstate Compact for EMS Personnel Licensure for State Adoption

- Purpose of the Project

This project will initiate a 20-month process to develop a model interstate compact for states' legislative use to solve the problem associated with day-to-day emergency deployment of EMS personnel across state boundaries.

- National Advisory Panel (NAP)

The National Advisory Panel (NAP) is tasked with examining the current landscape of challenges and issues facing state emergency medical services (EMS) offices and the personnel

they license. The NAP is charged with constructing a set of recommendations that can be considered in the development of a model interstate compact related to the licensure of EMS personnel. The NAP is composed of twenty-five issue and stakeholder experts from around the country with emphasis placed on state officials and other policymakers, as well as key external stakeholders, including federal agencies and industry.

- For More Information

  Dia Gainor, NASEMSO Executive Director, dia@nasemso.org

n) NASEMSO – EMS Workforce Planning and Development Guidelines for State Adoption

- Purpose of the Project

This two-year project is funded by the National Highway Traffic Safety Administration (NHTSA), Office of EMS and the Health Resources and Services Administration (HRSA) Emergency Medical Services for Children (EMSC) Program through a Cooperative Agreement with the National Association of State EMS Officials (NASEMSO). NASEMSO has proposed to demonstrate, at a national level, that systematic workforce evaluation and planning is vital for ensuring a robust and capable EMS workforce. This effort will yield state EMS workforce data collection, planning and development guidelines. Comments from state EMS offices on the draft guidelines will be reviewed during an in person meeting of the project team on May 14-15, 2013. The comment period will open to the entire EMS industry on May 20 and conclude on June 20, 2013 and will be reviewed in late June 2013.

- Project Team:

  Pam Biladeau (Minnesota State EMS Director)
  Gary R. Brown (Virginia State EMS Director)
  Josh Legler (Utah, Data Managers Council)
  John Thomas (West Virginia, Education and Professional Standards Council)
  Donna Tidwell (Tennessee State EMS Director)

The final document is scheduled to be delivered to NHTSA by August of this year.

The document and comment form can be accessed at: www.EMSworkforce.org.

- For More Information

  Dia Gainor, NASEMSO Executive Director, dia@nasemso.org

Educational Development

III. Educational Development

Committees

A. **The Training and Certification Committee** (TCC): The Training and Certification Committee met on Wednesday, April 10, 2013. There is **one action item** for consideration. **See Appendix: #**

1. Copies of past minutes are available on the Office of EMS Web page here: http://www.vdh.virginia.gov/OEMS/Training/Committees-PDC.htm

B. **The Medical Direction Committee (MDC)** The Medical Direction Committee met on Thursday, April 11, 2013. There are **two action items** to be forwarded to the EMS Advisory Board for the May 10, 2013 meeting. **See Appendix ## and ###**

Copies of past minutes are available from the Office of EMS web page at: http://www.vdh.virginia.gov/OEMS/Training/Committees.asp

National Registry of EMTs Certification Test

The office has published the latest National Registry Test results for all levels of certification. The statistics compare the national pass rates to the state's and then by individual program/instructor. The ALS statistics include data from January 1, 2007 into the second quarter of 2013. The BLS statistics include data from July 1, 2012 into the second quarter of 2013. The information is currently on the OEMS Web page at : http://www.vdh.virginia.gov/OEMS/Training/Accreditation.htm

Advanced Life Support Program

A. An ALS Coordinator Institute was held on February 25 & 26, 2013 at the Office of EMS. Twelve ALS Coordinator candidates who already held certification as a Fire Instructor I or greater or who had their Masters in Education attended and completed the process to become an ALS-C.

B. There are 36 applications pending ALS Coordinator endorsement and will be invited to future Instructor Institutes as space allows. No further applications are allowed and all candidates have been encouraged to pursue their Education Coordinator certification.

Basic Life Support Program

A. Instructor Institutes

1. The Office held an Education Coordinator (EC) Institute on January 26-30, 2013. Six (6) EC Candidates, One (1) bridging ALS-Coordinator, One (1) Fire Instructor1 and 5 ALS-Coordinator Candidates attended. All received certification/endorsement.
2. The next EC Institute will be held in conjunction with the VAVRS Rescue College in Blacksburg, VA, June 8-12, 2013.
3. EMS Providers interested in becoming an Education Coordinator please contact Greg Neiman, BLS Training Specialist by e-mail at Gregory.Neiman@vdh.virginia.gov
4. Schedule of the various deadlines and EC Institutes can be found on the OEMS website at: http://www.vdh.virginia.gov/OEMS/Training/BLS_InstructorSchedule.htm

B. Virginia EMS Educational Standards (VEMSES) Exam

1. Scoring of the VEMSES exam was transitioned to the EMS Portal in late November/December 2012. Current Instructors/ALS Coordinators wishing to transition to Education Coordinator can access their scores and Letters of Eligibility online through their EMS portal.
2. Current EMT-Instructors/ALS-Coordinators may schedule to take the exam at Regional Consolidated Test Sites (CTS) or at specified locations with the Training Staff.

C. EMS Educator Updates:

1. For 2013 the Division of Educational Development is returning to the road to provide in-person Educator Updates. Arrangements to visit as many regional EMS Council areas as possible will be made.
2. Since the last advisory board meeting, the Office conducted an in person EMS Instructor Update on March 23, 2013 in the NVEMS Region at Prince William Co. Fire and Rescue Training Center. On April 13, an update at the Central Shenandoah EMS Office in Staunton was held.
3. The schedule of future updates can be found on the OEMS Web at: http://www.vdh.virginia.gov/OEMS/Training/EMS_InstructorSchedule.htm

EMS Training Funds

FY12

	Commit $	*Payment $*	*Balance $*
BLS Initial Course Funding	$784,836.00	$379,505.68	$405,330.32
BLS CE Course Funding	$122,640.00	$43,898.75	$78,741.25
ALS CE Course Funding	$273,840.00	$85,776.25	$188,063.75
BLS Auxiliary Program	$94,000.00	$15,200.00	$78,800.00
ALS Auxiliary Program	$332,000.00	$180,710.00	$151,290.00
ALS Initial Course Funding	$1,342,350.00	$620,148.28	$722,201.72
Totals	**$2,949,666.00**	**$1,298,342.59**	**$1,624,427.04**

FY13

	Commit $	*Payment $*	*Balance $*
Emergency Ops Funding	$1,320.00	$275.00	$1,045.00
BLS Initial Course Funding	$662,412.00	$190,916.96	$471,495.04
BLS CE Course Funding	$112,560.00	$26,967.46	$85,592.54
ALS CE Course Funding	$272,160.00	$52,727.50	$219,432.50
BLS Auxiliary Program	$68,000.00	$5,880.00	$62,120.00
ALS Auxiliary Program	$324,000.00	$96,640.00	$227,360.00
ALS Initial Course Funding	$1,059,828.00	$303,992.56	$755,835.44
Totals	**$2,500,280.00**	**$680,325.98**	**$1,819,954.02**

EMS Education Program Accreditation

A. EMS accreditation program.

1. Emergency Medical Technician (EMT)
   a) Navy Region has been granted provision accreditation at the EMT level.
   b) Three (3) additional self studies have been received.
2. Advanced Emergency Medical Technician (AEMT)
   a) No applications on file.
3. Intermediate – Reaccreditation
   a) No applications on file.
4. Intermediate – Initial
   a) No applications on file. Two inquiries have been made about new programs.
5. Paramedic – Initial

B. For more detailed information, please view the Accredited Site Directory found on the OEMS web site at:
    1. http://www.vdh.state.va.us/OEMS/Training/Accreditation.htm

C. Beginning January 1, 2013, students must enroll in a nationally accredited paramedic program to qualify for National Registry certification. National accreditation is offered through the *Committee on Accreditation of Educational Programs for the EMS Professions* (CoAEMSP – www.coaemsp.org).
    1. Virginia paramedic training programs in the Commonwealth have met the requirements making their students eligible to test NREMT as of January 1, 2013.
    2. The following programs still need to obtain national accreditation through CoAEMSP/CAAHEP.
        a) Lord Fairfax Community College
            (1) Has received their Letter of Review from CoAEMSP.
        b) Patrick Henry Community College
            (1) Status unknown.
        c) Rappahannock EMS Council Paramedic Program
            (1) Has received their Letter of Review from CoAEMSP.
        d) Prince William County Paramedic Program
            (1) Has received their Letter of Review from CoAEMSP.
        e) Center for EMS Training, Inc.
            (1) Has received their initial report from their CoAEMSP visit and are addressing the items before the report is forwarded to CAAHEP for action. They do have their Letter of Review from CoAEMSP.

On Line EMS Continuing Education

Distributive Continuing Education

A. Soon, Virginia EMS providers can receive **Free EMSAT** Continuing Education through **CentreLearn.** A Learning Management System (LMS) to house **EMSAT** programs (similar to TRAIN Virginia) should be available soon. We are currently testing EMSAT programs loaded on this new **CentreLearn** LMS. Fifty or more **EMSAT** programs will be available at no charge for continuing education to Virginia EMS providers.
B. For more information, visit the OEMS Web page at: http://www.vdh.virginia.gov/OEMS/Training/WebBasedCE.htm

EMSAT

A. EMSAT programs for the next three months include:
   1. May 15 Stroke Awareness (featuring Mary Washington Hospital staff) Cat. 1 ALS, Area 89; Cat. 1 BLS, Area 05
   2. June 19 An EMS Guide to Motorcycle Crash Response and Care (OEMS Staff and others) Cat. 1 ALS, Area 80, Cat. 1 BLS, Area 04
   3. July 17 Infection Control Update 2013 (Katherine West) Cat. 1 ALS, Area 89, Cat. 1 BLS, Area 06

The EMS Portal

With the launch of the EMS Portal just over 4 years ago, the EMS community has embraced the ability to interact in real time with the Office. The Portal has provided a greater level of access to OEMS data than ever before. Starting with instructors, adding providers and with the agency installment launched on December 5, 2011, the Portal continues to grow. The goal is to enable agencies, providers and educators a more efficient process when conducting business with the Office. Agency participation has grown from 82% in January 30, 2013 to 92% as of April 19, 2013. Provider participation has grown from 74% to 92% during the same time period.

Future plans for the portal include but are not limited to:

1. Provider directed recertification with the implementation of the new recertification process that eliminates the need for testing or a test waiver for those whose certification has not expired.
2. Web based electronic course enrollment. This will reduce errors, the number of paper based forms and improve efficiency by allowing the option for all course enrollments to be recorded electronically. With this addition, the ability to gather emails and other demographics will allow greater electronic communication, reducing printing and mailing costs. It may also provide a more accurate picture of exactly who and what EMS is in Virginia.
3. The opening of the EMS Physician Portal is in the near future. This will allow EMS physicians unprecedented access to the EMS system by providing electronic access to their agencies, providers, and educators. The EMS physicians have been very patient as the Portal was developing. With this access, the EMS physician will be better equipped to understand the various EMS system components with which they participate.

As a reminder, the EMS Portal is an all encompassing electronic dossier which provides unrivaled, 24/7/365 access to Virginia EMS personnel. Some of the features of the EMS Provider Portal include access to:

- EMS Agency affiliation data
- Continuing Education (CE) reports
- Enrolled course data
- Certification Test Eligibility letters
- Certification Test Results
- E-mail notifications of EMS certification expiration
- Access to update/change address, phone number and e-mail address
- E-mail opt-in/opt-out functionality allowing for updates from various Divisions within the Office of EMS.

CTS

A. The new Psychomotor Examination Guide (PEG), replacing the Psychomotor Users Guide (PUG), was released on March 28, 2013. This document addresses some administrative and practical changes when Virginia transitioned to the National Registry test platform and the Virginia EMS Education Standards.
B. Lisa Davis and Nakia James have been hired as new OEMS Test Examiners. Lisa has been assigned to the Northern Virginia area particularly the REMS region. Nakia has been assigned to the ODEMSA area.
C. The Central Shenandoah EMS Council is Virginia's latest Pearson Vue test site. The facility contains 4 test seats.
D. There have been 31 psychomotor test sites conducted since your last meeting on February 15, 2013.
E. The EMSAT video "The Virginia Certification Experience" will be posted on the OEMS Web page as well as sending a DVD to all Education Coordinators. This program will supplement the step by step resource guides on how to register for both a Virginia CTS and for the National Registry.

Other Activities

- With the passage of HB 1622 and SB790, EMS providers will no longer need to take a written test or obtain a test waiver from their agency's OMD to recertify, starting July 1, 2013. This provision of the law will enable the provider who does not lapse into re-entry to recertify their certification based solely on continuing education. The Office is currently working to develop a Portal process that will allow a provider to recertify any time after they achieve recertification eligibility as long as the continuing education is submitted to OEMS no later than the last day of their certification expiration date. Further, if no action is taken by the provider to recertify early, the certification will automatically be reissued in the month the certification expires. It is important to note, that this legislation does not change the long practice of obtaining and submitting continuing education. All continuing education must be in our office prior to the certification expiration to prevent a provider from becoming a re-entry candidate. Although EMS certification is owned by the provider, the ability to practice rests with the agency of affiliation's OMD. The office will be utilizing the EMS Portal data to notify

all providers and information will be provided as we get closer to the implementation date. Remember, if your certification expires in May or June of 2013, there is no change to your recertification requirements. You will need to assure all continuing education is in the Office of EMS before your May or June, 2013, certification expiration date, and either take and pass the certification examination or be waived by your agency of affiliation's OMD.

- Greg Neiman continues to participate with the Autism Public Safety Workgroup coordinated by the Commonwealth Autism Service.

- Warren Short participated in an OMD workshop conducted in the Thomas Jefferson EMS Council and the Western Virginia EMS Council regions.

Emergency Operations

IV. Emergency Operations

Operations

- **Virginia 1 DMAT**

Frank Cheatham, HMERT Coordinator has assumed the position of OEMS Representative on Va-1 DMAT, a position previously held by Jim Nogle. In that position he has attended the monthly Leadership meetings. In Feb. he, along with Gary Brown, attended the annual anniversary luncheon held in Yorktown. At the March Meeting he attended and assisted with another equipment readiness drill.

- **EMS Today Conference**

Karen Owens, Acting Emergency Operations Manager, attended the EMS Today Conference in Washington, DC on March 8, 2013. Karen took the opportunity to speak with various vendors about equipment and services that might benefit EMS providers in Virginia and the Division of Emergency Operations.

- **HMERT Operations**

The HMERT Coordinator continued meetings with the agencies that replied to the recruitment mailing. The HMERT Coordinator traveled to meet with the Western 14 Task Force Commander to discuss classes to be held and other Task Force issues in the southwestern area of the state.

- **Continuity of Operations Plan**

Winnie Pennington, Emergency Planner developed a Continuity of Business Quick-Reference Guide for OEMS Executive Staff and distributed them to the appropriate OEMS Staff.

Committees/Meetings

- **School Safety - Mental Health Subcommittee**

Karen Owens, Acting emergency Operations Manager, attended the Mental Health Subcommittee of the Governor's Panel for School Safety. Meetings were held on February 21 and March 28. The committee discussed the focus of the committee in recognizing and providing assistance to people with mental health problems.

- **Hurricane Evacuation**

The HMERT Coordinator continued to attend Lane Reversal Committee Meetings.

- **EMS Communications Committee**

The EMS Communications Committee met on Friday, February 15, 2013. Commonwealth Interoperability Coordinator Chris McIntosh briefed the committee on the National Public Safety Broadband initiative. The bill created an entity called National Telecommunication and Information Agency (NTIA) which is an executive agency under the President. Other discussion included the EMD White Paper publications and PSAP Accreditation/Reaccreditation.

- **Continuity of Operations Plan Committee**

Winnie Pennington convened COOP Committee on February 26. Committee reviewed updated Continuity of Business Plan, identified assignment of Business Analysis sheets to program managers for Primary Business Functions, and identified some possible objectives for 2013 Office Continuity of Business Exercise.

- **NASEMSO Highway Incident Traffic Safety (HITS) Committee**

Frank Cheatham, HMERT Coordinator has been appointed to a committee by NASEMSO on Emergency Responder Safety. He continues to review documentation and send comments back for review.

- **Traffic Incident Management (TIM)**

The Governor has signed an Executive Order establishing a statewide Traffic Incident Management Group. The Director of the Office of EMS is assigned to that group which has a Training Advisory Group under it. The HMERT Coordinator serves on that Group which is overseeing the deployment of the TIM Training within Virginia. The focus of this group is the SHRP 2 Training curriculum that has been developed by the Federal Government. There have been several meetings and ongoing development discussions.

- **Tomato Festival Planning**

Frank Cheatham and Karen Owens continue to attend planning meetings for the Tomato Festival Planning sessions at the request of Hanover Fire and EMS. As with previous years, the sponsoring agency has requested logistical support from the Division of Emergency Operations.

- **NASEMSO Domestic Preparedness Conference Call**

Karen Owens participated in the regularly scheduled NASEMSO Domestic Preparedness Conference call. The call providers an opportunity for states to share issues they are dealing with or actions they are taking to support Domestic Preparedness.

Training

- **Vehicle Rescue Training**

The Division of Emergency Operations supported the Caroline County Regional Spring School on April 13-14, 2013. The course, attended by 23 students focuses on prepare emergency responders to respond to and work at the scene of a motor vehicle crash.

- **Statewide Tornado Drill**

Winnie Pennington, Emergency Planner, developed and assisted in conducting the Office of EMS Tornado drill in conjunction with the Statewide Tornado Drill. After the drill, she completed and reviewed evaluation sheets.

Communications

- **OEMS Public Safety Answering Point (PSAP) & 911 Center Accreditation**

PSAP Re-accreditation for Richmond Ambulance Authority was presented on March 29, 2013.

- **The Association of Public Safety Communications Officers (APCO) and National Emergency Number Association (NENA)**

Ken Crumpler, Communications Coordinator represented the Office of EMS at the Winter APCO/NENA meeting on February 12, 2013 in Chesterfield. Mr. Crumpler spoke on guidance and RSAF grant funding for implementation of emergency medical dispatch protocols.

- **PSAP Manager Meeting**

Mr. Crumpler attended the PSAP Managers Meeting in Abingdon on February 28, 2013 hosted by VITA. The meeting focus was the relationship between the 911 centers and the state EMS System. SWVA EMS Counsel was also represented as well as APCO, Power Phone & Priority Dispatch vendors

Critical Incident Stress Management (CISM)

- **CISM Regional Council Reports**

Regional CISM Team reports received by the date of this quarterly report include 12 calls for assistance and five training programs.

Public Information and Education

V. Public Information and Education

Marketing & Public Relations

New Hire

- January 30 – 31, the OEMS began conducting interviews for the public relations assistant position. Due to the number of qualified applicants who applied, preliminary phone interviews were scheduled. Applicants who made it through the first round of interviews were scheduled for face-to-face interviews, which were conducted by Human Resources Coordinator Shea Jones, OEMS Public Relations Coordinator Marian Hunter and VDH Public Relations Coordinator Michelle Stoll.
- February 12 – 13, OEMS conducted interviews for eight applicants who applied to the PR assistant position. The top three candidates were chosen and notified. References were checked and the position was offered.
- On March 25, 2013, Tristen Graves officially started working at the OEMS as the public relations assistant. She brings great enthusiasm and dedication to the team and we are happy to welcome her to the OEMS.

  Tristen received a B.A. degree in print journalism with a minor in marketing from the Scripps Howard School of Journalism and Communications at Hampton University. Previously, she worked as an editorial intern for the Hampton Roads Magazine and as a contributing writer at the Robert R. Taylor Network, a non-profit organization based in Boston, Ma.

  Tristen's work experience includes publishing monthly e-newsletters, writing profile articles that helped to launch the "Digital Archive on Blacks in Architecture project," a multimedia research project with collaborators such as IBM, the Graham Foundation and Hampton, Howard and Tuskegee University.

Public Relations

- **Resolution for Dr. Remley** – On January 11 the PR coordinator created a certificate of recognition to commend the efforts of Dr. Remley during her tenure at VDH. This resolution was created per directive of the State EMS Advisory Board and it was presented to her on behalf of the board.
- **EMS Bulletin** – PR coordinator drafted articles, laid out and edited the spring edition of the EMS Bulletin. Posted the spring EMS Bulletin on the OEMS website April 1, 2013.
- **Tidewater EMS Expo** – PR coordinator created a certificate for a free registration to be used at the Tidewater EMS Education Expo.
- **Customer Service Feedback Form** - PR coordinator and PR assistant will be responsible for gathering data from the Customer Service Feedback form on a weekly basis and submitting reports to division managers on a monthly basis.

Promotion - *Via Social Media Outlets*

Continue to keep OEMS' Twitter and Facebook pages active, educational and relevant by posting daily and/or weekly updates that provide important announcements and health-related topics to increase awareness and promote the mission of OEMS and VDH. Some of the subjects that were featured from January through March are as follows:

- **January –** New year resolutions and healthy eating on EMS budget, commit to quit smoking, National Folic Acid Awareness Week, National Radon Action Month, winter weather /Virginia 511 website, VFCA Mid-Atlantic Expo & Symposium, Virginia Public Safety Foundation 2012 challenge coins, 2012 Governor's Award winners, Ready Virginia free phone app, RSAF grant award recipients, NAEMT Emergency Pediatric Care Course, Health Weight Week/VDH Health Bites website, 2013 Tidewater EMS Education Expo, National EMS Memorial Bike Ride East Coast route.
- **February –** Heart disease awareness, RSAF grant cycle open, OEMS phone problems, Central Virginia EMS Education Expo, Tidewater EMS Expo, VDH free regional training seminars focused on provider health, Virginia Beach chose for CPR grant, VFCA fire officer academies, Regional EMS Council awards, Law, Leadership and Ethics Academy seminar, heart disease and stroke prevention.
- **March –** National Severe Weather Preparedness Week, severe weather warnings, updates and state office closures/delays, Statewide Tornado Drill, a-fib risk factors article, RSAF grant application deadline, Arrive Alive and Survive fire, rescue and EMS health conference, National Poison Prevention Week, E.V.E.N.T. close call event reporting program and VCU Trauma Symposium.

Via Constant Contact E-mail List-serv (January – April)

- January 29, 2013 – Per request from VFCA partner, we promoted the 2013 VFCA Mid Atlantic Conference. In return, they help to promote our programs/EMS Symposium.
- February 7, 2013 – Emailed an important notice regarding the OEMS phone lines being down.
- April 12, 2013 – Promoted the 2013 Spring EMS Bulletin.
- April 15, 2013 – Promoted Public-Safety Telecommunicators Week.

Events

EMS Week, May 19 – 25, 2013

- March – Received 700 EMS Week planning guides from ACEP.
- April 1 - PR assistant submitted a proclamation request for EMS Week to the Governor's Office. Received the official proclamation for EMS Week on April 12, which will be promoted online during the proclaimed week. See Appendix…
- April 2 - PR assistant coordinated the mailing of the EMS Week planning guides from American College of Emergency Physicians and mailed one to every affiliated EMS agency in Virginia.

- April/May - PR coordinator will create a press release for EMS Week, to be released the week leading up to this event.

Fire and EMS Memorial Week, June 1-8, 2013

Virginia's 2013 Fallen Firefighter Service created an inaugural event in Virginia called "Fire and EMS Memorial Week." This week honors firefighters and EMS providers who died in the line of duty. This event is the first of its kind in Virginia to include a memorial for public safety and emergency medical services personnel.

Fire and EMS Memorial Week will take place on June 1-8, 2013. It will recognize the patriotic service and dedicated efforts of Virginia's fire and emergency services personnel. It will serve as a platform to honor those fire and EMS providers who made the ultimate sacrifice while serving and protecting the Commonwealth and its citizens. Additionally, this event will pay tribute to members of Virginia's fire and EMS communities who dedicate their lives to serving and protecting daily.

This week-long celebration will focus on bringing local communities, and fire and EMS professionals together so that they may collectively pay respects to those firefighters and EMS providers who served and possessed unwavering bravery, heroism and relentless dedication for the protection of Virginia's citizens.

The VDFP is the lead organization on this event with assistance requested from OEMS as needed. The OEMS PR coordinator offered the following marketing plan for Fire and EMS Memorial Week:

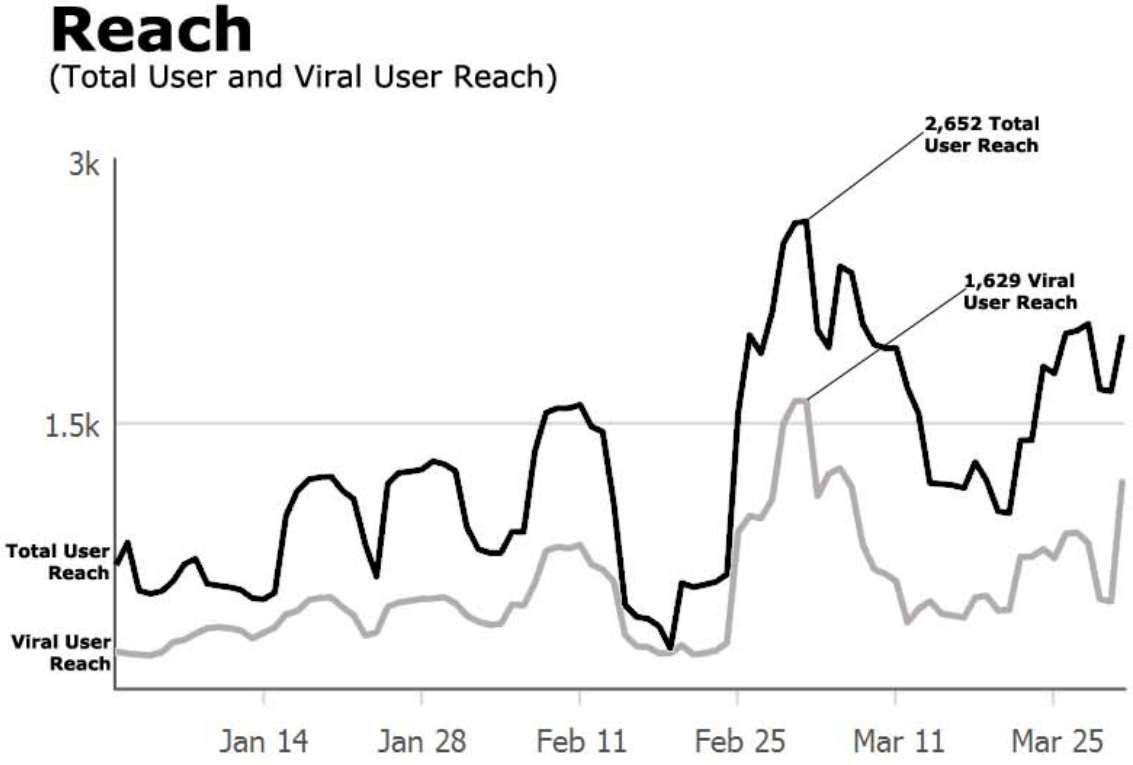
- **Press Release:** OEMS will send out a press release within a week of the EMS Week event, which occurs May 19 – 25, 2013. This press release will specifically mention Fire and EMS Memorial week.
- **Websites:** OEMS will promote EMS Week along with Fire and EMS Memorial Week on the VDH homepage and OEMS homepage.
- **Social Media:** OEMS will promote EMS Week and Fire and EMS Memorial Week on the VDH and OEMS Facebook and Twitter pages.
- **E-blast:** OEMS will send out an email to promote both events through our list-serv.
- **Local Events:** OEMS has sent VDFP a contact list of the executive directors of the Regional EMS Councils with local events occurring in their designated regions. OEMS has contacted these executive directors to advise them of their role in assisting if/when needed for these events.

Website Statistics

Due to technical difficulties with the WebTrends reporting program, statistics pertaining to the OEMS webpage will be unavailable until further notice. These statistics included the top downloaded items, unique visitors, average hits per day and the average visit length by minutes to the OEMS website.

Figure 1: This graph shows how many unique users and viral users saw content from our Facebook page from January - March, 2013. *Viral user reach* defines unique users that saw a story about our page published by a friend. The *total user reach* of unique users is defined as people who saw any content associated with our page. Each point represents the unique people reached in the 7-day period ending with that day.

***As of April 24, 2013 the OEMS Facebook page had 2,510 likes, which is an increase of 415 new likes since December 31, 2012.**



Governor's EMS Awards Program

- January/February - Revised and submitted the nomination forms to the Governor's EMS Awards nomination committee for feedback and revisions.
- February - Revised 2013 regional nomination forms for the committee to review and submitted final revisions. Sent finalized 2013 nomination forms to all of the Regional EMS Councils.
- March - Designed a logo and tagline for the Regional Awards program to be used in conjuction with their awards program and to be promoted on their websites.
- Created a general awards flier and customized award posters, which promoted winners from each of the Regional EMS Council regions. Emailed posters to all Regional EMS Councils and customized with their award deadline dates and websites upon request.
- PR Assistant created flier promoting the Regional EMS Council award deadlines and banquet dates. Posted on the OEMS website April 15, 2013.

EMS Symposium

- Updated Symposium Sponsorship Guide and posted it online April 15, 2013.
- Started drafting Symposium Pre-Con Guide, which will be finalized and posted online May 2013.

Media Coverage

OEMS Media Inquires:

- January 30 – Fielded a media inquiry from a reporter with the Daily Progress regarding EMS billing for services. The PR coordinator provided the following quote and a link to more info, "Due to economy-related budget constraints and decreasing revenues in EMS agencies, billing for services is a trend that is on the rise in Virginia."
- March 5 - Fielded a media inquiry from reporter at the Lynchburg News & Advance for EMS vehicle inspections for departments located in: The city of Lynchburg, The city of Bedford, Nelson Co., Amherst Co., Appomattox Co., Campbell Co. and Bedford Co., to include county and town departments, professional and volunteer. He also wanted to know when the most recent inspections occurred and any violations. The regulations and compliance manager replied to this media inquiry with the requested info.
- On March 27- Fielded email from Karen Hopkins, Reporter with 13NEWS WVEC-TV regarding the cities' regulation records for Virginia Beach, Norfolk, Chesapeake, Suffolk, Hampton, Newport News, Portsmouth, Williamsburg and James City County. The regulations and compliance manager responded to this request.

VDH Media Inquiries:

On March 18 – Fielded a call from Kelly Avelino with NBC 12 regarding mumps at the University of Richmond. Forwarded request to the VDH Central Region PIO.

VDH Communications

Commissioner's Weekly E-mail – The PR coordinator submitted the following OEMS stories to the commissioner's weekly email. Submissions that were recognized appear as follows:

- **April 8 - OEMS Division of Trauma/Critical Care Develops National Model**
  After identifying significant data quality issues with the newly implemented national EMS dataset in April 2012, **Paul Sharpe**, Division of Trauma/Critical Care manager for the Office of Emergency Medical Services (OEMS), developed a dashboard and began reporting monthly data quality scores to the 664 EMS agencies operating in the Commonwealth. With no national model to follow, Paul developed a Data Quality Dashboard, which allowed Virginia to successfully increase its submission rate to the National EMS Database from 66 to 100 percent of records being accepted during a one year time frame. As the first state to report EMS agency data quality, OEMS further simplified the Data Quality Dashboard so it could be developed solely through the use of Excel. This enabled other states with limited analytical resources to adopt the same data

collection process. ImageTrend Inc., which is the software used by OEMS and 25 other states, incorporated the same reporting process in its software and credited Virginia for developing the concept. Additionally, the National Association of State EMS Officials credited Virginia for sharing the materials that served as the model for developing the new national data quality assessment tool.

- **April 22 - OEMS Conducts Educator Update**

  Greg Neiman, Basic Life Support training specialist; **Debbie Akers,** Advanced Life Support training specialist; and **Warren Short**, Division of Educational Development training manager with the Office of EMS, conducted an Educator Update in Staunton on April 13. All certified EMS educators must attend one update during their certification period to maintain their instructor certification. OEMS conducts approximately eight updates across the state throughout the year in order to keep instructors up-to-date on a variety of EMS topics. Some of the items covered recently included information about the transition to national testing, improvements in the consolidated testing process designed by **Peter Brown**, OEMS certification examination manager and accreditation of EMS educational institutions. The trainers also reviewed the new process to become a certified EMS educator, changes in EMS regulations and the monthly web-based continuing education programs produced by **Terry Coy**, OEMS media specialist III. With this move to national testing, Virginia is currently one of the few states that are in compliance with all the National Standards for EMS Education.

VDH Communications Tasks– The PR coordinator was responsible for covering the following VDH communications tasks from January – April 2013.

- January – Coordinated tweets for the VDH Twitter page and set up a method for organizing tweets and tracking metrics associated with tweets. Collected topics from regional PIOs to represent all of the health regions. Also maintained the VDH Twitter page during an office closure, due to a storm in March, and updated the Twitter page with storm-related info. Continued to update the VDH Twitter page through April.
- February – Was the primary VDH backup and assisted with all tasks while other VDH PIOs were unavailable.
- March – Assigned VDH in the News during the month of March. Ran daily reports highlighting news clippings of stories pertaining to VDH.
- April – Coordinated and edited stories for the Dear Colleague email.

Planning and Regional Coordination

VI. Planning and Regional Coordination

Regional EMS Councils

Regional EMS Councils

Section 32.1-111.11 of the Code of Virginia states that "The Board shall designate regional emergency medical services councils which shall be authorized to receive and disburse public funds. Each council shall be charged with the development and implementation of an efficient and effective regional emergency medical services delivery system. The Board shall review those agencies that were the designated regional emergency medical services councils. The Board shall, in accordance with the standards established in its regulations, review and may renew or deny applications for such designations every three years. In its discretion, the Board may establish conditions for renewal of such designations or may solicit applications for designation as a regional emergency medical services council."

In accordance with the Code section above, as well as 12 VAC 5-31-2340 (Section N) of the Virginia Emergency Medical Services Regulations governing Regional EMS Councils, the Virginia Office of EMS (OEMS) is providing the Board of Health with information and recommendations for entities who have applied for re-designation as a Regional EMS Council in Virginia.

Applications for designation as Regional EMS Councils were received by OEMS in October of 2012. Upon verification of completion of those applications, OEMS forwarded those applications on to Regional EMS Council designation site reviewers, to provide an objective evaluation of the information supplied by the applicant in the submitted materials, as well as conduct a review of the physical location of the applicant, and conduct interviews of the applicant organization's staff, officers, and other system stakeholders.

The site review team consisted of the following individuals:

Randy P. Abernathy
Deputy Chief (Retired), Hanover County Fire & EMS
Past Vice-chair, State EMS Advisory Board.

Donald R. Barklage, Jr.
Battalion Chief (Retired), City of Fairfax Fire & Rescue Services
Past Chair, State EMS Advisory Board
Past Chair, Northern Virginia EMS Council

Robert A. Brown
Assistant Chief (Retired), Albemarle County Fire & Rescue
Past Chair – Financial Assistance Review Committee
Past Training Coordinator, Peninsulas EMS Council

Jennie L. Collins
Battalion Chief, Prince William County Department of Fire and Rescue
Past Chair, State EMS Advisory Board
Past Chair, Northern Virginia EMS Council

Glenn H. Luedtke
EMS Director (Retired), Sussex County, DE
Past Member, Arlington Volunteer Fire Dept, Arlington, VA

Larry A. Oliver
Deputy Chief, Frederick County Fire and Rescue Department
Member, State EMS Advisory Board
Past Chair, Lord Fairfax EMS Council

Site reviews of all applicant entities were conducted between February 20 and March 28, 2013.

Based on the applications received, and the site reviewer reports, the OEMS is recommending continued designation of Regional EMS Councils and in specified service areas as follows:

Blue Ridge EMS Council – Service area including the counties of Amherst, Appomattox, Bedford and Campbell, and the cities of Bedford and Lynchburg.

Central Shenandoah EMS Council – Service area including the counties of Augusta, Bath, Highland, Rockbridge and Rockingham, and the cities of Buena Vista, Harrisonburg, Lexington, Staunton and Waynesboro.

Lord Fairfax EMS Council – Service area including the counties of Clarke, Frederick, Page, Shenandoah, Warren, and the city of Winchester.

Northern Virginia EMS Council – Service area including the counties of Arlington, Fairfax, Loudoun, and Prince William; and the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park.

Old Dominion EMS Alliance – Service area including the counties of Amelia, Brunswick, Buckingham, Charles City, Charlotte, Chesterfield, Cumberland, Dinwiddie, Halifax, Hanover, Henrico, Goochland, Greensville, Lunenburg, Mecklenburg, New Kent, Nottoway, Powhatan, Prince Edward, Prince George, Surry, Sussex; the cities of Colonial Heights, Emporia, Hopewell, Petersburg, Richmond, and South Boston; and the towns of Ashland, Farmville and South Hill.

Peninsulas EMS Council – Service area including the counties of Essex, Gloucester, James City, King and Queen, King William, Lancaster; Mathews, Middlesex, Northumberland, Richmond, Westmoreland, York, and the cities of cities of Poquoson, Hampton, Newport News and Williamsburg.

Rappahannock EMS Council – Service area including the counties of Caroline, Culpeper, Fauquier, King George, Orange, Rappahannock, Spotsylvania, and Stafford; the town of Colonial Beach and the city of Fredericksburg.

Southwest Virginia EMS Council – Service area including the counties of Bland, Buchanan, Carroll, Dickenson, Grayson, Lee, Russell, Scott, Smyth, Tazewell, Washington, Wise and Wythe and the cities of Bristol, Galax, and Norton.

Thomas Jefferson EMS Council – Service area including the counties of Albemarle, Fluvanna, Greene, Louisa, Madison, Nelson, and the City of Charlottesville.

Tidewater EMS Council – Service area including the counties of Accomack, Isle of Wight, Northampton, and Southampton, and the cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk, and Virginia Beach.

Western Virginia EMS Council – Service area including the counties of Alleghany, Craig, Botetourt, Floyd, Franklin, Giles, Henry, Montgomery, Roanoke, Patrick, Pittsylvania, and Pulaski; and the cities of Covington, Danville, Martinsville, Radford, Roanoke, and Salem.

The designation term is three years, and will begin on July 1, 2013. The map of designated Regional EMS Councils is enclosed as **Appendix C**.

Medevac Program

The Medevac Committee is scheduled to meet on May 9, 2013. The minutes of the February 14, 2013 meeting are available on the OEMS website.

Additionally, the Medevac Committee met on April 29, to discuss the State EMS Plan, the EMS Regulations, and the model State EMS Guidelines put forth by the Association of Air Medical Services (AAMS). The results of the meeting will be included in the State EMS Plan updates.

The Medevac WeatherSafe application continues to grow in the amount of data submitted. In terms of weather turndowns, there were 636 entries into the WeatherSafe system in the first quarter of 2013. Two thirds of those entries were for interfacility transports, which is a continuing trend. This is a decrease from 480 entries in the first quarter of 2012. This data continues to show dedication to the program itself, but also to maintaining safety of medevac personnel and equipment.

OEMS and Medevac stakeholders continue to monitor developments regarding federal legislation and other documents related to Medevac safety and regulation, including the following bills in Congress:

- S 1407 Air Ambulance Medicare Accreditation and Accountability Act
- HR 1117 Air Ambulance Patient Safety, Protection and Coordination Act
- S 2376 Air Ambulance Services Clarification Act

State EMS Plan

The Virginia Office of EMS Strategic and Operational Plan is mandated through *The Code of Virginia* to be reviewed and revised on a triennial basis. The current version of the plan was approved by the State Board of Health in March of 2011.

As has been done in the past, the committees of the state EMS Advisory Board will be tasked with evaluating the current Plan, and proposing additions and/or deletions, as well as a SWOT analysis, as it pertains to their particular subject area. Templates for these planning sessions were distributed in February, in hope to have input from stakeholders in 2013, as the process of revisions continue.

In the past few months, the subcommittees of the state EMS Advisory Board have met to update the plan. It is the intention of OEMS to have an updated document prepared for the August 2013 meeting of the state EMS Advisory Board.

The State EMS Plan continues to be available for download via the OEMS website at http://www.vdh.virginia.gov/OEMS/EMSPlan/index.htm.

Regulation & Compliance

VII. Regulation and Compliance

Compliance

The EMS Program Representatives continue to complete ongoing investigations pertaining to EMS agencies and providers. These investigations relate to issues concerning failure to submit prehospital patient care data (VPHIB), violation of EMS vehicle equipment and supply requirements, failure to secure drugs and drug kits, failure to meet minimum staffing requirements for EMS vehicles and individuals with criminal convictions. The following is a summary of the Division's activities for the 1st quarter of 2013:

Enforcement

Citations Issued:	9
Providers:	4
EMS Agencies:	5

Compliance Cases

New Cases:	28
Cases closed:	14
Suspensions:	5
Temporary Suspensions:	3
Revocations:	3
Consent Order:	0

EMS Agency Inspections

Licensed EMS agencies:	685 Active
Permitted EMS Vehicles:	4,482 Active, Reserve, Temporary

Recertification:

Agencies:	121
Vehicles:	639

New EMS agencies: 4

Spot Inspections: 136

Hearings (Formal, IFFC)

January 7, 2013 Charles Williams

January 7, 2013, Tara Gallant
February 6, 2013, Med 1 Interfacility

Variances

Approved: 7
Disapproved: 6

OMD/PCD Endorsements

As of March 31, 2013: 222 Endorsed

Division Work Activity

Regulation and Compliance staff continues to represent the Office of EMS in Fire/EMS studies conducted by the Virginia Fire Service Board. Two such studies are scheduled for Wythe and Wise Counties in southwest Virginia. The Wythe study is scheduled for a site visit June 2-4 and the Wise County is tentatively scheduled for the end of June.

OEMS staff continues to offer technical assistance and educational presentations to EMS agencies, entities and local governments as requested. The following is a listing of locations and dates for the first quarter of 2013:

January 22, 2013; Augusta County
February 11, 2013, OMD Course, Homestead
February 12, 2013, Rockingham County
March 13, 2013, OMD Course, TJEMS
March 15, 2013, ALS Coordinator's Meeting, Charlottesville
March 26, 2013, OMD Course, Winchester

Field staff continues to assist the OEMS Grants Manager and the RSAF program by performing reviews for submitted grant requests as well as ongoing verification of RSAF grants awarded each cycle.

A quarterly OEMS field staff meeting was held in Richmond, VA on February 27- March 1, 2013. The agenda for this meeting focused on routine operational and administrative functions of the work unit.

Personnel Matters

Adam Harrell, EMS Program Representative for Northern Virginia submitted his resignation effective April 9, 2013. He accepted a position with the Department of Professional and Occupational Regulation (DPOR) as their Licensing Operations Administrator. He has relocated to the Richmond area with his family and we wish him all the best. OEMS is currently awaiting approval from the Secretary of Health and Human Resources (SHHR) to recruit and re-hire this

position. Ms. S. Heather Phillips and staff will cover this service area (NOVA) until such time as we can recruit, interview and make an employment offer.

EMS Regulations

Work continues by Divisional staff to conduct educational sessions for EMS agencies, providers and local governments on the newly implemented *Virginia EMS Regulations*. OEMS Staff has partnered with many of the regional EMS Councils to assist in scheduling and locating facilities to conduct these educational presentations. Mr. Berg has made presentations at the following locations:

Date	Location
November 5, 2012	City of Fairfax Fire Department Shift C (Adam Harrell)
November 15, 2012	Alexandria Fire Department (Adam Harrell)
November 16, 2012	City of Manassas Fire Department (Adam Harrell)
November 19, 2012	City of Fairfax Fire Department Shift A (Adam Harrell)
November 20, 2012	City of Fairfax Fire Department Shift B (Adam Harrell)
November 27, 2012	Frederick County, Chiefs meeting Mike Berg)
November 29, 2012	Physician's Transport Service (Adam Harrell)
December 17, 2012	City of Virginia Beach , VRS (Wayne Berry)
December 20, 2012	Fauquier CO.Fire/Rescue Executive Leadership (Adam Harrell)
January 9, 2013	Thomas Jefferson EMS Council board Meeting (Mike Berg)
January 9, 2013	Hampton Fire Training Center, PEMS (Wayne Berry)
January 10, 2013	Franklin Fire Department (Wayne Berry)
January 14, 2013	Mary Washington Hospital, EMS Night (Mike Berg)
January 16, 2013	Southside Emergency Crew, Petersburg (Mike Berg
January 16, 2013	Mid-County VRS, PEMS (Wayne Berry)
January 17, 2013	City of Manassas Park Shift 2 (Adam Harrell)
January 23, 2013	Sussex County (Mike Berg)
January 24, 2013	City of Manassas Park Shift 1 (Adam Harrell)
January 28, 2013	Peninsula EMS Council (Wayne Berry)
January 31, 2013	Central Shenandoah EMS Council (Mike Berg)
February 5, 2013	Prince William County Executive Leadership (Adam Harrell)
February 6, 2013	Abingdon VRS, membership training meeting (Wayne Berry)
February 7, 2013	Fauquier County Fire Chief's Meeting (Adam Harrell)
February 13, 2013	Tidewater EMS Council, Medical Operation Committee (Wayne Berry)
February 13, 2013	Tidewater EMS Council- 6:30 pm (Wayne Berry)
February 19, 2013	City of Norton, SWVA EMS Council (Mike Berg)
February 19, 2013	Abingdon, SWVA EMS Council (Mike Berg)
February 21, 2013	Northern Virginia EMS Council (Adam Harrell)
February 22, 2013	VFCA Conference, VA Beach (2) (Mike Berg)
March 2, 2013	CVCC, BREMS EMS Expo (Mike Berg)
March 3, 2013	Henrico Fire EMS Expo (Mike Berg)
March 16, 2013	March Medical Madness, Fluvanna (Mike Berg)

March 18, 2013	Dinwiddie, Namozine Volunteer Fire Department (Mike Berg)
March 20, 2013	Prince William County EMS Captains (Adam Harrell)
March 21, 2013	HVRS (Mike Berg)
March 23, 2013	TEMS – Suffolk (Mike Berg)
March 26, 2013	Botetourt County (Mike Berg)
March 27, 2013	Roanoke (Mike Berg)
March 27, 2013	Montgomery County (Mike Berg)
March 28, 2013	Danville Life Saving Crew, Danville, Virginia (Mike Berg)
March 28, 2013	Rocky Mount, Virginia (Mike Berg)
April 8, 2013	Eastern Shore, (Wayne Berry)
April 7, 2013	VAVRS Spring BOG (Mike Berg)

Technical Assistance

VIII. Technical Assistance

EMS Workforce Development Committee

The Workforce Development Committee (WDC) last met on February 14, 2013 – no business was conducted because a quorum was not present. The committee is scheduled to meet again on May 14, 2013.

WDC Sub-Committee Reports:

(a) Standards of Excellence

The sub-committee last met on April 24, 2013 and completed a final review of the material for all 7 Standards of Excellence Self-Assessment Surveys. These self-assessments surveys can be used by any EMS agency that wants to obtain ideas for enhancing their EMS agency's handling of tasks in the following areas:

- Leadership/Management
- Recruitment & Retention
- EMS Operational Readiness
- Life Safety
- Medical Direction
- Clinical Care Measures/Standards
- Community Involvement

The sub-committee discussed assigning a scoring mechanism to each survey (as suggested at a recent Recruitment and Retention Network meeting). However, the committee decided that the surveys were to provide a guideline for EMS improvement and did not need a scoring mechanism.

(b) EMS Officer Standards (I – IV)

The EMS Officer sub-committee last met on April 24, 2013. A final review of the documentation for EMS officer I was completed so that Draft copies of the Virginia EMS Officer I Task Book and the Reference Document for the EMS Task book can be posted on the Virginia Office of EMS web site under the EMS Agency and Leadership Resources – Leadership and Management section. In addition, to completing the EMS Officer Task Book, a set of Essay Questions will be part of the process to become recognized as a Virginia EMS Officer I.

A meeting is being scheduled for May 10, 2013 at 10:00 AM, for Virginia EMS Stakeholders who will have a chance to review, comment and ask questions about the Virginia EMS Officer I process.

The Virginia Recruitment and Retention Network

The Recruitment and Retention Network has met twice since the last State EMS Advisory Board.

The network met on February 22, 2013 at the Virginia Fire Chief's Association Mid-Atlantic Expo and Symposium in Virginia Beach, Virginia.

In addition, the Recruitment and Retention Network met again on April 12, 2013 at the Dumfries Triangle Rescue Squad in northern Virginia. Carol Morrow provided the group with an overview of the Standards of Excellence (SoE) program.

Recruitment and Retention Workshop

A Recruitment and Retention Workshop was held at the Central Shenandoah Regional EMS Council's office on March 23, 2013. The workshop was attended by 11 EMS officers and recruitment personnel from 7 different EMS agencies.

The group expressed a general concern that the in-fighting and drama in their agencies was hurting retention as well as not making their agency a very welcoming place to join. Options for improving their agency atmosphere were discussed.

In addition to the information offered during the workshop – the following recommendations were made to Mr. Chad Blosser, regional EMS council director, to enhance EMS recruitment in the area:

1: Form a regional recruitment and retention workgroup to continue discussion of common problems

2: Become active in the state-wide Recruitment and Retention Network – which meets every other month.

3: Write and submit a RSAF regional grant for recruitment and retention to:

A: Produce a regional template for flyers, posters, media announcements to recruit EMS providers

B: Produce a recruitment video that "tells the story" of EMS in the area

C: Produce a standard Power Point presentation for use by all agencies

Trauma and Critical Care

IX. Trauma and Critical Care

Virginia Pre-Hospital Information Bridge (VPHIB)

Migration to Virginia's version 3 EMS dataset (VAv3) DELAYED

OEMS has determined that the migration from the current VPHIB v2 dataset to the newVAv3 dataset slated for 7/1/2013 – 12/31/2013 will be delayed by one year. The revised implementation date for Virginia to move to its version 3 EMS dataset will be 7/1/2014 thru 12/31/2014. All EMS agencies will be expected to move from v2 to VAv3 during this six-month window.

Should this delay cause a hardship for any agency that will be prepared to move ahead of this window; contact VPHIB support. It is possible to have a small amount of agencies function as "beta test" agencies to implement submitting version 3 data between 1/1/2014 and 6/30/2014. VPHIB will be prepared to collect data during this time. To be a "beta test" agency would require the agency to communicate and receive feedback on their data submissions and this will serve to resolve issues prior to a full implementation.

There are several reasons for the pushing the implementation date back. Div. of TCC staff have been meeting with EMS software vendors, discussing implementation with our own vendor, and routinely participating on the NEMSIS Software Developers Group. As of the week of April 15 no EMS software vendor has applied to the NEMSIS TAC for certification. Virginia, after speaking with vendors that serve Virginia, staff asked NEMSIS to add discussing NEMSIS certification to the developers meeting agenda. Our concerns included: Was it realistic to anticipate that NEMSIS certification to occur within two weeks, can CAD certification be better described, and should CAD integration be part of the certification process?

During the 4/10/2013 developers meeting the length of time for software vendors to navigate certification was discussed and all agreed it could actually take up to three months for certification. Again, at this time no vendors have applied for certification, so half of Virginia's proposed timeline would be lost to this scenario.

The need for CAD certification by NEMSIS was discussed. NEMSIS staff alleviated this concern by discussing how they are only testing that software will have the ability to accept CAD data and no further strict requirements beyond this.

Other issues of concern with the migration to v3 nationally include that some NEMSIS resources such as the "suggested lists" (lists of provider impressions, symptoms etc.) are not fully developed, development of schemetron rules (quality rules), and the challenges with billing integration as we move from ICD9 to ICD10 coding.

The Div. of TCC plans to hold monthly "town hall" style webinar meetings prior to implementation to help answer questions from agencies and vendors about the VAv3 implementation. Our goal is to have one-hour meetings with the first 15 minutes dedicated to

providing education to attendees and the remaining time dedicated to a question and answer period. We do not want to hold these meetings too early as agencies may not fully understand the information prior to knowing what their software products will offer. The use of "just-in-time" training is most effective in the area of technology of this nature.

VPHIB data quality compliance

The VPHIB program staffs thank all of our agencies for doing an amazing job over the last year improving the quality of data submissions. We hope that agencies are also seeing the benefit of improving data quality when they work on performance improvement projects, develop reports, and see improved reimbursement for those that have fee for service in place.

April 2013 marked the one-year anniversary for the VPHIB Data Quality Dashboard and the transition to incorporating poor data quality into our monthly non-compliance report. The April 2013 compliance report included 38 agencies that were identified as being non-compliant due to consistent / ongoing poor data quality. Of the 38, the majority used their own ImageTrend Service Bridge license and through some simple adjustments should be able to easily correct the issues causing their low average scores.

The Div. of TCC manually developed and distributed detailed Individually Agency Data Quality Reports to the 38 agencies to assist them with understanding why they are receiving the errors they are. A de-identified copy of an individual agency data quality report is included as **Appendix D**. This "snap shot" of their submission quality provided the frequency of errors occurring with their agency and advice on how to prevent the errors in the future. We are optimistic that with almost all of the 38 agencies most issues appear to have fairly easy solutions to becoming compliant.

VPHIB data quality compliance has improved to a high percentage. Significant data quality issues exist with provider information such as EMS certification level, provider role, certification number, and similar provider demographic information. OEMS is continuing to assess provider demographic data and has begun to make as many fixes on the database end as possible. New validation rules will soon be put into place that help to show agencies where issues exist for their agency.

Operational Medical Directors (OMD) Use of VPHIB

Div. of TCC staff recently evaluated the use of VPHIB by OMDs. An analysis (**Appendix E**) of the number of OMD accounts in our system and the number of times existing OMD accounts have been utilized (number of sign-ons) shows a significant under-utilization of VPHIB by OMDs. VPHIB has a number of tools that can be invaluable to involved OMDs, whether the agency utilizes our product or another software vendor. All Virginia EMS agencies have access to VPHIB which includes standard reports, ad-hoc report/build a report, GIS reports, comparative reports against their region and Virginia, and a system to perform PI/QI/QA and communicate and document PI efforts.

Div. of TCC staff will attempt to ensure OMDs are aware of their potential access, use for VPHIB, and encourage agencies to proactively add their OMDs to VPHIB. OEMS does not grant access for OMDs to VPHIB. Individual agency VPHIB administrators must add their OMDs to the VPHIB system. VPHIB support staff can associate OMD accounts which will allow the OMD with a single sign-on to all of the individual agencies that they are medical director for. A special role was created just for OMDs and access can be granted by VPHIB admins within a minute or two.

OEMS will develop some resource materials for OMD's to help raise awareness and provide instructions on how to use the VPHIB system.

Quarterly Update – What was done

During the last quarter the bulk of TCC staff time dedicated to VPHIB was focused on preparing to move VPHIB to new servers with updated operating systems and preparing to support the small number of agencies with data quality issues. The Div. of TCC manager also remains very active with EMS data collection on the national level to ensure a smooth state rollout of VAv3. These efforts have already been described in other sections of this report.

During the quarter some data clean-up scripts were run to correct poor data that was entered into VPHIB. When data quality issues are discovered our first attempt is to see if issues can be corrected without needing the involvement of any agency, agencies, or software vendors. In some scenarios we can build a mapping for incorrect data to a correct format, and then run a script to clean-up past incorrect data. Div. of TCC performed this "behind the scenes" quality effort for elements; reason for choosing destination and destination type. Approximately 660,000 records were corrected without the need for outside efforts.

Quarterly Update – What will be done

Items that are on our short-list include addressing provider demographic information in the system, the OMD issue discussed above, developing a "smart ePCR run form, and negotiating the completion of moving to our new servers. VPHIB staff are also collecting public comment on a new trauma registry minimum dataset and installing the ImageTrend trauma registry.

NEMSIS submission

Virginia data is submitted by the Div. of TCC staff to NEMSIS each month when the Data Quality Dashboard and Compliance Report are developed. Data not submitted on time by Virginia EMS agencies does not get submitted to the national EMS database. Figure 1 shows the number of records that have been accepted by NEMSIS for the most recent quarters.

Figure 1 Number of Virginia EMS records accepted to the national EMS database.

Warehouse Summary for Your Sites							
	2011		2012				2013
	Q3	Q4	Q1	Q2	Q3	Q4	Q1
test VIRGINIA	1	1	1	1	1	8	74,854
VIRGINIA	215,946	228,478	240,764	248,498	244,556	240,848	162,126

The bottom row shows the records accepted by NEMSIS. The top row is only a testing site.

As a reminder, NEMSIS maintains a public data "cube" that anyone can access to compare their own information to. Go to www.NEMSIS.org and click on the "Reporting Tools" tab.

On the technical side

TCC staff has been working with the VITA/NG partnership and ImageTrend to finalize the setup of the new server environment that VPHIB will be moved to and the new trauma registry implemented on. The VPHIB and VSTR servers have been upgraded to MS SQL Server 2008 Enterprise (the most current available from NG.) Utilizing the enterprise version should allow some repairs and maintenance to occur without the system require going off-line. The Adobe Cold Fusion v8 has been upgraded to v9 and v10 has also been installed and will be available when needed. Cold Fusion is used as the tool that allows the various severs to communicate with one another and function as a system.

VDH Data warehouse development/linkage to hospital discharge data

We are very excited to share that a draft memorandum of understanding (MOU) has been developed and reviewed a couple of time between OEMS and VDH's Office of Information Management (OIM). The draft MOU (**Appendix F**) moves us in the direction of linking VPHIB and VSTR with VDH's data warehouse that includes the State's hospital discharge data, vital statistics, and other health related data. By participating in the VDH data warehouse we will have unprecedented ability to access outcome data for EMS events in Virginia and share our data with other public health programs.

Virginia Statewide Trauma Registry (VSTR)

Much like VPHIB, there are parallel efforts to upgrade the technology and dataset used to collect hospital injury data occurring with the VSTR. During the last couple of weeks Div. of TCC staff has been involved in the installation of ImageTrend' s Patient Registry (PR) product into our new server environment discussed in the VPHIB section. The PR, which will be known as the VSTR, will replace the existing homegrown VSTR which utilizes dated technology and this is raising challenges.

Moving to the ImageTrend product will bring with it the ability to perform many of the functions enjoyed with the VPHIB program such as:

- Modern technology that interacts with other technologies for greater scalability.
- Can be administered by the business owners.
- Flexible program which allows quick updates.
- Has an automated process for file upload with detailed feedback on submissions.
- Includes Report Writer program which allows even novice users to create reports.
- Has the ability to import EMS runs data to decrease entry time for hospital registrars.
- Will help us move to using the national trauma data standard and transition to ICD10 codes from ICD9. It will collect both during a transition period.
- Support for the VSTR will move from the OIM to the Div. of TCC.

It is OEMS's intention to have the new trauma registry replace the legacy program on 1/1/2014. It is yet to be determined whether the new registry will be setup with the existing dataset or a revised minimum dataset. The deciding factor will be whether the revised trauma registry dataset is approved as follows:

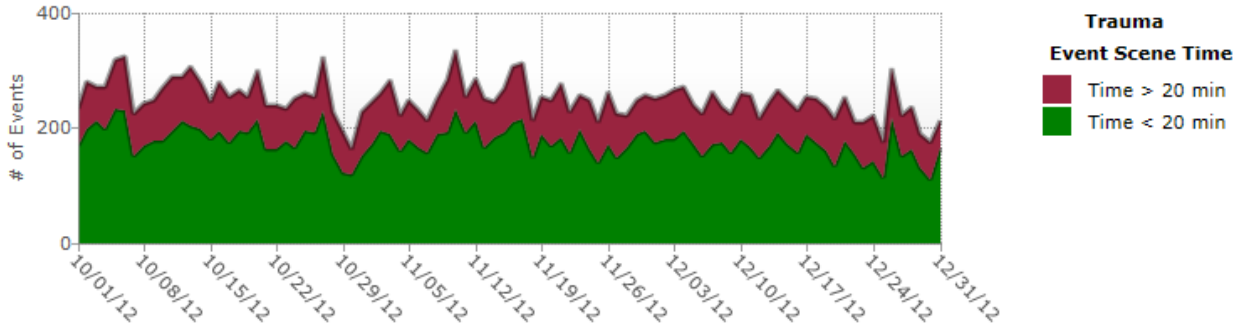
- TSO&MC – June 6th.
- EMS Advisory Board - August 9th.
- State Board of Health – Sept. 20th.

Trauma System

Trauma Triage

The National EMS Information System Technical Assistance Center (NEMSIS TAC) introduced its new EMS Performance Toolkit dashboard. One of the EMS performance measures is on scene time for the various time sensitive illnesses. Figure 1 below illustrates NHTSA performance measure 10.3 the "mean emergency scene interval" for trauma events. While the NEMSIS dashboard is based on 20 minutes scene times, many systems utilize a goal 10 minute on-scene time for major trauma.

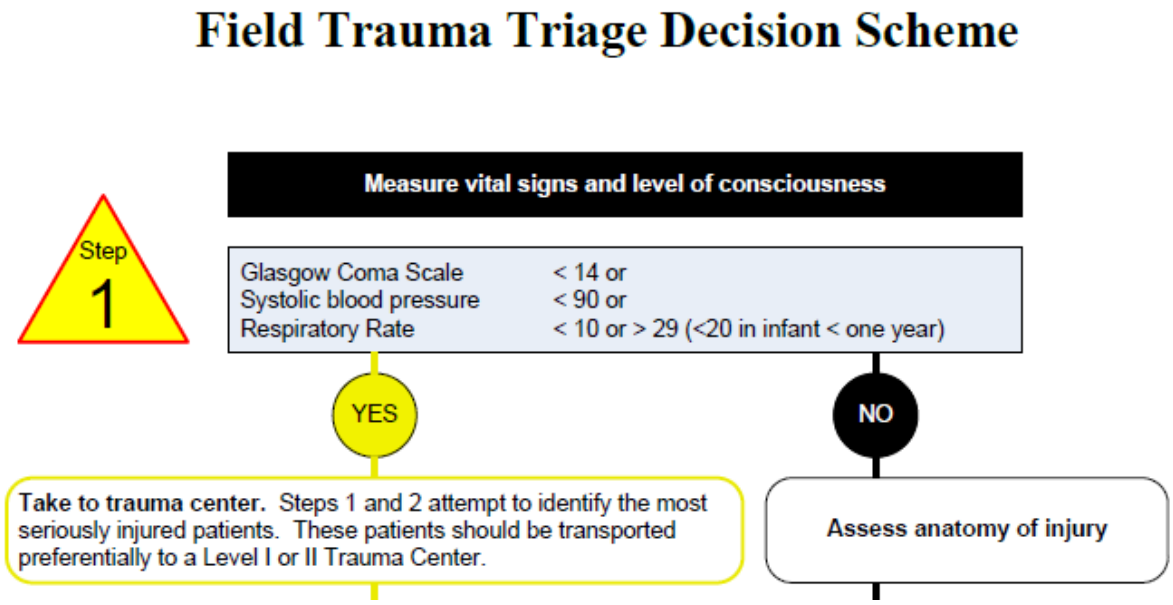
Figure 2 Exhibits the average on scene time by EMS crews for traumatic events



Trauma triage compliance monitoring

OEMS has established several surveillance tools within the VPHIB system that will monitor for "potential" missed triages for trauma patients meeting Step 1 (Figure 3) of the State's trauma triage plan. At this time, two auto-generated reports have been developed that will automatically run a monthly report delivered to the OEMS Trauma/Critical Care Coordinator. One report looks for major trauma patients being transport to free standing ED's and the other for major trauma patients to non-trauma designated hospital. The Div. TCC will continue to fine-tune these reports over the next quarter prior to utilizing their results. The goal of these surveillance tools is to meet our *Code of Virginia* obligation to notify EMS Agency "Directors" of missed triages. These will always be noted as potential missed triages due to extenuating circumstances that may occur in the pre-hospital environment.

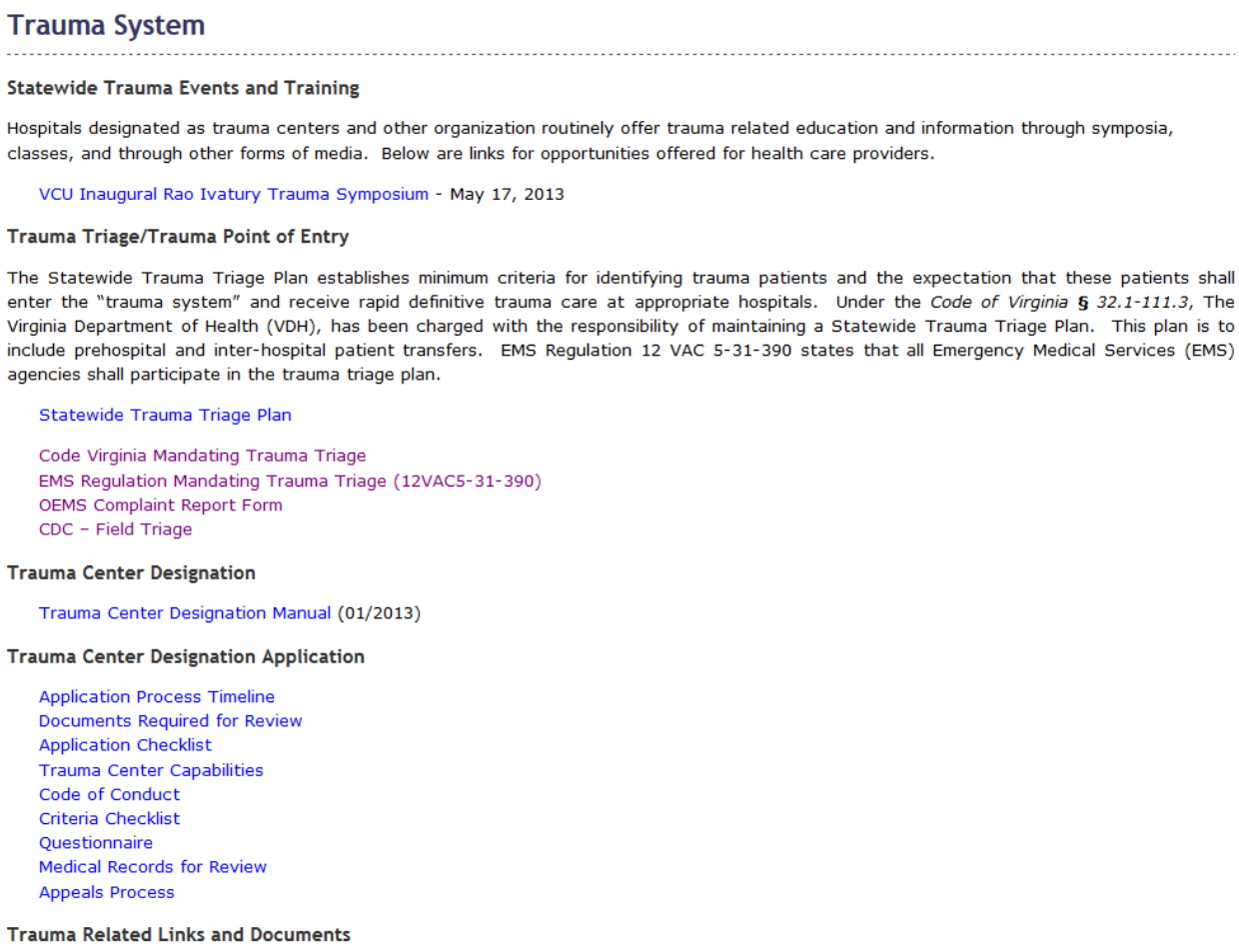
Figure 3 Step 1 Virginia Field Triage Decisions Scheme



OEMS trauma system Web page updated

At the request of the Trauma System Oversight and Management Committee (TSO&MC) the Trauma System Web page was updated to include trauma related training and events that are sponsored by our trauma centers (Figure 4). The revised 2013 Trauma Center Designation Manual and designation application documents were also posted.

Figure 4 Trauma System Web page update with education, trauma triage, and new trauma designation criteria



Trauma System

Statewide Trauma Events and Training

Hospitals designated as trauma centers and other organization routinely offer trauma related education and information through symposia, classes, and through other forms of media. Below are links for opportunities offered for health care providers.

VCU Inaugural Rao Ivatury Trauma Symposium - May 17, 2013

Trauma Triage/Trauma Point of Entry

The Statewide Trauma Triage Plan establishes minimum criteria for identifying trauma patients and the expectation that these patients shall enter the "trauma system" and receive rapid definitive trauma care at appropriate hospitals. Under the *Code of Virginia* **§** *32.1-111.3*, The Virginia Department of Health (VDH), has been charged with the responsibility of maintaining a Statewide Trauma Triage Plan. This plan is to include prehospital and inter-hospital patient transfers. EMS Regulation 12 VAC 5-31-390 states that all Emergency Medical Services (EMS) agencies shall participate in the trauma triage plan.

Statewide Trauma Triage Plan

Code Virginia Mandating Trauma Triage
EMS Regulation Mandating Trauma Triage (12VAC5-31-390)
OEMS Complaint Report Form
CDC – Field Triage

Trauma Center Designation

Trauma Center Designation Manual (01/2013)

Trauma Center Designation Application

Application Process Timeline
Documents Required for Review
Application Checklist
Trauma Center Capabilities
Code of Conduct
Criteria Checklist
Questionnaire
Medical Records for Review
Appeals Process

Trauma Related Links and Documents

2014 full Trauma Center Designation Manual revision remains underway

Five workgroups were established including operational, education/credentialing, performance improvement, special needs, and administrative groups. During the December 2012 TSO&MC the workgroups committed to completing their work and submitting their suggested revisions by February 1, 2013. The operational, special needs and administrative workgroups submitted proposed updates.

Also during the December 2012 meeting the Div. TCC committed to creating a single draft document that would be a compilation of the proposed trauma manual revisions. In addition to the changes submitted by the workgroups, the national standards for trauma center designation were added to the new draft. The TSO&MC will need to review the national criteria not previously in our state manual and provide a rationale for removing or adjusting them. Justifying deviations from the national standard is now a requirement as the document moves to the State Board of Health. This early draft of the "Trauma Center Designation Manual v2014" is attached as **Appendix G**.

Trauma Center Fund Disbursement Policy review and revision

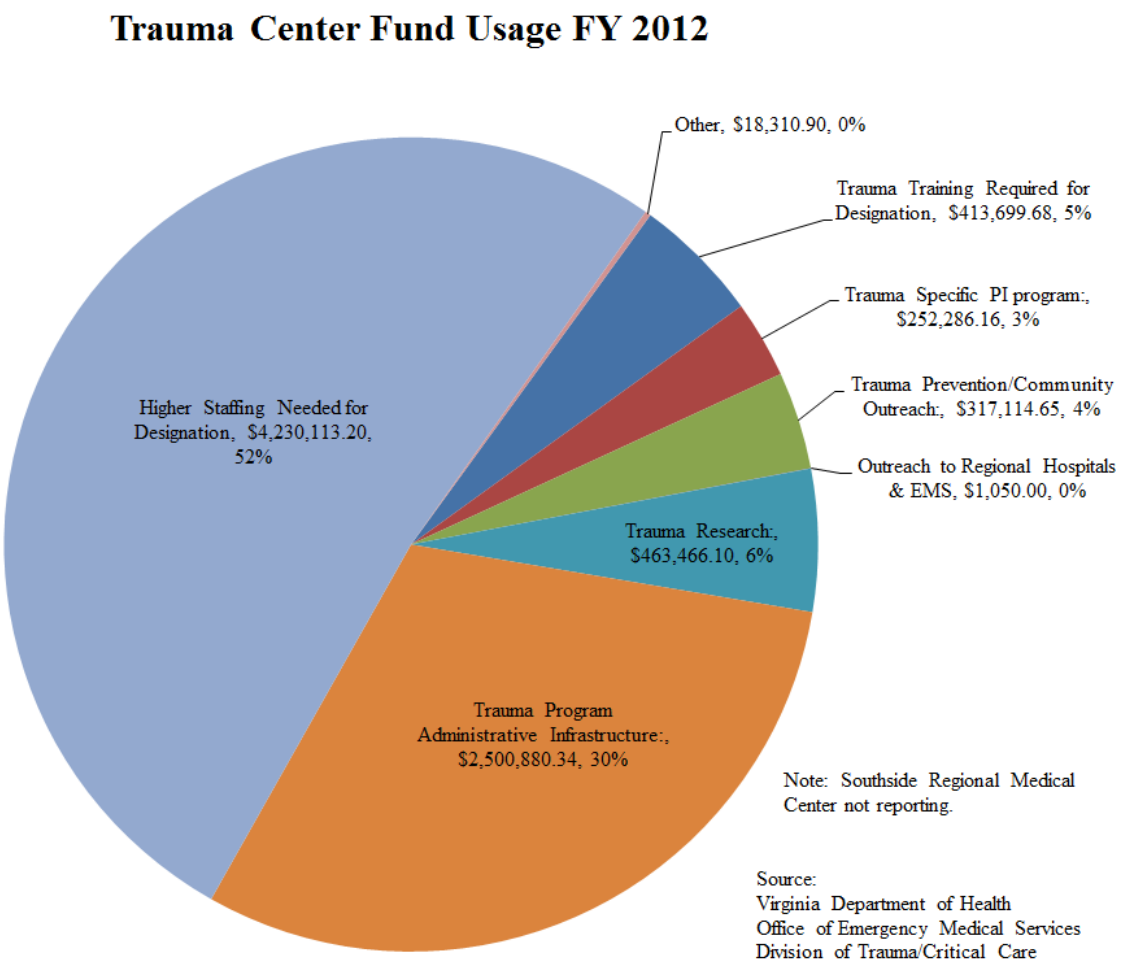
Each year a representative from each level of trauma center designation, the TSO&MC Chair, and the OEMS Trauma/Critical Care Coordinator review and revise this policy. The focus of this year's review was discussing elevating the support received by Level III centers and reviewing the list of allowable items that can be used with the funds by trauma centers. While the panel has the final say on the document, it will be brought to the June 6, 2013 TSO&MC for discussion and potentially will be a final version at that point. The draft version of the document can be review as **Appendix H**.

Annual Trauma Center Fund legislative report

In the 2004 General Assembly Session House Bill (HB) 1143 amended the *Code of Virginia* by adding section 18.2-270.01 which established the Trauma Center Fund for the Commonwealth of Virginia. This was the first step in addressing the challenges faced by Virginia's Trauma Centers.

In 2006, language was added to the Appropriations Act specifying and requiring that the Virginia Department of Health, Office of Emergency Medical Services (VDH/OEMS) report on the use of these funds in improving Virginia's Trauma System to the Governor and the Chairmen of the House Appropriations and Senate Finance Committees by October 1 of each year. Figure 5 below shows how the trauma centers utilized the Trauma Center Funds during CY2012

Figure 5 Shows how Trauma Center Funds were used by the Virginia trauma centers.



To further illustrate how the two largest uses for the Trauma Fund, Higher Staffing 52% and 30% for infrastructure staffing, are broken down are shown in Table 1 and Table 2 below.

Table 1 Exhibits the breakdown of funds used for "Trauma Program Administrative Infrastructure."

Support an administrative infrastructure dedicated to the trauma program as required for designation:	**System-wide Total**
Trauma medical director	$434,348.23
Trauma program manager	$712,501.12
Trauma registrar(s)	$667,922.27
Trauma performance improvement coordinator	$168,837.46
Other administrative staff(s) dedicated to support the trauma program	$517,271.26

Table 2 Exhibits the breakdown of funds used for "Higher Staffing Needed for Designation."

Support higher staffing levels (on-call stipends) that will assure quality trauma care day or night to include up to a maximum of 55 percent of funding received:	**System-wide Total**
Trauma Surgeons	$1,635,680.57
Other physician specialties	$1,406,012.78
Mid-level/physician extenders	$948,960.89
Increased nursing staffs to meet required nurse patient ratios	$92,208.00
Ancillary support staff(s) needed to meet state designation criteria	$147,250.96

Table 3 Funding Received by Each Trauma Center CY2012.

Trauma Center Name & Level of Designation	**Total Funds Received for CY12**
Roanoke Memorial Hospital	$1,413,671.56
Inova Fairfax Hospital	$1,625,853.37
Norfolk General Hospital	$1,169,994.23
UVA Health System	$1,457,558.98
VCU Health Systems	$2,545,582.58
Lynchburg General Hospital	$239,827.37
Mary Washington	$409,201.45
Riverside Regional Medical Center	$370,163.75
Winchester Medical Center	$451,608.74
New River Valley Medical Center	$33,852.55
CJW Medical Center	$91,158.77
Montgomery Regional Hospital	$26,046.85
Southside Regional Medical Center	$46,417.76
Virginia Beach General Hospital	$236,978.23

Virginia Statewide Trauma Registry (VSTR) minimum dataset revision

The Div. of TCC requested volunteers to work on revising the VSTR minimum dataset. With only two volunteers it was determined that the proposed minimum dataset would be posted for public comment. The public comment period will be 4/1/2013 thru 4/30/2013 and then again 5/15/2013 thru 5/31/2013. Trauma centers, hospitals, the Department of Rehabilitative Services, and trauma registry vendors in use in Virginia, have been notified and receive two reminders per week offering to receive input.

It is hoped that the TSO&MC will accept the revised minimum dataset at its June 6th meeting followed by the EMS Advisory Board on August 9th and the State Board of Health on September

20th. The revised minimum dataset was developed based on the National Trauma Standard and its approval on this timeline would mitigate hospital that submit files from other computer programs to not to have to undergo two transitions; one moving to the new VSTR application and the second to the new minimum dataset if not approved on this timeline.

Virginia Statewide Trauma Registry application update

As reported in the past, the current VSTR application that was originally developed within VDH in the 1990's will be replaced by the ImageTrend Patient Registry application. The Patient Registry has been loaded onto the Div. of TCC new server environment and is now available for staff to begin setting up our new VSTR. The legacy VSTR will be decommissioned after January 1, 2014.

It is OEMS's intention to have the new trauma registry replace the legacy program on 1/1/2014. It is yet to be determined whether the new registry will be setup with the existing dataset or a revised minimum dataset.

Moving to the ImageTrend product will bring with it the ability to use many of the functions enjoyed with the VPHIB program such as:

- Modern technology that interacts with other technologies for greater scalability.
- Can be administered by the business owners.
- Flexible program which allows quick updates.
- Has an automated process for file upload with detailed feedback on submissions.
- Includes Report Writer program which allow even novice users to create reports.
- Has the ability to import EMS runs data to decrease entry time for hospital registrars.
- Will help us move to using the national trauma data standard and transition to ICD10 codes from ICD9. It will collect both during a transition period.
- Support for the VSTR will move from the OIM to the Div. of TCC.

For those interested in seeing the new VSTR application see **Appendix I** "Patient Registry Users Guide."

Data sharing with the Office of the Chief Medical Examiner

Div. of TCC has been in talks with the OCME in an effort to see how we can foster linkage or EMS and trauma data with data collected by the OCME. To date willingness by parties to collaborate exist and it has been determined that technologically the easiest way to achieve this linkage would be via the VDH data warehouse when this project is underway.

EMS Councils Trauma Performance Improvement

The Div. of TCC has been working towards increasing using of VPHIB for regional trauma PI efforts. The Informatics Coordinator developed a presentation titled Performance Improvement

Measures for Virginia EMS: "What do the numbers say?" and presented this to the Executive Directors of the 11 EMS Regional Councils at their February 14th meeting.

More recently staff identified the Performance Improvement (PI) representatives for each of the 11 EMS Regional Councils (RCs) and revised the "Local EMS System" user role created in VPHIB by Paul Sharpe. We will begin beta testing the role in April, with plans to train all EMS RC PI Personnel in May.

The regional PI VPHIB role had been in development for approximately one year, but was also discussed as a need in the December 2012 TSO&MC meeting.

TSO&MC March 7, 2013 meeting

The TSO&MC for March 27, 2013 was cancelled due to the threat of a strong winter storm. The next meeting is scheduled for June 6, 2013.

TSO&MC Performance Improvement Committee (TPIC)

Inclement weather forced the cancellation of the March TSOM Committee meeting as well as the planned reorganization meeting for the Trauma PI Committee. All activities were rescheduled to June.

Trauma Center Data Validation

Completed data validation project comparing each trauma centers' own trauma registry counts with those of the VSTR. No major discrepancies were noted.

From the Informatics Coordinator/Statistician

Since migrating our statistical software from SPSS to SAS, we have been unable to make a direct ODBC connection to the VSTR. This technical challenge has now been overcome. This will allow for a more efficient data extraction and analysis process.

Also along the lines of migrating to SAS; the Informatics Coordinator has translated the SPSS data extraction program used to prepare for trauma center designation site visits to SAS.

Efforts are ongoing with VPHIB/EMS data assessing its quality and working on building annual CY datasets for 2007 through 2012 in anticipation of revising the Trends in Trauma and Emergency Medicine annual reports.

Data Requests:

Note: All external requests are entered into a tracking system for data requests and approved by Gary Brown before the information is disseminated.

Ken Pravetz, EMS Provider with the City of Virginia Beach Department of EMS, requested the number of firearm related EMS responses in the City of Virginia Beach and across the Commonwealth for the last three years. The information will be included in an Executive Fire Officer Program research paper. Provided a spreadsheet containing data tables (and related pivot tables) by four geographic locations (Virginia Beach City, Tidewater EMS Region, VDH Eastern Region, and Overall) with counts by CY, Type of Service Requested (911 responses and flagdown/walk-ins), Patient Disposition (all types of "treated" as well as cancelled calls), Cause of Injury (3 types of firearm related injuries, plus "all other" or "none reported").

Other activities performed by the Informatics Coordinator include:

- Preparation of a preliminary set of reports for the OEMS Customer Satisfaction Feedback Form data collected via the Survey Monkey tool created in February 2013. Will fine-tune the analyses and output when the feedback form has been revised.

- Assisted the Office of the Chief Medical Examiner (OCME) in the identification of the EMS agency that transported a patient whose death was being investigated. This allowed the OCME to contact the agency and request the information they needed.

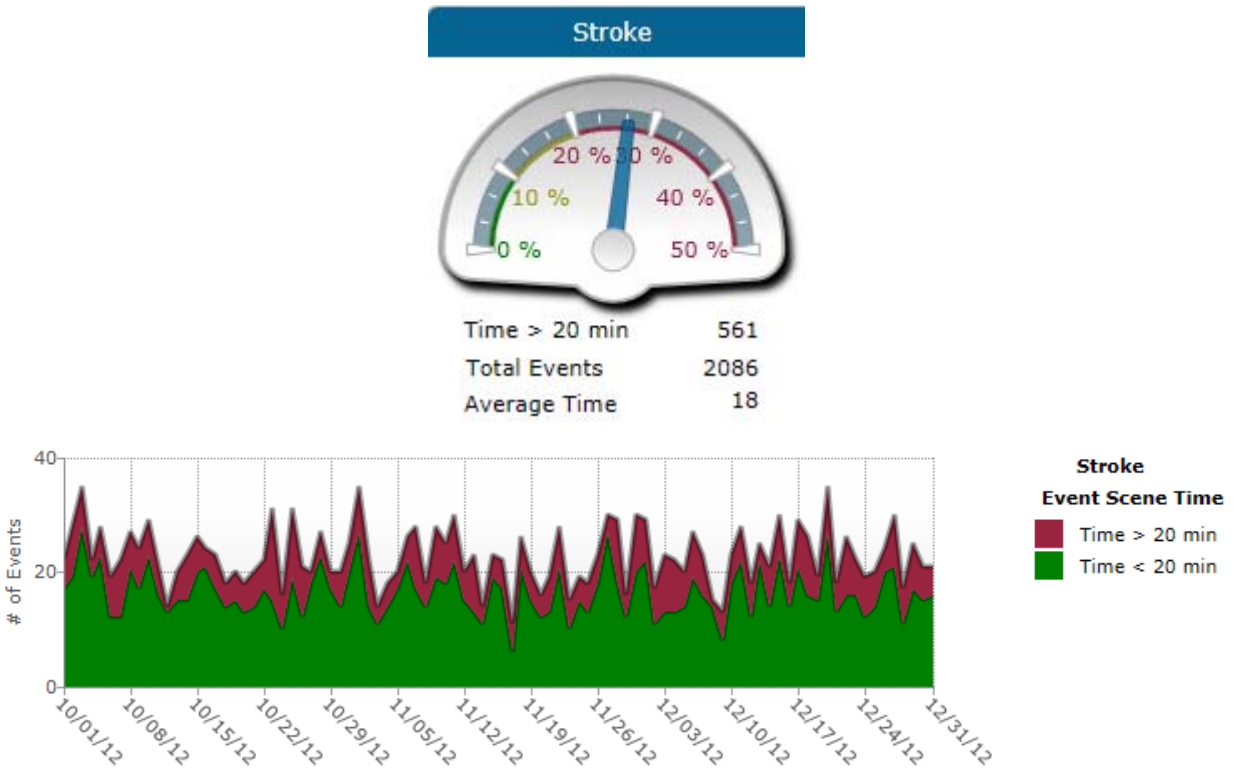
- Attended two SAS webinars to enhance my data analysis skills:
    - How To Advance Your Data Mining and Predictive Analytics with Modern Techniques on January 16th
    - How To Use Hadoop as a Piece of the Big Data Puzzle on February 27th

Virginia Stroke System

Stroke Triage

The National EMS Information System Technical Assistance Center (NEMSIS TAC) introduced its new EMS Performance Toolkit dashboard. One of the EMS performance measures is on scene time for the various time sensitive illnesses. Figure 1 below illustrates NHTSA performance measure 10.3 the "mean emergency scene interval" for acute stroke events.

Figure 6 Exhibits the average on scene time by EMS crews for acute stroke events.



Emergency Medical Services for Children (EMSC)

National Pediatric Readiness Project Assessment in Progress

The "National Pediatric Readiness Project" began in January. This on-going quality improvement initiative, endorsed by a large cadre of national organizations and seeks to gauge the pediatric readiness of more than 5,000 U.S. hospitals.

The Virginia EMSC Manager was assigned as "pediatric champion" for the effort in Virginia. The EMSC Manager has been assisting the national project in making contact with appropriate personnel at hospitals to participate in the assessment, and in making personal follow-up contacts as we work toward achieving the best possible national response rate. Virginia hospitals entered the assessment period during February and are being assessed in the second or five cohorts, with each cohort having a 92-day window in which to complete the on-line assessment tool. The assessment portal closes for Virginia on May 10th.

Virginia's minimum acceptable response rate has been set at 80%. With the aid of the Virginia Hospital and Healthcare Association, the Virginia EMSC Program is confident that at the close of the assessment portal today, this target will be achieved.

Length-Based Pediatric Emergency Tapes Being Distributed by EMSC

2,000 of the latest (Version (2011 Edition A) Broselow™ Pediatric Emergency Tapes have been purchased with federal EMSC funding for distribution to Virginia EMS Agencies that have need for them. The current plan is to distribute the tapes through EMS Regional Councils to EMS agencies that need them.

EDAP Designation Criteria Revised (PM 74)

Following the well-attended stakeholders meeting held in October 2012, the EDAP (Emergency Department Approved for Pediatrics) Work Group made extensive revisions to EDAP criteria based upon the stakeholder suggestions received. The latest draft criteria are referred to as "Version 122712", when the newest revisions were incorporated.

Distribution of the revised draft criteria has been delayed pending conclusion of the National Pediatric Readiness Assessment that is taking place now. Additional stakeholder input will be solicited, and a draft of the current criteria will be available in the next few months. The draft criteria are also being placed on the "members only" portion of the NASEMSO (National Association of State EMS Officials) website as a model pediatric resource for other facility recognition programs beginning to be developed throughout the country. The intended outcome from this process is to eventually implement a voluntary pediatric facility recognition program in Virginia to *recognize excellence and encourage improvement* in pediatric emergency medical care.

EMSC State Partnership Grant

The Virginia EMSC program received notice that is has been awarded a four-year continuation of its EMSC State Partnership Grant, which began on March 1, 2013. The first year of funding from HRSA (Health Resources & Services Administration) has been reduced by a minimum of 15%, with a warning that there could be further reductions, as a result of sequestration and congressional timing of continuing resolutions to fund the government. It is anticipated that the rest of the grant cycle will not experience reductions.

Trauma Center Pediatric Criteria Revised (PM 75, 80)

Trauma Center Designation criteria have been revised to include more specific pediatric criteria. If the new revisions are adopted, this effort would directly enhance Virginia's ability to demonstrate progress toward achieving 2 of the National EMSC Performance Measures.

Facilitating Access to Pediatric Education (PM78, 80)

The Virginia EMSC program is working to facilitate access to pediatric education and training, especially in the form of EPC (*Emergency Pediatric Care*) and *Emergency Nursing Pediatric Course* (ENPC) courses around the Commonwealth. Now that continuation federal funding has been approved, EMSC plans to provide a number of these courses in areas with historically difficult access to pediatric training.

Pediatric ED Assessments on Hold During National Assessment (PM 74)

The Virginia EMSC program will not be making site visits to small and rural Virginia hospitals to assess their pediatric needs and capabilities until the National Pediatric Readiness Assessment (on-line survey) has been completed.

EMSC Annual Program Manager's Meeting

The required annual meeting of EMSC state program managers will be April 29-May 1, and this year EMSC Family Representative's nationally have been included. An agenda is available for the meeting in Bethesda, MD for any who wish to see it.

Pediatric Emergency Care Council (PECC)

The next meeting of the Pediatric Emergency Care Council (PECC) of the National Association of State EMS Officials (NASEMSO) is being attached to the end of the Annual EMSC Program Managers Meeting; this will held May 1-2.

The newest on-going federally funded projects of NASEMSO are:

- *Model Interstate Compact for EMS Personnel Licensure for State Adoption*.
- *Model EMS Guidelines*.
- *Statewide Implementation of a Prehospital Care Guideline*.

The PECC is currently working on:

- Creating a pediatric disaster readiness checklist tool for states
- Accepting responsibility to maintain and update the latest federal recommendations for safe transport of children in ambulances as a "living document"
- Providing direct input into the final revision of new national recommendations for equipment for ground ambulances (ACS, AAP, ENA and others…)
- Determining evidence-based recommendations for minimum requirements to maintain pediatric care proficiency for recertification of EMS providers
- Providing input to on-going study of pediatric mass casualty triage system effectiveness
- Facilitating success of the Pediatric Readiness Project hospital emergency department national assessments currently underway

Suggestions/Questions

Suggestions or questions regarding the Virginia EMS for Children program should be submitted to David Edwards via david.edwards@vdh.virginia.gov or by calling the EMSC program within the Office of EMS at 804-888-9144.

Poison Control Services

Legislative report on poison funding

OEMS' Division of Trauma/Critical Care serves as the contract administrator for the three poison centers that make up the Virginia Poison Control Network (VPCN). As a reminder, the 2012 – 2014 Appropriations Act had originally proposed to end State funding for poison control services for Virginia. The Act also limited the number of poison centers from the historical three centers to only two. Fortunately, the Virginia Poison Control Network has been restored to three centers and $1 million restored.

The Appropriations Act as required that VDH/OEMS complete an analysis of the level of funding needed to support the operations and services of the poison control centers. Div. of TCC staff worked with an outside firm to develop this report. The poison control funding need repot is attached as **Appendix J**.

There are four separate budget amendments that were submitted related to poison control services included:

- Chief Patron Del. May, Co-patron Del. Lingamfelter, proposes $2 million for year two for the three poison centers that serve Virginia.

- Chief Patron Del. Peace, Co-patron Del. O'Bannon, proposes $1 million for year two for the Virginia Poison Center at Virginia Commonwealth University.

- Chief Patron Del. Toscano, proposes $3 million for year two for the three poison centers that serve Virginia.

- Chief Patron Sen. Barker proposes $3 million for year two for the three poison centers that serve Virginia.

Durable Do Not Resuscitate (DDNR)

Div. of TCC staff has been attended recent POST state meetings and continue to support their efforts to stream line issues surrounding living will and DNR topics.

Respectfully Submitted

OEMS Program Managers

Appendix A

State EMS Advisory Board
Motion Submission Form

☒ Committee Motion: Name: Medical Direction Committee

☐ Individual Motion: Name: _____

Motion:
To adopt the revised Procedures and Formulary grids using evidence-based best practice medicine to enhance prehospital care in Virginia.

EMS Plan Reference (include section number):

3.1.8 - Through a consensus process, develop recommendations for an evidence-based patient care guidelines and formulary.

Committee Minority Opinion (as needed):

None. There was no opposition or abstentions.

For Board's secretary use only:
Motion Seconded By: _____

Vote: By Acclamation: ☐ Approved ☐ Not Approved

By Count: Yea: _____ Nay: _____ Abstain: _____

Board Minority Opinion:

Meeting Date:

Virginia Office of Emergency Medical Services
Scope of Practice - Procedures for EMS Personnel

This SOP represents ***practice maximums*** .

PROCEDURE	SKILL	PROCEDURE SUBTYPE	EMR	EMT	AEMT	I	P
Specific tasks in this document shall refer to the Virginia Education Standards.							
AIRWAY TECHNIQUES							
Airway Adjuncts							
	Oropharyngeal Airway		●	●	●	●	●
	Nasopharyngeal Airway		●	●	●	●	●
Airway Maneuvers							
	Head tilt jaw thrust		●	●	●	●	●
	Jaw thrust		●	●	●	●	●
	Chin lift		●	●	●	●	●
	Cricoid Pressure		●	●	●	●	●
	Management of existing Tracheostomy			●	●	●	●
Alternate Airway Devices							
	Non Visualized Airway Devices	Supraglottic		●	●	●	●
Cricothyrotomy							
	Needle						●
	Surgical	Includes percutaneous techniques					●
Obstructed Airway Clearance							
	Manual		●	●	●	●	●
	Visualize Upper-airway				●	●	●
Intubation							
	Nasotracheal						●
	Orotracheal - Over age 12					●	●
	Pharmacological facilitation with paralytic	Adult Neuromuscular Blockade					●
	Confirmation procedures			●	●	●	●
	Pediatric Orotracheal						●
	Pediatric paralytics						●
	Pediatric sedation						●
**** Endotracheal intubation is prohibited for all levels except Intermediate and Paramedic**							

"Investigational medications and procedures which have been reviewed and approved by an Institutional Review Board (IRB) will be considered to be approved by the Medical Direction Committee solely within the context of the approved study. Investigators involved in IRB approved research are asked to present their study plans to the MDC for informational purposes so that the committee can maintain an awareness of on-going pre-hospital research in the Commonwealth. Those who desire to conduct non-IRB reviewed pilot projects, demonstration projects, or research are asked to present those proposals to the MDC prior to their implementation for review and approval by the MDC."

Use of medication not listed which is indicated by medical control and/or the operational medical director due to the use of a weapon of mass destruction is exempt from this list.

Virginia Office of Emergency Medical Services
Scope of Practice - Procedures for EMS Personnel

This SOP represents ***practice maximums*** .

PROCEDURE	SKILL	PROCEDURE SUBTYPE	EMR	EMT	AEMT	I	P
Oxygen Delivery Systems							
	Nasal Cannula		●	●	●	●	●
	Venturi Mask			●	●	●	●
	Simple Face Mask		●	●	●	●	●
	Partial Rebreather Face Mask			●	●	●	●
	Non-rebreather Face Mask		●	●	●	●	●
	Face Tent			●	●	●	●
	Tracheal Cuff			●	●	●	●
	Oxygen Hood					●	●
	O2 Powered Flow restricted device			●	●	●	●
	Humidification			●	●	●	●
Suction							
	Manually Operated		●	●	●	●	●
	Mechanically Operated		●	●	●	●	●
	Pharyngeal		●	●	●	●	●
	Bronchial-Tracheal			●	●	●	●
	Oral Suctioning		●	●	●	●	●
	Naso-pharyngeal Suctioning			●	●	●	●
	Endotracheal Suctioning			●	●	●	●
	Meconium Aspiration Neonate with ET						●
Ventilation – assisted / mechanical							
	Mouth to Mask		●	●	●	●	●
	Mouth to Mask with O2		●	●	●	●	●
	Bag-Valve-Mask Adult		●	●	●	●	●
	Bag-Valve-Mask with supplemental O2 Adult		●	●	●	●	●
	Bag-Valve-Mask with supplemental O2 and reservoir Adult		●	●	●	●	●
	Bag-Valve-Mask Pediatric		●	●	●	●	●

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Virginia Office of Emergency Medical Services
Scope of Practice - Procedures for EMS Personnel

This SOP represents ***practice maximums*** .

PROCEDURE	SKILL	PROCEDURE SUBTYPE	EMR	EMT	AEMT	I	P
	Bag-Valve-Mask with supplemental O2 Pediatric		●	●	●	●	●
	Bag-Valve-Mask with supplemental O2 and reservoir Pediatric		●	●	●	●	●
	Bag-Valve-Mask neonate/infant		●	●	●	●	●
	Bag-Valve-Mask with supplemental O2 Neonate/Infant		●	●	●	●	●
	Bag-Valve-Mask with supplemental O2 and reservoir Neonate/Infant		●	●	●	●	●
	Noninvasive positive pressure vent.	CPAP, fixed pressure		●	●	●	●
		CPAP, BiPAP, PEEP adjustable				●	●
	Jet insuflation						●
	Mechanical Ventilator (Manual/Automated Transport Ventilator)	Maintain long term/established			●	●	●
		Initiate/Manage ventilator				●	●
Anesthesia (Local)						●	●
Pain Control & Sedation							
	Self Administered inhaled analgesics			●	●	●	●
	Pharmacological (non-inhaled)				●	●	●
	Patient controlled analgesia (PCA)	Maintain established			●	●	●
	Epidural catheters (maintain)	Maintain established				●	●
Blood and Component Therapy Administration		Maintain				●	●
		Initiate					●
Diagnostic Procedures							
	Blood chemistry analysis			●	●	●	●
	Capnography			●	●	●	●
	Pulmonary function measurement				●	●	●
	Pulse Oximetry			●	●	●	●
	Ultrasonography						●
Genital/Urinary							
	Bladder catheterization						
	Foley catheter	Place bladder catheter					●
		Maintain bladder catheter		●	●	●	●

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Virginia Office of Emergency Medical Services
Scope of Practice - Procedures for EMS Personnel

This SOP represents ***practice maximums*** .

PROCEDURE	SKILL	PROCEDURE SUBTYPE	EMR	EMT	AEMT	I	P
Head and Neck							
	ICP Monitor (maintain)						●
	Control of epistaxis		●	●	●	●	●
		Inserted epistaxis control devices			●	●	●
	Tooth replacement		●	●	●	●	●
Hemodynamic Techniques							
	Arterial catheter maintenance						●
	Central venous maintenance				●	●	●
	Access indwelling port					●	●
	Intraosseous access & infusion				●	●	●
	Peripheral venous access and maintenance				●	●	●
	Umbilical Catheter Insertion/Management						●
	Monitoring Existing IVs			●	●	●	●
	Mechanical IV Pumps				●	●	●
Hemodynamic Monitoring							
	ECG acquisition		●	●	●	●	●
	ECG Interpretation					●	●
	Invasive Hemodynamic Monitoring						●
	Vagal Maneuvers/Carotid Massage					●	●
Obstetrics							
	Delivery of newborn		●	●	●	●	●
Other Techniques							
	Vital Signs		●	●	●	●	●
	Bleeding control		●	●	●	●	●
		Tourniquets	●	●	●	●	●
	Foreign body removal	Superificial without local anesthsia		●	●	●	●
		Imbedded with local anesthesia/exploration				●	●
	Incision/Drainage						●
	Intravenous therapy				●	●	●
	Medication administration			●	●	●	●
	Nasogastric tube			●	●	●	●
	Orogastric tube			●	●	●	●

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Use of medication not listed which is indicated by medical control and/or the operational medical director due to the use of a weapon of mass destruction is exempt from this list.

Virginia Office of Emergency Medical Services
Scope of Practice - Procedures for EMS Personnel

This SOP represents ***practice maximums*** .

PROCEDURE	SKILL	PROCEDURE SUBTYPE	EMR	EMT	AEMT	I	P
	Pericardiocentesis						●
	Pleural decompression					●	●
	Patient restraint physical			●	●	●	●
	Patient restraint chemical					●	●
	Sexual assault victim management			●	●	●	●
	Trephination of nails						●
	Wound closure techniques					●	●
	Wound management		●	●	●	●	●
	Pressure Bag for High altitude						●
	Treat and Release			●	●	●	●
	Vagal Maneuvers/Carotid Massage					●	●
	Intranasal medication administration	Fixed/unit dose medications		●	●	●	●
		Dose calculation/measurement			●	●	●
Resuscitation							
	Cardiopulmonary resuscitation (CPR) (all ages)		●	●	●	●	●
	Cardiac pacing					●	●
	Defibrillation/Cardioversion	AED	●	●	●	●	●
	Post resuscitative care			●	●	●	●
Skeletal Procedures							
	Care of the amputated part		●	●	●	●	●
	Fracture/Dislocation immobilization techniques		●	●	●	●	●
	Fracture/Dislocation reduction techniques	Manipulation of angulated/pulseless extremities		●	●	●	●
		Joint reduction techniques		●	●	●	●
	Spine immobilization techniques		●	●	●	●	●
Thoracic							
	Thoracostomy (refer to "Other Techniques")						●
Body Substance Isolation / PPE			●	●	●	●	●
Lifting and moving techniques			●	●	●	●	●

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Scope of Practice - Procedures for EMS Personnel

This SOP represents ***practice maximums*** .

PROCEDURE	SKILL	PROCEDURE SUBTYPE	EMR	EMT	AEMT	I	P
Gastro-Intestinal Techniques							
	Management of non-displaced gastrostomy tube						●
Ophthalmological							
	Morgan Lenses			●	●	●	●
	Corneal Exam with fluorescein					●	●
	Ocular irrigation		●	●	●	●	●

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Virginia Office of Emergency Medical Services
Scope of Practice - Formulary for EMS Personnel

This SOP represents ***practice maximums*** .

CATEGORY		EMR	EMT	AEMT	I	P
Analgesics						
	Acetaminophen		●	●	●	●
	Nonsteroidal anti-inflammatory		●	●	●	●
	Opiates and related narcotics			●	●	●
	Dissociative analgesics					
	Ketamine 0.5 mg/kg or less IV/IN				●	●
Anesthetics						
	Otic			●	●	●
	General - initiate					●
	Ketamine greater than 0.5 mg/kg					●
	General - maintenance				●	●
	Ocular			●	●	●
	Inhaled-self administered		●	●	●	●
	Local			●	●	●
Anticonvulsants				●	●	●
Glucose Altering Agents						
	Glucose Elevating Agents		●	●	●	●
	Glucose Lowering Agents				●	●
Antidotes						
	Anticholinergic Antagonists				●	●
	Anticholenesterase Antagonists	●	●	●	●	●
	Benzodiazepine Antagonists					
	Narcotic Antagonists		●	●	●	●
	Nondepolarizing Muscle Relaxant Antagonist					

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Virginia Office of Emergency Medical Services
Scope of Practice - Formulary for EMS Personnel

This SOP represents ***practice maximums*** .

CATEGORY		EMR	EMT	AEMT	I	P
	Beta/Calcium Channel Blocker Antidote				●	●
	Tricyclic Antidepressant Overdose				●	●
	Cyanide Antidote				●	●
	Cholinesterase Reactivator	●	●	●	●	●
Antihistamines & Combinations			●	●	●	●
Biologicals						
	Immune Serums				●	●
	Antibiotics		●	●	●	●
Blood/Blood products						
	Initiate					●
	Maintain				●	●
Blood Modifiers						
	Anticoagulants				●	●
	Antiplatelet Agents		●	●	●	●
	Hemostatic Agents		●	●	●	●
	Thrombolytics					●
	Anti-fibrinolytics (eg tranexamic acid)				●	●
Cardiovascular Agents						
	Alpha Adrenergic Blockers				●	●

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Virginia Office of Emergency Medical Services
Scope of Practice - Formulary for EMS Personnel

This SOP represents ***practice maximums*** .

CATEGORY		EMR	EMT	AEMT	I	P
	Adrenergic Stimulants				●	●
	Antiarrhythmics				●	●
	Beta Adrenergic Blockers				●	●
	Calcium Channel Blockers				●	●
	Diuretics				●	●
	Inotropic Agents				●	●
	Vasodilatory Agents		●	●	●	●
	Vasopressors				●	●
Central Nervous System	Antipsychotic				●	●
Dietary Supplements/Electrolyte	Vitamins					
	Minerals - start at a health care facility	See section: Intravenous Fluids				
	Salts - start at a health care facility					
	Electrolytes Solutions - start at a health care facility					
	Hypertonic Saline				●	●
Gas						
	Oxygen	●	●	●	●	●
	Heliox				●	●
Gastrointestinal						
	Antacids					
	OTC			●	●	●

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Virginia Office of Emergency Medical Services
Scope of Practice - Formulary for EMS Personnel

This SOP represents ***practice maximums*** .

CATEGORY		EMR	EMT	AEMT	I	P
	Antidiarrheals		●	●	●	●
	Antiemetics		●	●	●	●
	EMT SL/PO route only					
	H2 Blockers		●	●	●	●
Hormones	Steroids			●	●	●
Intravenous Fluids	isotonic			●	●	●
	hypotonic			●	●	●
	hypertonic				●	●
	M = Maintenance I = Initiate					
	Crystalloid, +/- Dextrose/Lactate		M	I/M	I/M	I/M
	with Multi=vitamins		M	M	M	M
	with Thiamine		M	M	M	M
Neuromuscular Blockers						●
Respiratory	Anticholinergics		●	●	●	●
	Sympathomimetics					
	Beta agonists		●	●	●	●
	Epinephrine				●	●
Dosage and Concentration Calculation				●	●	●
M = Maintenance						
I = Initiate						

Note: EMT's may administer medications within their scope of practice in addition to assistance in administration of those medications. EMT's may access a drug kit to access those medications. MDC discussions.

"Investigational medications and procedures which have been reviewed and approved by an Institutional Review Board (IRB) will be considered to be approved by the Medical Direction Committee solely within the context of the approved study. Investigators involved in IRB approved research are asked to present their study plans to the MDC for informational purposes so that the committee can maintain an awareness of on-going pre-hospital research in the Commonwealth. Those who desire to conduct non-IRB reviewed pilot projects, demonstration projects, or research are asked to present those proposals to the MDC prior to their implementation for review and approval by the MDC."

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Appendix B

State EMS Advisory Board
Motion Submission Form

☒ Committee Motion: Name: Medical Direction Committee

☐ Individual Motion: Name: _____

Motion:
To publish a white paper on Seatbelt Use in Ambulances.

EMS Plan Reference (include section number):

3.1.8 - Through a consensus process, develop recommendations for an evidence-based patient care guidelines and formulary.
4.1.6 - Review functional adequacy and design features of EMS vehicles utilized in Virginia and recommend changes to improve EMS provider safety, unit efficiency and quality of patient care.
4.3.2 - Develop, implement, and promote programs that emphasize safety, wellness, and the physical health of fire and EMS personnel.

Committee Minority Opinion (as needed):

None. There was no opposition or abstentions.

For Board's secretary use only:
Motion Seconded By: _____

Vote: By Acclamation: ☐ Approved ☐ Not Approved

By Count: Yea: _____ Nay: _____ Abstain: _____

Board Minority Opinion:

Meeting Date:

Medical Direction Committee
WHITE PAPER

Seatbelt Use in Ambulances

Saving lives is the goal of EMS – yet somehow it is this very industry that has been left out of the mainstream of the safety world. This is a system that has a large transportation element. And it is this transport component that carries some serious risks.

The numbers are concerning with an excess of 5,000 ambulance crashes per year, one medic killed per month, and a fatality as the result of an ambulance crash about every week, the injuries are in the thousands each year.(1) Between 1991- 2000, 302,969 Emergency Vehicles were involved in Motor Vehicle Crashes. 1565 involved fatalities. (2)

Most serious and fatal injuries occur in the rear compartment. Eighty two percent of fatally injured EMS personnel are rear unrestrained occupants.(1) A study by Johnson, Lindholm, and Dowd (2006) revealed two-thirds of the providers at two large EMS agencies did not wear their seatbelt when in the back of the ambulance.

We recommend that all personnel wear their seatbelt in the front and rear of the ambulance. We also recommend that agencies develop policies requiring compliance with seatbelt use. This would include, when safe for the patient, performing procedures and assessments at the scene prior to placing vehicle in movement. When possible medics should time actions requiring the medics to be unbelted to coincide with stops at red lights or stop signs. If not detrimental to patient care, the unit should pull over to a stop if extended times of being out of the seatbelt are required.

1 Becker, Zaloshnja, Levick, Li, and Miller. Acc Anal Prev 2003
2 Comparison of Crashes Involving Ambulances with those of similar sized vehicles. Adam Ray, Douglas Kupac, PEC DEC 2005; 9: 412-415

Appendix C

COMMONWEALTH of VIRGINIA
Department of Health

Office of Emergency Medical Services
1041 Technology Park Drive
Glen Allen, VA 23059-4500

Cynthia C. Romero, MD, FAAFP
State Health Commissioner

Gary R. Brown
Director

P. Scott Winston
Assistant Director

1-800-523-6019 (VA only)
804-888-9100 (Main Office)
804-888-9120 (Training Office)
FAX: 804-371-3108

April 15, 2013

Mr. Gary P. Critzer, Chair
Virginia EMS Advisory Board
1001 Technology Park Drive
Glen Allen, VA 23059

Dear Chairman Critzer:

Section 32.1-111.11 of the Code of Virginia states that "The Board shall designate regional emergency medical services councils which shall be authorized to receive and disburse public funds. Each council shall be charged with the development and implementation of an efficient and effective regional emergency medical services delivery system. The Board shall review those agencies that were the designated regional emergency medical services councils. The Board shall, in accordance with the standards established in its regulations, review and may renew or deny applications for such designations every three years. In its discretion, the Board may establish conditions for renewal of such designations or may solicit applications for designation as a regional emergency medical services council."

In accordance with the Code section above, as well as 12 VAC 5-31-2340 (Section N) of the Virginia Emergency Medical Services Regulations governing Regional EMS Councils, the Virginia Office of EMS (OEMS) is providing the EMS Advisory Board with information and recommendations for entities who have applied for re-designation as a Regional EMS Council in Virginia.

Applications for designation as Regional EMS Councils were received by OEMS in October of 2012. Upon verification of completion of those applications, OEMS forwarded those applications on to Regional EMS Council designation site reviewers, to provide an objective evaluation of the information supplied by the applicant in the submitted materials, as well as conduct a review of the physical location of the applicant, and conduct interviews of the applicant organization's staff, officers, and other system stakeholders.

The site review team consisted of the following individuals:

Randy P. Abernathy
Deputy Chief (Retired), Hanover County Fire & EMS
Past Vice-chair, State EMS Advisory Board.

Donald R. Barklage, Jr.
Battalion Chief (Retired), City of Fairfax Fire & Rescue Services
Past Chair, State EMS Advisory Board
Past Chair, Northern Virginia EMS Council

Robert A. Brown
Assistant Chief (Retired), Albemarle County Fire & Rescue
Past Chair – Financial Assistance Review Committee
Past Training Coordinator, Peninsulas EMS Council

Jennie L. Collins
Battalion Chief, Prince William County Department of Fire and Rescue
Past Chair, State EMS Advisory Board
Past Chair, Northern Virginia EMS Council

Glenn H. Luedtke
EMS Director (Retired), Sussex County, DE
Past Member, Arlington Volunteer Fire Dept, Arlington, VA

Larry A. Oliver
Deputy Chief, Frederick County Fire and Rescue Department
Member, State EMS Advisory Board
Past Chair, Lord Fairfax EMS Council

Site reviews of all applicant entities were conducted between February 20 and March 28, 2013. A copy of each reviewer report accompanies this cover.

Based on the applications received, as well as the site reviewer reports, the OEMS recommends continued designation of Regional EMS Councils and in specified service areas as follows:

Blue Ridge EMS Council – Service area including the counties of Amherst, Appomattox, Bedford and Campbell, and the cities of Bedford and Lynchburg.

Central Shenandoah EMS Council – Service area including the counties of Augusta, Bath, Highland, Rockbridge and Rockingham, and the cities of Buena Vista, Harrisonburg, Lexington, Staunton and Waynesboro.

Lord Fairfax EMS Council – Service area including the counties of Clarke, Frederick, Page, Shenandoah, Warren, and the city of Winchester.

Northern Virginia EMS Council – Service area including the counties of Arlington, Fairfax, Loudoun, and Prince William; and the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park.

Old Dominion EMS Alliance – Service area including the counties of Amelia, Brunswick, Buckingham, Charles City, Charlotte, Chesterfield, Cumberland, Dinwiddie, Halifax, Hanover, Henrico, Goochland, Greensville, Lunenburg, Mecklenburg, New Kent, Nottoway, Powhatan, Prince Edward, Prince George, Surry, Sussex; the cities of Colonial Heights, Emporia, Hopewell, Petersburg, Richmond, and South Boston; and the towns of Ashland, Farmville and South Hill.

Peninsulas EMS Council – Service area including the counties of Essex, Gloucester, James City, King and Queen, King William, Lancaster; Mathews, Middlesex, Northumberland, Richmond, Westmoreland, York, and the cities of cities of Poquoson, Hampton, Newport News and Williamsburg.

Rappahannock EMS Council – Service area including the counties of Caroline, Culpeper, Fauquier, King George, Orange, Rappahannock, Spotsylvania, and Stafford; the town of Colonial Beach and the city of Fredericksburg.

Southwest Virginia EMS Council – Service area including the counties of Bland, Buchanan, Carroll, Dickenson, Grayson, Lee, Russell, Scott, Smyth, Tazewell, Washington, Wise and Wythe and the cities of Bristol, Galax, and Norton.

Thomas Jefferson EMS Council – Service area including the counties of Albemarle, Fluvanna, Greene, Louisa, Madison, Nelson, and the City of Charlottesville.

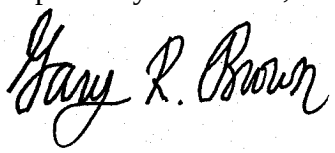
Tidewater EMS Council – Service area including the counties of Accomack, Isle of Wight, Northampton, and Southampton, and the cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk, and Virginia Beach.

Western Virginia EMS Council – Service area including the counties of Alleghany, Craig, Botetourt, Floyd, Franklin, Giles, Henry, Montgomery, Roanoke, Patrick, Pittsylvania, and Pulaski; and the cities of Covington, Danville, Martinsville, Radford, Roanoke, and Salem.

A map outlining the recommended service areas accompanies this cover. OEMS recommends a designation term of no less than three (3) years, commencing on July 1, 2013.

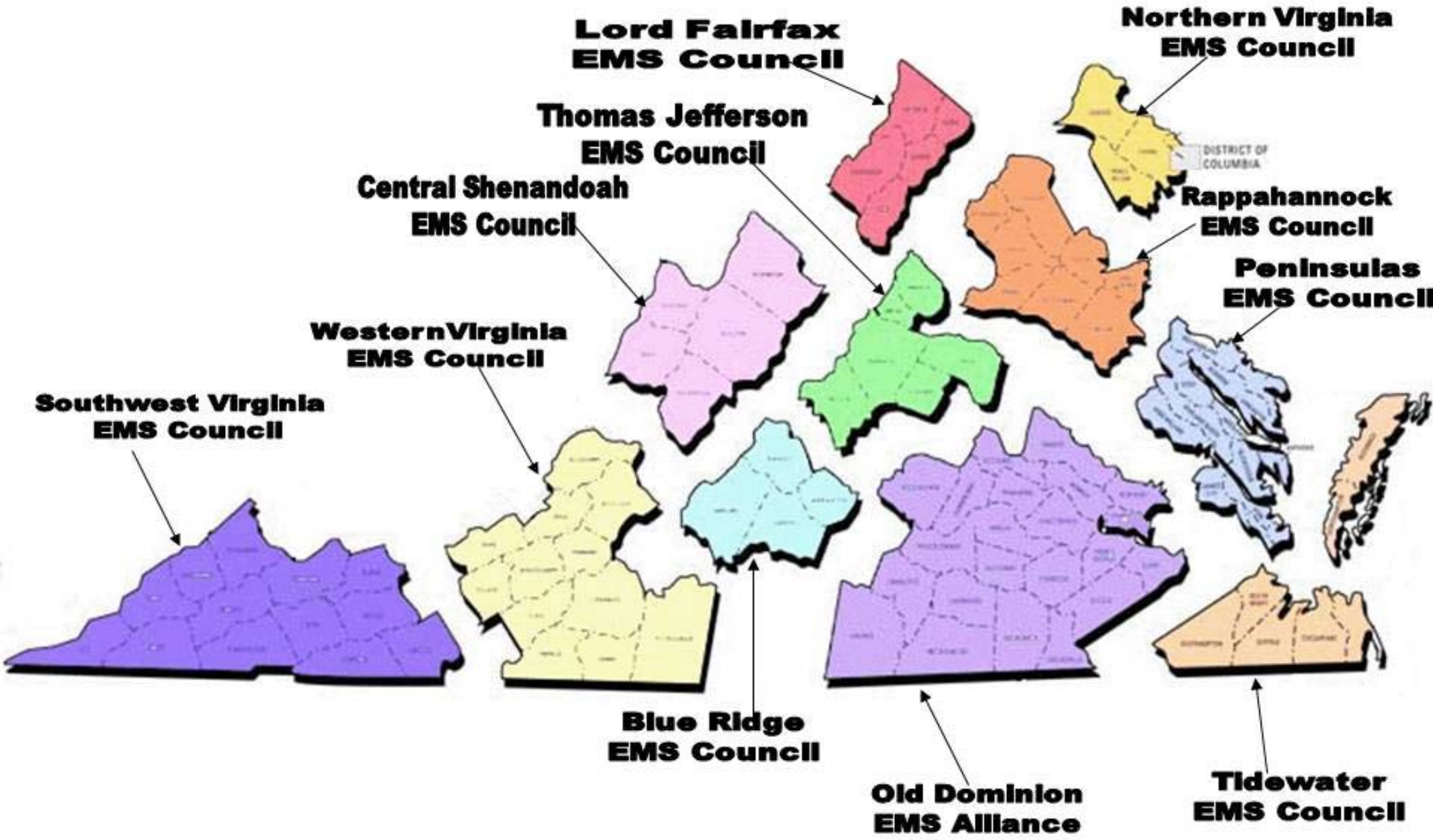
OEMS staff is prepared to answer any questions of the EMS Advisory Board related to Regional EMS Council designation, and anticipates the Board approval of the recommendation as specified above.

Respectfully submitted,



Gary R. Brown, Director
Virginia Department of Health
Office of EMS

Designated Regional EMS Council Map
July 1, 2013



Appendix D

"Mystery EMS" Frequency of Validation Errors 12/1/2012 – 2/28/2013

The purpose of this Data Validation Report (DVR) is to provide feedback to individual agencies on the rate of validation errors occurring with their VPHIB data submissions for the time period noted above. Validation rules are used to check data entries for accuracy. Our validation rules are either based on logic or the State's minimum data standard. For example, a logic rule will identify that an "enroute to the hospital time" cannot occur prior to arriving on scene.

Validation rules that protect the State's minimum standard will identify when an item that is required to be submitted is missing or does not contain a valid answer. Individual elements may appear more than once. It is our hope that once you know what items are frequently not being reported correctly, that you will be able to educate your providers or work with your IT staff to make corrections to improve the quality of information you are submitting.

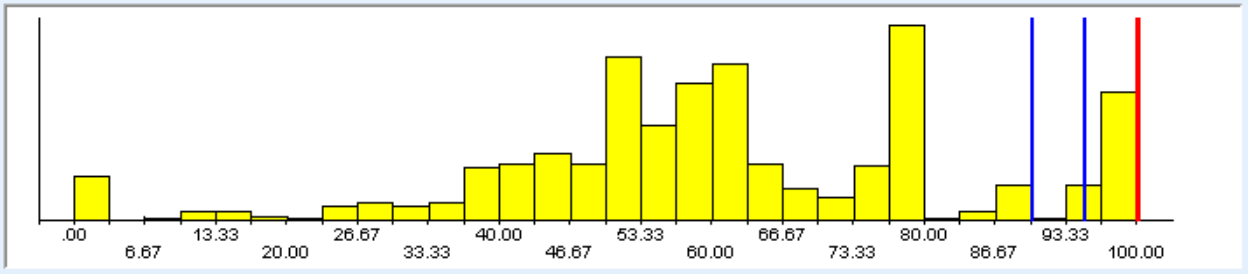
Please contact VPHIB Support at http://oemssupport.kayako.com/, Support@OEMSSupport.Kayako.com, or (804) 888 – 9149 with any questions you may have or technical support needed to correct data your data quality issues.

Quick Facts
Total number of incidents for the period being reported: 870
Method of Reporting: ImageTrend
Number of Records by Scoring Groups

- 100 (no errors) = 69
- 95 – 99 (acceptable) = 26
- 90 – 95 (below average) = 18
- 0-89 (poor) = 757

Avg. Score: 61.01
Minimum Score: 0
Maximum Score: 100

Distribution of Validity Scores December 2012 – February 2013



Frequency of Validation Errors December 2012 – February 2013

Error Message	Frequency of Errors
E02_06 - Response Delay: Cannot be missing or a not value.	578
E09_16 - Provider's secondary impression is missing.	469
E02_08 - The scene delays, if any, are missing.	468
E09_14 - Other symptoms identified by the patient or observed by EMS personnel is missing.	464
E09_04 - Possible injury is missing.	457

E11_01 - Indication of the presence of a cardiac arrest is missing.	356
E02_10 - The turn-around delays, if any, are missing.	252
E09_06 - The duration of the patient's chief complaint is missing.	200
E09_06 - The duration of the patient's chief complaint is missing.	200
E05_07 - Arrive Patient Side date/time is missing.	195
E02.09 - The transport delays, if any, are missing.	173
E12_10 - The patient's medical/surgical history is missing.	113
E02_05 - Primary Role of Unit is missing.	109
E14_23 - Pain Score is missing and the primary impression indicates a complaint related to pain.	109
E20_01 - Destination name is missing	100
E05_09 - Leave Scene date/time is missing.	99
Logic E05_09 - When disposition of call is Cancelled, the date/time the responding unit left the scene should not exist.	65
E06_13 - Patient's ethnicity is required.	60
E06_13 - Patient's ethnicity is required.	60
E12_20 - Indicate whether the patient is currently pregnant or not (13 -49 y/o)	49
IT5_19 - The level of exterior damage is missing.	47
E05_03 - Unit Dispatched date/time is missing	43
E09_13 - Primary Symptom is missing	42
E09_13 - Primary symptom is missing	42
E02_07 - The response delays, if any, of the unit associated with the patient encounter is missing.	36
E09_04 - A Cause of Injury should not exist when possible injury is 'No'.	32

Common Solutions and additional Information by specific error:

(The list of information below does not provide guidance for each error noted above.)

Below are some common reasons for your agency to frequently receive these quality errors. There could be other reasons for errors that we are not aware of.

E02_06 - Response Delay: Cannot be missing or a not value.

- If no delay has occurred this should be marked as “None” (code 105) and not a not value such as “not applicable” (code -25) See the list of “not values” at the end of this list. Recommend setting your default to “None”
- Check if you agency is collecting this element, if not it needs to be added.
- OEMS can provide you an example of how to write a validation rule for your EMS software if you have that functionality.

E09_16 - Provider's secondary impression is missing.

- This error is caused when there has been contact with a patient/potential patient and this field is left [blank].
- Check if you agency is collecting this element, if not it needs to be added.
- OEMS can provide you an example of how to write a validation rule for your EMS software if you have that functionality.

E02_08 - The scene delays, if any, are missing.

- If no delay has occurred this should be marked as "None" (code 225) and not a not value such as "not applicable" (code -25) See the list of "not values" at the end of this list. Recommend setting your default to "None"
- Check if your agency is collecting this element, if not it needs to be added.

E09_14 - Other symptoms identified by the patient or observed by EMS personnel is missing.

- This error is caused when there has been contact with a patient/potential patient (see the list of patient contacts at the end of this list) and this field is left [blank] or uses a not value. If there are no "other associated symptoms" the correct response should be "None/No Signs or symptoms" (code 1575).
- Consider changing your default to "None/No Signs or symptoms" (code 1575).
- Check if your agency is collecting this element, if not it needs to be added.
- OEMS can provide you an example of how to write a validation rule for your EMS software if you have that functionality.

E09_04 - A Cause of Injury should not exist when possible injury is 'No'.

- This is a logical rule that identifies when a record states that the element "possible injury" is reported as no and then a valid cause of injury is also reported.
- This is typically a weakness in EMS software when a default of "No" is set for the element "possible injury" and the element is not changed to yes when the provider documents a fall, MVC or other cause of injury.
- Another possible cause of this error is that the agency is not collecting the element possible injury.
- Check if you agency is collecting this element, if not it needs to be added.
- If your agency does have this element, educate your providers to change possible injury to yes when a cause of injury is documented
- If your agency is not collecting this element add it and assure it is setup logically.
- OEMS can provide you an example of how to write a validation rule for your EMS software if you have that functionality.

- E11_01 - Indication of the presence of a cardiac arrest is missing.
- This error is caused when there has been contact with a patient/potential patient (see the list of patient contacts at the end of this list) and this field is left [blank].
- Either "No" (code 0), "Yes, prior to EMS arrival" (code 2240), or "Yes, after EMS arrival" (code 2245) must be submitted.
- Check if your agency is collecting this element, if not it needs to be added.
- If your agency is collecting this element consider changing your default answer from a not value to "No" (code 0).
- OEMS can provide you an example of how to write a validation rule for your EMS software if you have that functionality.

E02_10 - The turn-around delays, if any, are missing.

- If no delay has occurred this should be marked as “None” (code 360) and not a not value such as “not applicable” (code -25) See the list of “not values” at the end of this list. Recommend setting your default to “None”
- Check if your agency is collecting this element, if not it needs to be added.

E09_06 - The duration of the patient's chief complaint is missing.

- This error can occur for three different reasons and this is the reason you may see it reported two or three times and appear to be a duplicate or triplicate error.
- This error is caused when there has been contact with a patient/potential patient (see the list of patient contacts at the end of this list) and this field is left [blank] or has a negative number. A duration, or the providers best approximation of the duration, must be provided.
- A higher point deduction is taken for patients treated and transported.
- This error will also occur if the duration is [blank] and the incident disposition is missing.
- Check if your agency is collecting this element, if not it needs to be added.

E05_07 - Arrive Patient Side date/time is missing.

- This error is caused when there has been contact with a patient/potential patient (see the list of patient contacts at the end of this list) and this field is left [blank].
- Check if you agency is collecting this element, if not it needs to be added.

E05_07 - The Arrive at Patient date/time is less than the Arrive Scene date/time.

- Time sequences must not reflect a negative number. Time should reflect a forward continuum.
- OEMS can provide you with examples of how to write rules that assure quality time elements can be collected.
- Always remember times reflect the unit or AIC that is documenting the response. For example and ALS transport unit that arrives after a BLS first responder cannot use the patient contact time for the BLS first responder. This would create a negative time interval. The BLS first responders should be created their own EMS medical record.
- OEMS can provide you an example of how to write a validation rule for your EMS software if you have that functionality.

E02_09 - The transport delays, if any, are missing.

- If no delay has occurred this should be marked as “None” (code 290) and not a not value such as “not applicable” (code -25) See the list of “not values” at the end of this list. Recommend setting your default to “None”
- Check if you agency is collecting this element, if not it needs to be added.
- OEMS can provide you an example of how to write a validation rule for your EMS software if you have that functionality.

E12_10 - The patient's medical/surgical history is missing.

- At least one patient history value needs to be documented when a patient is treated.
- If the patient has no past history or it cannot be obtained one of the following should be used:
    - Patient Denies PMH (code 23070)
    - Parent/Guardian Denies PMH (code 23065)
    - Unable to Obtain PMH (code 23095)

E02_05 - Primary Role of Unit is missing.

- Each record submitted must contain the primary role of the unit.
- None of the “not values (see not values listed below)” can be submitted.
- <u>This error receives the highest point deduction in the system.</u>

- Records with this error are rejected by the National EMS Database (NEMSIS)

E14_23 - Pain Score is missing and the primary impression indicates there is a complaint related to pain.

- This error is triggered when the provider impression indicates the patient had a traumatic injury or has a medical complaint that has pain associated with it.
- A similar error is triggered when an analgesic medication is administered.
- Check if you agency is collecting this element, if not it needs to be added.
- If your agency does have this element, educate your providers that a pain scale is required to be documented when the above conditions exist.

E20_01 - Destination name is missing

- Any record with an incident disposition of treated and transported must have a valid destination code.
- Assure your agency is collecting this element.
- Educate your providers to always document their receiving hospitals name.
- Assure your ePCR system includes the correct Virginia hospital codes or that your mapping of hospitals is correct.
- If there is a hospital(s) that your agency transports to that is not accepted by the VPHIB system contact VPHIB support to add this hospital to the system.

E05_09 - Leave Scene date/time is missing.

- A leave scene time is required for all responses where the incident disposition indicates the unit arrived on scene and the field is [blank].

E05_09 - When disposition of call is Cancelled, the date/time the responding unit left the scene should not exist.

- When the incident disposition is "cancelled" there should not be a unit left scene time.

E06_13 - Patient's ethnicity is required.

- The patient's ethnicity should be reported any time the incident disposition indicates there was a patient/potential patient (see the list of patient contacts at the end of this list).

E12_20 - Indicate whether the patient is currently pregnant or not (13 - 49 y/o)

- All patients that are female and between the ages of 13 – 49 y/o need a valid response of either "No" (code 0) or "Yes" (code 1) noted in the record.)
- Check if you agency is collecting this element, if not it needs to be added.
- If your agency does have this element, educate your providers that a pain scale is required to be documented when the above conditions exist.

IT5_19 - The level of exterior damage is missing.

- When E10_01 Cause of Injury indicates the incident was an MVC the level of damage must be reported. The levels allowed are:
    - Minor (code 368001)
    - Moderate (code 368002)
    - Major (code 368003)
    - None (code 368004)

E05_03 - Unit Dispatched date/time is missing

- Each record submitted must contain a unit dispatch date and time.
- <u>This error receives the highest point deduction in the system.</u>
- Records with this error are rejected by the National EMS Database (NEMSIS)
- Check if you agency is collecting this element, if not it needs to be added.

- If your agency does have this element, educate your providers that a pain scale is required to be documented when the above conditions exist.

E09_13 - Primary Symptom is missing

- All records submitted where the incident disposition includes contact with a patient/potential patient (see the list of patient contacts at the end of this list) should include a valid response to "primary symptom".
- Error is triggered by a not value being used (see the list of "not values" at the end of this list) or a [blank]. If the patient does not have a complaint then "No Signs or Symptoms" (code 1470) should be used. If the patient cannot communicate their symptom(s) then the appropriate symptom such as unresponsive should be documented.
- Check if you agency is collecting this element, if not it needs to be added.
- If your agency does have this element, educate your providers that a pain scale is required to be documented when the above conditions exist.

E02_07 - The response delays, if any, of the unit associated with the patient encounter is missing.

- If no delay has occurred this should be marked as "None" (code 150) and not a not value such as "not applicable" (code -25) See the list of "not values" at the end of this list. . Recommend setting your default to "None"
- Check if you agency is collecting this element, if not it needs to be added.
- OEMS can provide you an example of how to write a validation rule for your EMS software if you have that functionality.

E09_04 - A Cause of Injury should not exist when possible injury is 'No'.

- This is a logical rule that identifies when a record states that the element "possible injury" is reported as no and then a valid cause of injury is also reported.
- This is typically a weakness in EMS software when a default of "No" is set for the element "possible injury" and the element is not changed to yes when the provider documents a fall, MVC or other cause of injury.
- Another possible cause of this error is that the agency is not collecting the element possible injury.
- Check if you agency is collecting this element, if not it needs to be added.
- If your agency does have this element, educate your providers to change possible injury to yes when a cause of injury is documented
- If your agency is not collecting this element add it and assure it is setup logically.

Contact with a patient/potential patient is when the incident disposition equals one of the following:

- Dead at Scene
- No Treatment Required
- Patient Refused Care
- Treated and Released
- Treated, Transferred Care
- Treated, Transported by EMS
- Treated, referred to Law Enforcement
- Treated, Transported by Private Vehicle

The standard "Not Values" are:

- Not Available (code -5)
- Not Known (code -10)
- Not Reporting (code -15)

- Not Recorded (code -20)
- Not Applicable (code -25)

Appendix E

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Virginia Agencies with at Least ***One*** OMD Log In by EMS Region	Est. # Runs/Yr	Total # Log Ins	2013 # Log Ins
Central Shenandoah	**4,228**	**78**	**68**
BATH HIGHLAND VOLUNTEER FIRE DEPARTMENT	40	24	24
BUENA VISTA FIREFIGHTERS INC	275	1	0
BUENA VISTA RESCUE SQUAD	990	3	0
EFFINGER VOLUNTEER FIRE DEPARTMENT	76	1	0
FAIRFIELD VOLUNTEER RESCUE SQUAD	380	1	0
GLASGOW LIFE SAVING & FIRST AID CREW INC	580	1	0
GOSHEN FIRST AID CREW	127	1	0
HOT SPRINGS RESCUE SQUAD	400	44	44
KERR'S CREEK VOLUNTEER FIRE DEPARTMENT	100	1	0
LEXINGTON FIRE DEPARTMENT	1,260	1	0
Northern Virginia	**63,700**	**10**	**0**
FAIRFAX COUNTY FIRE & RESCUE	63,600	7	0
FAIRFAX COUNTY POLICE DEPARTMENT	100	3	0
Old Dominion	**88,111**	**110**	**16**
AIR METHODS INC/LifeEvac	1,210	4	0
ALLEN'S AMBULANCE SERVICE	25	3	0
AMELIA EMERGENCY SQUAD	1,370	3	0
BURKEVILLE VOLUNTEER FIRE DEPARTMENT	360	4	0
CARTERSVILLE VOLUNTEER RESCUE SQUAD INC	365	1	0
COLONIAL HEIGHTS FIRE/EMS	3,275	3	0
DINWIDDIE COUNTY FIRE AND EMS	3,090	10	0
Fort Pickett Fire Department	0	1	0
Gerdau	0	3	0
GOOCHLAND COUNTY VOLUNTEER FIRE-RESCUE ASSOCIATION	2,400	14	0
HENRICO COUNTY DIVISION OF FIRE	59,950	17	0
HENRICO VOLUNTEER RESCUE SQUAD	1,500	11	0
LAKESIDE VOLUNTEER RESCUE SQUAD	1,570	3	0
PETERSBURG FIRE DEPARTMENT	1,630	3	0
POWHATAN VOLUNTEER RESCUE SQUAD	1,900	3	0
PROVIDENCE FORGE VOLUNTEER RESCUE SQUAD	131	13	13
SOUTHSIDE RESCUE SQUAD	1,950	3	0
SOUTHSIDE VIRGINIA EMERGENCY CREW	6,640	4	0
STONY CREEK VOLUNTEER RESCUE SQUAD	520	3	3
TURBEVILLE VOLUNTEER FIRE AND RESCUE ASSOCIATION INC.	225	4	0
Peninsulas	**2,765**	**13**	**0**
ESSEX COUNTY EMS	400	1	0
KILMARNOCK-LANCASTER CO. VOL. RESCUE SQUAD INC.	380	1	0
KING WILLIAM VOLUNTEER FIRE & RESCUE SQUAD	337	3	0
MATTAPONI VOLUNTEER RESCUE SQUAD	750	4	0
MID-COUNTY VOLUNTEER RESCUE SQUAD	298	3	0
TAPPAHANNOCK RESCUE SQUAD	600	1	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Rappahannock	**1,150**	**21**	**0**
LAKE OF THE WOODS VOLUNTEER FIRE & RESCUE DEPARTMENT	1,150	21	0
Southwest Virginia	**3,665**	**66**	**0**
CLINTWOOD VOLUNTEER RESCUE SQUAD	930	10	0
DANTE RESCUE SQUAD INC	620	44	0
OAKWOOD FIRE & RESCUE	230	3	0
SUGAR GROVE LIFE SAVING CREW	100	3	0
TAZEWELL COUNTY FIRE-RESCUE	1,455	3	0
THOMAS WALKER RESCUE SQUAD	330	3	0
Thomas Jefferson	**14,460**	**143**	**132**
CHARLOTTESVILLE FIRE DEPARTMENT	2,360	32	32
CHARLOTTESVILLE-ALBEMARLE RESCUE SQUAD	8,700	1	0
Louisa County Rescue Squad	0	32	32
SCOTTSVILLE VOLUNTEER RESCUE SQUAD	575	36	36
WESTERN ALBEMARLE RESCUE SQUAD	1,250	32	32
WINTERGREEN FIRE DEPARTMENT	50	3	0
WINTERGREEN PROPERTY OWNERS VOLUNTEER RESCUE SQUAD	1,525	7	0
Western Virginia	**18,052**	**49**	**12**
BLACKSBURG RESCUE SQUAD	2,650	8	8
BOILING SPRINGS VOLUNTEER FIRE DEPARTMENT AND RESCUE SQUAD INC	160	3	0
CALLANDS VOLUNTEER FIRE AND RESCUE INC	230	3	0
CHATHAM RESCUE SQUAD	290	2	0
CRAIG COUNTY RESCUE SQUAD - EMS INC	600	3	0
DUNLAP FIRE AND RESCUE	240	4	0
FALLING SPRING RESCUE SQUAD INC	120	6	0
NEWPORT VOLUNTEER RESCUE SQUAD	65	4	0
ROANOKE COUNTY FIRE & RESCUE	9,650	3	3
SALEM FIRE-EMS DEPARTMENT	3,077	8	0
SHAWSVILLE VOLUNTEER RESCUE SQUAD	870	1	1
WESTVACO RESCUE SQUAD	100	4	0
Grand Total	**196,131**	**490**	**228**

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Virginia Agencies with *No* OMD Log Ins by EMS Region	Est. # Runs/Yr	Total # Log Ins	2013 # Log Ins
Blue Ridge	**37,486**	**0**	**0**
ALTAVISTA EMS	1,875	0	0
AMHERST CO DEPT OF PUBLIC SAFETY	3,074	0	0
AMHERST LIFE SAVING & FIRST AID CREW	268	0	0
APPOMATTOX VOLUNTEER RESCUE SQUAD	1,150	0	0
BABCOCK & WILCOX EMERGENCY TEAM	31	0	0
BEDFORD CO DEPARTMENT OF FIRE AND RESCUE	4,700	0	0
BEDFORD LIFE SAVING & FIRST AID CREW INC	830	0	0
BIG ISLAND EMERGENCY CREW INC	230	0	0
BOONSBORO VOLUNTEER FIRE & RESCUE	110	0	0
BROOKNEAL RESCUE SQUAD INC	47	0	0
BROOKVILLE-TIMBERLAKE VOLUNTEER FIRE DEPARTMENT	48	0	0
CAMPBELL COUNTY PUBLIC SAFETY	3,700	0	0
CAMPBELL COUNTY RESCUE SQUAD	1,230	0	0
CENTRA HEALTH INC	1,690	0	0
Central Virginia Training Center	0	0	0
CHAMBLISSBURG FIRST AID & RESCUE SQUAD	60	0	0
CITIZENS EMERGENCY CREW	290	0	0
CONCORD RESCUE SQUAD	680	0	0
Delta Response Team	0	0	0
EVINGTON VOLUNTEER FIRE DEPARTMENT	70	0	0
GOODE VOLUNTEER RESCUE SQUAD	382	0	0
Greif Bros Corp - Riverville Mill EMS	0	0	0
HARDY LIFESAVING & RESCUE INC	50	0	0
HUDDLESTON LIFE SAVING & FIRST AID CREW INC	325	0	0
LIBERTY UNIVERSITY EMERGENCY SERVICES	500	0	0
LYNCHBURG COLLEGE EMERGENCY MEDICAL SERVICES	155	0	0
LYNCHBURG FIRE DEPARTMENT	14,180	0	0
LYNCHBURG LIFE SAVING & FIRST AID CREW	275	0	0
MONELISON VOLUNTEER RESCUE SQUAD	10	0	0
MONETA RESCUE SQUAD	469	0	0
MONTVALE RESCUE SQUAD	200	0	0
PAMPLIN VOLUNTEER FIRE DEPARTMENT & EMS INC	230	0	0
RUSTBURG RESCUE SQUAD	350	0	0
SHADY GROVE FIRE & RESCUE	73	0	0
SMITH MOUNTAIN LAKE MARINE VOLUNTEER FIRE/RESCUE COMPANY	18	0	0
STEWARTSVILLE FIRST AID & RESCUE SQUAD	146	0	0
VIRGINIA AMBULANCE SERVICE	40	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Central Shenandoah	**42,654**	**0**	**0**
AUGUSTA COUNTY FIRE & RESCUE	420	0	0
AUGUSTA HEALTH TRANSPORTATION SERVICES	350	0	0
Bath Co Power Station & VA Electric and Power Co	0	0	0
BATH COMMUNITY AMBULANCE SERVICE	350	0	0
BERGTON VOLUNTEER FIRE COMPANY	50	0	0
BRIDGEWATER VOLUNTEER RESCUE SQUAD	710	0	0
BROADWAY EMERGENCY SQUAD	400	0	0
CHURCHVILLE VOLUNTEER FIRE & RESCUE	720	0	0
CITY OF HARRISONBURG FIRE DEPARTMENT	2,500	0	0
CITY OF STAUNTON FIRE DEPARTMENT	1,125	0	0
CITY OF WAYNESBORO FIRE DEPARTMENT	580	0	0
CLOVER HILL VOLUNTEER FIRE COMPANY	470	0	0
CRAIGSVILLE VOLUNTEER FIRE DEPARTMENT	459	0	0
CRAIGSVILLE-AUGUSTA SPRINGS FIRST AID CREW	510	0	0
DEERFIELD VALLEY FIRE DEPARTMENT & RESCUE SQUAD	125	0	0
DOOMS VOLUNTEER FIRE DEPARTMENT	300	0	0
ELKTON EMERGENCY SQUAD	810	0	0
ELKTON VOLUNTEER FIRE COMPANY INC	290	0	0
G & W AMBULANCE INC	1,510	0	0
GROTTOES RESCUE SQUAD	480	0	0
GROTTOES VOLUNTEER FIRE DEPARTMENT	145	0	0
HARRISONBURG RESCUE SQUAD	6,990	0	0
HIGHLAND COUNTY VOLUNTEER RESCUE SQUAD	260	0	0
Hose Company #4	0	0	0
Invista	0	0	0
MCGAHEYSVILLE VOLUNTEER FIRE COMPANY	90	0	0
Merck Manufacturing Division - Stonewall	0	0	0
MIDDLEBROOK VOLUNTEER FIRE DEPARTMENT	110	0	0
MILLBORO AREA RESCUE SQUAD	100	0	0
Miller Coors LLC	0	0	0
MOUNT SOLON VOLUNTEER FIRE COMPANY/RESCUE SQUAD INC	180	0	0
NATURAL BRIDGE VOLUNTEER FIRE DEPARTMENT	155	0	0
NEW HOPE VOLUNTEER FIRE DEPARTMENT	250	0	0
Preston L. Yancey Volunteer Fire Dept	0	0	0
Priority Patient Transport	0	0	0
RAPHINE VOLUNTEER FIRE COMPANY INC	145	0	0
Riverheads Volunteer Fire Department	0	0	0
ROCKBRIDGE BATHS VOLUNTEER FIRE DEPARTMENT	40	0	0
ROCKBRIDGE COUNTY FIRE & RESCUE	80	0	0
ROCKINGHAM COUNTY FIRE/RESCUE	4,950	0	0
Shenandoah Valley Regional Airport ARFF Department	0	0	0
SINGERS GLEN VOLUNTEER FIRE COMPANY	90	0	0
SINGERS GLEN VOLUNTEER RESCUE SQUAD	175	0	0
SOUTH RIVER DISTRICT VOLUNTEER FIRE DEPARTMENT	150	0	0
STAUNTON-AUGUSTA RESCUE SQUAD	7,950	0	0
STUARTS DRAFT RESCUE SQUAD	1,500	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

STUARTS DRAFT VOLUNTEER FIRE COMPANY INC.	390	0	0
SWOOPE VOLUNTEER FIRE COMPANY	110	0	0
TIMBERVILLE VOLUNTEER FIRE DEPARTMENT	150	0	0
VERONA VOLUNTEER FIRE COMPANY	275	0	0
WALKERS CREEK VOLUNTEER FIRE DEPARTMENT	10	0	0
WAYNESBORO FIRST AID CREW	6,050	0	0
WEYERS CAVE VOLUNTEER FIRE COMPANY	150	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Lord Fairfax	**32,904**	**0**	**0**
BLUE RIDGE VOLUNTEER FIRE COMPANY	140	0	0
BOYCE VOLUNTEER FIRE COMPANY	300	0	0
CLARKE COUNTY EMERGENCY SERVICES	790	0	0
CLEAR BROOK VOLUNTEER FIRE & RESCUE INC.	55	0	0
CONICVILLE VOLUNTEER FIRE DEPARTMENT	37	0	0
FORT VALLEY VOLUNTEER FIRE DEPARTMENT	90	0	0
FREDERICK COUNTY FIRE & RESCUE DEPARTMENT	4,980	0	0
FRONT ROYAL VOLUNTEER FIRE DEPARTMENT	300	0	0
GAINESBORO VOLUNTEER FIRE AND RESCUE COMPANY	210	0	0
GORE VOLUNTEER FIRE AND RESCUE	59	0	0
GREENWOOD VOLUNTEER FIRE & RESCUE COMPANY INC	200	0	0
JOHN H. ENDERS VOLUNTEER FIRE & RESCUE SQUAD COMPANY	650	0	0
Luray Volunteer Rescue Squad	0	0	0
MIDDLETOWN VOLUNTEER FIRE/RESCUE	65	0	0
MILLWOOD STATION VOLUNTEER FIRE & RESCUE COMPANY 21 INC	60	0	0
MOUNT JACKSON RESCUE & FIRE DEPARTMENT	280	0	0
NEW MARKET FIRE AND RESCUE DEPARTMENT	33	0	0
NORTH MOUNTAIN VOLUNTEER FIRE & RESCUE	80	0	0
ORKNEY SPRINGS FIRE & RESCUE	110	0	0
PAGE COUNTY FIRE - EMS	2,950	0	0
REYNOLDS STORE FIRE COMPANY	35	0	0
RIVERMONT VOLUNTEER FIRE DEPARTMENT	146	0	0
ROUND HILL COMMUNITY FIRE & RESCUE CO.	65	0	0
SHENANDOAH COUNTY FIRE AND RESCUE	2,700	0	0
SHENANDOAH FARMS VOLUNTEER FIRE DEPARTMENT & RESCUE SQUAD	700	0	0
Shenandoah Rescue Squad	0	0	0
SHENANDOAH SHORES VOLUNTEER FIRE DEPARTMENT	51	0	0
Stanley Volunteer Fire Department	0	0	0
Stanley Volunteer Rescue Squad	0	0	0
STAR TANNERY VOLUNTEER FIRE DEPARTMENT	35	0	0
STEPHENS CITY VOLUNTEER FIRE & RESCUE COMPANY	428	0	0
STRASBURG VOLUNTEER RESCUE SQUAD	450	0	0
VALLEY MEDICAL TRANSPORT	8,925	0	0
Virginia State Police - Tactical Emergency Medical Support	0	0	0
WARREN COUNTY DEPARTMENT OF FIRE & RESCUE SERVICES	2,890	0	0
WINCHESTER FIRE & RESCUE DEPARTMENT	4,200	0	0
WOODSTOCK VOLUNTEER RESCUE SQUAD	890	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Northern Virginia	**123,662**	**0**	**0**
Aldie Volunteer Fire Company Inc	0	0	0
ALEXANDRIA FIRE DIVISION - EMS	10,325	0	0
ARCOLA-PLEASANT VALLEY FIRE DEPARTMENT	500	0	0
ARLINGTON COUNTY FIRE DEPT	10,500	0	0
ASHBURN VOLUNTEER FIRE AND RESCUE DEPARTMENT	823	0	0
BUCKHALL VOLUNTEER FIRE & RESCUE	85	0	0
CITY OF FAIRFAX FIRE DEPARTMENT	3,700	0	0
CITY OF MANASSAS FIRE AND RESCUE	2,780	0	0
CITY OF MANASSAS PARK FIRE DEPARTMENT	1,970	0	0
COLES DISTRICT FIRE DEPARTMENT	335	0	0
DALE CITY VOLUNTEER FIRE DEPARTMENT	3,630	0	0
DUMFRIES-TRIANGLE RESCUE SQUAD	1,130	0	0
DUMFRIES-TRIANGLE VOLUNTEER FIRE DEPARTMENT	525	0	0
EVERGREEN VOLUNTEER FIRE/RESCUE	20	0	0
GREATER MANASSAS VOLUNTEER RESCUE SQUAD	1,150	0	0
HAMILTON VOLUNTEER FIRE DEPARTMENT	10	0	0
HAMILTON VOLUNTEER RESCUE SQUAD	290	0	0
LAKE JACKSON VOLUNTEER FIRE DEPARTMENT	331	0	0
LEESBURG VOLUNTEER FIRE COMPANY	85	0	0
LOUDOUN COUNTY FIRE AND RESCUE	13,020	0	0
LOUDOUN COUNTY VOLUNTEER RESCUE SQUAD	1,140	0	0
LOVETTSVILLE DISTRICT FIRE & RESCUE	330	0	0
MANASSAS VOLUNTEER FIRE COMPANY	140	0	0
Micron Technology Inc	0	0	0
MIDDLEBURG VOLUNTEER FIRE DEPARTMENT	20	0	0
NOKESVILLE VOLUNTEER FIRE DEPARTMENT & RESCUE SQUAD	1,250	0	0
O.W.L. FIRE DEPARTMENT & RESCUE SQUAD	1,160	0	0
PHI AIR MEDICAL VIRGINIA	2,110	0	0
PHILOMONT VOLUNTEER FIRE COMPANY	63	0	0
PHYSICIAN TRANSPORT SERVICE	26,875	0	0
PRINCE WILLIAM COUNTY DEPARTMENT OF FIRE & RESCUE	32,000	0	0
PURCELLVILLE VOLUNTEER FIRE DEPARTMENT	45	0	0
PURCELLVILLE VOLUNTEER RESCUE SQUAD	1,030	0	0
ROUND HILL VOLUNTEER FIRE DEPARTMENT & RESCUE	30	0	0
STERLING VOL RESCUE SQUAD	4,450	0	0
STERLING VOLUNTEER FIRE DEPARTMENT	350	0	0
STONEWALL JACKSON VOLUNTEER FIRE DEPARTMENT/RESCUE SQUAD	1,250	0	0
YORKSHIRE VOLUNTEER FIRE DEPARTMENT	210	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Old Dominion	**159,343**	**0**	**0**
A & B AMBULANCE SERVICE	65	0	0
ALBERTA VOL. FIRE DEPARTMENT	420	0	0
AMELIA AMBULANCE SERVICE	6,280	0	0
AMELIA COUNTY VOLUNTEER FIRE DEPARTMENT	60	0	0
AMERICAN LIFELINE MEDICAL TRANSPORT INC	25	0	0
ASHCAKE VOLUNTEER RESCUE SQUAD	222	0	0
ASHLAND VOLUNTEER RESCUE SQUAD	1,298	0	0
BENSLEY-BERMUDA VOLUNTEER RESCUE SQUAD	930	0	0
BLACKSTONE FIRE DEPARTMENT	291	0	0
Boehringer Ingleheim Chemicals	0	0	0
BOYDTON LIFE STATION INC	425	0	0
Brunswick County Sheriff's Office	0	0	0
BRUNSWICK VOLUNTEER RESCUE SQUAD	1,225	0	0
BUCKINGHAM COUNTY VOLUNTEER RESCUE SQUAD	1,380	0	0
CENTRAL LIFE SAVING & RESCUE SQUAD	390	0	0
CHARLES CITY COUNTY VOLUNTEER FIRE DEPARTMENT	106	0	0
CHARLOTTE COUNTY FIRE & RESCUE ASSOCIATION	25	0	0
CHARLOTTE COUNTY VOLUNTEER RESCUE SQUAD	1,400	0	0
CHARLOTTE COURTHOUSE VOL FIRE DEPT	40	0	0
CHASE CITY RESCUE SQUAD	1,225	0	0
CHESTERFIELD FIRE AND EMS	26,600	0	0
CITY OF RICHMOND DEPARTMENT OF FIRE & EMERGENCY SERVICES	21,075	0	0
Clover Power Station & VA Electric and Power	0	0	0
Community Ambulance Service	0	0	0
CREWE VOLUNTEER FIRE DEPARTMENT	104	0	0
CUMBERLAND VOLUNTEER RESCUE SQUAD	271	0	0
DAVIS AMBULANCE ENTERPRISES	650	0	0
Defense Supply Center Richmond	0	0	0
Dupont (E.I.Dupont)	0	0	0
Dupont Teijin Films	0	0	0
EAST HANOVER VOLUNTEER RESCUE SQUAD INC	960	0	0
EMERGENCY TRAINING SYSTEMS	290	0	0
ETTRICK-MATOACA VOLUNTEER RESCUE SQUAD	1,090	0	0
FOREST VIEW VOLUNTEER RESCUE SQUAD	2,000	0	0
FORREST AMBULANCE SERVICE	510	0	0
Fort Lee Fire and Emergency Services	0	0	0
GASBURG VOLUNTEER FIRE DEPARTMENT	10	0	0
GREENSVILLE VOLUNTEER RESCUE SQUAD	2,200	0	0
HALIFAX COUNTY FIRE COMMISSION	2,225	0	0
HALIFAX COUNTY RESCUE SQUAD INC	3,200	0	0
HAMPDEN-SYDNEY VOLUNTEER FIRE DEPARTMENT INC	75	0	0
HANOVER FIRE EMS	5,810	0	0
Hercules Inc	0	0	0
Honeywell International	0	0	0
Honeywell Resins & Chemicals LLC	0	0	0
HOPEWELL BUREAU OF FIRE	2,660	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

HOPEWELL EMERGENCY CREW	1,190	0	0
JARRATT VOLUNTEER FIRE DEPARTMENT	180	0	0
KENBRIDGE EMERGENCY SQUAD	500	0	0
LAKE GASTON VOLUNTEER FIRE DEPARTMENT	225	0	0
LAWRENCEVILLE VOLUNTEER FIRE DEPARTMENT	50	0	0
LIFESTAR AMBULANCE SERVICE	300	0	0
MANCHESTER VOLUNTEER RESCUE SQUAD	1,610	0	0
MANTEO-YOGAVILLE EMERGENCY RESPONSE	40	0	0
MECKLENBURG COUNTY LIFE SAVING & RESCUE SQUAD	910	0	0
Mecklenburg County Sheriff's Office	0	0	0
MEHERRIN VOLUNTEER FIRE & RESCUE	410	0	0
NEW KENT FIRE-RESCUE	1,500	0	0
NORTH HALIFAX VOLUNTEER FIRE DEPARTMENT	520	0	0
NOTTOWAY COUNTY EMERGENCY SQUAD	1,725	0	0
PALADIN MEDICAL TRANSPORT	350	0	0
PATIENT TRANSPORT SYSTEMS	771	0	0
Philip Morris USA	0	0	0
POWHATAN COUNTY FIRE DEPARTMENT	850	0	0
PRINCE EDWARD VOLUNTEER RESCUE SQUAD	2,830	0	0
PRINCE GEORGE FIRE AND EMS	2,640	0	0
PRIORITY 1 AMBULANCE SERVICES LLC	280	0	0
RICHMOND AMBULANCE AUTHORITY	48,500	0	0
RICHMOND INTERNATIONAL AIRPORT FIRE DEPARTMENT	200	0	0
South Boston Speedway EMS	0	0	0
SURRY VOLUNTEER RESCUE SQUAD	830	0	0
TUCKAHOE VOLUNTEER RESCUE SQUAD	4,600	0	0
VICTORIA FIRE & RESCUE	450	0	0
Virginia Dragway Inc.	0	0	0
Virginia International Raceway	0	0	0
VIRGINIA STATE POLICE - MEDFLIGHT I	450	0	0
WAVERLY RESCUE SQUAD	1,365	0	0
WEST END VOLUNTEER RESCUE SQUAD	200	0	0
WEST HANOVER VOLUNTEER RESCUE SQUAD	330	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Peninsulas	**71,887**	**0**	**0**
ABINGDON VOLUNTEER FIRE & RESCUE	1,300	0	0
Anheuser-Busch Inc	0	0	0
Busch Gardens	0	0	0
CALLAO RESCUE SQUAD INC	410	0	0
Camp Peary Fire and EMS	0	0	0
CARDINAL AMBULANCE SERVICE INC	50	0	0
CENTRAL MIDDLESEX VOLUNTEER RESCUE SQUAD	640	0	0
COLONIAL BEACH RESCUE SQUAD	1,100	0	0
COLONIAL BEACH VOLUNTEER FIRE DEPARTMENT INC	270	0	0
COPLE DISTRICT VOLUNTEER FIRE DEPARTMENT	120	0	0
EAGLE MEDICAL TRANSPORTS	630	0	0
GLOUCESTER FIRE & RESCUE	2,290	0	0
HAMPTON DIVISION OF FIRE/RESCUE	18,325	0	0
JAMES CITY COUNTY FIRE DEPARTMENT	5,850	0	0
James City Rescue Squad	0	0	0
KING & QUEEN DEPARTMENT OF EMERGENCY SERVICES	0	0	0
KING & QUEEN VOL. RESCUE SQUAD	111	0	0
king william county emergency services	0	0	0
LANCASTER COUNTY EMERGENCY MEDICAL SERVICES	880	0	0
LOWER KING AND QUEEN VOLUNTEER FIRE DEPARTMENT	180	0	0
MANGOHICK VOLUNTEER FIRE DEPARTMENT	15	0	0
MAR-MAC TRANSPORTATION SERVICES	1,260	0	0
MATHEWS VOLUNTEER RESCUE SQUAD	1,140	0	0
MIDDLESEX COUNTY VOLUNTEER RESCUE SQUAD	670	0	0
MONTROSS VOLUNTEER RESCUE SQUAD	230	0	0
NEWPORT NEWS FIRE DEPARTMENT	22,730	0	0
NEWPORT NEWS SHIPBUILDING FIRE DEPARTMENT	520	0	0
NORTHUMBERLAND COUNTY RESCUE SQUAD	480	0	0
OAK GROVE VOLUNTEER FIRE DEPARTMENT	140	0	0
POQUOSON FIRE & RESCUE	1,150	0	0
RICHMOND COUNTY DEPARTMENT OF EMERGENCY SERVICES	1,330	0	0
Riverside Patient Transport	0	0	0
Tappahannock-Essex Volunteer Fire Department	0	0	0
UPPER LANCASTER VOLUNTEER RESCUE SQUAD	50	0	0
WALKERTON COMMUNITY FIRE ASSOCIATION	1	0	0
WEST POINT VOLUNTEER FIRE DEPARTMENT & RESCUE	700	0	0
WESTMORELAND COUNTY DEPARTMENT OF EMERGENCY SERVICES	1,100	0	0
WESTMORELAND COUNTY RESCUE SQUAD	300	0	0
WESTMORELAND VOLUNTEER FIRE DEPARTMENT	50	0	0
WILLIAMSBURG FIRE DEPARTMENT - EMS	2,290	0	0
YORK COUNTY FIRE AND LIFE SAFETY	5,575	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Rappahannock	**83,438**	**0**	**0**
AMISSVILLE VOLUNTEER FIRE & RESCUE COMPANY	365	0	0
Aquia Harbour Volunteer Rescue Squad	0	0	0
BRANDY STATION VOLUNTEER FIRE DEPARTMENT	190	0	0
Brooke Fire Safety Association Inc	0	0	0
CAROLINE COUNTY DEPT OF FIRE AND RESCUE	4,230	0	0
CASTLETON COMMUNITY VOLUNTEER FIRE COMPANY	70	0	0
CATLETT VOLUNTEER FIRE & RESCUE COMPANY	305	0	0
CHANCELLOR VOLUNTEER FIRE & RESCUE DEPARTMENT	1,968	0	0
CHESTER GAP VOLUNTEER FIRE DEPARTMENT	47	0	0
CULPEPER COUNTY OFFICE OF EMERGENCY SERVICES	3,440	0	0
CULPEPER COUNTY RESCUE SQUAD	2,110	0	0
CULPEPER REGIONAL HOSPITAL INC	630	0	0
FAUQUIER CO. DEPT. OF FIRE RESCUE & EMERGENCY MANAGEMENT	5,240	0	0
FLINT HILL VOLUNTEER FIRE COMPANY	300	0	0
FREDERICKSBURG FIRE DEPARTMENT	2,480	0	0
FREDERICKSBURG RESCUE SQUAD	2,015	0	0
GOLDVEIN VOLUNTEER FIRE & RESCUE DEPARTMENT	140	0	0
KING GEORGE DEPARTMENT OF FIRE RESCUE AND EMERGENCY SERVICES	2,530	0	0
KING GEORGE FIRE & RESCUE	290	0	0
LIFECARE MEDICAL TRANSPORTS INC	27,440	0	0
LITTLE FORK VOLUNTEER FIRE & RESCUE COMPANY	410	0	0
LOIS VOLUNTEER FIRE DEPARTMENT	160	0	0
MARSHALL VOLUNTEER FIRE DEPARTMENT	80	0	0
MARSHALL VOLUNTEER RESCUE SQUAD	155	0	0
Naval Support Activity (NSA) South Potomomac Dahlgren	0	0	0
NEW BALTIMORE VOLUNTEER FIRE COMPANY	330	0	0
ORANGE COUNTY DEPARTMENT OF FIRE & EMS	4,100	0	0
ORANGE COUNTY RESCUE SQUAD INC	310	0	0
ORLEAN VOLUNTEER FIRE COMPANY	155	0	0
Quantico Fire Department	0	0	0
REMINGTON VOLUNTEER FIRE & RESCUE DEPARTMENT	500	0	0
REVA VOLUNTEER FIRE & RESCUE	130	0	0
RICHARDSVILLE VFD & RESCUE SQUAD	190	0	0
Rockhill Volunteer Rescue Squad	0	0	0
SALEM VOLUNTEER FIRE DEPARTMENT	48	0	0
SPERRYVILLE VOLUNTEER RESCUE SQUAD	300	0	0
SPOTSYLVANIA COUNTY FIRE & RESCUE	6,650	0	0
SPOTSYLVANIA VOLUNTEER RESCUE SQUAD INC.	3,800	0	0
STAFFORD COUNTY FIRE AND RESCUE DEPARTMENT	11,100	0	0
Stafford Volunteer Rescue Squad	0	0	0
THE PLAINS VOLUNTEER FIRE COMPANY	120	0	0
UPPERVILLE VOLUNTEER FIRE COMPANY	110	0	0
WARRENTON VOLUNTEER FIRE COMPANY	475	0	0
WASHINGTON VOLUNTEER FIRE & RESCUE	525	0	0
White Oak Volunteer Fire Department	0	0	0
White Oak Volunteer Rescue Squad	0	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Southwest Virginia	**76,391**	**0**	**0**
ABBS VALLEY BOISSEVAIN POCAHONTAS RESCUE SQUAD INC	515	0	0
ABINGDON AMBULANCE SERVICE	10,150	0	0
APPALACHIA FIRE DEPT.	47	0	0
APPALACHIA RESCUE SQUAD	425	0	0
BAYWOOD SEARCH & RESCUE	75	0	0
Beacon of Life Ambulance Service	0	0	0
BIG STONE GAP RESCUE SQUAD INC	1,600	0	0
BLAND COUNTY VOLUNTEER RESCUE SQUAD	3,250	0	0
BLUEFIELD VA RESCUE SQUAD	1,325	0	0
BRISTOL LIFE SAVING CREW	3,375	0	0
BRUMLEY GAP VOL. FIRE DEPT.	10	0	0
CANA VOLUNTEER RESCUE SQUAD	540	0	0
Carroll County EMS	0	0	0
CARROLL COUNTY FIRE & RESCUE	2,140	0	0
CASTLEWOOD FIRE AND RESCUE	575	0	0
CHILHOWIE AMBULANCE SERVICE	2,290	0	0
CHORES & ERRANDS AMBULANCE SERVICE INC	230	0	0
CITY OF BRISTOL FIRE DEPARTMENT	1,030	0	0
City of Norton Fire Department	0	0	0
CLEVELAND LIFESAVING CREW INC	480	0	0
DAMASCUS FIRE DEPARTMENT	280	0	0
DAMASCUS VOLUNTEER RESCUE SQUAD INC	630	0	0
DAVENPORT LIFESAVING CREW INC	50	0	0
DICKENSON COUNTY AMBULANCE SERVICE	1,375	0	0
Dismal River Rescue Squad	0	0	0
DUFFIELD VOLUNTEER FIRE & RESCUE	640	0	0
DUGSPUR RESCUE SQUAD	40	0	0
ELK CREEK RESCUE SQUAD	100	0	0
FRIENDSHIP AMBULANCE SERVICE	1,460	0	0
FRIES VOLUNTEER FIRE DEPARTMENT & RESCUE SQUAD	200	0	0
GALAX FIRE DEPARTMENT & RESCUE	12	0	0
GALAX-GRAYSON EMERGENCY MEDICAL SERVICES	2,680	0	0
Glade Spring Volunteer Fire Department	0	0	0
GLADE SPRING VOLUNTEER LIFE SAVING CREW	980	0	0
GOODSON-KINDERHOOK VOLUNTEER FIRE DEPARTMENT	550	0	0
GREEN SPRING VOLUNTEER FIRE DEPT.	110	0	0
GUARDIAN EMERGENCY MEDICAL SERVICES INC	10	0	0
HAYSI RESCUE SQUAD	670	0	0
HIGHLANDS AMBULANCE SERVICE INC	70	0	0
HILLSVILLE VOLUNTEER FIRE DEPARTMENT	335	0	0
INDEPENDENCE VOLUNTEER RESCUE SQUAD	650	0	0
JEFFERSONVILLE VOLUNTEER RESCUE SQUAD	1,340	0	0
JONESVILLE RESCUE SQUAD	380	0	0
KEOKEE VOLUNTEER FIRE & RESCUE	40	0	0
LAUREL FORK RESCUE SQUAD	70	0	0
LAUREL RESCUE SQUAD	280	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

LEAD MINES RESCUE SQUAD INC	670	0	0
LEBANON LIFE SAVING CREW	1,470	0	0
LEE COUNTY RESCUE SQUAD	500	0	0
LEGACY AMBULANCE SERVICE	10	0	0
LifeCare Ambulance Service	0	0	0
MARION LIFE SAVING & FIRST AID CREW	1,675	0	0
MERCY AMBULANCE SERVICE	10,000	0	0
MOUNT ROGERS VOLUNTEER FIRE DEPARTMENT & RESCUE SQUAD	125	0	0
NEBO VOLUNTEER FIRE DEPARTMENT	15	0	0
NEW GARDEN RESCUE SQUAD	830	0	0
NICKELSVILLE RESCUE SQUAD	555	0	0
NORTON RESCUE SQUAD	825	0	0
PIPERS GAP RESCUE SQUAD	700	0	0
POUND RESCUE SQUAD	440	0	0
PRATER VOLUNTEER RESCUE SQUAD	85	0	0
RESCUE 33 AMBULANCE SERVICE	740	0	0
RICHARDSON AMBULANCE SERVICE	1,500	0	0
RUGBY VOLUNTEER FIRE DEPARTMENT & RESCUE SQUAD	150	0	0
RURAL RETREAT VOLUNTEER EMERGENCY SERVICES	750	0	0
SALTVILLE RESCUE SQUAD	1,525	0	0
SANDY RIDGE VOLUNTEER RESCUE SQUAD	200	0	0
SCOTT COUNTY LIFE SAVING CREW	2,240	0	0
Slate Creek Volunteer Fire Department	0	0	0
SMYTH COUNTY AMBULANCE SERVICE	730	0	0
SOUTHWEST AMBULANCE SERVICE	10	0	0
ST. CHARLES VOLUNTEER RESCUE SQUAD	190	0	0
TANNERSVILLE RESCUE SQUAD	25	0	0
THOMPSON VALLEY RESCUE SQUAD	20	0	0
TOWN OF CHILHOWIE FIRE DEPARTMENT	965	0	0
Town of Damascus Police Department	0	0	0
TOWN OF RICHLANDS	675	0	0
Trinity Ambulance Service	0	0	0
TROUTDALE VOLUNTEER RESCUE SQUAD	37	0	0
VALLEY RESCUE SQUAD	200	0	0
VALLEY VOLUNTEER FIRE DEPARTMENT	200	0	0
VIRGINIA STATE POLICE - MEDFLIGHT II	500	0	0
WASHINGTON COUNTY FIRE/RESCUE	850	0	0
WASHINGTON COUNTY LIFE SAVING CREW INC	3,050	0	0
WISE RESCUE SQUAD	775	0	0
WYTHE COUNTY RESCUE SQUAD	2,150	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Thomas Jefferson	**17,285**	**0**	**0**
ALBEMARLE COUNTY DEPARTMENT OF FIRE RESCUE	4,850	0	0
Bumpass Volunteer Fire Department	0	0	0
EARLYSVILLE VOLUNTEER FIRE COMPANY	135	0	0
EAST RIVANNA VOLUNTEER FIRE COMPANY	50	0	0
FLUVANNA COUNTY VOLUNTEER FIRE DEPARTMENT	4	0	0
FLUVANNA RESCUE SQUAD	210	0	0
GE IP EMERGENCY RESPONSE TEAM	0	0	0
GLADSTONE VOLUNTEER FIRE & RESCUE SERVICES	10	0	0
GREENE COUNTY EMS	0	0	0
GREENE COUNTY RESCUE SQUAD	1,900	0	0
Holly Grove Volunteer Rescue Squad	0	0	0
Lake Anna Rescue	0	0	0
LAKE MONTICELLO VOLUNTEER RESCUE SQUAD	1,730	0	0
Locust Creek Volunteer Fire Department	0	0	0
LOUISA COUNTY EMERGENCY SERVICES	3,300	0	0
MADISON COUNTY EMERGENCY MEDICAL SERVICES	1,250	0	0
MADISON COUNTY RESCUE SQUAD	630	0	0
Mineral Rescue Squad	0	0	0
MONTEBELLO VOLUNTEER FIRE/RESCUE	80	0	0
NELSON COUNTY RESCUE SQUAD	215	0	0
NORTH GARDEN VOLUNTEER FIRE COMPANY	200	0	0
PEGASUS FLIGHT OPERATIONS	1,600	0	0
ROCKFISH VALLEY VOLUNTEER FIRE DEPARTMENT	186	0	0
ROSELAND RESCUE SQUAD	370	0	0
RUCKERSVILLE VOLUNTEER FIRE COMPANY	80	0	0
SCOTTSVILLE VOLUNTEER FIRE DEPARTMENT	65	0	0
SEMINOLE TRAIL VOLUNTEER FIRE DEPARTMENT	300	0	0
STANARDSVILLE VOLUNTEER FIRE COMPANY	35	0	0
STONY POINT VOLUNTEER FIRE COMPANY	85	0	0
UVA Health System - Special Events Medical Management	0	0	0
UVA Health System Patient Transport	0	0	0
Zion Crossroads Volunteer Fire Department	0	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Tidewater	**148,050**	**0**	**0**
ACCOMACK CO DEPT OF PUBLIC SAFETY	4,200	0	0
ATLANTIC VOLUNTEER FIRE AND RESCUE DEPARTMENT	161	0	0
BASF Corporation	0	0	0
Blackwater Volunteer Rescue	0	0	0
BLOXOM VOLUNTEER FIRE COMPANY	725	0	0
BOYKINS VOLUNTEER FIRE DEPARTMENT & RESCUE SQUAD INC	380	0	0
CAPE CHARLES RESCUE SERVICE INC	818	0	0
CAPRON VOLUNTEER FIRE & FIRST AID SQUAD	115	0	0
CARROLLTON VOLUNTEER FIRE DEPARTMENT	650	0	0
Chesapeake Beach Fire & Rescue	0	0	0
CHESAPEAKE FIRE DEPARTMENT	27,840	0	0
CHILDREN'S HOSPITAL OF THE KING'S DAUGHTERS	1,020	0	0
CHINCOTEAGUE VOLUNTEER FIRE COMPANY	700	0	0
CHUCKATUCK VOLUNTEER FIRE DEPARTMENT	75	0	0
CITY OF VIRGINIA BEACH DEPARTMENT OF EMS	55,380	0	0
Community Fire Company Inc	0	0	0
COURTLAND VOLUNTEER RESCUE SQUAD	600	0	0
Creeds Volunteer Fire Department & Rescue Squad	0	0	0
Davis Corner Volunteer Fire & Rescue	0	0	0
DRIVER VOLUNTEER FIRE DEPARTMENT INC	48	0	0
EASTERN SHORE AMBULANCE SERVICE	10	0	0
Emergency Medical Response	0	0	0
FRANKLIN FIRE & RESCUE	1,700	0	0
GREENBACKVILLE VOLUNTEER FIRE DEPARTMENT	87	0	0
ISLE OF WIGHT COUNTY EMERGENCY SERVICES	2,030	0	0
ISLE OF WIGHT VOLUNTEER RESCUE SQUAD	840	0	0
IVOR VOLUNTEER RESCUE SQUAD	280	0	0
Kempsville Volunteer Rescue Squad	0	0	0
Med 1	0	0	0
MEDICAL TRANSPORT LLC	1,546	0	0
MELFA VOLUNTEER FIRE & RESCUE	900	0	0
MID-ATLANTIC REGIONAL AMBULANCE	590	0	0
NANSEMOND-SUFFOLK VOLUNTEER RESCUE SQUAD	1,280	0	0
NIGHTINGALE AIR AMBULANCE	1,130	0	0
NORFOLK AIRPORT AUTHORITY FIRE DEPARTMENT	225	0	0
NORFOLK FIRE-RESCUE	21,525	0	0
NORTHAMPTON COUNTY DEPARTMENT OF EMS	3,040	0	0
NORTHAMPTON FIRE & RESCUE	230	0	0
OAK HALL RESCUE	164	0	0
Ocean Park Volunteer Fire & Rescue	0	0	0
ONANCOCK VOLUNTEER FIRE DEPARTMENT	550	0	0
ONLEY VOLUNTEER FIRE & RESCUE	500	0	0
PARKSLEY VOLUNTEER FIRE COMPANY	881	0	0
Plaza Volunteer Rescue Squad	0	0	0
PORTSMOUTH FIRE RESCUE & EMERGENCY SERVICES	10,380	0	0
Princess Anne Courthouse Rescue Squad	0	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Sandbridge Rescue and Fire	0	0	0
SAXIS VOLUNTEER FIRE AND RESCUE	35	0	0
SEDLEY VOLUNTEER FIRE DEPARTMENT	60	0	0
Southern Medical Transportation	0	0	0
SPECIAL EVENT PROVIDERS OF EMERGENCY MEDICINE	360	0	0
SUFFOLK FIRE & RESCUE	6,650	0	0
TANGIER VOLUNTEER FIRE DEPARTMENT	70	0	0
TASLEY VOLUNTEER FIRE COMPANY	95	0	0
Tidewater Navy EMS - Navy Regional Medical Cener	0	0	0
Virginia Beach Lifesaving	0	0	0
Virginia Beach Volunteer Rescue Squad	0	0	0
Virginia Lifeline Ambulance Service	0	0	0
WACHAPREAGUE VOLUNTEER FIRE COMPANY	100	0	0
WINDSOR VOLUNTEER RESCUE SQUAD	80	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

Western Virginia	**99,080**	**0**	**0**
640 COMMUNITY RESCUE	120	0	0
ARARAT RESCUE SQUAD	58	0	0
BACHELORS HALL VOLUNTEER FIRE DEPARTMENT	45	0	0
BASSETT RESCUE SQUAD INC	1,200	0	0
BENT MOUNTAIN FIRST AID & RESCUE SQUAD INC	36	0	0
BLAIRS VOLUNTEER FIRE & RESCUE INC	350	0	0
BLUE RIDGE VOLUNTEER FIRE DEPARTMENT & RESCUE SQUAD	291	0	0
BLUE RIDGE VOLUNTEER RESCUE SQUAD	80	0	0
BOTETOURT COUNTY EMERGENCY SERVICES	2,900	0	0
BROSVILLE COMMUNITY VOLUNTEER FIRE DEPARTMENT	40	0	0
CARILION CLINIC PATIENT TRANSPORTATION	9,600	0	0
CARILION LIFE-GUARD MED-TRANS CORP	1,717	0	0
CASCADE VOLUNTEER FIRE DEPARTMENT	105	0	0
CATAWBA-MASON'S COVE RESCUE SQUAD INC	50	0	0
CAVE SPRING FIRST AID & RESCUE SQUAD	1,250	0	0
CCDF VOLUNTEER FIRE DEPARTMENT & RESCUE SQUAD INC	350	0	0
Celanese Corporation	0	0	0
CHRISTIANSBURG RESCUE SQUAD	3,400	0	0
CLIFTON FORGE RESCUE SQUAD	1,130	0	0
CLIMAX VOLUNTEER FIRE COMPANY INC	70	0	0
COOL BRANCH RESCUE SQUAD	180	0	0
COVINGTON RESCUE SQUAD	1,260	0	0
Craig County Emergency Services	0	0	0
DANVILLE FIRE DEPARTMENT	4,220	0	0
DANVILLE LIFE SAVING & FIRST AID CREW INC	5,700	0	0
DRY FORK VOLUNTEER FIRE DEPARTMENT INC	65	0	0
EAGLE ROCK VOLUNTEER FIRE DEPARTMENT/RESCUE SQUAD	160	0	0
ELLISTON FIRE DEPARTMENT	40	0	0
Event Medical Standby	0	0	0
FAIRYSTONE VOLUNTEER FIRE DEPARTMENT	160	0	0
Ferrum Rescue Squad Inc	0	0	0
FIELDALE-COLLINSVILLE RESCUE SQUAD	1,187	0	0
FINCASTLE RESCUE SQUAD	600	0	0
FLOYD COUNTY EMS INC	980	0	0
FLOYD COUNTY LIFE SAVING AND FIRST AID SQUAD INC	50	0	0
FORT LEWIS VOLUNTEER FIRE DEPARTMENT INC	85	0	0
FRANKLIN COUNTY PUBLIC SAFETY	4,280	0	0
FRANKLIN COUNTY RESCUE SQUAD	875	0	0
General Electric RS	0	0	0
GILES LIFESAVING AND RESCUE SQUAD INC	800	0	0
Goodyear Tire	0	0	0
GRETNA RESCUE SQUAD	300	0	0
HENRY COUNTY DEPARTMENT OF PUBLIC SAFETY	2,380	0	0
IRON GATE VOLUNTEER FIRE DEPARTMENT	190	0	0
JEB STUART RESCUE SQUAD	920	0	0
KEELING VOLUNTEER FIRE DEPARTMENT	80	0	0

QUANTIFICATION OF EMS AGENCY OMD OVERSIGHT AS MEASURED BY LOG INS TO VPHIB

KENTUCK VOLUNTEER FIRE DEPARTMENT	110	0	0
LAUREL GROVE VOLUNTEER FIRE & RESCUE INC	47	0	0
Lifeline Ambulance Service	0	0	0
MARTINSVILLE FIRE & EMS	2,980	0	0
MOOREFIELD STORE FIRE DEPARTMENT	100	0	0
MOUNT CROSS VOLUNTEER FIRE & RESCUE	180	0	0
MOUNT HERMON VOL FIRE DEPT	400	0	0
NATIONAL COLLEGE EMS	10	0	0
PAINT BANK FIRE & RESCUE	30	0	0
PATRICK COUNTY EMERGENCY SERVICES	115	0	0
PROVIDENCE EMS TRANSPORT LLC	530	0	0
RADFORD EMERGENCY MEDICAL SERVICES	1,630	0	0
RADFORD UNIVERSITY EMS	25	0	0
READ MOUNTAIN FIRE/RESCUE	510	0	0
REGIONAL EMS	5,360	0	0
REGIONAL ONE EMS	7,100	0	0
RIDGEWAY DISTRICT RESCUE SQUAD	955	0	0
Riner Volunteer Rescue Squad	0	0	0
RINGGOLD FIRE & RESCUE DEPARTMENT	550	0	0
RIVERBEND VOLUNTEER FIRE DEPARTMENT	45	0	0
ROANOKE EMERGENCY MEDICAL SERVICES INC	660	0	0
ROANOKE FIRE - EMS DEPARTMENT	19,500	0	0
ROANOKE FIRE DEPARTMENT/RESCUE SQUAD - #5 HOLLINS	280	0	0
SALEM RESCUE SQUAD	530	0	0
SCRUGGS FIRE DEPARTMENT AND RESCUE SQUAD	145	0	0
SELMA VOLUNTEER FIRE DEPARTMENT AND FIRST RESPONDERS	10	0	0
SHARON VOLUNTEER FIRE DEPARTMENT	150	0	0
SMITH RIVER RESCUE SQUAD	400	0	0
SNOW CREEK RESCUE SQUAD	110	0	0
STEWARTSVILLE-CHAMBLISSBURG VOLUNTEER FIRE DEPARTMENT	15	0	0
STONE AMBULANCE SERVICE	5,125	0	0
STUART VOLUNTEER FIRE DEPARTMENT	100	0	0
TUNSTALL VOLUNTEER FIRE DEPARTMENT	350	0	0
TWIN COMMUNITY VOLUNTEER FIRE DEPARTMENT	50	0	0
UNITED AMBULANCE SERVICE	34	0	0
VESTA RESCUE SQUAD	130	0	0
VINTON FIRE AND EMS	1,410	0	0
VINTON FIRST AID CREW	1,000	0	0
VIRGINIA TECH RESCUE SQUAD	1,100	0	0
Yokohama Industrial Rescue Squad	0	0	0
Grand Total	**892,180**	**0**	**0**

Appendix F

Memorandum of Understanding

Between

The Commonwealth of Virginia Department of Health

Office of Emergency Medical Services

And

The Office of Information Management

For

Data Warehouse Development, Maintenance, and Support

MOU Number: 517-13-M0XX

I. Purpose:

The intent and purpose of this Memorandum of Understanding (MOU) is to establish an agreement between the Virginia Department of Health, Office of Emergency Medical Services (hereinafter referred as OEMS), an agency of the Commonwealth of Virginia, and the Office of Information Management (hereinafter referred as OIM) to 1) deliver specific data warehouse (DW) analysis services (development, maintenance, and support) and 2) provide a cost estimate for these services. This MOU will evolve over time, with additional knowledge of the client requirements as well as the introduction of new applications and/or services, into the support portfolio provided to the OEMS.

II. Scope of Services: The OIM DW Services shall provide:

A. General Services

General categories of services to be completed in accordance with this agreement are as follows:

1. Report development
2. OLAP cube development
3. Database development
4. Data load/extract development

5. DW web portal development
6. Quality Assurance (QA) testing
7. Enhancement requests
8. User training
9. Maintenance of an OEMS Data Mart environment to allow for development by the OEMS staff independent of OIM DW team
10. DW hardware/software maintenance and support (e.g., database servers, Cognos servers, Cognos software, etc.)

B. Specific Services

Specific services to be completed in accordance with this agreement are as follows:

a. Data Warehouse Development

1. Analysis: The OIM DW team is responsible for the system study and analysis.
2. Maintain a master list of project priorities.
3. Provide a monthly task review report.
4. Meet with OEMS DW IT liaison and OEMS DW user group as defined in section III.
5. Structural Design: The OIM DW development team is responsible for the changes to the design for the DW.
6. Development: Software program development on the DW will be performed by the OIM software development team.
2. Development of up to 25 standard reports usable by low level users.
3. Development of an ad-hoc report writing tool for medium level users.
4. Provision of direct access to VHI data
5. Provision of direct access to VITAL Statistics data (as agreed to by data owners).
6. Probabilistic or deterministic linkage of individual patients between the various databases.
7. OIM will be responsible for the development of the technical method of performing logic checks/data cleaning/data scrubbing of data uploads.
8. ODBC type of connection to the raw data stored in the DW by OEMS' highest level users (2-3 persons).
9. DW Security: OIM is responsible for the DW's security, but the roles will have to be determined by the OEMS DW user group, wherever applicable.
10. Data Extracts and Loads: OIM will be responsible for extracting and loading data from the source to the target systems, as necessary and determined by the OEMS.
11. Unit Testing: Reports will be unit tested by the development team before sending it out for QA testing.
12. Technical Help/Training: OIM will provide, if necessary, any technical help and training as requested by the OEMS.

13. OEMS's EMS Registry (VPHIB) database update (weekly upload of new data).
14. OEMS' Trauma Registry (VSTR) database update (monthly upload of new data).
15. Regular extracts of provisional Birth, Death, Fetal Death and Causes of Death data.

C. Excluded Services

Categories of services which are excluded from this agreement are as follows:

1. Application development (e.g. VSTR, VPHIB or other collection databases).
2. VITA/NG responsibilities and tasks are not included in this agreement.

III. Project Management / Interoperability between OEMS and OIM DW Team

The OEMS and OIM DW team will operate according to the following rules for the MOU duration period. These rules are designed to allow flexibility while effectively establishing, maintaining, and managing both parties' expectations. The related components of this relationship are:

- OEMS DW IT liaison – Paul Sharpe or his replacement.
- OIM DW Team
- OEMS DW user group
- A master list of priorities will be maintained.
- A periodic report reviewing the status of project task will be developed.
- A periodic team meeting will occur between the OIM DW team and the OEMS DW user group.

This approach will allow priorities and needs to evolve rather than having to be defined in advance for the entire duration of this MOU. A master list of priorities created collaboratively by the DW supervisor and the OEMS DW IT liaison will be accessible for review at any time by any member of the user group to clarify current priorities and tasks. Implementing a regular schedule of status reporting by the DW team and the OEMS DW IT liaison to the OEMS DW user group members will keep all parties apprised of current progress and any issues that are actively being pursued.

A. OEMS Responsibilities

1. OEMS IT Liaison: The OEMS IT liaison is Paul Sharpe or his replacement. The OEMS DW IT liaison is responsible for insuring that all tasks assigned to the OEMS are performed on time, coordinate DW related activities with the user group, provide timely feedback, and gather requirements from OEMS and document them. The OEMS DW IT liaison will act as the single point of contact to the OIM with a designated back up.
2. General Responsibilities: OIM and the OEMS agree that the OEMS will meet the dates agreed upon to deliver any business requirements and user

acceptance testing results. The OIM and the OEMS staff will meet all mutually agreed upon deadlines for the review of deliverables.

3. To develop the business rules need to perform logic checks/data cleaning/data scrubbing upon upload.
4. Reports Testing: The OEMS agrees to participate in validation testing of reports produced for the OEMS Data Mart.
5. Data Cleanup: The OEMS is responsible for testing all data cleanup processes and to perform manual data cleanup, if needed.

B. OIM DW Team Responsibilities

1. DW Management: The OIM DW manager, Suresh Soundararajan or his replacement, will manage the IT aspects of the product. The OIM DW manager will coordinate all OIM responsibilities and assist the OIM DW technical lead and OEMS DW IT liaison, as needed. Approvals and reviews will be obtained from the applications development manager and the CIO as needed or required.
2. The OIM DW team will maintain of a master list of priorities that comes from the OEMS DW user group at the beginning of the performance period.
3. Task Review: A monthly, or other mutually agreed upon time period, review of the DW issues will be held with the OEMS DW user group to assess the state of the enhancements and maintenance issues.
3. OIM DW Team will provide a monthly, or other agreed upon time period, assessment on the state of enhancements, maintenance issues, and review of the DW issues and present these to the OEMS DW IT liaison and/or OEMS DW user group.
4. Coordination of Data Owners: OIM will support communication / coordination of the various data owners/DW IT liaisons to allow for the development of needed MOU's to share data amongst the various DWs.

C. OEMS DW User Group Responsibilities

The OEMS DW user group will meet at least quarterly to produce or review the master list of priorities and make recommendations to the OEMS. Items on this list will be assigned a priority level to enable the DW team to manage time and effort efficiently and insure that the most critical tasks take precedence. The OEMS DW user group should contain representatives deemed appropriate by the OEMS. The DW user group will make recommendations to the OEMS to assist in providing resolutions to issues and questions from the OIM DW team.

IV. Settlement of Disputes:

Any disputes regarding the interpretation or implementation of this MOU shall be resolved only by consultation among the OEMS and the OIM and will not be referred to a national or international tribunal or other third party for settlement. This MOU shall be

governed in all respects by the laws of the Commonwealth of Virginia, and any litigation with respect thereto shall be brought in the courts of the Commonwealth.

V. Amendment:

This MOU may be amended with the mutual written consent of the participants. Any amendment agreed to will be signed by the same people and titles that signed the MOU in effect at the time unless they are no longer in that position and then the signatures will reflect the people that have replaced those whose signatures are affixed to the document in effect.

VI. Contacts:

OEMS:

Paul Sharpe, Trauma/Critical Care Manager
1041 Technology Park Dr.
Glen Allen, VA 23059-4500
804-888-9141
paul.sharpe@vdh.virginia.gov

OIM:

Suresh Soundararajan
109 Governor Street
Richmond, VA 23118
(804) 864-7140
Suresh.Soundararajan@VDH.Virginia.gov

VII. Duration, Withdrawal and Termination:

A. This MOU will become effective on the date of the last signature and will remain in effect for a period of 3 years from the effective date.
B. This MOU may be terminated at any time with the mutual written consent of all participants.
C. The OIM shall, upon written notice from the OEMS, furnish phase-in/phase-out services for up to ninety (90) days after this MOU expires and shall negotiate in good faith a plan to execute the phase-in/phase-out services. This plan shall be subject to the OEMS's approval.
D. The OIM may be reimbursed for all reasonable, pre-approved phase-in/phase-out costs (i.e., costs incurred within the agreed period after MOU expiration that result from phase-in, phase-out operations) and a fee (profit) not to exceed a pro rata portion

of the fee (profit) under this MOU. All phase-in/phase-out work fees must be approved by the OEMS in writing prior to commencement of said work.

VIII. Availability of Funds: It is understood and agreed between the parties herein that the agency shall be bound hereunder only to the extent of the funds available or which may hereafter become available for the purpose of this agreement.

IX. Confidentiality of Personally Identifiable Information:

The OIM assures that information and data obtained as to personal facts and circumstances related to patients or clients will be collected and held confidential, during and following the term of this MOU, and will not be divulged without the OEMS' written consent and only in accordance with federal law and the *Code of Virginia*. OIM will control access and store personally identifiable information as part of the performance of this contract are required to safeguard this information and immediately notify the OEMS of any breach or suspected breach in the security of such information. OIM shall allow the OEMS to both participate in the investigation of incidents and exercise control over decisions regarding external reporting. OIM and their staffs working on this project may be required to sign a confidentiality statement.

X. Assignment:

Neither the OIM nor the OEMS shall assign or transfer any rights or obligations under this MOU without the prior written consent of the other party.

XI. SUBCONTRACTS: No portion of the work shall be subcontracted without prior written consent of the OEMS. In the event that the OIM desires to subcontract the any part of the scope of work for this MOU it shall furnish the OEMS the names, qualifications, and experience of its proposed subcontractors. If agreed upon by the OEMS the subcontractor shall be responsible for providing the scope of work and all required reports directly to OEMS and the OIM.

XII. Financial Arrangements:

OEMS shall reimburse the OIM for actual expenditures as a result of services performed under the terms of this agreement based on the budget agreed upon by the OIM and the OEMS. The OIM shall invoice the OEMS via an agency transaction voucher (ATV) with supporting documentation to include the lists of task, status of each task, and time and effort reporting. This documentation to be presented with the ATV shall show that the work has been completed.

The ATV should be directed to:

COST/PSD Code: 517 V (Trauma) or AC (EMS Registry)

A. Estimated Cost and Charges

OEMS agrees to pay the OIM for this product, which includes the development, testing, web site maintenance, training, analysis and management.

Development and Implementation Costs:

Services	**Estimated Cost**	**% time spent**	**Comments**
Data Warehouse Team	$	35	
QA and Change Management	$	5	
DBA Services	$	10	
IT Management	$	4	
Admin Services	$	< 2	
Total Estimated Cost:	**$** [redacted]	**(To be completed as draft is developed)**	**Based upon 9/18/12 email.**

Annual Maintenance Costs:

Year 2	$ [redacted]	OIM will provide documentation to support this cost
Year 3	$ [redacted]	OIM will provide documentation to support this cost

XIII. Effective Date of Signature:

This MOU will become effective on the date of the last signature.

Approved By:

Signature		Signature	
Date:		Date:	
Name:	Gary R. Brown	Name:	

Title:	Director		
Org:	Virginia Department of Health	Org:	
	Office of Emergency Medical Services	Address 2:	
	1041 Technology Park Drive	Address 2:	
City, State	Glen Allen, VA 23059	City, State	
		Zip:	

Appendix G

Virginia Office of Emergency Medical Services

Virginia Statewide Trauma and Burn Center Designation Manual

Effective Date: XXXXX XX, 201X

Virginia Department of Health
Office of Emergency Medical Services
1041 Technology Park Drive
Glen Allen, Virginia 23059
(804) 888-9100
www.vdh.virginia.gov/oems

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Table of Contents

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PREFACE

The purpose of the Virginia Statewide Trauma and Burn Center Resource Designation Manual is to provide information to hospital physicians, nurses, and administrators about ~~trauma and~~ trauma/burn center designation and verification in Virginia. The manual contains the criteria and standards effective June 15, 2012 for the four levels of trauma and trauma/burn center designation in Virginia. The process documents explain how trauma and trauma/burn center designation is acquired and maintained.

Virginia trauma center standards are based upon national standards put forth by the American College of Surgeons (ACS) and the American College of Emergency Physicians. Burn center criteria are based upon the American Burn Association's (ABA) standards. Neither set of standards is wholly adopted. Instead, stakeholder group input is utilized to adapt the standards to best fit the Virginia Trauma System. The State Board of Health (BOH) is the final approving body for these standards.

The Trauma System Oversight and Management Committee (TSO&MC) document explains the role of the TSO&MC in advising the State Board of Health and Office of Emergency Medical Services on matters ~~oversight~~ of trauma center designation and verification. The TSO&MC meets quarterly to discuss trauma system issues and to prepare action items for the State's Emergency Medical Services Advisory Board. ~~Hospital representatives are welcome to attend these meetings.~~

The purpose of the designation process is to ensure consistent performance of trauma and trauma/burn centers in Virginia and to promote continued improvement and development of experienced centers thereby reducing morbidity and mortality of the traumatically and thermally injured patient.

Please direct questions or requests for further information or resources to the Virginia Department of Health's (VDH), Office of Emergency Medical Services (OEMS) Trauma/Critical Care Coordinator, 1041 Technology Park Drive, Glen Allen, Virginia 23059 or (804) 888-9100.

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DEFINITIONS

Burn Center - A hospital that has been designated by the Commissioner as a trauma/burn center after meeting the Level I trauma center and burn center criteria contained within this document.

Burn Patient – A patient requiring treatment of burn-related injuries who should be referred to a designated trauma/burn center in the Commonwealth of Virginia for assessment and care.

Burn Program – An organized approach (within the verified trauma center) to the care of burn patients with a focus on performance improvement, education, and outreach. Burn program administrative leadership addresses burn center standards under the direction of the Burn Medical Director.

Burn Service - The medical and surgical services that direct and coordinate the care of acute burn patients.

Burn Unit - The designated geographic area within a hospital that the majority of acute burn patients receive care.

Critical Deficiency - The trauma or trauma/burn center demonstrates an absence or inadequate mechanism to address a specific essential criterion or criteria. Critical deficiencies must be corrected as directed in this document to receive an unconditional designation.

Designated Trauma Center - The process by which the Virginia Department of Health identifies hospitals that are prepared to consistently provide care to the traumatized patient.

Experienced/Mature Trauma Center – A designated trauma or trauma/burn center that has completed at least one successful three year verification cycle.

Immediately available - The physical presence of the health professional in a stated location able to provide care to the trauma patient.

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 IB – Meet all the requirements for Level I trauma center designation and the additional criteria specific to being designated as a trauma/burn center. Denoted as Level IB or Level I trauma/burn center.

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 members, which are promptly available to the patient. Due to some 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 centers, through an organized trauma response, can provide prompt assessment, resuscitation, stabilization, emergency surgery, and also arrange for the transfer of the patient to a hospital that can provide definitive trauma care. Level III centers should also take on responsibility for education and system leadership within their region.

Non-Critical Deficiency – The trauma or trauma/burn center demonstrates an absence or inadequate mechanism to address a specific essential criterion or criteria. While there is not an immediate negative impact on patient care, continuation of the present status will result in erosion of the program and development of a critical deficiency(ies.) Non-critical deficiencies seen during two consecutive site reviews will be elevated to a critical deficiency.

Trauma Center – A hospital that has been designated by the Commissioner as a trauma center as a result of complying with the criteria throughout this document.

Team Leader – A surgeon that serves as the head of a trauma center site review team. This is typically a surgeon actively involved in an active trauma program.

Trauma Patient –The identification of patients that should be referred to a designated trauma center in the Commonwealth of Virginia for assessment and care. The Statewide Trauma Triage Plan sets the minimum standard for defining a trauma patient.

Trauma Registrar - The individual(s), responsible for entering, analyzing and evaluating the data maintained in the trauma registry. Frequently this person also oversees the performance improvement efforts of the trauma program.

Trauma Service - The medical and surgical services that direct and coordinate the care of acutely injured patients.

Trauma Team - A multidisciplinary healthcare team that is predetermined to provide an organized approach to providing trauma care.

TSO&MC - Trauma System Oversight and Management Committee is a subcommittee of the EMS Advisory Board. This is the Commonwealth's trauma stakeholder committee that works to develop, maintain and improve Virginia's trauma system under the auspices of the Commonwealth of Virginia Board of Health.

Virginia Statewide Trauma Registry (VSTR) - In Virginia, all hospitals that provide emergency services and have inpatient facilities are required by the *Code of Virginia* §32.1-116.1 to report to the VSTR. The VSTR is used by Virginia's trauma system for performance improvement, research, injury prevention, resource utilization and the creation of state standards and benchmarks.

ABBREVIATIONS

ABLS – Advanced Burn Life Support
ACLS – Advanced Cardiac Life Support
ACS - American College of Surgeons
ACS/COT - American College of Surgeons Committee on Trauma
ASTNA – Air and Surface Transport Nurses Association
ATCN – Advanced Trauma Care for Nurses sponsored by STN
ATLS – Advanced Trauma Life Support course
BOH – State Board of Health
CEN – Certified Emergency Nurse
CRNA – Certified Registered Nurse Anesthesiologist
CEO – Chief Executive Officer
CATN – Course in Advanced Trauma Nursing (ENA)
COT – Committee on Trauma
CT – Computed Tomography Scanning
CEU – Continuing Education Unit
CME – Continuing Medical Education
DOA – Dead on arrival
E – Essential Criterion
ECG – Electrocardiogram
ED – Emergency Department
EMS – Emergency Medical Services
ENA – Emergency Nurses Association
ENPC – Emergency Nurses Pediatric Course
ETT – Endotracheal tube
GAB – EMS Advisory Board
ISS – Injury severity score
ICU – Intensive Care Unit
ICD9 - Ninth edition of International Classification of Disease.
ICD10 - Tenth edition of International Classification of Disease.
ICP – Intracranial pressure
IV - Intravenous
LPN/LVN – Licensed professional nurse/licensed vocational nurse
MRI – Magnetic resonance imaging
MD – Medical doctor
O – Optimal Criterion
OEMS – Office of Emergency Medical Services
OR – Operating room
PALS – Pediatric Advanced Life Support (course or certification)
PI – Performance improvement; used to describe quality assurance efforts (QA/QI/CQI)
PACU – Post Anesthesia Care Unit
PGY4/PGY5 - postgraduate year; classification system for residents in postgraduate training. The number indicates the year they are in during their post medical school residency program.

PHTLS – Prehospital Trauma Life Support
RN – Registered Nurse
RTTDC – Rural Trauma Team Development Course
STN – Society of Trauma Nurses
TEH - Trauma education hour(s) is the equivalent of 60 minutes of trauma education
TMD – Trauma Medical Director
TNCC – Trauma Nurse Core Curriculum sponsored by the ENA
TPD/TPM/TNC – Traditionally called the trauma nurse coordinator (TNC); this position varies by center and is typically a director or program manager.
TSO&MC – The Trauma System Oversight and Management Committee; this is the Commonwealth's
VDH – Virginia Department of Health
VDH/OEMS – Virginia Department of Health's Office of Emergency Medical Services
VSTR – Virginia Statewide Trauma Registry

VIRGINIA TRAUMA CENTER DESIGNATION

Resource Document: Virginia Statewide Trauma and Burn Center Designation Manual, available at: www.vdh.virgina.gov/oems. Virginia trauma center criteria are based on the *Resources for Optimal Care of the Injured Patient: 2006* (American College of Surgeons Committee on Trauma, 2006).

The TSO&MC is a subcommittee of the State Emergency Medical Services Advisory Board. The State Emergency Medical Services Advisory Board is tasked with advising the State Board of Health and the Virginia Department of Health's Office of Emergency Medical Services (VDH/OEMS) in matters related to the Virginia emergency medical services system. ~~has been asked by the State Health Commissioner (Commissioner) to assist in the designation of trauma and trauma/burn centers in the Commonwealth of Virginia.~~

Each subcommittee of the State Emergency Medical Services Advisory Board maintains a vision, mission, and core objectives that are accepted by the full Board. The TSO&MC's are as follows:

Vision – The Trauma System Oversight and Management Committee will collaborate to support a statewide inclusive trauma system through evaluation, planning, and performance improvement.

Mission – To advise the Virginia Department of Health, Office of Emergency Medical Services with maintaining an inclusive system that ensures when the severity and incidence of trauma cannot be decreased, that all injured person within the Commonwealth have rapid access to optimal, equitable, efficient specialized trauma care to prevent further disability utilizing a public health approach.

Core Objectives

Advise the Virginia Department of Health, Office of Emergency Medical Services on matters relating to:

1. Maintaining a process for designation of hospitals as trauma centers (§ 32.1-111.3:A.10)
2. Maintaining a statewide pre-hospital and inter-hospital trauma triage plan (§ 32.1-111.3:19.B)
3. Maintaining a performance improvement process that supports the trauma center designation process, trauma triage plan, and improves trauma care throughout and Virginia. (§ 32.1-111.3:B.3)

(The Vision, Mission, and Core Objectives were created during the process to revise the August 13, 2010 EMS Advisory Board Bylaws)

The process of designation is ~~entirely~~ voluntary on the part of the hospitals in the Commonwealth. It is meant to identify those hospitals that will make a commitment to provide a given level of care for the multiple injured and/or burned patient and who welcome public acknowledgment of that capability. Knowledge of trauma and burn care capabilities, with improved field categorization and prehospital capabilities will help all those involved in the trauma and burn care delivery system make decisions that are in the best interest of the patient.

The designation process is as follows:

1. Each ~~Any~~ hospital that desires consideration for designation will make a request to the VDH/OEMS' Trauma/Critical Care Coordinator. ~~as a trauma or trauma/burn center must submit a completed application to the VDH/OEMS Trauma/Critical Care Coordinator or on-line.~~ The request, with statement of community need or justification, and its impact on the regional trauma system will be

included with the hospital's application for designation. The application can be obtained on-line at http://www.vdh.virginia.gov/OEMS/Trauma/TraumaSystem.htm or from the VDH/OEMS Trauma/Critical Care Coordinator.

2. Items that comprise a complete trauma center designation application can be found in the application document titled Application Checklist Trauma Designation v2014.

3. The application for designation should include the hospital name, parent company, chairperson of its board of directors, CEO, nurse executive, administrator in charge of the trauma service, trauma medical director, trauma program manager, and the emergency department medical director.

4. The Trauma/Critical Care Coordinator will review the application ~~with the Chairman of the TSO&MC Committee, (and Committee member(s), if necessary),~~ for compliance with the required standards. Additional clarifying documents or information may be requested.

5. A designation site review will only be scheduled after a hospital can demonstrate presence of essential ~~trauma and/or burn~~ criteria, compliance with the Virginia Statewide Trauma Registry (VSTR) data submission requirement~~s~~, and participation in ~~its~~ regional trauma triage plan.

6. A site review will be scheduled for the purpose of awarding provisional status as a trauma center. Upon completion of one year as a provisional trauma center, the hospital will be required to submit an interim report describing any changes since designation as a provisional center.

7. At the conclusion of the scheduled site visit, the site review team members will submit their findings and recommendations in a summary report to the Commissioner. The site review team may share the draft copy of the summary report to the candidate hospital at the conclusion of the review.

8. ~~At the end of the one year provisional period,~~ A modified site review team, consisting of a surgeon team leader and a trauma/critical care RN, will review the hospital and if there are no critical deficiencies identified at the time of this visit, the center will be recommended for designation as a trauma and/or trauma/burn center by the Commissioner. ~~The modified site review team will consist of a surgeon team leader, trauma/critical care registered nurse (RN), and VDH/OEMS staff.~~ A verification visit will be required three years from the original full site review and not from the modified visit.

9. An on-site verification visit will be required every three years from the original designation. Site review teams may recommend the verification cycle be any other time period as deemed necessary instead of the standard three year cycle.

SITE REVIEW TEAM COMPOSITION

LEVEL I and IB (IB is Level I Trauma and Burn Center Designation)

- Out of state Trauma Surgeon
- In state Trauma Surgeon/Team Leader
- A Trauma/Critical Care Nurse

- Emergency Department (ED) Physician
- Hospital Administrator

LEVEL II and III

- In state Trauma Surgeon/Team Leader
- ED Physician
- A Trauma/Critical Care Nurse
- Hospital Administrator

10. A site review will be scheduled within six months of receiving a completed application. Once the site review date and time are scheduled, the hospital will receive an agenda, and a list of documents and personnel that need to be available at the time of the visit.

11. At the conclusion of the scheduled site visit the site review team members will submit their findings and recommendation to the State Health Commissioner. This report may be developed in draft form on site by the team or through individual reports submit by the team members to the team leader who in turns develops a summary report. The site review team may provide a draft copy of the team report at the conclusion of the site review day.

12. ~~Acting upon the recommendation of the site review team the State Health Commissioner designates the trauma center for a period of two years.~~ The finalized report will be submitted to the State Health Commissioner for consideration to designate the hospital as a trauma center for a two year period from the date of notification. The facility will receive a final report of the site review team findings and recommendations in accordance with the criteria. In the event that the hospital disagrees with the report, the hospital may choose to initiate an appeals process outlined elsewhere in this document.

13. An on-site verification visit will be scheduled within 24 months of the site visit date.

TRAUMA CENTER VERIFICATION

Resource Document: Virginia Statewide Trauma and Burn Center Designation Manual, available at: www.vdh.virginia.gov/oems. Virginia trauma center criteria are based on the *Resources for Optimal Care of the Injured Patient: 2006* (American College of Surgeons Committee on Trauma, 2006).

The verification process is as follows:

1. A renewal notice will be sent approximately six months prior to the site review due date.

2. The hospital applying for trauma center verification must submit proposed site review dates within 30 days of receiving renewal notice.

3. The hospital will receive a confirmation date from OEMS once a team leader has been identified and has agreed to a date.

4. The hospital will submit a complete designation application no later than 60 days prior to the confirmed site review date. The completed application will include the following items:

    a) Acknowledgement that the OEMS Trauma Designation File has been reviewed.
    b) Submissions to the Statewide Trauma Registry are up to date as of the most recent quarter. Criterion Article V. Section 5.01(e) Data must be submitted to the Statewide Trauma Registry within 30 days from the end of the quarter.
        - January – March / Due April 1st
        - April – June / Due July 1st.
        - July – September / Due October 1st
        - October – December / Due February 1st.
    c) Signed Trauma Center Code of Conduct (electronic form provided)
    d) Completed Trauma Center Capabilities Form (electronic form provided)
    e) Current Organizational Chart describing the relationship of the trauma program within the hospital organizational structure.
    f) Impact Statement (see page 8 and 39 of the designation manual for instructions)
    g) Criteria Checklist (electronic form provided)
    h) Completed Trauma Center Questionnaire (electronic form provided)
    i) Current complete list of Emergency Physicians
    j) Current complete list of Surgeon's performing trauma call
    k) Copy of the Trauma call schedule for the most recent three consecutive months
    l) Trauma Team Activation/Alert Criteria for your hospital
    m) Trauma Team Roles & Responsibilities
    n) Trauma Alert Policies
    o) Trauma Medical Director Job Description
    p) Evidence of Trauma Medical Director's: Copy of board certification
    q) Evidence of Trauma Medical Director's: current ATLS

r) Evidence of Trauma Medical Director's: CME
s) Evidence of Trauma Medical Director's: Attendance at a national conference attendance
t) Evidence of Burn Medical Director's: Copy of board certification (if applicable)
u) Evidence of Burn Medical Director's: CME (if applicable)
v) Trauma Program Manager's Job Description (include Org. Chart)
w) Evidence of Trauma Nurse Coordinator's Trauma Education Hours
x) Evidence of Trauma Nurse Coordinator's Attendance at a national conference attendance
y) Burn Manager's Job Description (if applicable)
z) Evidence of Burn Manager's Burn Education Hours (if applicable)
aa) Trauma Registrar Job Description
bb) Trauma Registrar Evidence of CE requirements
cc) Current and complete list of nursing staffs that serve as the primary trauma team nurse in the trauma resuscitation room. The list of trauma team nurses should include whether the nurse possess active TNCC, ATCN, or CATN.
dd) Emergency Medical Director's Board Certification
ee) Emergency Medical Director's evidence of CME
ff) Emergency Medical Director's current ATLS or the identified designee's current ATLS
gg) Performance Improvement Process Flow Diagram includes how issues get reported to its highest level
hh. Performance Improvement Worksheet/Tracking Sheet
ii. Performance Improvement Plan/Policy
jj. Other documents as requested.

5. The site review team will be composed of a trauma surgeon/team leader, an emergency medicine representative, a trauma/critical care nurse, and a hospital administration representative. The State Trauma/Critical Care Coordinator will staff the site review and can cover any vacant position except the team leader role if needed.

6. Site Visit day will occur as follows:

   a. There will be an opening conference with the key trauma individuals of the institution and the site review team. The key individuals are: the TMD, TPD/TPM/TNC, Burn Medical Director, Emergency Medicine Medical Director, the hospital administrator that is the immediate supervisor for the trauma program, trauma nurse clinicians, nurse managers from the ED, operating room (OR), intensive care units (ICU), pediatrics and trauma nursing floors, trauma registrar, PI coordinator, orthopedic surgery, neurosurgery, anesthesia, rehabilitation medicine, radiological and lab/blood blank representatives, local EMS Chiefs, and OMDs.
   b. The site review team will tour the hospital with the hospital staff person that is in an equivalent role to the team member. Appointments for individual meetings between the administrative team member and the hospital's Chief Executive Officer (CEO), Chief Nursing Officer (CNO), and the administrator over the TPD/TPM/TNC must be arranged.
   c. The site review team will need to be provided with a work area to privately review hospital medical records. The team may also use a tracer methodology and review charts of active patients. Medical

records are chosen in advance by the OEMS using the VSTR and EMS registry. Additional records may be requested during the review.

d. There will be a review of PI documentation.
e. An exit interview with the TMD, TPD/TPM/TNC, and the hospital administrator with direct responsibility for the trauma program, and the CEO and CNO if desired will be held.
f. The site review team may provide a draft copy of their final report to the trauma program leadership.

7. The site review team will document their findings in the form of strengths, weaknesses, non-critical deficiencies, and critical deficiencies. The team can develop this report as a group effort or any combination of individual and group reports. The team report will include a recommendation to the Commissioner towards the designation/verification of the hospital as a designated trauma or trauma/burn center.

8. Acting upon the recommendation of the site review team, the Commissioner may verify the designation of the trauma and/or trauma/burn center for a three-year period from the date of the full site review. Designation is at the discretion of the Commissioner and variations of designation cycles may be utilized, as well as special conditions.

9. If a trauma or trauma/burn center fails to meet essential criteria/receives a critical deficiency identified during a site visit or by other compelling evidence, the hospital will receive written notification by the VDH/OEMS.

10. The hospital trauma center will submit a written plan of correction of the critical deficiency within 30 days after notification. The hospital trauma center has six months from the date of notification to correct all deficiencies and undergo a focused repeat verification visit performed by the team leader, VDH/OEMS staff and other team members as needed from the initial visit. The team leader may be replaced for extenuating circumstances. The team leader may also deem a repeat visit unnecessary with appropriate documentation that demonstrates the deficiency has been corrected.

11. If the deficiencies are not corrected within the six month period, the trauma or trauma/burn center designation will be withdrawn by the Commissioner. If the hospital desires designation as a trauma or trauma/burn center, it must wait a minimum of six months and reapply.

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BURN CENTER VERIFICATION

The purpose of the burn center designation process is to ensure consistent performance of trauma/burn centers in Virginia and to promote continued improvement and development of experienced burn centers thereby reducing morbidity and mortality of the thermally injured patient.

The intent of this document is to outline the criteria for the designation and verification of trauma/burn centers in Virginia. This document defines the essential components of burn centers in Virginia and outlines administrative guidelines describing the procedures and steps required for the process and interpretive guidelines describing how burn center criteria should be evaluated during a site visit.

The objective is to provide a consistent, objective, and meaningful approach to the designation and verification process. Hospitals seeking burn center designation must be physically co-located with a Level II trauma center.

PEDIATRIC TRAUMA CENTER VERIFICATION

The purpose of the pediatric trauma center designation process is to ensure consistent performance of pediatric trauma centers in Virginia and to promote continued improvement and development of experienced pediatric trauma centers thereby reducing morbidity and mortality of the seriously y injured pediatric patient.

The intent of this document is to outline the criteria for the designation and verification of pediatric trauma center designation in Virginia. This document defines the essential components of pediatric trauma centers in Virginia and outlines administrative guidelines describing the procedures and steps required for the process and interpretive guidelines describing how pediatric trauma center criteria should be evaluated during a site visit.

The objective is to provide a consistent, objective, and meaningful approach to the designation and verification process. Hospitals seeking pediatric trauma center designation must be physically co-located with a Level I or Level II trauma center. Any hospital that solely treats the pediatric population must meet both the pediatric criteria and at minimum the Level II criteria adjusted for age.

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TRAUMA CENTER CRITERIA

The items listed below as "E," are essential items (required) in order maintain the respective level (I, IB, II, or III) trauma or trauma/burn center designation. Those items listed with an "O" are items that are considered optimal and are recommended but not required. Mature centers typically achieve optimal items above the essential criteria for Level I, IB, II or III designation.

Level:	I	IB	II	III	P
Article I. **Institutional Organization**					
Section 1.01 Trauma Program:					
(a) A written ~~The Trauma Service must have a~~ mission statement describing comprehensive trauma care within a trauma system. ~~emphasizing the use of a continuous PI program in the care of the trauma patient.~~	C	C	C	C	C
Measure:					
Interpretive Guidance: The mission statement and the impact statement describe the role of the program and its expected impact in regional trauma management respectively.					
(b) A recognizable program within the hospital which has a surgeon as its director/coordinator/physician in charge. • Must have an identifiable trauma service. • Must have a Trauma Medical Director (TMD). • Must have a Trauma Director or Trauma Nurse Coordinator. • There must be a trauma program manual. • There must be an identifiable trauma response. • There must be consistent implementation of the trauma team response as described in the trauma program manual. • There must be a trauma registrar(s). • Trauma program manual must reflect actual practice of procedures and protocols.	C	C	C	C	C
(c) A recognizable program within the hospital which has a surgeon as its director/coordinator/physician in charge. • Trauma program manual is inadequate to provide necessary framework for service. • Key hospital staff, trauma surgeons, and specialty medical staff must be aware of the contents of trauma program manual. • Occasional failure in application of trauma response not addressed in PI process. • Trauma team response cumbersome and/or poorly communicated to trauma team or delayed.	NC	NC	NC	NC	NC
Interpretive Guidance: The trauma service provides the clinical framework for the management of critically ill trauma patients. The framework of the service varies with the institution and the number of patients admitted. It is not mandatory that patients be admitted to a single geographic unit within the hospital or to a single individual. The service should be identified in the organizational chart of the hospital. It must have a board certified surgeon as its medical director, a trauma registrar and a trauma					

Level:	I	IB	II	III	P
program manager. Patients on the service must be evaluated by a trauma surgeon and in cases of multiple system injury, single system major injury, torso, or vascular trauma the patient must be admitted to the surgeon. This should be the case even if a general surgical procedure is not anticipated. There should be a trauma program manual with policies and protocols pertaining to the admission and care of trauma patients. The trauma program manual should clearly describe which patients are admitted to the service and which, if any, will be transferred to another facility. Special groups of patients, such as pediatrics, should be addressed.					
(d) Support of the facility's Board of Directors. (The Board of Directors should be notified of applications for trauma designation, verification, and approval ~~of the~~ by the State Health Commissioner ~~of Health~~ after a site review).	C	C	C	C	C
(e) Support of the facility's medical staff executive committee.	C	C	C	C	C
Measure: Resolution from the medical staff executive committee stating it support trauma center designation including the designation level.					
Interpretive Guidance:					
(f) Administration must be supportive of the trauma program.	C	C	C	C	C
Measure:					
Interpretive Guidance: Nursing staff, hospital administration, and medical staff must be committed to maintaining the program. The presence of support from only one or two of these groups or significant resistance from any one of these groups is an area of concern and represents a non-critical deficiency. However, resistance from an isolated individual or small group of individuals must be evaluated on a case-by-case basis, taking the impact on the program into consideration. For example, an objection to the trauma center effort by a CEO of a hospital represents an insurmountable problem than objection by two or three sub-specialists in different clinical areas. While letters of support from key participants are not essential, these may serve to indicate institutional commitment. In addition, the administrative surveyor will interview administrative representatives to determine institutional commitment. At minimum, leadership in the areas of nursing, medical staff, and administration should be able to identify the presence of the program and general information regarding structure and function. The organizational chart submitted with the written application will be important in determining location of the program in the hospital structure and reporting relationships. Administrative responsibility for the program should be clearly defined and in the hands of an individual with a clear understanding of the needs of trauma patients and the process of designation as well as the authority to promote development of the program. Institutions should have an allocated budget for the trauma program, however; the institution can demonstrate compliance with the criteria by documenting that the expenses and revenues associated with the program are routinely evaluated. Development and maintenance of any level of trauma center requires non-clinical time, space, equipment and supplies. Allowances for these should be included in the budget. As the number of patients admitted to the service increases, it is reasonable to expect increasing demands in terms of non-clinical time and support. For example, according to ACS recommendations, a full time registrar is expected to manage information entry and retrieval on a maximum of 750 - 1000 patients. The site review team should identify sufficient resources to support non-clinical activities. They will be aware of the fact that multiple management responsibilities may prevent functioning at full time status.					
(g) Evidence of an annual budget for trauma program. • The site review teams finds evidence of the absence of overall financial commitment to the trauma program.	C	C	C	C	C

Level:	I	IB	II	III	P
• The site review teams finds evidence of insufficient resources being allocated for trauma care. • Failure to budget adequately for non-clinical activities related to maintaining the trauma program.					
(h) Evidence of an annual budget for trauma program. • Absence of attempt to review program costs (clinical and non-clinical)	NC	NC	NC	NC	NC
Measure:					
Interpretive Guidance: There should also be demonstrated effort to identify costs related to the trauma program. It is important for the hospital leadership to be aware of this in order to avoid sudden discoveries of expenses and equally sudden withdrawals. Additionally, it is difficult to determine if resources are adequate if program expenses are unknown. In recent years, trauma centers have also been asked to provide information on the cost of trauma care in order to assess the overall impact of this on Virginia Healthcare; in this setting provision of general information on expenses and reimbursement is a means of participation in the trauma system. There is currently no standard reporting format for expenses, reimbursement, and budgetary allocations. Financial information on the trauma program should be collected and reported to the administration, trauma nurse coordinator, and trauma service director in a manner which is meaningful and useful for planning.					
(i) The hospital provides adequate human and physical resources to provide acute care consistent with its level of designation.	NC	NC	NC	NC	NC
(j) There is sufficient infrastructure and support to the trauma service to ensure adequate provision of trauma care.	C	C	C	C	C
Measure:					
Interpretive Guidance:					
(k) Impact Statement	NC	NC	NC	NC	NC
Measure:					
Interpretive Guidance: The impact statement is an argument for the existence of the trauma center. This document should briefly identify the trauma resources available in the region and why the hospital thinks being a trauma center is necessary. Examples of benefits include, but are not restricted to; geographically underserved area, inadequate number of trauma beds or improvement in care of patients already received.					
(l) Long Term Trauma Program Plan	NC	NC	NC	NC	NC
Measure:					
Interpretive Guidance: This version of the trauma criteria continues to emphasize continuous development and improvement. Presence of a planning process for the program (which may include a business or strategic plan) allows for anticipated response to changes in the trauma care environment as well as possible improvements in delivery of care. Programs are expected to show progress and capacity for change in response to environmental stressors. During the site visit opening conference the director will be asked to list strengths and weaknesses of the program.					
Section 1.02 Burn Program:					
(a) The burn program must have medical and administrative commitment to the care of patients with burns. This is demonstrated by administrative leadership and financial support for personnel to maintain the elements as outlined below.	-	C	-	-	-
(b) The burn program must formally establish and maintain an organized burn program that is responsible for coordinating the care of burn	-	C	-	-	-

Level:	I	IB	II	III	P
patients.					
(c) The burn program must maintain an organizational chart relating personnel within the burn program and hospital.	-	C	-	-	-
(d) The burn program must be integrated into the trauma program at a state designated/verified Level I trauma center.	-	C	-	-	-
(e) All essential elements of a burn program and burn unit must be present.	-	C	-	-	-
(f) The burn program must admit an average of 50 or more burn patients annually with acute burn injuries averaged over three years.	-	C	-	-	-
(g) The burn program must maintain a policy and procedural manual that is reviewed annually by the Burn Medical Director and Burn Program Manager/Coordinator. Policies and procedures will include the following: (i) Administration of the burn program. (ii) Staffing on the burn unit. (iii) Criteria for admission to the burn unit by the burn program. (iv) Use of burn unit beds by other medical and surgical services. (v) Use of "tanking" and dressing facilities by non-burn program physicians. (vi) Pediatric and adult conscious sedation procedures. (vii) Criteria for admission, discharge, and follow-up care. (viii) Availability of beds and transfer of burn patients to other medical surgical units within the hospital. (ix) Care of patients with burns in areas of the hospital other than the burn unit.	-	C	-	-	-
Section 1.03 Pediatric Trauma Program:					
(a) The pediatric trauma program must have a medical and administrative commitment to the care of pediatric trauma patients. This is demonstrated by administrative leadership and financial support for personnel to maintain elements as outlined below:	-	-	-	-	C
(b) The pediatric trauma program must be formally established and maintain an organized pediatric trauma program that is responsible for coordinating the care of pediatric trauma patients.	-	-	-	-	C
(c) The pediatric trauma program must maintain an organizational chart relating personnel within the pediatric trauma program and the hospital as a whole. (d) The pediatric trauma service must be integrated into the trauma program of a state designated Level I or Level II trauma center. **OR** If a hospital seeking pediatric trauma center designation only treats the pediatric population they may do so but they must meet Level I or Level II trauma center designation criteria as adjusted for age.	-	-	-	-	C
Section 1.04 Program Leadership:					
(a) **Trauma Medical Director:**					

Level:	I	IB	II	III	P
(i) The TMD must have the responsibility and authority to determine each general surgeon's ability to perform trauma call.	NC	NC	NC	NC	-
(ii) The TMD must have the responsibility and authority to ensure compliance with trauma center designation and verification criteria.	NC	NC	NC	NC	-
(iii) The TMD must oversee all aspects of multidisciplinary care from the time of injury to discharge	C	C	C	C	-
(iv) The TMD must be involved in the development of the hospital's bypass/diversion protocol development.	NC	NC	NC	NC	-
(iv) The TMD must be active~~ly involved~~ in ~~providing~~ delivering clinical care to trauma patients. ~~With life threatening or urgent injuries to discharge.~~	C	C	C	C	-
(v) The TMD must participate in trauma call.	C	C	C	C	-
(vi) The TMD must be a board certified/eligible general surgeon. An emergency medicine physician may serve as a Co-Director.	C	C	C	C	-
(vii) The TMD must have a minimum of three years' experience with a trauma program or be trauma fellowship trained.	C	C	-	-	-
(viii) The TMD must maintain current ATLS provider or instructor certification.	C	C	C	C	-
(ix) The TMD will have ~~30~~ 48 hours of Category I trauma/critical care CMEs every three years and attend one national meeting whose focus is trauma or critical care.	C	C	C	-	-
(x) The TMD will have ~~30~~ 48 hours of Category I trauma/critical care CMEs every three years and/or attend one national meeting whose focus is trauma or critical care.	-	-	-	C	-

Level:	I	IB	II	III	P
(xi) Each surgeon, emergency physician, nurse practitioner or physician's assistant participating/taking call in the program or could possibly be caring for trauma alert patients in the ED must complete ~~30~~ 48 Category I CMEs in trauma/critical care across the three year verification period. ~~or 20 CMEs across the two year designation period.~~ Updating ATLS may be included in these CMEs. OR ~~The TMD will provide an annual meeting and/or a self learning packet/web based learning program. All of the following shall receive this training:~~ ~~• All full and part time surgeons taking trauma call~~ ~~• The TPD/TPM/TNC~~ ~~• Nurse practitioners and physicians assistants affiliated with the trauma program~~ ~~• All full and part time ED physicians who may be caring for trauma alert patients in the ED~~ ~~• All nurse practitioners and physicians assistants who may be caring for trauma alert patients in the emergency department.~~ ~~The TMD will provide the following updates during this meeting:~~ ~~• Highlights from national meetings and other continuing education to include a discussion of any changes applicable to the current guidelines and practice.~~ ~~• A review, including updated information from ATLS.~~ ~~(Additional information within the interpretive guidelines.)~~	C	C	C	C	C
(xii) The TMD must participate in regional and national trauma organizations.	NC	NC	NC	NC	-
Measure:					
Interpretive Guidance: It is ~~essential~~ expected that the trauma director is ~~remain~~ active in development and management of the trauma system on the state and regional level. This will be demonstrated by evidence ~~of attendance and~~ participation in regional, state, or national level trauma system activities ~~and trauma performance groups~~.					
(xiii) The trauma surgeon is involved in the decisions regarding bypass. The surgeons should be actively involved in prehospital personnel training, the PIPS process, and development of trauma components of EMS.	NC	NC	NC	NC	-
(xiv) The TMD must be involved in trauma research, which includes the need to create a publication of results and presentations.	C	C	-	-	-
Section 1.05 Burn Medical Director:					
(a) The Burn Medical Director must be a licensed physician with board certification(s) by the American Board of Surgery or the American Board of Plastic Surgery.	-	C	-	-	-

Level:	I	IB	II	III	P
(b) The Burn Medical Director must have completed a one-year fellowship in burn treatment or must have experience in the care of patients with acute burn injuries for two or more years during the previous five years at an ACS or VDH verified designated Level I trauma center.	-	C	-	-	-
(c) The Burn Medical Director must be granted the necessary authority to direct and coordinate all care for patients admitted to the burn program.	-	C	-	-	-
(d) The Burn Medical Director must be the physician of record or overseeing the outcomes of all surgeons within the program, 50 or more burn patients annually or one third of the burn patients admitted annually, averaged over a three year period.	-	C	-	-	-
(e) The Burn Medical Director must participate in CME of burn related education at a minimum of 30 hours or more averaged over a three-year period and attend one national/regional meeting.	-	C	-	-	-
(f) ~~Burn Medical Director must demonstrate ongoing involvement in burn related research and/or community education burn care and/or prevention.~~	~~-~~	~~O~~	-	-	
Section 1.06 <u>Pediatric Trauma Medical Director:</u>					
(a) <u>The Pediatric Trauma Medical Director (Peds-TMD) must have successfully completed board examinations in general surgery and be board certified or board-eligible in pediatric surgery.</u>	-	-	-	-	C
(b) <u>The Peds-TMD must have the responsibility and authority to determine each pediatric surgeon's ability to perform pediatric trauma call.</u>	-	-	-	-	C
(c) <u>The Peds-TMD must have the responsibility and authority to ensure compliance with state pediatric trauma center designation and verification criteria.</u>	-	-	-	-	C
(d) <u>The Peds-TMD must oversee all aspects of multidisciplinary care from the time of injury to discharge.</u>	-	-	-	-	C
(e) <u>The Peds-TMD must be involved in the development of the hospital's bypass/diversion protocol development.</u>	-	-	-	-	C
(f) <u>The Peds-TMD must be active in delivering clinical care to pediatric trauma patients.</u>	-	-	-	-	C
Section 1.07 Trauma Program Director/Manager/Nurse Coordinator:					
(a) The TPD/TPM/TNC must be a dedicated full time equivalent (FTE).	C	C	C	C	-
(b) The TPD/TPM/TNC must have overall management responsibilities for the trauma program.	C	C	C	C	-
(c) There must be a defined job description delineating the TPD/TPM/TNC role and responsibilities. The TPD/TPM/TNC must be reflected in the hospital's organizational chart.	C	C	C	C	-
(d) The TPD/TPM/TNC must be a RN.	C	C	C	C	-
(e) The TPD/TPM/TNC, in addition to being a RN, must possess experience in emergency/critical care nursing.	C	C	C	-	-
(f) The TPD/TPM/TNC must obtain 30 TEH per three-year verification cycle of which 50% must be via an extramural source. This may be prorated by the State Trauma/Critical Care Coordinator for new hires	C	C	C	C	-

Level:	I	IB	II	III	P
or shorter periods of time due to extenuating circumstances.					
(g) The TPD/TPM/TNC will attend one national or international meeting within the three-year verification or designation period.	C	C	C	C	-
Section 1.08 Burn Program Manager/Coordinator:					
(a) There must be one RN with a baccalaureate or higher degree that has two more years of experience in acute burn care and serves the function of the burn program Manager/Coordinator. This manager/coordinator will work closely with the Burn Medical Director to develop policies and procedures, PI program for the program. The nurse manager may have other administrative duties within the medical center, but should commit at least 25% of his or her FTE for every 150-inpatient admissions to the burn program.	-	C	-	-	-
(b) The Burn Manager/Coordinator must participate in eight or more hours of burn related education annually or 24 hours averaged over a three-year period.	-	C	-	-	-
Section 1.09 <u>Pediatric Trauma Program Manager (Peds-TPM):</u>					
(a) <u>The Peds-TPM must be a dedicated full (1) FTE.</u>	-	-	-	-	C
(b) <u>The Peds-TPM must have overall management responsibilities for the pediatric trauma program.</u>	-	-	-	-	C
(c) <u>There must be a defined job description delineating the Peds-TPM roles and responsibilities. The Peds-TPM must be reflected in the hospital's organizational chart.</u>	-	-	-	-	C
(d) <u>The Peds-TPM must be a RN.</u>	-	-	-	-	C
(e) <u>The Peds-TPM must possess experience in pediatric emergency medicine or pediatric critical care nursing. The Peds-TPM must obtain 30 TEH per three-year verification cycle of which 50% must be via an external source. This may be prorated by the State Trauma/Critical Care Coordinator for new hires or shorter periods due to extenuating circumstances.</u>	-	-	-	-	C
(f) <u>The Peds-TPM will attend one pediatric trauma national or international meeting within the three year verification or designation period.</u>	-	-	-	-	C
Section 1.10 Trauma Registrar:					
(a) Must be a minimum of one full FTE dedicated to the trauma registry.	C	C	C	-	-
(b) A minimum of a 0.5 FTE must be fully dedicated to the trauma registrar position. Note: See the "Trauma Registrar" description in the Administrative Guidelines for job description information.	-	-	-	C	-
(c) The Trauma registrar must have adequate time allotted for the level of tasks expected.	NC	NC	NC	NC	-
(d) Trauma registrar's education is insufficient or not up to date.	NC	NC	NC	NC	-
(e) If assistants are used to supplement registrar position, sufficient training must be provided.	NC	NC	NC	NC	-

Level:	I	IB	II	III	P
(f) There must be a defined job description delineating the trauma registrar's role and responsibilities.	C	C	C	C	-
(f) The trauma registrar must be identified on the hospital's organizational chart.	C	C	C	C	-
Section 1.11 Pediatric Trauma Registrar:					
(a) Must be a minimum of one FTE dedicated to the pediatric trauma registry.	-	-	-	-	C
(b) The pediatric trauma registrar(s) must have a defined job description delineating their role and responsibilities.	-	-	-	-	NC
(c) The pediatric trauma registrar must be identified on the hospital's organizational chart.	-	-	-	-	NC

Measure:

Interpretive Guidance: The trauma registrar/pediatric trauma registrar(s) is responsible for extracting information from charts, maintaining the trauma registry, developing, and delivering reports from the registry. This role is vital in the maintenance of a robust PI program and in delivery of required trauma registry data to the state. The minimum requirement for Level I and II centers is a full time registrar; however, with larger services more registrars or assistants are necessary.

In order to extract information from patient charts, the registrar must be familiar with how the trauma program works, as well as, terminology, coding and the use of various scoring systems used to describe the severity of trauma.

The job description for the trauma registrar should clearly define the need to access patient records and to extract data. Key elements of the position include data extraction from charts, registry maintenance and report delivery.

Some programs may opt to use additional assistants to facilitate the role of trauma registrar. Examples of assistant activities include but are not restricted to, computer entry of data extracted from charts or collection of charts from the chart room. The presence of an assistant does not replace the requirement for a full time registrar. Assistants to the registrar may be of any employment status including voluntary. For this reason it is important to assure that job training is adequate to cover the position, particularly with regard to confidentiality of patient information and quality improvement. Other areas of job training should be tailored to the position.

As a program expands to include more than one registrar, the educational requirements are the same as for the original position. This is due to the fact the each registrar will be performing the same task, with the same key elements.

(b) Trauma registrars (adult and pediatric) must obtain 24 TEH per three-year verification cycle, of which 50 percent must be from an extramural source.	C	C	C	C	C
Section 1.12 Trauma Team/Trauma Team Response:					
(a) There must be a clearly delineated trauma team response to the arrival of the patient with suspected or known major trauma in the ED 24 hours per day.	C	C	C	C	C

Measure: The site review team will review the trauma program manual, patient records, and the quality improvement program to determine the following:

Level:	I	IB	II	III	P
• Alerts occur as described in the trauma program manual. • Criteria are appropriate. • Criteria address the needs of severely injured patients. • That the full team response is timely. • Tiered response is used as indicated in the trauma program manual.					
Interpretive Guidance: The hallmark of a trauma service is the trauma team response. This must be described in the trauma program manual and demonstrated on chart review for any site visit type other than provisional. The goal to the trauma team response is to expedite the diagnosis and management of injuries for the trauma patient. The description of the team response in the trauma program manual must include criteria for response, notification of impending patient arrival to team members, who responds, ~~target~~ criteria for response times~~lines~~, team member roles and responsibilities ~~any actions~~ expected as a result of trauma notification (for example: hold an operating room open). Every center must have a proccess~~dure~~ for a full team response. This means that all team members including the surgeon are included and every effort is made to assure that the team is available at the bedside at the time of patient arrival. In addition, an operating suite must be available at short notice and arrangements include the rapid access to ~~red~~ blood products ~~cells~~ for transfusion. ~~The assumption is that the critically injured patient may require very rapid intervention for stabilization and surgical intervention for definitive care of injuries.~~ ~~In the single level response model, it is a criterion when calling the team, that the response must be broad in order to have the needed resources available to all patients requiring emergent interventions. For this reason, the single level response results in over triage and heavy utilization of resources.~~ ~~While not required, many hospitals choose to use a tiered response to trauma. The tiered response includes the full team at the highest level and partial team response at one or more additional levels. When a tiered response is used, the trauma program manual must describe each level of response and criteria qualifying for the response level. While a tiered response addresses the needs of less severely injured patients and minimizes over utilization of resources, more oversight is necessary to assure that the effect is not diluted by a pattern of calling a lower level of response than necessary.~~ While deviation from the description of the alert system in the trauma program manual may occur from time to time, the site team will be evaluating the program for patterns of deviation especially in instances where the pattern is not identified by the institution's PI program and addressed through the PI program. Examples of such patterns include, but are not restricted to: • Delay in calling a full team response until after the patient is evaluated. • Severely injured patients or patients requiring emergent surgery not receiving full team response. • Frequent need for upgrades in tiered response. • Delay in arrival of team members for full team response. • Mortality or morbidity attributable due to delays in team arrival. • PI plan does not identify and address issues in team response.					
(b) **Trauma Surgeon:**					

Level:	I	IB	II	III	P
(i) The hospital shall establish a policy detailing the expected tome for the trauma surgeon to arrive at the bedside in the ED for patients meeting the highest level of alert. The goal should be to have the trauma surgeon meet the patient in the ED upon the patient's arrival and that policy shall state that the trauma surgeon's response is not exceed 15 minutes from arrival of the patient. A PGY4 or PGY5 general surgery resident capable of assessing emergent situations, providing control and leadership of the care of the trauma patient may meet this requirement. In the event that this requirement is provided by a resident, the trauma surgeon must be available in a timely manner.	C	C	C	-	-
(ii) The hospital shall establish a policy detailing the expected amount of time for the trauma surgeon to arrive at the bedside in the ED for patients meeting the highest level of alert. The goal should be to have the trauma surgeon meet the patient in the ED upon the patient's arrival and that policy shall state that the trauma surgeon's response is not exceed 30 minutes from arrival of the patient. A PGY4 or PGY5 general surgery resident capable of assessing emergent situations, providing control and leadership of the care of the trauma patient may meet this requirement. In the event that this requirement is provided by a resident, the trauma surgeon must be available in a timely manner.	-	-	-	C	-
(iii) The hospital shall establish a policy detailing the expected amount of time for the pediatric trauma surgeon to arrive at the bedside in the ED upon patients arrival and that policy sall state that the trauma surgeon meet the patient in the ED upon the patient's arrival and that policy shall state that the trauma surgeon's response is not to exceed 15 minutes from arrival of the patient in the ED. Adult trauma surgeon's credentialed by the hospital and approved by the Peds-TMD may fill gaps in the pediatric trauma call. In hospitals that care for children only a pediatric surgical resident who is board certified or board eligible in general surgery or taking further training in pediatric surgery can lead the primary resuscitation.	-	-	-	-	C
Measure: Must meet attendance criterion for 80 percent of applicable trauma team responses.					
Interpretive Guidance:					
(iv) The emergency physician is a designated member of the trauma team and may direct resuscitation and care of the patient until the arrival of the trauma team leader. A PGY3 ~~senior~~ level emergency medicine resident may fulfill this function provided there is an attending emergency medicine physician present in the ED.	C	C	C	C	C

Level:	I	IB	II	III	P
(v) Trauma/general surgeons participating in the trauma program and taking active call must be dedicated to the hospital while on trauma call. ~~and show active participation in the trauma program.~~	C	C	C	C	C
(vi) Trauma/general surgeons participating in the trauma program and taking active call must ~~have completed~~ maintain current ATLS certification. ~~successfully, at least once in the past.~~	C	C	C	C	-
(c) **Minimum Physician Coverage:**					
(i) A minimum of two attending level physicians must respond to all highest tiered response, each of whom is either ~~a must be present for the arrival of full trauma team alert patients. These physicians must be~~ an anesthesiologist, ED physician, or general surgeon. A qualified general surgeon is expected to participate in major therapeutic decisions and be present in the ED for major resuscitations and at operative procedures on all seriously injured patients.	C	C	C	C	C
(ii) ~~A minimum of one attending level physician must be present for the arrival of trauma team alert patients. This physician must have the capability to manage the initial care of the majority of injured patients and have the ability to transfer patients that exceed their resources to an appropriate level trauma center.~~	-	-	-	~~E~~	
(d) **Anesthesiology:**					
(i) There must be an anesthesiologist in the hospital 24 hours a day and able to immediately respond to assist with managing difficult airways.	C	C	-	-	-
(ii) There must be an anesthesiologist on call and promptly available to assist with managing difficult airways 24 hours per day.	-	-	C	C	C
(e) **Trauma Related Surgical Specialties:** (as listed in Section 2.08)					
(i) Promptly available as needed.	C	C	C	C	C
Article II. **Hospital Departments/Divisions/Sections**					
Section 2.01 General Surgery:					
(a) ~~There must be in hospital clinical~~ c In house 24 hours per day capabilities in general surgery with two separate posted call schedules 24 hours per day. One for trauma, one for general surgery. In those instances where a physician may simultaneously be listed on both schedules, there must be a defined back-up surgeon listed on the schedule to allow the trauma surgeon to provide care for the trauma patient. ~~The TMD shall specify, in writing, the specific credentials that each back-up surgeon must have. These, at a minimum, must state that the back-up surgeon has surgical privileges at the trauma center and is boarded or eligible in general surgery (with board certification in general surgery within five years of completing residency).~~ A PGY4 or PGY5 capable of assessing emergent situations in their respective specialties may fulfill this requirement. They must be capable of providing surgical treatment immediately and provide control and leadership of the care of the trauma patient.	C	C	-	-	-

Level:	I	IB	II	III	P
(b) The hospital must have clinical capabilities in general surgery with two separate posted call schedules 24 hours per day. One for trauma, one for general surgery. In those instances where a physician may simultaneously be listed on both schedules, there must be a defined back-up surgeon listed on the schedule to allow the trauma surgeon to provide care for the trauma patient. ~~The TMD shall specify, in writing, the specific credentials that each back-up surgeon must have. These, at a minimum, must state that the back-up surgeon has surgical privileges at the trauma center and is boarded or eligible in general surgery (with board certification in general surgery within five years of completing residency).~~ Trauma surgeon or PGY4/ PGY5 On call capable of assessing emergent situations in their respective specialties may fulfill this requirement. They must be capable of providing surgical treatment immediately and provide control and leadership of the care of the trauma patient.	-	-	C	C	-
(c) ~~When the trauma surgeon is not in house, the trauma surgeon should be present in the ED at the time of arrival of the patient. When sufficient prior notification has not been possible, an ED physician will immediately initiate the evaluation and resuscitation.~~ Definitive surgical care must be instituted by the trauma surgeon in a timely fashion.	-	-	C	C	-
Measure:					
Interpretive Guidance: Section 2.01 items (a) thru (c) back-up call schedule items only are NC offensive.					
(f) <u>There must be a mechanism for documenting the trauma surgeon's presence in the operating room for all trauma operations.</u>	NC	NC	NC	NC	NC
Section 2.02 <u>Pediatric Trauma Surgery</u>					
(a) The hospital must have clinical capabilities in pediatric surgery with two separate posted call schedules 24 hours per day. One for trauma, one for general surgery. In those instances where a physician may simultaneously be listed on both schedules, there must be a defined back-up surgeon listed on the schedule to allow the pediatric trauma surgeon to provide care for the trauma patient. Trauma surgeon or PGY4/ PGY5 On call capable of assessing emergent situations in their respective specialties may fulfill this requirement. They must be capable of providing surgical treatment immediately and provide control and leadership of the care of the trauma patient. In hospitals that care for children only a pediatric surgical resident who is board certified or board eligible in general surgery or taking further training in pediatric surgery can lead the primary resuscitation.	-	-	-	-	C

Level:	I	IB	II	III	P
(b) The ~~hospital shall establish a policy detailing the expected amount of time for the pediatric trauma surgeon to arrive from arrival of the patient to the surgeons arrival at the bedside when Section 2.01 (a) and (b) cannot be met. This time shall not exceed 15 minutes. Selection of the interval will be based on patient outcome data.~~ ~~When sufficient prior notification is not possible an ED physician will immediately initiate the evaluation and resuscitation. Definitive surgical care must be instituted in a timely fashion.~~					
Section 2.03 Anesthesiology:					
(a) Anesthesiology must be on call and readily available 24 hours a day.	C	C	-	-	
(b) Anesthesiology must be on call and readily available 24 hours a day.	-	-	C	C	C
(c) An anesthesiologist must be present for all emergent operative procedures on major trauma patients.	C	C	C	C	C
Section 2.04 Orthopedic Surgery:					
(a) Orthopedic surgery service must be on-call and promptly available.	C	C	C	C	C
Measure: Orthopedic surgery should be capable in responding within 60 minutes for urgent and time sensitive cases.					
Interpretive Guidance:					
(b) Orthopedic team members will have a dedicated trauma call schedule with a second backup available.	NC	NC	NC	NC	NC
(c) There must be an orthopedic liaison designated to the trauma service.	NC	NC	NC	NC	NC
(d) For pediatric trauma centers, there must be at least one board certified or board eligible orthopedic surgeon on staff who have pediatric fellowship training.	-	-	-	-	C
Section 2.05 Neurological Surgery:					
(a) An attending neurosurgeon must be promptly available. The in-house requirement may be fulfilled by an in-house neurosurgery resident, or a surgeon/designee who has special competence, as judged by the Chief of Neurosurgery, in the care of patients with neural trauma, and who is capable of initiating diagnostic procedures.	C	C	-	-	-
(b) An attending neurosurgeon must be promptly available. This requirement may be fulfilled by a resident, or a surgeon/designee who has special competence, as judged by the Chief of Neurosurgery, in the care of patients with neural trauma, and who is capable of initiating diagnostic procedures. This may be on-call from outside of the hospital.	-	-	C	-	C
(c) If a neurosurgeon is responsible for more than one hospital at the same time, there must be a second backup schedule.	C	C	-	-	C
(d) If an attending neurosurgeon is not dedicated to the Level II trauma center, the center must have a backup call list **OR** the center must demonstrate no more than 24 emergency neurosurgical procedures per year AND the center must provide a neuro-trauma diversion plan.	-	-	C	-	C
(e) The must be a neurosurgical liaison designated to the trauma service.	NC	NC	NC	NC	NC

Level:	I	IB	II	III	P
(f) For pediatric trauma centers there must be at least one board certified or board eligible neurosurgeon on staff that have pediatric fellowship training.	-	-	-	-	C
Measure: If neurosurgical services are provided there must be a liaison(s) identified and available to the trauma service for issues and/or concerns.					
Interpretive Guidance: If the Level III center does not provide neurosurgical services they are not required to have this liaison.					
Section 2.06 Emergency Medicine:					
(a) The ED has a designated emergency physician director supported by an appropriate number of additional physicians to ensure immediate care for injured patients.	C	C	C	C	C
(b) ED physicians must be present in the ED at all times. This must include and attending emergency physician.	C	C	C	NC	NC
(c) The ED physician must be a recognized member of the trauma team and be represented on the facilities trauma committee.	NC	NC	NC	NC	NC
(d) The Emergency Medical Director or their designee will have 46 hours of Category I CME every three years and attend one national meeting with some content in trauma or critical care.	C	C	C	C	C
(e) The Emergency Medical Director or designee will maintain a current ATLS instructor or participant certification.	C	C	C	C	C
(f) There must be at least two ED physicians who are board certified or board eligible in pediatric emergency medicine.	-	-	-	-	C
Section 2.07 Anesthesiology:					
(a) Anesthesiologist in hospital 24 hours a day. (Requirements may be filled by anesthesia residents; CRNAs capable of assessing emergent situations in trauma patients and providing any indicated treatment. Anesthesia personnel should be capable of providing anesthesia service for surgical trauma cases including major vascular, neurosurgical, pediatric, orthopedic, thoracic, ENT, and other in-house surgical cases. If residents or CRNAs are used, a staff anesthesiologist must be present in the OR suite during surgery. Training and experience in both invasive and non-invasive monitoring is essential).	C	C	-	-	-
(b) Anesthesiology. Anesthesia personnel need not be in house 24 hours a day, but the trauma program should ensure that anesthesia personnel can be present in the emergency room at the time of arrival of the trauma alert patient. When sufficient prior notification has not been made possible, a designated member of the trauma team will immediately initiate the evaluation and resuscitation. Requirements must be filled by anesthesia personnel capable of assessing emergent situations in trauma patients and providing any indicated treatment. Anesthesia personnel should be capable of providing anesthesia service for surgical trauma cases including major vascular, neurosurgical, pediatric, orthopedic, thoracic, ear, nose and throat (ENT), and other in-house surgical sub-specialties involved in trauma cases. If residents or certified registered nurse anesthetists are used, a staff	-	-	C	-	C

Level:	I	IB	II	III	P
anesthesiologist must be present in the OR suite during surgery. Training and experience in both invasive and non-invasive monitoring are essential.					
(c) Anesthesiologist must be on-call and promptly available from in or out of the hospital. Requirements must be filled by anesthesia personnel capable of assessing emergent situations in trauma patients and providing any indicated treatment. Anesthesia personnel should be capable of providing anesthesia service for surgical trauma cases including: major vascular, neurosurgical, pediatric, orthopedic, thoracic, ENT, and other in-house surgical sub-specialties involved in trauma cases. If residents or CRNAs are used, a staff anesthesiologist must be present in the OR suite during surgery. Training and experience in both invasive and non-invasive monitoring is essential.	-	-	-	C	-
(d) The must be an anesthesiology liaison designated to the trauma service.	NC	NC	NC	NC	NC
Section 2.08 Additional Clinical Capabilities: On call and promptly available.					
(a) **Surgical:**					
(i) Cardiac surgery	C	C	-	-	
(ii) Thoracic surgery	C	C	C	-	C
(iii) Orthopedic surgery	C	C	C	C	C
(iv) Pediatric surgery	C	C	-	-	C
(v) Hand surgery	C	C	-	-	-
(vi) Microvascular/replant surgery	C	C	-	-	-
(vii) Plastic surgery	C	C	C	-	C
(viii) Maxillofacial surgery	C	C	C	-	C
(ix) Ear, nose and throat surgery	C	C	C	-	C
(x) Oral surgery	C	C	-	-	-
(xi) Ophthalmic surgery	C	C	C	-	C
(xii) Gynecological surgery/obstetrical surgery	C	C	C	-	C
(xiii) Urology	-	C	-	-	-
(b) **Non-surgical: (**On call and promptly available**)**					
(i) Cardiology	C	C	C	-	-
(ii) Pulmonology	C	C	-	-	-
(iii) Gastroenterology	C	C	-	-	-
(iv) Hematology	C	C	-	-	-
(v) Infectious Disease	C	C	-	-	-
(vi) Internal medicine	C	C	C	C	-
(vii) Nephrology	C	C	-	-	-
(viii) Neurology	-	C	-	-	-
(ix) Pathology	C	C	C	C	C
(x) Pediatrics	C	C	-	-	C
(xi) Psychiatry	-	C	-	-	-
(xii) Radiology	C	C	C	C	C
(xiii) Interventional Radiology	C	C	C	-	

Level:	I	IB	II	III	P
Measure:					
Interpretive Guidance: The purpose of the sections on clinical capabilities is to ensure that the trauma center is capable of providing the services required for its level of designation, as denoted by being marked as essential and being able to manage corresponding injury types on a full time basis. The hospital must offer each of the relevant services, although dedicated call to the trauma center is not necessary and the specialist need not be immediately available. A 24-hour call schedule for the service is NOT necessary. The hospital has the flexibility of organizing a plan to manage corresponding injuries on-site in a manner best suited to staff and resources. For example, in the absence of a 24 hour call schedule for ENT the center may have a plan for immediate coverage of maxillofacial trauma patients with a rotating call schedule. PI processes should be in place to oversee the plan and to identify any potential problems. The plan may NOT involve transfer of patients with the injury type of concern.					
Section 2.09 Social Services:					
(a) A department of social services consultation must be available to the injured program.	C	C	C	-	-
Article III. **Medical Staff Credentialing and Continuing Education**					
Section 3.01 General/Trauma Surgeons:					
(a) Board certified/eligible in general surgery.	C	C	C	C	C
(b) Must meet the educational requirements in Section 104.(a).xi.	C	C	C	C	C
(c) Successful ATLS course completion at least once.	C	C	C	C	C
Section 3.02 Pediatric Trauma Surgeons:					
(a) Board certified/eligible in pediatric surgery.	-	-	-	-	C
(b) Must accrue an average of 16 hours annually or 48 hours in three-years of verifiable external CME, of which at least 12 hours (in 3 years) must be related to clinical pediatric trauma care.	-	-	-	-	C
Section 3.03 Burn Surgeons:					
(a) There must be at least one FTE attending burn surgeon staff involved in the management of burn patients for each 200 acute inpatients admitted annually.	-	C	-	-	-
(b) The Burn Medical Director may appoint a qualified attending burn surgeon to participate in the care of the patients on the burn program.	-	C	-	-	-
(c) Attending staff burn surgeons must be board certified or eligible in general or plastic surgery.	-	C	-	-	-
(d) Attending staff burn surgeons must have completed a one-year fellowship in burn treatment or must have experience in the care patients with acute burn injuries for two or more years during a previous five years at a designated Level I trauma center.	-	C	-	-	-
(e) Attending staff burn surgeons must participate in CME of burn related education at a minimum of 30 hours or more averaged over a three-year period.	-	C	-	-	-
(f) ~~Attending staff burn surgeons must direct the total care of at least 20% or more of acutely burned patients annually admitted to the burn program averaged over a three-year period.~~	~~-~~	~~O~~	-	-	

Level:	I	IB	II	III	P
(g) Privileges for physicians participating in the burn program must be determined by the medical staff credentialing process and approved by the Burn Medical Director.	-	C	-	-	-
(h) The burn program must maintain an on-call schedule for residents and attending staff burn surgeons available to the burn program. Residents and staff surgeons must be primarily available 24-hour basis.	-	C	-	-	-
(i) If residents rotate on the burn program, the Burn Medical Director, or his or her designee, must be responsible for an orientation program for new residents.	-	C	-	-	-
Section 3.04 Emergency Medicine:					
(a) Board certified/eligible in emergency medicine by the American Board of Medical Specialties, the Bureau of Osteopathic Specialist or the Royal College of Physicians and Surgeons of Canada. ~~(exceptions may be made in rare instances based upon long-term practice in emergency medicine.)~~	C	C	C	C	C
(b) Must meet the educational requirements in Section 1.04(a).xi.	C	C	C	C	C
(c) ED physicians not boarded per Section 3.04(a) must meet the following four criteria: • Has provided exceptional care of trauma patients. • Has numerous publications and presentations. • Has published excellent research. • Is documented to provide excellent teaching.	C	C	-	-	-
(d) ED physicians not boarded per Section 3.04(a) must meet the following one of the following criteria: • Documentation for each ED physician not boarded per Section 3.03(a) by the TMD stating they may participate in trauma resuscitations based on experience or critical need due to limited resources. • Evidence that the ED physician has completed an accredited residence program in emergency medicine. Only applicable up to five years from graduation from the program.	-	-	C	C	C
(e) ED physicians that meet criterion Section 3.04(a) must have current ATLS or have successfully completed the course at least once.	C	C	C	C	C
(f) ED physicians to do not meet criterion Section 3.04(a) must maintain current ATLS instructor or provider certification.	C	C	C	C	C
Section 3.05 Neurosurgery:					
(a) Neurosurgeons performing trauma call must be board certified within five years of completing residency successfully.	C	C	C	-	C
(b) For pediatric trauma centers there must be at least one board certified or board eligible neurosurgeon on staff who have pediatric fellowship training.	-	-	-	-	C
(c) ~~Neurosurgeons performing trauma call must have 10 hours of neuro-trauma specific CMEs.~~	~~O~~	~~O~~	~~O~~	~~O~~	
(d) ~~Neurosurgeons performing trauma call must have successfully~~	~~O~~	~~O~~	~~O~~	~~O~~	

Level:	I	IB	II	III	P
~~completed an ATLS course once.~~					
Section 3.06 Orthopedic Surgery:					
(a) Orthopedic surgeons performing trauma call must be board certified within five years of completing residency successfully.	C	C	C	C	C
(b) For pediatric trauma centers there must be at least one board certified or board eligible orthopedic surgeon on staff who have pediatric fellowship training.	-	-	-	-	C
(c) ~~Orthopedic surgeons performing trauma call must have 10 hours of skeletal-trauma specific CMEs per year.~~	~~O~~	~~O~~	~~O~~	~~O~~	
(d) ~~Must have successfully completed an ATLS course once.~~	~~O~~	~~O~~	~~O~~	~~O~~	
Section 3.07 Trauma Nursing:					
(a) All nursing staff members who participate in the acute care of trauma patients, including those working on units regularly providing care to trauma patients such as general surgery, orthopedics, neuroscience, progressive care, ICU, post-anesthesia care unit (PACU), OR, ED, and pediatrics shall have a minimum of four hours of trauma specific education hours (TEH) annually.	C	C	C	C	C
(b) All nursing staff members participating in the trauma team response must have documented trauma specific orientation.	C	C	C	C	C
(c) There must be a burn program orientation program that documents nursing competencies specific to the care and treatment burn patients including critical care, wound care, and rehabilitation that is age appropriate.	-	C	-	-	-
(d) Documentation of specific orientation and continuing education for pediatric and burn care if these patients are regularly admitted to the trauma center	C	C	C	C	C
(e) More than50% of all nursing staff members who directly participate as a member in the trauma team must have a current TNCC, ATCN course, or CATN certification	C	C	C	C	C
Section 3.08 Burn Nursing:					
(a) Burn center nursing staff members who participate in the resuscitation of the burn patient must be provided with a minimum of two burn related nursing education hours opportunities annually, either intramural or extramural.	-	C	-	-	-
(b) Each burn unit must have a method to determine acuity levels of the patients in determining staffing needs. The system will be used to determine daily staffing needs.	-	C	-	-	-
(c) Qualifications for staff members who are responsible for the care of burn patients must conform to criteria documenting appropriate training, patient experience CMEs and commitment to teaching and research of care burn patients.	-	C	-	-	-
Section 3.09 Burn Therapist					
(a) The primary burn therapist must have eight hours, more of a burn related education annually, or 24 hours averaged over a three-year	-	C	-	-	

Level:	I	IB	II	III	P
period.					
Article IV. **Facilities/Resources/Capabilities**					
Section 4.01 Diversion					
(a) The trauma/burn center must avoid diverting burn patients except for rare instances such as loss of power, etc. This includes patients arriving by EMS and from referral hospitals within the region.	NC	NC	NC	NC	NC
(b) The facility cannot exceed a maximum divert time of five percent.	NC	NC	NC	NC	NC
(c) The decision to transfer an injured patient during the acute care phase is based solely on the needs of the patient.	NC	NC	NC	NC	NC
Section 4.02 Emergency Department:					
(a) **Personnel:**					
(i) The ED must have a designated physician director/chairman (see clinical qualifications under Section 2.06).	C	C	C	C	C
(ii) There must be 24 hour per day staffing by physicians physically present in the ED that meet the standard in Section 2.06.	C	C	C	C	C
Measure:					
Interpretive Guidance: In institutions in which there are emergency medicine residency training programs, supervision is provided by an in-house attending emergency physician 24 hours per day.					
(iii) There must be RN's, LPN/LVN's and nursing assistants/technicians in adequate numbers in the initial resuscitation area based on acuity and trauma team composition.	C	C	C	C	C
(iv) A minimum of two RN's per shift functioning in the trauma resuscitation area must possess trauma nursing training.	C	C	C	C	C
(v) A written provision/plan for the acquisition of additional staffing on a 24 per hour basis to support units with increased patient acuity, multiple emergency procedures, and admissions must exist.	C	C	C	C	C
(vi) Each nursing unit must have a copy of their staffing plan for review during the site visit.	C	C	C	C	C
(vii) There must be a written protocol for the expectations and responsibilities of the trauma nurse and other team members during trauma resuscitations.	C	C	C	C	C
(viii) Nursing documentation for trauma patients must be on a trauma flow sheet or electronic medical record equivalent.	C	C	C	C	C
(b) **Emergency Department Resuscitation Equipment:** (for all ages)					
(i) There shall be information on pediatric medication dosing and equipment i.e. a Broselow Tape	C	C	C	C	C
(ii) Airway control and ventilation equipment (laryngoscopes with a variety of straight and curves blades, endotracheal tubes (ETT) of all sizes, bag valve mass and methods to continually provide supplemental oxygen.)	C	C	C	C	C
(iii) Suction devices in adequate numbers to be able to care for the multi system trauma patient.	C	C	C	C	C
(iv) ~~End Tidal~~ CO2 ~~detector(s)~~ detection device(s) to confirm placement of ETT.	C	C	C	C	C

Level:	I	IB	II	III	P
(v) Bedside monitor with ~~and~~ central monitoring capabilities to include electrocardiogram (ECG) and pulse oximetry~~, and central venous pressure~~. ~~monitoring~~	C	C	C	C	C
(vi) ~~Portable~~ Cardiac monitor immediately available with capabilities to include: ECG, ~~cardiac~~ pacing ~~pulse oximetry,~~ , external and internal defibrillation ~~capabilities~~	C	C	C	C	C
(vii) ~~IV fluids and administration~~ Large caliber venous access and intraosseous devices	C	C	C	C	C
(viii) Thermal control equipment for ~~warming~~ blood ~~products~~ and IV fluid	C	C	C	C	C
(ix) IV fluid and blood Rapid infuser~~ion~~ for administration and warming of IV fluid and blood products located in the ED. ~~device(s)~~	C	C	C	C	C
(x) ~~Arterial catheters~~	~~E~~	~~E~~	~~E~~	~~O~~	
(xi) Sterile surgical sets/trays to include: airway control/cricothyrotomy, thoracotomy, vascular access, chest tube insertion, peritoneal lavage, and central line access	C	C	C	C	C
(xii) Thermal control equipment for cooling/warming patients	C	C	C	C	C
(xiii) ~~Gastric catheters~~	~~E~~	~~E~~	~~E~~	~~E~~	
(xiv) ~~Skeletal traction devices~~	~~E~~	~~E~~	~~E~~	~~E~~	
(xv) ~~Skeletal traction device for providing cervical traction~~	~~E~~	~~E~~	~~E~~	~~E~~	
(xvi) 24 hour per day availability of radiological equipment	C	C	C	C	C
(xvii) ~~Bedside ultrasound~~ Sonography (FAST capability)	C	C	C	C	C
(xviii) ~~Portable venous~~ Doppler capability	C	C	C	C	C
(xix) Two way ~~radio~~ communication ~~linked~~ with EMS transport units	C	C	C	C	C
Measure:					
Interpretive Guidance: The above should be in addition to standard ED equipment.					
Section 4.03 Burn Unit:					
(a) **Burn Unit:**					
(i) The burn unit must maintain an identified nursing unit where staffs specialize in burn care.	-	C	-	-	-
(ii) There must be an identified burn unit that is a fixed physical and geographic location within the hospital for the treatment and coordination of burn care.	-	C	-	-	-
(iii) The burn unit must have effective means of isolation that is consistent with the principles of universal precautions and barrier technique to decrease the risk of cross infection and cross-contamination.	-	C	-	-	-
(b) **Burn Unit Treatment Area:**					
(i) A specific area as designated by the Burn Medical Director for wound care assessment and treatment which would include the capability for minor wound debridement, escharotomy, wound cleansing, procedural techniques such as line placement, and overall assessment.	-	C	-	-	-
(c) **Burn Unit Equipment:** (for all ages)					
(i) Weight measuring devices	-	C	-	-	-

Level:	I	IB	II	III	P
(ii) Thermal control equipment for warming blood products and IV fluids	-	C	-	-	-
(iii) Thermal control equipment for cooling/warming patients	-	C	-	-	-
(iv) Bedside and central ECG, pulse oximetry, and pressure monitoring	-	C	-	-	-
(v) Portable monitor with ECG, pulse oximetry, cardiac pacing, and defibrillation capabilities	-	C	-	-	-
(vi) Cardiac emergency carts (code carts)	-	C	-	-	-
(vii) Electrocautery	-	C	-	-	-
Section 4.04 Operating Suite:					
(a) There must be OR(s) immediately available 24 hours per day.	C	C	C	C	C
(b) For burn cases there must be ORs immediately available 24 hours per day with the burn program having timely access for urgent/emergent cases. This is defined as "within six hours of posting".	-	C	-	-	-
(c) Personnel:					
(i) There must be OR personnel in house and immediately available 24 hours per day.	C	C	C	-	C
(ii) The OR staffs must be fully dedicated to the duties in the OR and not have functions requiring their presence outside of the OR.	C	C	C	C	C
(iii) There must be OR personnel immediately available 24 hours per day. This requirement may be fulfilled using in-house or on-call staff.	-	-	-	C	-
(iv) There must be a second OR team on-call and promptly available when the in-house team is participating in an operative case.	C	C	C	-	C
(d) **Operating Room Resuscitation Equipment:** (for all ages)					
(i) Equipment for patients of all ages to include: Capability for resuscitation, stabilization, continuous monitoring of temperature, hemodynamics, and gas exchange.	C	C	C	C	C
(ii) Cardiopulmonary bypass capability	C	C	-	-	-
(iii) ~~Operating microscope~~	~~C~~	~~C~~	~~-~~	~~-~~	~~-~~
(iv) Rapid infuser for administration and warming of IV fluid and blood products. ~~Thermal control equipment for warming blood products and IV fluid~~	C	C	C	C	C
(v) Thermal control equipment for cooling/warming patients	C	C	C	C	C
(vi) 24 hour per day x-ray capability, including C-Arm image intensifier	C	C	C	C	C
(vii) Endoscopes and bronchoscopes	C	C	C	C	C
(viii) ~~Rapid infuser system~~	~~E~~	~~E~~	~~E~~	~~E~~	
(ix) Craniotomy instruments	C	C	C	C	C
(x) Capability of fixation of long bone	C	C	C	C	C
(xi) Capability of surgical treatment of pelvic fractures including, but not limited to open pelvic fractures and acetabular fractures requiring complex surgical interventions.	C	C	-	-	C
Section 4.05 Postanesthesia Recovery Room or Surgical Intensive Care:					
(a) Personnel:					

Level:	I	IB	II	III	P
(i) There must be PACU nursing staff immediately available 24 hours per day. This requirement may be fulfilled using in-house or on-call staff.	C	C	C	C	C
(b) ~~Thermal control equipment:~~					
(i) ~~Thermal control equipment for warming blood products and IV fluid~~	~~E~~	~~E~~	~~E~~	~~E~~	
(ii) ~~Thermal control equipment for cooling/warming patients~~	~~E~~	~~E~~	~~E~~	~~E~~	
(c) In the event that patients are boarded in the PACU as ICU overflow patients, then the equipment listed in Section 4.06 must be available.	C	C	C	C	C
Section 4.06 Intensive/Critical Care Unit:					
(a) **Personnel:**					
(i) There must be a designated surgical director or co-director.	C	C	C	-	C
(ii) The surgical director of the ICU must have obtained critical care training during residency or fellowship and must have expertise in perioperative and post-injury care of injured patients.	C	C	C	-	-
(iii) The surgical director of the ICU must have added certification in surgical critical from the American Board of Surgery.	NC	NC	NC	-	-
(iv) There must be a designated medical director or co-director.	C	C	C	C	C
(v) The trauma surgeon remains in charge of trauma patients in the ICU.	C	C	C	C	-
(vi) The pediatric trauma surgeon remains in charge of trauma patients in the ICU.	-	-	-	-	C
(vii) There must be pediatric critical care physicians available to the PICU.	-	-	-	-	C
(viii) There must be in-house physician coverage immediately available for the ICU 24 hours per day. This physician cannot be the sole physician for the ED.	C	C	C	-	C
(ix) There must be in-house physician coverage immediately available for the ICU 24 hours per day. This physician may be the sole physician for the ED.	-	-	-	C	-
(x) There must be a physician on duty in the ICU 24 hours per day or immediately available from within the hospital. This requirement cannot be fulfilled using an on-duty ED physician if this physician is the sole physician staffing the emergency department.	C	C	C	-	C
(xi) There must be a physician on duty in the ICU 24 hours per day or immediately available from within the hospital.	-	-	-	C	-
(xii) The patient/nurse ratio does not exceed 2:1 for critically ill patients in the ICU.	NC	NC	NC	NC	NC
(xiii) Nursing staff members must be educated in trauma care and must have a patient ratio of not more than two patients per nurse.	C	C	C	C	C
(xiv) There must be a fixed physical and geographic location within the hospital identified as the pediatric intensive care unit (PICU).	-	-	-	-	C
(xv) The PICU shall have a staff that specializes in pediatric critical care.	-	-	-	-	C

Level:	I	IB	II	III	P
(b) **Intensive/Critical Care Unit Equipment:** (for all ages)					
(i) There shall be information on pediatric medication dosing and equipment i.e. a Broselow Tape	C	C	C	C	C
(ii) Airway control and ventilation equipment (laryngoscopes with a variety of straight and curved blades, ETT of all sizes, bag valve masks, suction devices in adequate numbers, and methods to continually provide supplemental oxygen.)	C	C	C	C	C
(iii) ~~Cardiac emergency cart (code cart)~~	~~E~~	~~E~~	~~E~~	~~E~~	
(iv) Temporary transvenous pacer	C	C	C	C	C
(v) Bedside monitor with ~~and~~ central monitoring capabilities to include: ECG, pulse oximetry, and pressure monitoring abilities (ICP, venous and arterial.)	C	C	C	C	C
(vi) Portable cardiac monitor immediately available with capabilities to include: ECG, ~~cardiac~~ pacing, and external and internal defibrillation	C	C	C	C	C
(vii) Mechanical ventilator	C	C	C	C	C
(viii) Patient weighing devices	C	C	C	C	C
(ix) ~~Pulmonary function measuring device~~	~~E~~	~~E~~	~~E~~	~~E~~	
(x) Temperature control devices for patients	C	C	C	C	C
(xi) Thermal control equipment for ~~warming~~ blood and IV fluid.	C	C	C	C	C
(xii) Rapid ~~IV fluid~~ infuser ~~capability~~ for administration and warming of IV fluid and blood products.	C	C	C	C	C
(xiii) Intracranial pressure monitoring device	C	C	C	C	C
(xiv) ~~Capability to perform blood gas measurements, hematocrit levels and chest x-ray studies.~~	~~E~~	~~E~~	~~E~~	~~E~~	
Section 4.07 Radiological Services: (to be available 24 hours per day)					
(a) Radiology technician in-house	C	C	C	C	C
(b) Radiologist interpretation	C	C	C	C	C
(c) Angiography	C	C	C	-	
(d) Sonography	C	C	C	-	
(e) Computed Tomography (CT) Scanning	C	C	C	C	C
(f) CT technologist in-house	C	C	C	C	C
(g) CT Technologist available within 30 minutes	-	-	-	C	
(h) Magnetic Resonance Imaging (MRI)	NC	NC	NC	-	NC
(i) Cardiac emergency with standard resuscitative equipment, medications, airway management, and IV therapy.	C	C	C	C	C
(j) Diagnostic information is communicated in a written form in a timely manner.	NC	NC	NC	NC	NC
(k) Critical information is verbally communicated to the trauma team in a timely manner.	NC	NC	NC	NC	NC
(l) Final reports accurately reflect communications, including changes between preliminary and final interpretations.	NC	NC	NC	NC	NC
(m) There is at least one radiologist appointed as liaison the Trauma Services.	NC	NC	NC	NC	NC

Level:	I	IB	II	III	P
Section 4.08 Clinical Laboratory Service: (to be available 24 hours/day)					
(a) Standard analysis of blood, urine, and other body fluids, including micro sampling	C	C	C	C	C
(b) Coagulation studies	C	C	C	C	C
(c) Blood gas and ph determination	C	C	C	C	C
(d) Microbiology	C	C	C	C	C
(e) Blood typing and cross-matching	C	C	C	C	C
(f) Comprehensive blood bank, or access to a community central blood bank with storage facilities	C	C	C	C	C
(g) The blood bank must have an adequate supply of red blood cells, fresh frozen plasma, platelets, cryoprecipitate, and appropriate coagulation factors to meet the needs of injured patients.	C	C	C	C	C
Section 4.09 Renal Dialysis					
(a) There must be renal dialysis services available 24 hours per day.	NC	NC	-	-	-
Section 4.10 Allograft Tissues					
(a) The burn program must have hospital policies and procedures for the use of allograft tissues and they must be in compliance with all federal state and Joint Commission requirements and when feasible and appropriate, with standards of the American Association of Tissue Banks.	-	C	-	-	-
Section 4.11 Respiratory Therapy					
(a) A respiratory therapist is available to care for trauma patients 24 hours per day.	C	C	C	C	C
Section 4.12 Physical and Occupational Therapy					
(a) There must be access to rehabilitation services capable of managing burn patients.	-	C	-	-	
(b) Rehabilitative services must be available within its physical facilities or to a freestanding rehabilitation hospital through transfer agreement.	NC	NC	NC	-	NC
(c) Rehabilitative services consults must be available during the acute phase of care.	NC	NC	NC	-	NC
(d) Physical therapists are present.	C	C	C	C	C
(e) Occupation therapists are present.	NC	NC	NC		-
Section 4.13 Speech Therapy					
(a) The hospital must provide speech therapy services.	NC	NC	NC	-	-
(b) Speech therapy consultations must be available during the acute phase of care.	NC	NC	NC	NC	-
Section 4.14 Social Services					
1) The must be pediatric social services available.	-	-	-	-	NC
Section 4.15 Child Life and Family Support					
(a) There must be child life and support programs available.	-	-	-	-	NC
Section 4.16 Organ Donation					
(a) The trauma center has an established relationship with a recognized organ procurement agency.	NC	NC	NC	NC	NC

Level:	I	IB	II	III	P
(b) There is a written policy for triggering notification of the organ procurement agency.	NC	NC	NC	NC	NC
(c) There are written protocols for the declaration of brain death.	NC	NC	NC	NC	NC
Article V. **Performance Improvement Program**					
Section 5.01 Trauma/Burn Performance Improvement:					
(a) An organized PI program to examine the care of the injured patient within the hospital that looks towards improving outcomes by decreasing complications and improving efficiency. The process should clearly document the PI process, action plans, and resolution of the issue (loop closure).	C	C	C	C	C
(i) There must be a demonstrable relationship between PI outcomes and new or revised clinical protocols.	C	C	-	-	C
(ii) ~~There should be an expansion of the PI program to include regional trauma systems.~~	~~O~~	~~O~~	~~O~~	~~O~~	
(b) There must be a trauma PI plan in place and be revised as needed to reflect current practice.	NC	NC	NC	NC	-
(c) There must be a pediatric PI plan in place and be revised as needed to reflect current practice.	-	-	-	-	NC
(d) The PI program should follow state recommended audit filters at a minimum. • Death Reviews classified as preventable, non-preventable, or potentially preventable. • Tiered response. • All highest-level activations. • Children under age 15 years. • Surgeon response time. • Anesthesia response time. • OR team response. • Surgeon arrival in OR time. • Changes in radiology results between initial reading and final report. • Organ donation rate.	C	C	C	C	C
(i) ~~The PI program should participate in the creation of institutional and regional based audit filters as identified by the institution or regional PI committees.~~	~~O~~	~~O~~	~~O~~	~~O~~	
(e) The PI program must demonstrate the application outcome and benchmarking based activity.	C	C	C	C	C
(f) If greater than 10 percent of injured patients are admitted to non-surgical services, the must be a PI process to demonstrate the appropriateness of this practice.	NC	NC	NC	NC	NC
(g) The trauma center is able to identify the trauma population for review.	NC	NC	NC	NC	NC
(h) Participation in the VSTR as mandated by the *Code of Virginia § 32.1-116.1*. Data must be submitted to the VSTR within 30 days from the end of a quarter and include all patients:	C	C	C	C	C

Level:	I	IB	II	III	P
• With an ICD9-CM code(s) of 348.1, 800.0 – 959.9, 994.0 and 994.1, excluding 905-909 (late effect injuries), 910-924 (blisters, contusions, abrasions and insect bites), 930-939 (foreign bodies), and • Were admitted to the hospital, or • Were admitted for observation (not ER observation unless held in the ER due to no inpatient bed availability), or • Were transferred from one hospital to another for treatment of acute trauma, or • The patient dies within the hospital due to injury (includes, the ED and DOA's). Note: hospitals may over report within these ICD9 codes if desired for internal reporting.					
(i) Compliance with Section 5.01.h above on a quarterly basis	C	C	C	C	C
(j) There must be a strategy in place to monitor the validity of data being entered into the hospital's and State's trauma registries.	NC	NC	NC	NC	NC
(k) Utilization of VSTR/National Trauma Data Bank (NTDB):					
(i) ~~For new trauma centers, the PI program should utilize VSTR or NTDB data for institutional, regional, or state research or benchmarking for PI or injury prevention programs. For mature trauma centers (by the second verification visit) this criterion becomes a requirement.~~	~~O~~	~~O~~	~~O~~	~~O~~	
(ii) For mature trauma centers (by its second verification visit) the PI program must utilize VSTR or NTDB data for institutional, regional, or state research or for benchmarking for PI or injury prevention programs.	C	C	C	C	C
(l) There must be a forum that includes the TMD, ED Director, TPD/TPM/TNC, Peds-TMD and Peds-TPM if pediatric designated, ~~designee~~ liaisons from trauma subspecialties (neurosurgery, orthopedics) as specific issues present for multidisciplinary review of care of the injured patient including policies, procedures, system issues, and outcomes. The forum may include pre-hospital, nursing, ancillary personnel, a hospital administrator, and other physicians involved in trauma care. (The forum in m, below, may be combined with this meeting.) For pediatric designated centers this forum may be separate from the adult forum, but must still be structured the same and have a demonstrable relationship between the pediatric forum and the adult forum.	C	C	C	C	C
(i) There must be 50% attendance by committee members (or designee) at multi-disciplinary review of care meetings.	C	C	C	C	C
(m) The hospital will have a structured peer review committee, which must have a method of evaluating trauma care. This committee must meet at least quarterly and include physicians representing pertinent specialties	C	C	C	C	C

Level:	I	IB	II	III	P
that include at least, trauma surgery, pediatric surgery if pediatric designated, neurosurgery, orthopedics, emergency medicine, anesthesiology, and may include hospital management and other subspecialties as required. The TPD/TNC/TNC, Peds TPM or their designee(s) may be a member. Outcomes of peer review will be incorporated into the educational and policy program of the trauma program. (The forum in g may be combined with this meeting.) For pediatric designated centers the peer review committee may be separate from the adult committee, but must still be structured the same and have a demonstrable relationship between the pediatric committee and the adult committee.					
Section 5.02 Burn Performance Improvement:					
(a) There must be a burn patient care conference held at least weekly to review and evaluate the status of each burn patient admitted to the burn unit. The conference must include, but not be limited to, a burn physician, critical care intensivist, burn nurse, respiratory therapist, social work, burn occupational therapy or physical therapy, dietitian, and clinical psychologist.	-	C	-	-	-
(b) Patient care conferences must be documented in the progress notes of each patient and in the minutes of the conference kept separately.	-	C	-	-	-
(c) The burn program must have a multidisciplinary PI program.	-	C	-	-	-
(d) The burn PI program multidisciplinary committee, which oversees the PI program, must meet at least quarterly. Sufficient documentation must be maintained to verify problems, identify opportunities for improvement, and take corrective actions and resolved issues.	-	C	-	-	-
(e) Morbidity and mortality conferences must be held every other month and include physicians other than the immediate burn care team to ensure objective review of the presentations. Attendees at this conference must include specialists and other committee members that do not practice in the trauma/burn center.	-	C	-	-	-
(f) All significant complications and deaths must be discussed. There must be a candid and open discussion with high points documented, an assessment of the death or complications classified as; not preventable, potentially preventable, and preventable and actions recommend. There must also be documentation of loop closure in the potentially preventable and preventable cases. Records of this conference must be kept.	-	C	-	-	-
(g) The burn program must conduct audits released annually that include but are not limited to the severity of burn mortality, incidence of complications and length of hospitalization.	-	C	-	-	-
(h) ~~The program must participate in the ABA's national burn repository either through ABA tracks or by providing the minimum acceptable record information in a computer exported format compatible with ABA national burn repository this data must include all patients~~	-	~~O~~	-	-	-

Level:	I	IB	II	III	P
~~admitted to the hospital for acute burn care treatment.~~					
(i) The burn program must provide ongoing review and analysis of nosocomial infection data and risk factors that relate to infection prevention and control for burn patients, these data must be available to the burn team to assess infection risk factors that relate to infection prevention and control for burn patients.	-	C	-	-	-
Article VI. **Trauma Research Program**					
Section 6.01 Trauma Research					
(a) There must be a trauma research program designed to produce new knowledge applicable to the care of injured patients to include an identifiable institutional review board process.	C	C	-	-	-
(b) The trauma research program must be designed to produce new knowledge applicable to the care of injured patients to include; three peer review publications over a three-year period that could originate in any aspect of the trauma program.	C	C	-	-	C
(c) There must be a nursing specific trauma research program designed to produce new knowledge applicable to the care of the injured patients to include trauma-nursing research. Should have one publication in a three-year period.	NC	NC	-	-	-
Section 6.02 Pediatric Trauma Research					
(a) There must be identifiable pediatric trauma research occurring.	-	-	-	-	C
(b) ~~The burn program should participate in basic clinical and health science research.~~	-	~~O~~	-	-	
(c) ~~The Burn Medical Director should demonstrate ongoing involvement in burn related clinical research.~~	-	~~O~~	-	-	
Article VII. **Outreach Program**					
Section 7.01 Each trauma center will annually collaborate with the top three referring/receiving facilities to assess, plan, implement, and evaluate the physician and nursing trauma educational needs of those facilities transferring severely injured patients.	C	C	C	C	C
Section 7.02 Each trauma center will maintain a document that reflects the functional process for providing case specific complimentary and/or constructive feedback to the top three referring/receiving facilities for extraordinary situations.	C	C	C	C	C
Section 7.03 Each trauma center will collaborate with the top three regional transferring/receiving facilities to design and provide an annual hospital specific registry report by using the hospitals PI infrastructure for transmission.	C	C	C	C	C
Section 7.04 Each trauma center will have in place a method for showing their involvement with the EMS agencies and/or personnel in there region. The trauma centers should be involved in EMS education, PI and a method of providing complimentary and/or constructive feedback in general or case specific as needed.	C	C	C	C	C

Level:	I	IB	II	III	P
Section 7.05 Each trauma center will have in place a method for showing their involvement with the community in their region. The trauma center should be involved in community awareness of trauma and the trauma system.	C	C	C	C	C
Section 7.06 The burn program must have an educational program for medical staff members, including emergency medicine attending physicians and residents.	-	C	-	-	-
Section 7.07 The burn program must offer education on current burn concepts of emergency and inpatient care treatment to pre-hospital and hospital care providers within its service area.	-	C	-	-	-
Section 7.08 The burn program will document burn specific participation in public awareness programs.	-	C	-	-	-
Section 7.09 ~~The burn program should be actively engaged in promoting Advanced Burn Life Support (ABLS) courses in the region. It is desirable for the Burn Medical Director to be an ABLS instructor and essential that the Burn Medical Director is current and ABLS. The unit should have one or more employees who are ABLS instructors.~~	~~-~~	~~O~~	-	-	
Article VIII. **Injury Prevention Program**					
Section 8.01 There must be demonstration that injury prevention activities are based upon regional needs.	C	C	C	C	C
(a) ~~Participation in a statewide trauma center collaborative injury prevention effort focused on a common need throughout the Commonwealth.~~	~~O~~	~~O~~	~~O~~	~~O~~	
(b) ~~Perform studies in injury control while monitoring the effects of prevention programs.~~	~~O~~	~~O~~	~~O~~	~~O~~	
Article IX. **Hospital Documents**					
Section 8.02 Evidence of American Board of Surgery certification documented in each surgeon performing trauma call in his or her credential files or other documentation showing active pursuit of current certification or re-certification in general surgery. Each trauma surgeon must be eligible for certification.	C	C	C	C	C
Section 8.03 Evidence of a recognized board certification(s) documented in each emergency physicians credential file or other documentation showing active pursuit of current certification(s) or recertification in emergency medicine by ED physicians.	C	C	C	C	C
Section 8.04 There must be documentation available for ATLS and continuing education as outlined throughout this document.	C	C	C	C	-

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ADMINISTRATIVE GUIDELINES

Purpose:

The purpose of the administrative and interpretive guidelines is to provide information pertaining to the process of designation and verification of trauma and trauma/burn centers in Virginia. It is divided into two sections: 1) administrative guidelines describing the procedures and steps required for the process, and 2) interpretive guidelines describing how trauma and burn center criteria should be evaluated during a site visit. The document is designed to be used with Virginia trauma and trauma/burn center Criteria.

The objective is to provide a consistent, objective, and meaningful approach to the designation process.

Background:

In Virginia, the lead EMS agency is VDH/OEMS. VDH/OEMS coordinates the development and administration of trauma center designation throughout the state. The earliest Level I trauma centers were designated in 1983 and 1984. Burn specific designation was introduced to the designation manual in 2012.

The trauma system in Virginia is inclusive. All hospitals with 24 hour emergency departments provide some degree of trauma and burn care. The decision to become a designated trauma center or trauma/burn center is voluntary. Designation carries a cost related to the fact that the trauma and burn programs must be continuously available for patients who may or may not require their services. Triage guidelines act to direct severely injured patients to the nearest appropriate trauma or trauma/burn center.

Designation occurs at four levels, Level I, IB, II, and III. Level I, IB, and II trauma centers should be capable of managing severely injured patients. Level I and Level IB centers must demonstrate a higher level of commitment to research, prevention and education. Level III centers demonstrate an increased commitment to trauma care, managing moderately injured patients and rapidly resuscitating and transferring more severely injured patients. Undesignated trauma centers must recognize, resuscitate and transfer most trauma patients.

All hospitals whether designated or not should make every effort possible to participate in and to improve the trauma system. Due to the unexpected nature of injury, trauma patients and their families cannot choose their location of care. It is incumbent upon the healthcare system to provide these patients with the most optimal care possible regardless of location and circumstances. The purpose of the designation process is to assure consistent performance of entry level trauma and trauma/burn centers and to promote continued improvement and development of experienced centers.

I. Record Keeping

Overview: The trauma system in Virginia is dynamic. Centers change in response to pressure of the healthcare environment and criteria and processes for evaluation change as trauma and burn care evolves. Maintaining records consistently over a period of time achieves several purposes. It provides a series of system snapshots over time. It allows centers and VDH/OEMS to refer back to actions taken in the past. Finally, it allows a summation of trauma and trauma/burn center performance rather than a series of unrelated and disjointed episodic views. In order to accomplish these goals, the records must be identifiable, consistent, accessible, and maintained in a predictable fashion.

a. Documents and revisions of documents will be numbered and maintained by the VDH/OEMS. This process is put into place to avoid confusion with regard to which version of a document is in use during the site visit. When a trauma or trauma/burn center is scheduled for a visit, the Trauma/Critical Care Coordinator will provide the title and effective date of the documents to be used during the visit. These will include the trauma and trauma/burn center criteria and the administrative and interpretive guidelines, as well as any other documents considered to be pertinent.

b. Each trauma or trauma/burn center will have a file maintained for a period of not less than ten years after the most recent trauma visit. The file will include:
   i. Records of each site visit to the institution with the following information:
      1. Designation Items:
         a. Written preliminary report and suggested remediation by site visit team,
         b. Written documentation of remediation,
         c. Closure of remediation,
         d. The final report of the site visit team, including specific findings and remediation, and
         e. Copy of written action by the Commissioner (designation).
      2. Site Review Documents:
         a. Site Review Agenda,
         b. Site Review Team Roster, and
         c. Version of (by revision date) of trauma center criteria used for site review.
      3. Written Application Including:
         a. Acknowledgement that the VDH/OEMS trauma designation file has been reviewed (signed),
         b. Trauma Center Code of Conduct,
         c. Trauma Center Capabilities,
         d. Current Organizational Chart,
         e. Impact Statement,
         f. Checklist,
         g. Questionnaire,
         h. List of physicians,
         i. Trauma team alert criteria (roles, responsibility, and policies),
         j. TMD job description,
         k. Trauma Nurse Coordinator job description (include an organization Chart),
         l. Trauma Registrar job description and evidence of CME requirements (as applicable),
         m. Performance improvement plan,
         n. Performance improvement process flow diagram,
         o. Verification renewal letter, and
         p. VSTR audit.
   ii. Any records pertaining to any voluntary or involuntary withdrawal of designation.
   iii. Any additional communication pertaining to designation status between the center and VDH/OEMS or the Commissioner.
   iv. A summary of activity related to the center (a list of dates, nature of actions and resulting status of center.)

c. A copy of the current trauma center file will be sent to the TPD/TPM/TNC and to the TMD at the time of request for verification or designation. These individuals will review the information contained for accuracy and provide written confirmation to VDH/OEMS.

d. Management of records during visit:
   i. Each member of the site review team will receive a copy of the trauma center file in its entirety at least two weeks prior to the visit, and
   ii. Team members will receive electronic or written application material at least two weeks prior to the visit.

e. Preliminary report of findings may be made available to the center prior to the time of departure of the site visit team:
   i. The center may receive a written copy of preliminary report listing issues of concern, strengths and areas for improvement; and
   ii. The team may also provide specific preliminary suggestions for remediation in writing at time of departure.

f. The team leader will provide written confirmation of preliminary findings and remediation or amended findings and remediation within one week of finishing the site visit.

g. After any conditions of remediation have been satisfied, the site review team leader will provide VDH/OEMS with written notice of closure of remediation.

II. Application for Review

a. Six months prior to the date a center is due for site review, the Trauma/Critical Care Coordinator for VDH/OEMS will notify the TPD/TPM/TNC and provide the following:

   i. Application to be completed,
   ii. Copy of trauma center file on CDROM, and
   iii. Copy and version number of Criteria and AIG to be used during review.

b. Application will include:

   i. Signed Trauma Center Code of Conduct,
   ii. Completed Trauma Center Capabilities Form,
   iii. Current Organizational Chart describing the relationship of the trauma program within the hospital organizational structure,
   iv. Impact Statement: the impact statement describes the role of the trauma center or proposed center in the system it serves. The statement acts as an argument for the existence the center and its essential contributions to the community,
   v. Level I, IB, II or III Checklist for appropriate level requested (electronic form provided),
   vi. Completed Trauma Center Questionnaire,
   vii. Current complete list of emergency physicians and mid-level providers,
   viii. Current complete list of trauma surgeon's performing trauma call,

ix. Current complete list of nursing staff members that serve as the primary trauma team nurse in the trauma bay/room. The list of trauma team nurses should include whether the nurse possesses active TNCC, ATCN, or CATN,
x. Copies of current TNCC, ATCN, and CATN should be made available to the site review team,
xi. Trauma team activation/alert criteria for your hospital,
xii. Trauma team roles and responsibilities policy,
xiii. Trauma alert policies,
xiv. TMD job description,
xv. Burn Medical Director job description (as applicable),
xvi. Evidence of TMD's board certification(s), current ATLS, CME, and national conference attendance (as applicable),
xvii. TPD/TPM/TNC job description (include an organizational chart),
xviii. Burn manager/coordinator job description (as applicable),
xix. Evidence of TPD/TPM/TNC's TEH and national conference attendance (as applicable),
xx. Evidence of the Burn Manager/Coordinator's burn education hours (if applicable),
xxi. Trauma registrar job description and evidence of TEH requirements (as applicable),
xxii. Emergency Medical Director's board certification(s), CME and current ATLS or the identified designee's current ATLS,
xxiii. Copy of the program's PI plan,
xxiv. PI process flow diagram includes how issues get reported to its highest level,
xxv. PI tracking sheets, and
xxvi. Other documents as requested.

III. Prior to Visit

a. Prior to visit, the site review team shall have:

i. Complete copy of trauma center file,
ii. Full copy of pre-visit application,
iii. Current status of center with regard to VSTR provided by VDH/OEMS, and
iv. List of any trauma related issues requiring investigation by VDH since last visit, along with resolution.

IV. Site Review

Overview**:** Without trauma and burn patients, a trauma center cannot demonstrate the consistency and effectiveness of procedures and protocols put into place at the time of its inception. However in a well developed system with a strong trauma triage element, severely injured or burned patients will be directed toward existing designated trauma or trauma/burn centers. A paradoxical situation develops; the center should not be designated until it demonstrates effectiveness, yet cannot demonstrate effectiveness until receiving patients as a trauma center. To remedy this situation, first time institutional reviews will be to survey for a provisional status.

Although it is important for a center to demonstrate its level of performance, the public must not be put at risk for suboptimal care. Therefore, the second review following a short interval will be held for full designation. The interval will allow the center to put its documented plan for trauma care into action. In

addition, the institution will have an opportunity to correct any deficiencies identified by the original site review team. At the time of the second site visit (the first designation visit) the center will either pass or not pass. Any identified critical deficiencies will result in a mandatory period during which the institution will re-evaluate the trauma program prior to beginning the designation process over again.

a. Provisional center – one year period
   i. At the provisional visit, the center must demonstrate that all required mechanisms to meet criteria are in place. The team will confirm that there is a resource, policy or procedure that addresses the criteria and that it represents a practical and effective approach.

   ii. The team will identify the following:
      1. Critical deficiencies
      2. Non-critical deficiencies
      3. Potential areas for improvement

   iii. The presence of critical deficiencies will be cause to withhold provisional designation. The center must re-evaluate its program and if desired, begin the application process again after a period of not less than one year.

   iv. When non-critical deficiencies exist or in the absence of deficiencies, the program will receive provisional status for a period of one year. During this time, it will function at the identified level and remedy any non critical deficiencies identified at the first site visit.

b. Designation: A second site visit will occur at the end of the hospitals one year provisional status. The hospital does not have to submit a full application, but should submit an interim report describing any changes since designation as a provisional center, status of non critical deficiencies noted during the first site visit, as well as a trauma program summary from its trauma registry.

   The modified site review team will consist of a surgeon team leader and a trauma/critical care nurse reviewer. The surgeon team leader or OEMS may add additional members to this team as deemed necessary.

   Any critical deficiencies identified at this time will result in the center not receiving designation as a trauma center. The hospital will not function as a trauma center if this occurs and will re-evaluate and revise its current program for at least two years prior to beginning the application process again.

c. Verification**:** Following designation, a center will undergo verification visit every three years having become designated, an institution must continue its developmental process. A progressively sophisticated approach is expected of more experienced centers and is reflected in a number of the criteria. This is particularly apparent in the area of quality assurance. Continuous improvement means continuous change. An experienced program is expected to demonstrate ongoing evaluation of the trauma care system, presenting enhanced approaches to existing problems or efforts at solving newly identified problems. For this reason, it is unlikely that an experienced program will be successful if unable to present progress and changes over three verification cycles. Verification visits follow a successful designation visit and should document ongoing development of the center and responsiveness trauma system issues.

i. A full application will be submitted for each verification visit.
ii. In the absence of critical deficiencies or persistent non-critical deficiencies the center will be confirmed at its current level of function.
iii. If a non-critical deficiency has been identified for the first time it will be noted in the team leaders' summary. However, if a non-critical deficiency is identified in two out of three sequential visits, the center will be asked to submit a plan of correction to VDH/OEMS within three months. At the next site visit, the center will provide evidence of having implemented the plan and improvement in the area of deficiency identified.

V. Withdrawal

Overview**:** As an advocate for quality trauma and burn care, a trauma or trauma/burn center should be able to identify situations in which it no longer meets criteria required for its current level of designation. If this occurs, the center should notify VDH/OEMS requesting a temporary withdrawal, permanent withdrawal or request for re-designation (either upgrade or downgrade). Identification and self reporting of the problem is more advantageous than waiting for an adverse result of a verification visit or complaint resulting in involuntary withdrawal.

a. Temporary: A hospital may request a temporary withdrawal from the system if unforeseen and uncontrollable circumstances prevent the center from functioning at its designated level and if the period of time is expected to be longer than one day and less than three months. Requests for temporary withdrawal greater than three months will require a site review team visit.

   Examples include death, disability, resignation, retirement, etc. of key individuals on the trauma program, or an internal disaster such as a fire or flood. A representative from the hospital will notify VDH/OEMS regarding the request for temporary withdrawal by phone or e-mail as early as possible. Initial notification shall be followed by a written report outlining the circumstances, the plan to correct the circumstances, the anticipated length of temporary withdrawal and any arrangements to maintain trauma care within the system (e.g. memorandum of understandings with other hospitals, notification of VDH/OEMS) within 14 days. Once the problem has been corrected the trauma or trauma/burn center will notify VDH/OEMS. A site visit is not required for re-instatement. If the center is involved in remediation for critical deficiencies at the time of request for temporary withdrawal, the timeline for remediation is not altered and no extension is applied.

b. Permanent**:** If a hospital wishes to discontinue its role as a trauma or trauma/burn center it may request a voluntary withdrawal. The institution is not required to provide a reason for this although VDH/OEMS may request information to facilitate evaluation of the trauma system. The hospital should provide the request for voluntary withdrawal in writing. Included with the request should be a copy of the most recent impact statement and suggestions for changes in the system to allow for accommodation of gaps in trauma coverage. Following voluntary withdrawal, a center may apply for re-designation at any level desired after a period of not less than one year. The center will arrange for notification of the public and EMS agencies regarding the change in status. Only one voluntary withdrawal is permitted within a ten year period of time.

c. Re-designation (upgrade)**:** The hospital requesting an upgrade in level of trauma center designation will be required to undergo a full site review at the level of re-designation being requested. The site

review must occur prior to functioning at the requested level of re-designation. Since this is a new designation a verification visit will be required in two years.

d. Re-designation (downgrade)**:** If a hospital requests a downgrade in level of designation, a modified site visit will be performed to assure the hospital is functioning at the level of designation being requested.

e. Involuntary**:** An involuntary withdrawal occurs when a center fails to remediate critical deficiencies as outlined by the site visit team, or if a visit by a site review team or VDH/OEMS representative determines that further function as a trauma center would be a risk to patient safety or extremely detrimental to the system. If this occurs, the center has the option of an appeals process outlined below. At the time of an involuntary withdrawal, VDH/OEMS will provide notification to the public and to EMS providers in the area. Following the first involuntary withdrawal, an institution may request re-designation after a period of not less than three years. After any subsequent involuntary withdrawals the institution will not be permitted to apply for re-designation sooner than five years.

VI. Appeal

If a hospital, whether designated or attempting to be designated, has a grievance with findings relating to the enforcement of the Virginia trauma center criteria by VDH/OEMS, a site review team leader, a site review team member, the TSO&MC, or any subcommittee formed from the TSO&MC has the right to file an appeal the finding(s).

The appeals process will follow the Administrative Process Act (APA) of Virginia § 2.2-4000. Notice of intent to appeal should be documented and submitted to VDH/OEMS as stipulated in § 2.2-4000. Failure to follow the APA guidelines can result in the appeal not being heard.

VII. Variances and Exemptions

Any designated trauma center that wishes to request a variance or exemption from any of the criteria or procedures required by the trauma center designation process must do so in writing. A variance provides the hospital with temporary relief from a criterion or procedure and an exemption provides permanent relief from a specific criterion. All variances and exemption become void upon implementation of a revised Trauma and Burn Center Designation Manual.

To submit a request for a variance or exemption the designated trauma center may file a written request for a variance with the VDH/OEMS Trauma/Critical Care Coordinator. The following additional requirements apply:

1. The written variance or exemption request shall be submitted by the hospital's administrative leadership.
2. The request shall be submitted to the VDH/OEMS Trauma/Critical Care Coordinator.
3. The request shall clearly state:
    a. The criterion that is the focus of the variance/exemption.
    b. A detailed description of why the request is being made.

c. A detailed impact statement describing any alternative action that will occur to mitigate the effects on patient care or operational procedures.
d. Describe how the regional trauma system will be informed if applicable.
e. Provide any transfer agreements and transfer policies as applicable.
f. Provide any supporting facts or data that support granting a variance or exemption.
g. Provide and letters of support from regional hospitals, EMS agencies, or others as applicable.

4. The VDH/OEMS Trauma/Critical Care Coordinator will review the request and make a recommendation to approve or disapprove the request to the State Health Commissioner.
5. The VDH/OEMS will provide the State Health Commissioner with any facts such as national standards that relate, either positively or negatively, to the request.
6. This process may take 2 – 8 weeks.

VI. Site Review Team Member Roles, Training and Recruitment

a. Site review team member roles (refer also to site visit checklist for more details)
   i. A surgeon team leader officiates over the site review team and provides a written summary and recommendation upon the application to the Health Commissioner. The surgeon team leader will review the surgical capabilities of the hospital and whether they meet the essential criteria for the level of designation/verification being applied for.
   ii. An emergency medicine physician will review the ED's response to trauma patients. This would include whether there is an appropriate team response to trauma patients, the care provided during that response and the availability of ancillary services during the initial phase of trauma care.
   iii. The trauma/critical care nurse reviewer will review all phases of nursing care provided by the applying center. This would include assuring there is adequate staffing and equipment available, as well as quality nursing care provided during the trauma team response, within the critical care department and inpatient areas.
   iv. Trauma nurse coordinator's role within the trauma program will also be evaluated by the trauma/critical care nurse reviewer.

   v. A hospital administrator role will also be utilized to evaluate the overall commitment that the hospitals administration has to the trauma program.

b. Training - VDH/OEMS and the TSO&MC may provide a training program, suited for both classroom presentation and self learning which will assure the site reviewer's knowledge of the current criteria and their role as a site review team member.

c. Recruitment –VDH/OEMS and the TSO&MC will assure that there are an adequate numbers of site reviewers. To qualify as a site review team member, the individual will be required to observe a minimum of one site review, receive the site review training and be approved by vote of the TSO&MC.

d. VDH/OEMS will maintain records on individual site reviewer activities including dates, locations and outcomes of reviews.

e. VDH/OEMS will solicit evaluations of site team leader performance.

BURN PATIENT CRITERIA

Burn injuries that should be referred to a trauma/burn center for assessment:

The ABA has identified the following injuries that usually require referral to a trauma/burn center.
• Partial thickness and full thickness burns greater than 10 percent 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 percent 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 five percent 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, prolonged recovery, or affect 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 trauma/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.

WORKS CITED

American College of Surgeons Committee on Trauma 2006 *Resources for the Optimal Care of the Injured Patient 2006* ChicagoAmerican College of Surgeons

Appendix H

Virginia Office of Emergency Medical Services
Trauma Center Fund Disbursement Policy

Trauma Fund Includes:
D.U.I Fund (HB 1143)
License Reinstatement Fee (HB 2664)

Revised ~~September~~ June 0~~1~~6, 201~~1~~3
Effective January 1, 201~~4~~2

Virginia Department of Health
Office of Emergency Medical Services
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Glen Allen, Virginia 23059
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Authority: Pursuant to § 18.2-270.01 The Department of Health has been directed to develop a methodology for awarding these funds and to administer the Trauma Center Fund. The Office of Emergency Medical Services (OEMS) is the designee of the Virginia Department of Health (VDH).

Purpose: To provide financial support to Virginia Designated Trauma Centers in an effort to defray the costs specifically associated with Trauma Center Designation.

Trauma Fund Panel:

A Trauma Fund Panel is appointed each year by the TSO&MC Chairperson at its March meeting. The panel will consist of five members: the TSO&MC Chair or his/her designee, the VDH/OEMS Trauma/Critical Care Coordinator, one representative of a level I trauma center, one representative of a level II trauma center, and one representative of a level III trauma center. The Chair may opt to add a sixth member to the panel in the event it is felt physician, nursing, or administrative representation has not been achieved with the original five panel members.

The Trauma Fund Panel shall be responsible to:

- Assist VDH/OEMS with annually reviewing the TCFDP.
- Based on the annual review, assist VDH/OEMS with revising the TCFDP as needed. Updating the disbursement policy is not required. However, the document should be marked as reviewed or revised and dated.
- Present changes to the TCFDP on an informational basis to the TSO&MC at their September or December Meeting.

Timeline:

- At the March TSO&MC meeting the Chair will form the year's Trauma Fund Panel.
- The Trauma Fund Panel, after reviewing the distribution policy may choose to recommend that the policy ~~Committee may choose to not convene the Trauma Fund Panel for the upcoming year if VDH/OEMS and the Chair recommend that the document, after review,~~ does not require revision or the revisions required are not sufficiently significant to warrant updating the document~~panel meetings~~.

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- Changes to the TCFDP should be completed and presented at the September or December TSO&MC meeting on an informational basis, to make potential recipients aware of any significant changes.

Eligibility – To be eligible to receive funding through The Commonwealth of Virginia Trauma Center Fund, a hospital must be a Virginia Designated Trauma Center (Level I, II, or III) that has completed it provisional status (first year), located within the Commonwealth of Virginia, designated by the VDH, and must be in good standing.

Designated Trauma Centers considered not in good standing, for the purpose of the Trauma Fund only, includes any center that has been identified, during any phase of the designation or verification process, to have a critical deficiency or deficiencies or failed to follow the prescribed application for designation or verification process. Failures to submit the required annual report(s), participate with a requested audit, or submit the signed acknowledgement on time will also result in being considered not in good standing.

Once a center has been identified, by the VDH/OEMS, as not in good standing, payments from the Trauma Center Fund shall be held in escrow until such time that the critical deficiency or outstanding issue has been corrected or the Trauma Center has been provided with notification by VDH/OEMS that the funds will be returned to the Trauma Fund for distribution and the appropriate time to appeal such a decision has passed.

Each eligible trauma center must provide the VDH/OEMS' Fiscal Division with a method to receive funds electronically. The eligible center must be compliant with reporting to the data source (i.e. Trauma Registry) being used by VDH/OEMS to establish the percentage of the trauma fund that will go to each facility.

To remain eligible each recipient of Trauma Center Fund monies shall submit an annual report in the format prescribed by the Office of EMS. The annual report shall be submitted in two stages. **Part one of the annual report shall be due to VDH/OEMS by 5:00 p.m. on September 15th, or the first business day should the 15th, fall on a weekend or state holiday each year beginning in 2013.** The September 15th version of the annual report shall include the "projected cost" identify how the trauma center anticipates utilizing its portion of the trauma funds in the next calendar year.

The intent of reporting the projected use of the trauma funds is to encourage prudent planning and budgeting of trauma funds by each center and to mitigate potential usage that is not qualified under this policy.

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Part two of annual reporting ~~This report~~ shall be due, at the VDH/OEMS no later than 5:00 pm on February 15 each year or the first business day should the 15th fall on a weekend or state holiday.~~, beginning February 15, 2013~~ (see the reporting requirements section later in this document for details.)

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Any trauma center submitting an annual report (part two) that includes funding for "procuring trauma specific patient care equipment" shall submit and itemization of the equipment purchased using trauma funds.

Each facility must sign and return the TCFDP by the date requested to remain eligible to receive funding. A signed acknowledgement of the TCFDP shall need to be updated with each revision of the TCFDP itself. The acknowledgement must be signed by an upper level administrator (CEO/COO/CFO/CNO) and the Trauma Program Medical Director or Trauma Program Manager. The acknowledgment signatures can be found on 12 below.

Compliance:

If at any time questions arise or it becomes suspected or known that a center(s) is not using the Trauma Center Funds in accordance with the TCFDP the VDH/OEMS will be obligated to respond to such an event. The fund's administrator will attempt to resolve the matter in the following manner:

- Place the amount of funding in question immediately on hold until resolved.
  Communicate in writing to the hospital representative believed to be responsible for administering the funds at the center in question and attempt to resolve concerns. If the person believed responsible is not the TMD and/or TPM then they will be courtesy copied. If the questions arise as a result of the annual report VDH/OEMS will contact the person that originally submitted the report to VDH/OEMS in an attempt to clarify any question(s) and resolve any issues or potential issues and courtesy copy the TMD and/or TPM.
- It shall be the hospital's responsibility to share information internally or notify other hospital staff(s) as needed, VDH/OEMS cannot assume this responsibility.
- Funds held will be placed in escrow until a formal decision has been made and communicated to the hospital. If the time has expired in which the hospital has to appeal the VDH/OEMS decision under the Administrative Process Act (10 days) the funds will be removed from escrow and made available for distribution with the next quarterly disbursement.
- Anytime in which funds are held for this purpose the fund administrator should report the issue(s) via the VDH chain of command and to the Office of the Attorneys General (AG) as needed for appropriate resolution.

It is VDH/OEMS' goal to have the Trauma Center Fund managed on the hospital level by the individual trauma programs/services. However, when this is not feasible due to the individual hospital's infrastructure the TMD and/or TPM shall be involved in the process of deciding how the funds will be utilized and in the annual reporting on the usage of those funds. Additional details are listed below.

Auditing:~~;~~ ~~a~~All recipients of the Trauma Center Fund as a condition of receiving funding agree to undergo a financial audit performed by a qualified independent auditor contracted by VDH/OEMS focused on the usage of trauma funds. VDH/OEMS will utilize auditing practices similar to those used with all other funding programs it administers~~.~~. The focus of financial audits will be to perform cyclical audits on those centers that receive $200,000 or more per year. VDH/OEMS reserves the right to request financial audits on an as needed basis and on centers that receive funding less than $200,000 as deemed necessary.

Trauma Center Funds shall be utilized as directed by this document or forfeited. The disbursement policy is developed with stakeholder input to ensure that the funds can be utilized for current trauma specific needs. The annual TCFDP review is performed to ensure that the fund addresses current needs of the system.

Usage of Funds:

Monies from the Trauma Center Fund shall be utilized to support eligible Virginia Designated Trauma Centers within the confines of the broad list below. The list represents those factors that are unique to centers due to being designated by the VDH as a Trauma Center~~.~~. A brief description of the intent of each bullet is included with each category to assist centers, but is not meant to be ~~all inclusive~~all-inclusive. Each recipient of Trauma Center Fund monies shall not use greater than ~~55~~ 45 percent of the funding it receives to support higher staffing levels (i.e. on-call stipends, etc.) as noted in the last bullet item below. The remaining ~~45~~ 55 percent of funding shall be used towards those items listed below. The intent of this funding cap is to improve the level of funding being dedicated to the other categories. Any request to deviate from the list should be approved in advance by submitting a written request (electronically is sufficient) to the VDH/OEMS that includes what is to be funded, the amount of funding, and how it relates to trauma specifically.

- Readiness costs that support the trauma systems will vary from institution to institution and may include any of the following:
  - Support extensive trauma related training to staff either by hosting or funding staff to attend any of the following:

- **Continuing education (CE) for all level of clinicians**,
- **Trauma related certification classes, i.e. ATLS, TNCC, ATCN, CATN** (i.e. may include expenses to attend or host trauma specific certification courses; i.e. instructor fees, materials, travel, per~~-~~diem, facility costs etc.)
- **Trauma related classes or conferences** (may be used for registration fees, class, materials, lodging, transportation, and per diem)
- **Obtain training equipment, aids, materials and supplies** (may be used for equipment such as simulators, mannequins, medical equipment used for training, disposable supplies for training; aids such as A/V or IT equipment, software, A/V training programs, subscriptions to programs that provide/track/monitor CE credit, to prepare course materials, purchase of course materials, and other supplies needed to host, develop, or provide trauma specific training)
- **Backfilling for staff attending trauma educational events**. (may be used to offset the cost of backfilling physician, physician extenders, and nursing coverage so staff can participate in continuing education, conferences, or perform instruction for trauma specific activities),

o Support a trauma specific comprehensive performance improvement program by funding any of the following:

- **The purchase and/or maintenance of trauma registry software/service that is capable of also submitting data to the Virginia Statewide Trauma Registry** (may be used to purchase, upgrade, add additional modules, maintain, or integrate, trauma registry programs that enhance trauma specific performance improvement or assist with integrating with the state trauma registry, National Trauma Data Bank (NTDB), regional trauma triage, or EMS agency patient care data)
- **To purchase, subscribe, develop, and/or support trauma program performance improvement (PI) programs** (i.e. may be used to submit or utilize data to/from the NTDB, VSTR, or other data source, participation in PI programs such as "TQIP" or similar program, purchase of statistical software),
- **Support multidisciplinary performance improvement committees** (i.e. may be used to support organized PI program through equipment and materials)
- **Offset the cost of preparing and undergoing state trauma verification** (i.e. cost associated with preparing materials for review, staff needed to prepare, administrative assistance, hosting a review team and other verification related costs)

o Support for Injury prevention/community outreach to include any of the following:

- **Trauma center and system awareness** (i.e. may be used for trauma program specific media (audio, visual, print) development, postage shipping, costs associated with the development and delivery of live awareness activities)
- **Community/Public education program(s) related to injury prevention** (staffing, supplies, marketing, travel, etc.)

- Support for outreach program(s) such as:
  - **Educating staff at non-designated hospitals on trauma care and trauma triage** (i.e. may include providing trauma education, performance feedback to hospitals in the centers catchment area)
  - **A program to provide performance improvement related feedback to non-designated hospitals and its staff** (i.e. may include providing trauma education, performance feedback to hospitals in the center's catchment area)
  - **Educating prehospital providers on trauma care and trauma triage** (i.e. may include providing or attending trauma specific programs that provide continuing education (CE) credit hours to all levels of emergency medical providers. Costs may cover expenses to host, including facility fees, instructor's fees, course materials, durable and/or disposable supplies for course, travel, lodging or per diem.)
  - **A program to provide performance improvement related feedback to prehospital providers/agencies**. (i.e. May include support for courses, education, development/use of technology to communicate, travel, staff time etc.)
- Support for trauma related research
  - **Provide support for trauma related research** that will be shared with and support the Virginia Trauma System.
- **Procure trauma specific patient care equipment** (i.e. may include devices such as Level I pressure infusers, patient warming devices, ultrasound devices etc.) While prior approval from the VDH/OEMS is not necessary, questions about whether items are consider trauma specific can be submitted to the VDH/OEMS. An itemization shall be submitted with the annual report detailing what equipment was procured using trauma funds.
- **Renovation(s) of physical structures to benefit trauma care** (i.e. trauma resuscitation room renovations/modifications.) All renovations being funded by trauma funds shall be submitted to the VDH/OEMS for approval in advance.
- Support an administrative infrastructure dedicated to the trauma program as required for designation to include, but not be limited to:
  - Trauma Medical Director
  - Trauma Program Manager
  - Trauma Registrar(s)

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- Trauma Performance Improvement Coordinator
- Other administrative support staff to support program

- Support higher staffing levels (on-call stipends) that will assure quality trauma care day or night to include to a maximum of 55 percent of funding received:
  - Trauma Surgeons
  - Other physician specialties
  - Mid level/physician extenders
  - Increased nursing staff to meet required nurse patient ratios,
  - Ancillary support staff needed to meet state designation criteria.

Carry Over of Funds – carrying over of funding from one State fiscal year (SFY) to another should be minimized. Understanding the SFY may differ from each center's fiscal year it is permissible to carry Trauma Center Funds over from one SFY to another, but centers shall not exceed this limit except during the following circumstances:

- Upon approval of VDH/OEMS based on legitimate trauma program/service needs, such as the need to build financing for a project that could not be achieved in one year or to build financing for a biannual/triennial project so no single FY will be impacted to a maximum of two "carry overs" or a three year period.
- Centers expected to receive less than $50,000 per year and the funding is solely managed by the Trauma Program/Service may carry over funding so that they may apply it in similar fashion as bullet one to a maximum of two "carry overs" or a three year period.

Trauma Center Fund recipients should keep in mind when developing a budget outlining the use of trauma funds that the funds are intended to support your trauma service and be trauma specific. Your Trauma Program Medical Director and/or Trauma Program Manager are the best resource within your facility to provide advice on the correct usage and intent of the items above. While the list is broad in order to allow each facility to address its unique trauma specific funding needs, it should not be applied so broadly that its use becomes non-applicable to the support of your trauma program. Past issues include:

- Support of Helicopter Emergency Medical Services (HEMS). HEMS service is not required by trauma center designation and other VDH/OEMS funding supports HEMS
- Uncompensated care; the Commonwealth provides other funding streams for uncompensated care

- Applied to the hospitals' general fund; a cost accounting of how the funds were applied to the areas above is required and financial auditing has been added to assure this is occurring
- EMS education; the trauma center fund does support EMS education. However; centers need to ensure trauma funds are used for trauma specific EMS education and not initial EMS training courses or unrelated continuing education. VDH/OEMS provides significant EMS training fund opportunities for non-trauma related EMS education

Reporting Requirements:

As cited in the eligibility section of this document each recipient of Trauma Center Fund monies shall be required to submit an annual report as prescribed by the VDH/OEMS. To remain eligible each recipient of Trauma Center Fund monies shall submit an annual report in the format prescribed by the Office of EMS. The annual report shall be submitted in two stages. **Part one of the annual report shall be due to VDH/OEMS by 5:00 p.m. on September 15th or the first business day should the 15th fall on a weekend or state holiday each year beginning in 2013.** The September 15th version of the annual report shall include the "projected cost" identify how the trauma center anticipates utilizing its portion of the trauma funds in the next calendar year.

~~**This report shall be due, at the Office of EMS no later than 5:00 pm on February 15** of each year, beginning February 15, 2013 (or the next appropriate state business day if this occurs on a weekend, holiday or other declared State holiday)~~ and in the electronic format specified by VDH/OEMS or the center will forfeit receiving trauma funds for the current SFY. The annual report will be posted on the OEMS Trauma Webpage

The information reported is used by VDH/OEMS to meet standard accounting and audit requirements and to assist in the mandated reporting annually to the Governor and the Chairmen of the House Appropriations and Senate Finance Committees on the use of the funds and how they support the Virginia Trauma System. In order for the VDH/OEMS to be able to provide this report within the timeline prescribed it is necessary to enforce ~~a~~ strict deadlines.

Distribution:

Each Virginia Designated Trauma Center in good standing will receive a quarterly disbursement of funds that have been directed to the Trauma Center Fund and have been received by the VDH/OEMS. It is the goal of the VDH/OEMS to electronically disburse all funds, maintaining a zero balance, within thirty days from the end of each state fiscal quarter.

However, VDH/OEMS is not that State agency that collects the funds that make up the Trauma Center Fund and cannot guarantee the payment schedule.

For each disbursement VDH/OEMS will determine the amount of disbursement each center will receive using two factors. The first factor is that each VDH/OEMS designated trauma center located within the Commonwealth and is in good standing will receive one percent of the funds available for disbursement.

~~Each Virginia Designated Trauma Center in good standing will receive a percentage of the available funds received. Available funds include any funds directed to the Trauma Center Fund minus the administrative costs recuperated by VDH/OEMS to maintain the program. At this time two sources of funding exist for the Trauma Center fund and those are related to license reinstatement fees and DUI fines.~~

The second factor shall utilize the remaining funds available for each individual disbursement and be based on t~~T~~he percentage ~~will be based~~ o~~n~~f the total number of inpatient admission days for those patients admitted under a primary E-Code related to motor vehicle crashes. Using the most recently available calendar year data from the Virginia Statewide Trauma Registry (VSTR), the total number of hospital days of patients admitted under a primary E-Code of 810, 811, 812, 813, 814, 815, 816, 819, 822, or 823 and their subcategories to qualifying trauma centers will be queried.

For the second factor a~~A~~ query will be run to establish the total number of patients admitted under these E-Codes for all qualifying trauma centers. Based on the number of patient admission days of each center compared to the total number of admission days for all qualifying trauma centers a percentage will be assigned. Each July 1st VDH/OEMS will pull data from the VSTR using the previous calendar year's data to revise the percentage. Each center is responsible for its own compliance with data submission. The new percentages will be applied to any payments that are entered into the VDH/OEMS financial system after the percentages are provided to VDH/OEMS' Fiscal Divisions. The percentages are not retroactive and may include more or less than four payments until the next percentage rates are set the following July 1. This process will be "based" on the State's fiscal year.

The percentages rates and payments will be posted to the OEMS Trauma Webpage. An announcement will be sent to each center's Trauma Program/Service when this information has been updated.

Acknowledgement:

By signing, I hereby certify that I have reviewed and understand the Virginia Trauma Center Fund Disbursement Policy and that I accept the responsibility of adhering to the same.

_____
Hospital Name

_____ _____ _____
Hospital CEO/COO/CFO Name Print (Signature) Date

_____ _____ _____
Hospital TMD or TPM Name Print (Signature) Date

Forward this acknowledgement to:

Mr. Paul Sharpe, Trauma/Critical Care Coordinator
Virginia Department of Health, Office of Emergency Medical Services
1041 Technology Park Drive
Glen Allen, Virginia 23059
Paul.Sharpe@VDH.Virginia.gov

Questions:

The Trauma Center Fund is administered by the Virginia Department of Health, Office of Emergency Medical Services. The Trauma Center Fund Administrator is:

Mr. Paul Sharpe, Trauma/Critical Care Coordinator
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1041 Technology Park Drive
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Appendix I

Patient Registry
User Guide
Version 2.12

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Chapter 1

IMAGETREND PATIENT REGISTRY

Introduction

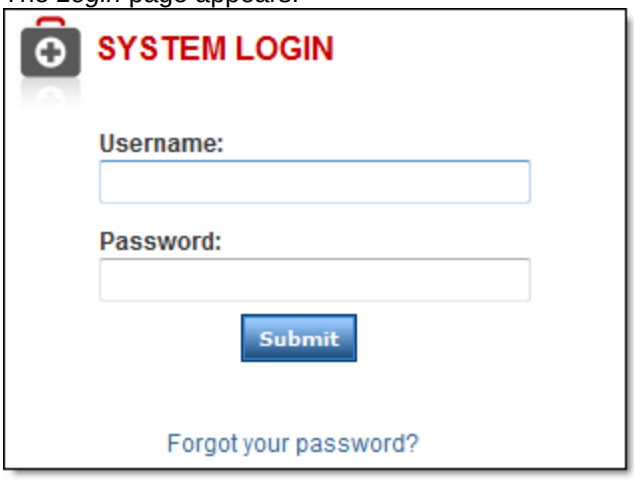
1.1 Chapter Overview

This chapter provides basic information about the structure and use of the Patient Registry system, including an overview of the common features and the system requirements for using this system.

1.2 Login

If your system has a direct login to Patient Registry, system users must log in to the Patient Registry application online in order to use the system.

1. Using a Web browser, navigate to the URL for your Patient Registry system.
   The *Login* page appears.



2. In the *Username* field, type your username.
3. In the *Password* field, type your password.
4. Click the *Login* or press *Enter* key on the keyboard.

Data Privacy Statement

Once logged in, all users are required to read and agree to the terms of the Data Privacy Statement regarding all data related to services, users and patients on the site. Agreeing to the terms automatically creates a user history and audit trail of site access to comply with HIPAA requirements.

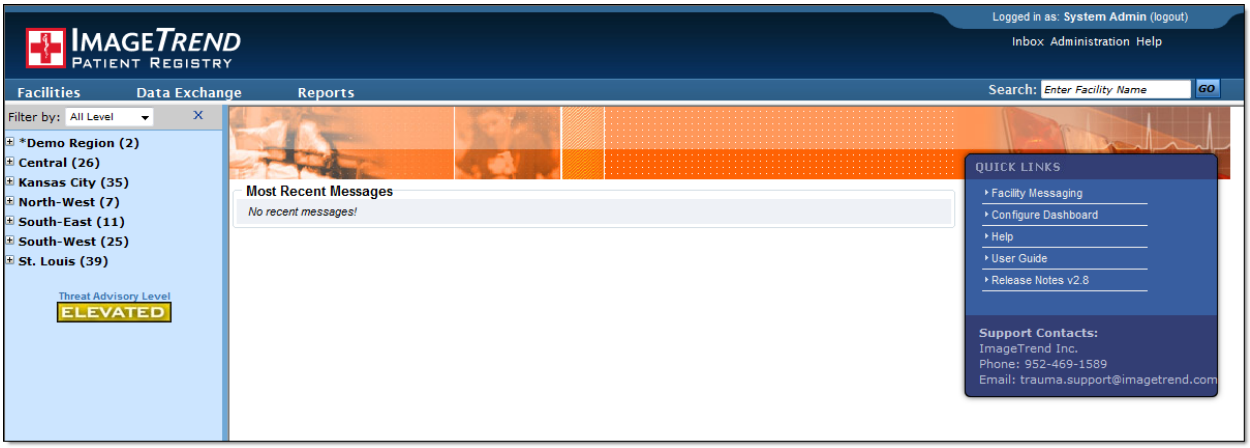
1. Click *Yes* to accept the *Data Privacy Statement.*
   You are now logged into the Patient Registry system.

1.3 The Patient Registry Environment

The Patient Registry system is a statewide trauma registry that collects and analyzes information on the incident, severity, causes and outcomes of trauma to evaluate factors and the health system's response.

The Patient Registry seamlessly integrates pre-hospital EMS incidents to the trauma facility and registry, eliminating data redundancies and ensuring patient centric data aggregation. The goal of the Patient Registry is to gather information more efficiently in order to better analyze treatment methods to reduce morbidity and mortality.

Patient Registry is a database driven web application based on Microsoft SQL Server that allows for secure access to anywhere at any time to authorized persons.



Chapter 2

IMAGETREND PATIENT REGISTRY

Working With Incidents

2.1 Chapter Overview

System users can add an incident. After adding an incident, users can enter patient information. Adding an incident keeps all of the patient's records in one location in the system.

2.2 *I want to* Drop Down Menu

The *I want to* drop down menu allows users to add new incidents and search for incidents that have already been entered. Users can search by facility, EMS runs, or EMS and facility transfers.

Enter A New Incident
This allows the user to begin a new incident.

Search EMS and Facility Transfers
This option allows you to search all of the runs by the patient's first or last name, social security number or date of birth.

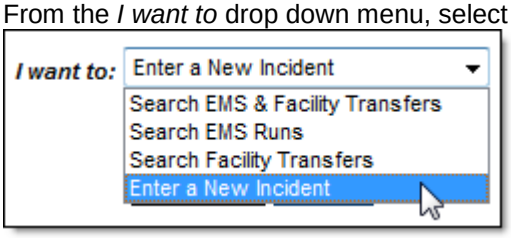
Search EMS Runs
This option allows the user to search for a patient from EMS runs that have been entered into the system.

Search Facility Transfers
This option allows you to search for patients that have been transferred to or from a facility.

2.3 Adding a New Incident

Adding an incident is the first step in entering patient information.

1. Click the *Patient Discovery* link 

.
2. From the *I want to* drop down menu, select *Enter a New Incident.*


3. Click *Submit.*
The *Incident Form Selection* page appears.

Type	Version	Description
Trauma Incident Form	1.2.0	New Revised Trauma Incident Form
Rehabilitation Incident Form	1.0	Lookup a Readmitted Patient
Burn Incident Form	1.0	New Burn Incident Form
Readmission Form	1.0	New Readmission Form
Stroke Form	1.0	
STEMI Form	1.0	

4. Select the desired form.
NOTE: Based on your individual system, you may not necessarily see all the forms pictured above.
The *Demographics* tab appears.
5. Use the provided fields to enter information about the incident and the patient.
6. When finished, click *Submit.*
WARNING: You must click *Submit* or the incident will not be saved.

7. You can now enter information into the remaining tabs.

Chapter 3

IMAGETREND PATIENT REGISTRY

Working With A Run Form

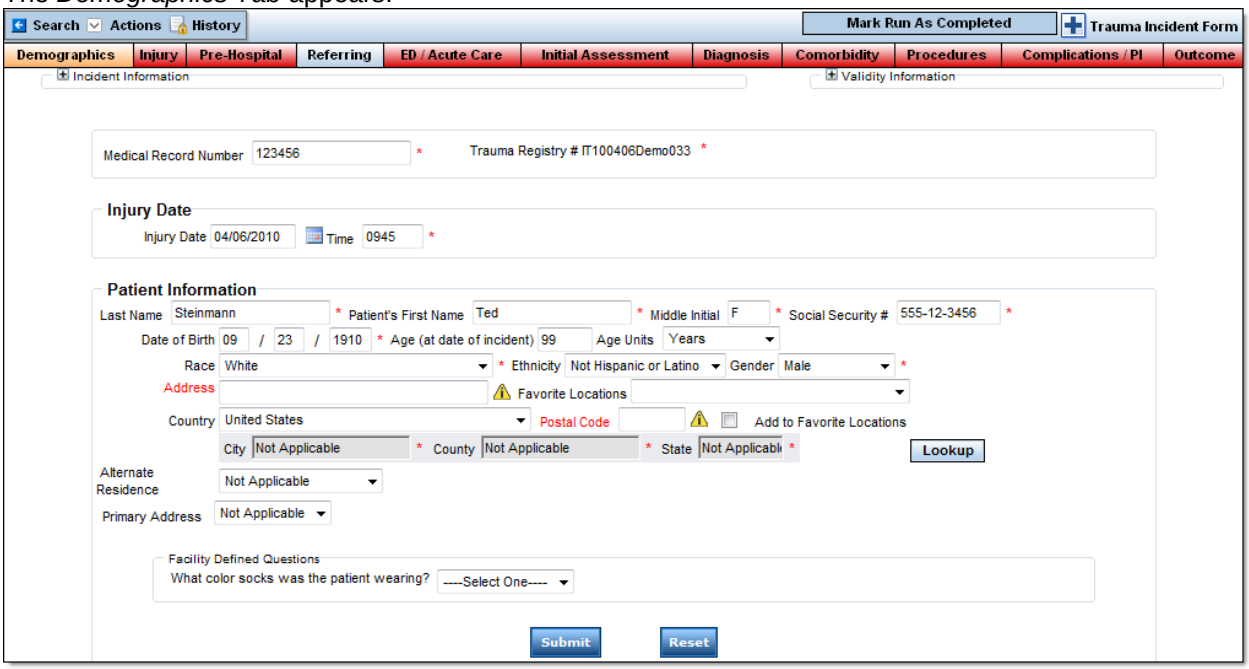
3.1 Chapter Overview

The following chapter covers working with a run form. This is where the majority of information about a patient and/or incident is entered. The run form is divided into tabs, allowing the user to enter information at a later time if necessary. As each tab is completed, the validity score of the run form increases.

3.2 The Demographics Tab

The *Demographics Tab* allows the user to enter important information about the patient such as gender, address and the date of the injury. This tab must be saved before you will be able to move to any other tabs.

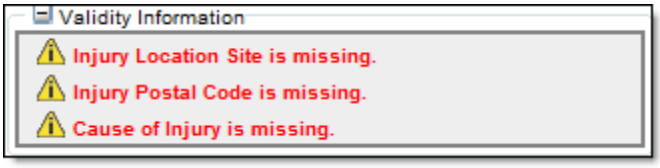
1. From the left menu, click the *Incident History* link.
2. Type any search criteria into the provided fields.
3. When finished, click *Search*.
4. Select the desired incident.
   The *Demographics Tab* appears.



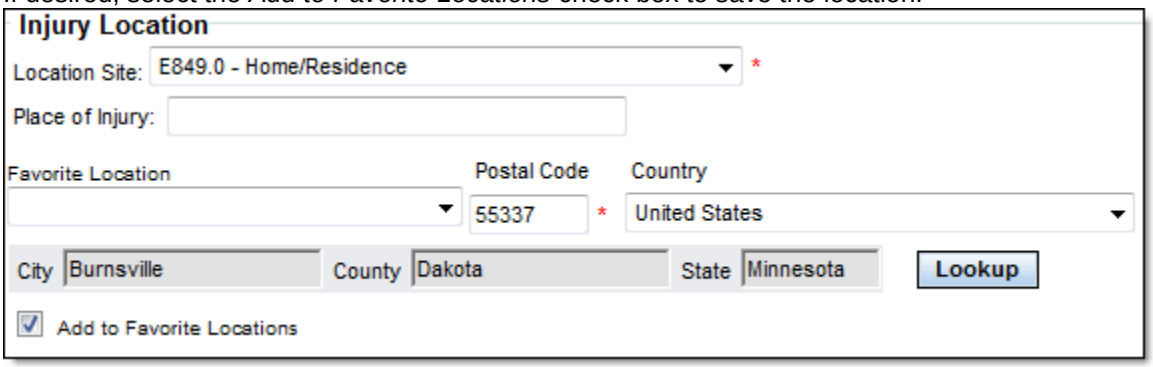
5. In the *Medical Record Number* text box type the record number.
6. In the *Injury Date* text box, type the date the injury occurred.
   OR
   Use the *Calendar* icon to select the date.
7. Type the time the injury occurred into the *Time* text box.
8. Use the provided fields to enter information about the patient.
9. When finished, click *Submit* to save the information and move to the next tab.

3.3 The Injury Tab

The *Injury Tab* allows the user to enter information about the patient's injury such as where the injury occurred and equipment used. The cause of the injury can also be entered in the form of an ICD-9 code. At any time users can check the validity score by clicking on the *Validity Information* icon.



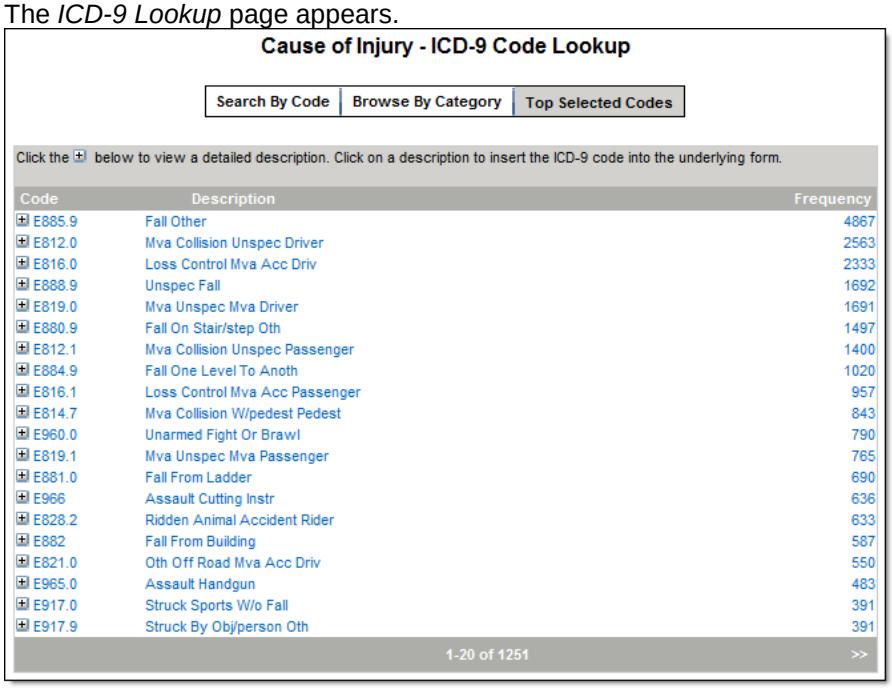
1. To enter the location in which the injury occurred, use the *Location Site* drop down menu.
2. When finished, type the place of injury in the provided text box.
3. Type the postal code into the *Postal Code* text box.
4. Use the country drop down menu to select a country.
5. The city, county and state text boxes should automatically populate based on the postal code.
6. If desired, select the *Add to Favorite Locations* check box to save the location.



Cause of Injury

The cause of injury can be entered using an ICD-9 code. Users can also enter a supplemental cause of injury.

1. If you know the ICD-9 code, type the code into the provided text box.
2. To find an ICD-9 code, click the *Lookup* button Lookup.
   The *ICD-9 Lookup* page appears.



3. Users can choose from three options to select a code.

Search By Code allows the user to search if they know part of the ICD-9 code.
Browse By Category allows the user to use drop down menus to select the code if only the injury is known.
The *Top Selected Codes* option allows user to choose the codes chosen on the most frequent basis.

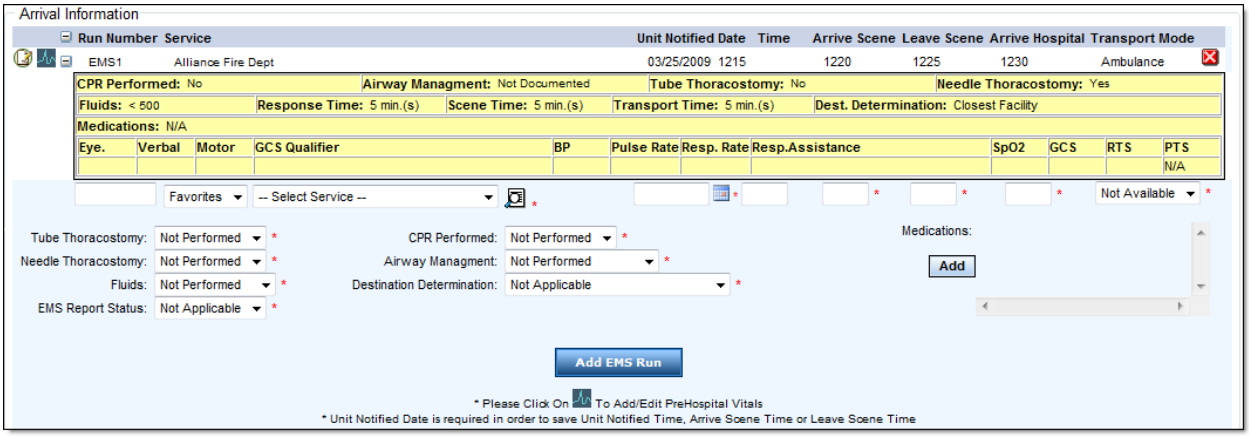
4. When finished selecting the code, click *Submit.*
   NOTE: The *Submit* button will not appear until a code is selected.
5. To add a supplemental injury, under the *Other* section, use the *Supplemental Cause of Injury* drop down menu.
6. If desired, use the *Equipment* drop down menus to enter any equipment used.
7. When finished, click *Submit* to save the information and move to the next tab.

3.4 The Pre-Hospital Tab

The pre-hospital tab allows the user to enter information about the patient before entering a hospital. Where the patient arrived from and information about the run can be entered into this tab.

1. To record where the patient arrived from, use the *Arrived From* drop down menu.
2. From the *Transported To Your Facility* drop down menu, select how the patient was transported.
3. Under the *Run Number Service* section, use the provided fields to enter information about the run.
4. When finished, click *Add EMS Run* 

The run is added.

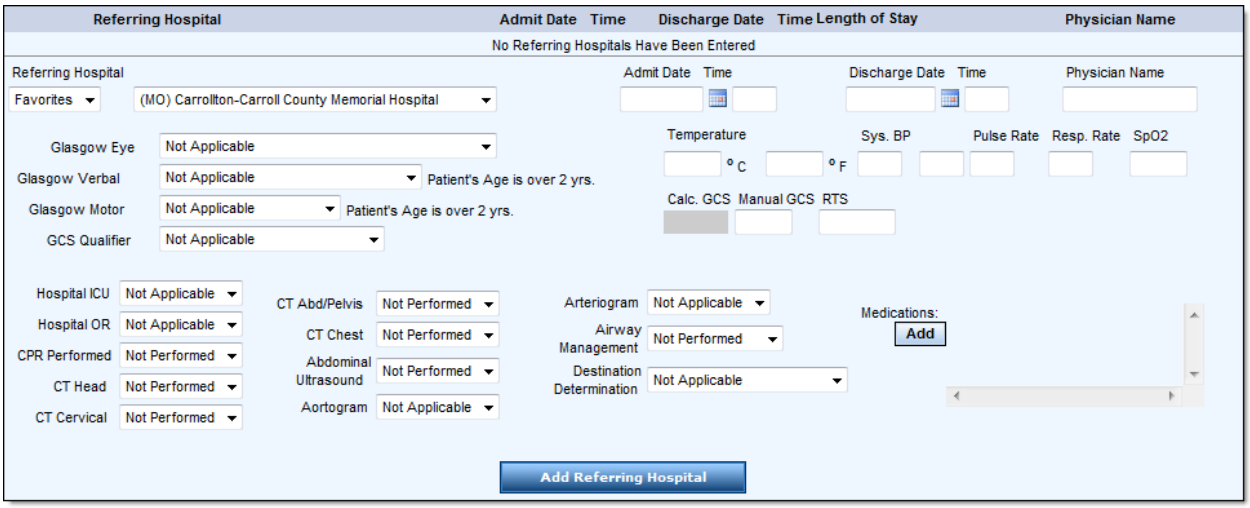


5. To add vitals, click the *Vitals* icon  .
   The *Vitals* window appears.
6. Use the provided fields to enter the information.
7. When finished, click *Add Vital Sign.*
   The vital sign is added.
8. When finished, click *Submit* to save the information and move to the next tab.

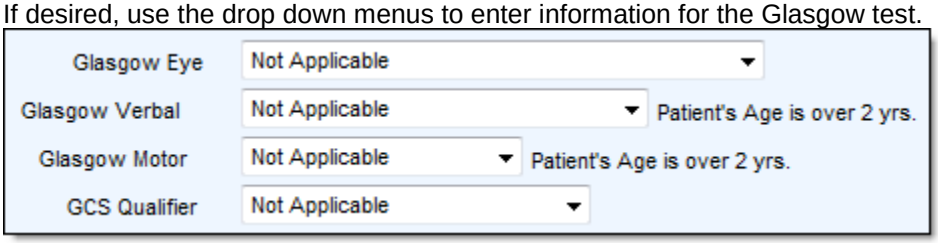
3.5 The Referring Tab

System users can add a referring facility in this tab. Vital signs and the results of other tests can be added as well.

1. To enter a referring hospital, from the *Referring Hospital* drop down menu, select the desired facility.



2. Enter the date and time of admittance in the provided fields.
3. Enter the date and time of discharge in the provided fields.
4. If desired, use the drop down menus to enter information for the Glasgow test.

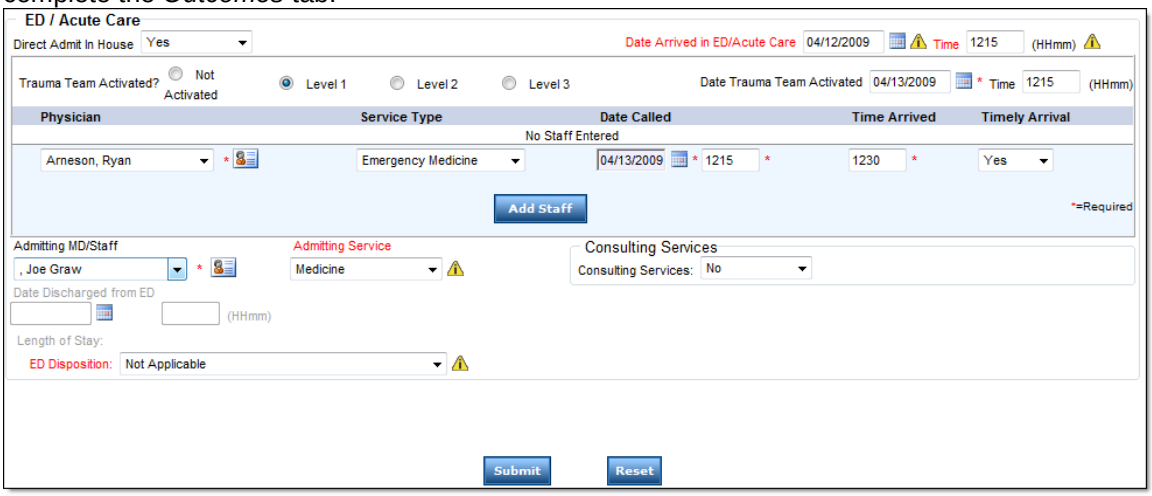


5. If desired, enter the patient's vitals.
6. Use the drop down menus to enter any important information regarding any performed medical procedures.
7. When finished, click *Add Referring Hospital.*
8. Click *Submit* to save the information and move to the next tab.

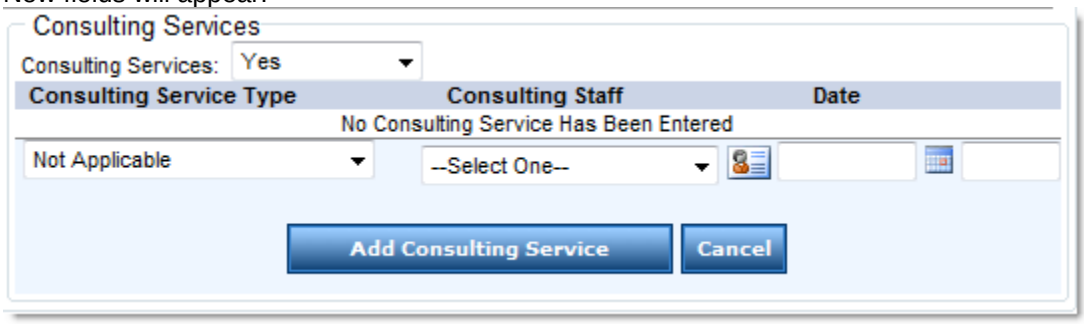
3.6 The ED/Acute Care Tab

System users can add services and staff in this tab. The length of stay for the patient, as well as the disposition can be noted here.

1. Use the provided fields to enter necessary information.
   NOTE: Fields necessary for the validity score will be in red. Those fields are also necessary to complete the *Outcomes* tab.



2. When finished click *Add Staff* to add a staff member.
3. If a consulting service was used, select *Yes* from the drop down menu.
   New fields will appear.



4. When finished, click *Add Consulting Service.*
5. Click *Submit* to save the information and move to the next tab.

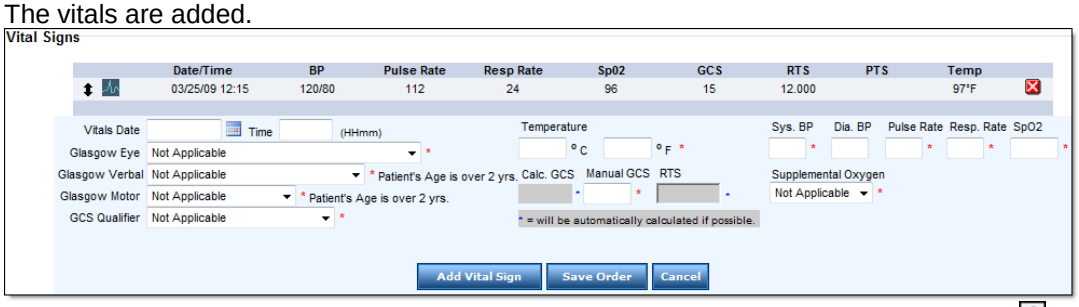
3.7 The Initial Assessment Tab

System users can use the *Initial Assessments* tab to enter information about the patient such as vitals, prescriptions and the results of tests taken. Entering vitals in this section will allow injury severity and probability of survival scores to be calculated in the *Diagnosis* tab.

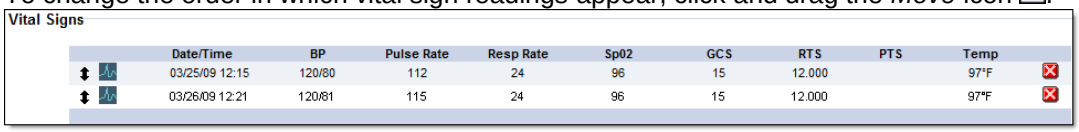
Vital Signs

System users can add vital signs and can complete the Glasgow test under this tab. Multiple vital signs can be taken, and the order can be changed if necessary. A red asterisk indicates a required field while a blue asterisk indicates a field that will be filled in automatically if possible.

1. To enter vitals, use the provided fields to fill in necessary information.
2. When finished, click *Add Vital Sign.*
   The vitals are added.



3. To change the order in which vital sign readings appear, click and drag the *Move* icon.



4. To save the order of the vital signs, click *Save Order.*

Rx, CT and Lab

Users can enter details of the patient's initial treatment. The red asterisk indicates which fields are required for the validity score.

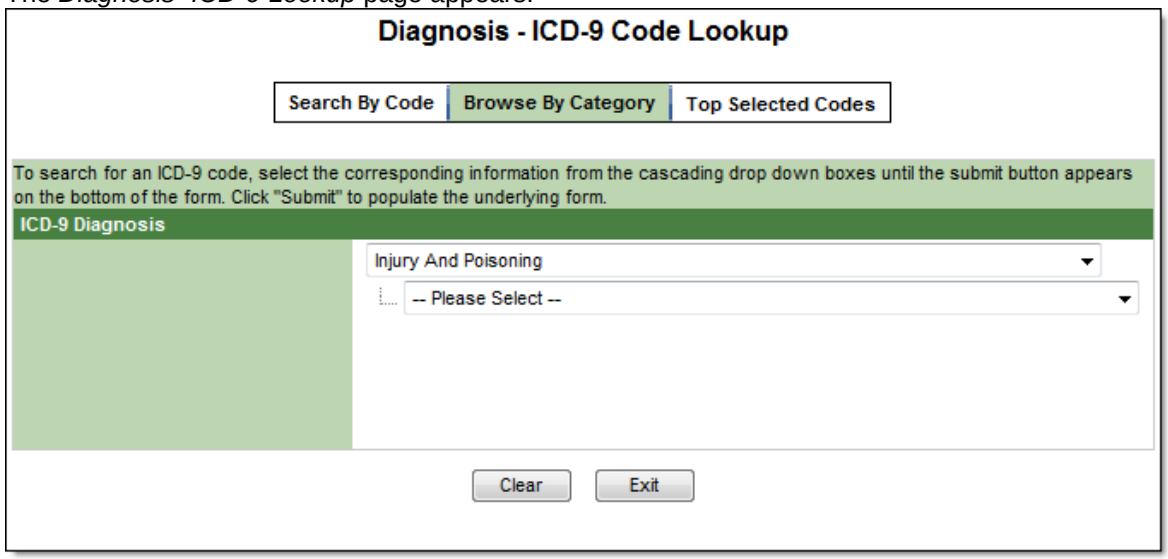
1. Enter information into the provided fields.
2. When finished, click *Submit* to complete the tab.
   To reset the form, click *Reset.*

3.8 The Diagnosis Tab

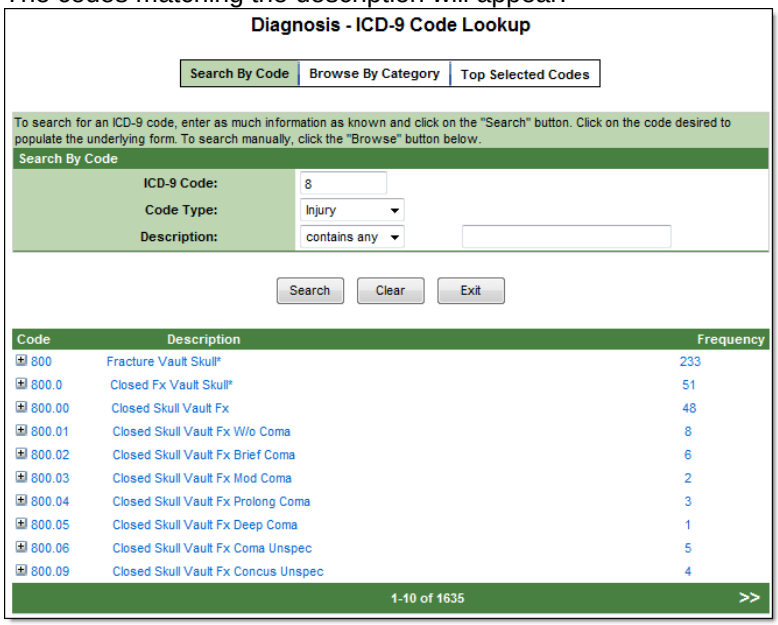
In the *Diagnosis Tab,* users can enter a diagnosis for the patient via ICD-9 score, along with the corresponding AIS score. The *Injury Severity Score* calculates the injuries and calculates a probability of survival based on the severity score.

ICD-9 Scores

1. To enter the ICD-9 code, if the code is known type the code into the text box.
2. If the code is not known, click the *ICD9 Lookup* button ICD9 Lookup.
   The *Diagnosis- ICD-9 Lookup* page appears.

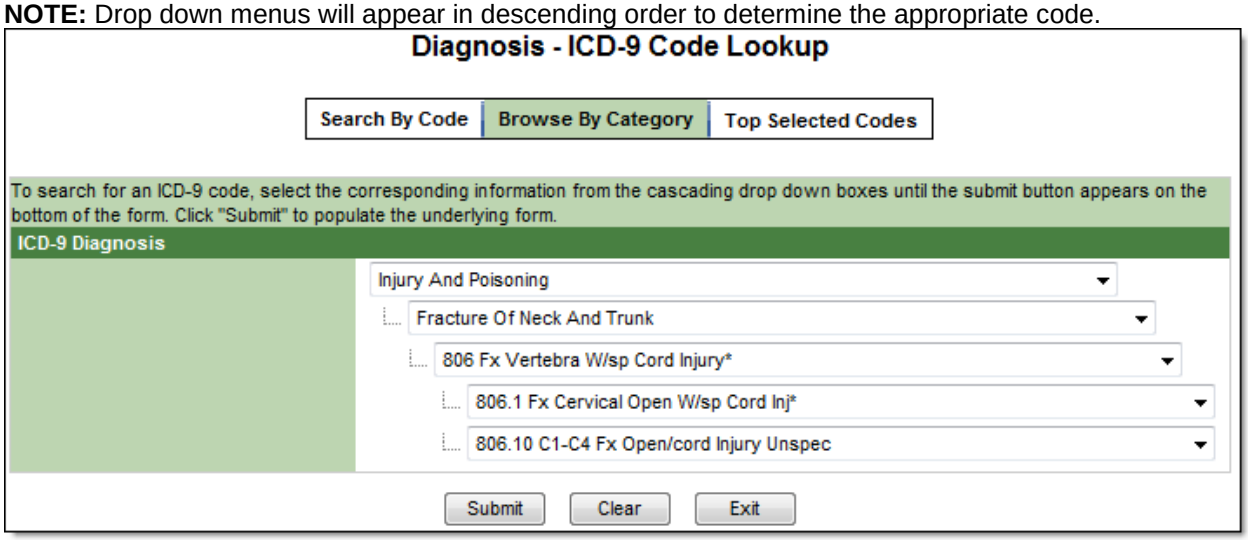


3. If part of the code is known, click the *Search By Code* toolbar.
   A. Type information into the provided fields.
   B. When finished, click the *Search* button.
      The codes matching the description will appear.

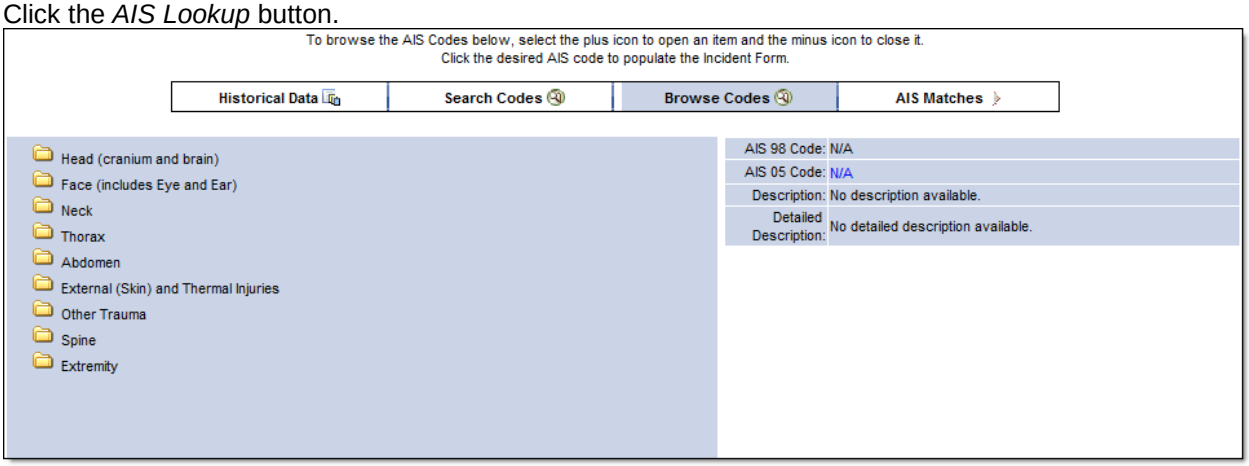


   C. Select the desired code.

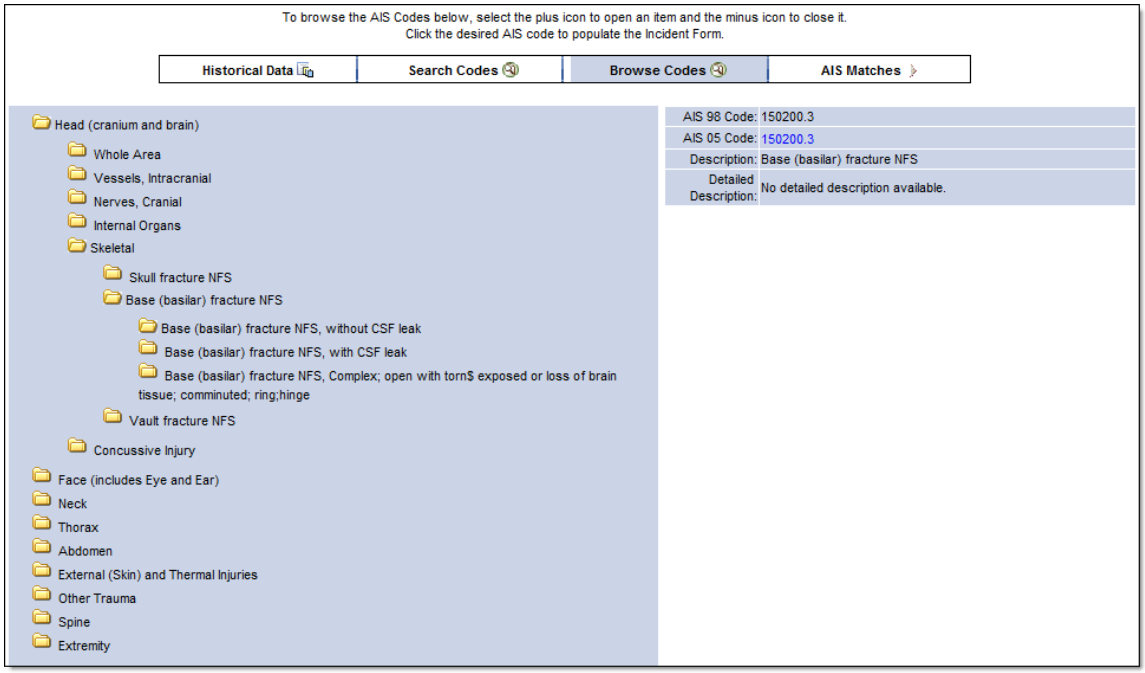
4. To browse categories of codes, select the *Browse By Category* toolbar.
   A. Use the drop down menus to select a code.
   NOTE: Drop down menus will appear in descending order to determine the appropriate code.



   B. When finished, click *Submit.*
5. To choose a code from codes used most frequently, click the *Top Selected Codes* toolbar.
   A. Choose the desired code.
6. When the code is selected, you can now add the AIS match.
   NOTE: An AIS code may appear, but it is the most frequently chosen code to match the ICD-9 code and may not be appropriate.
7. Click the *AIS Lookup* button.



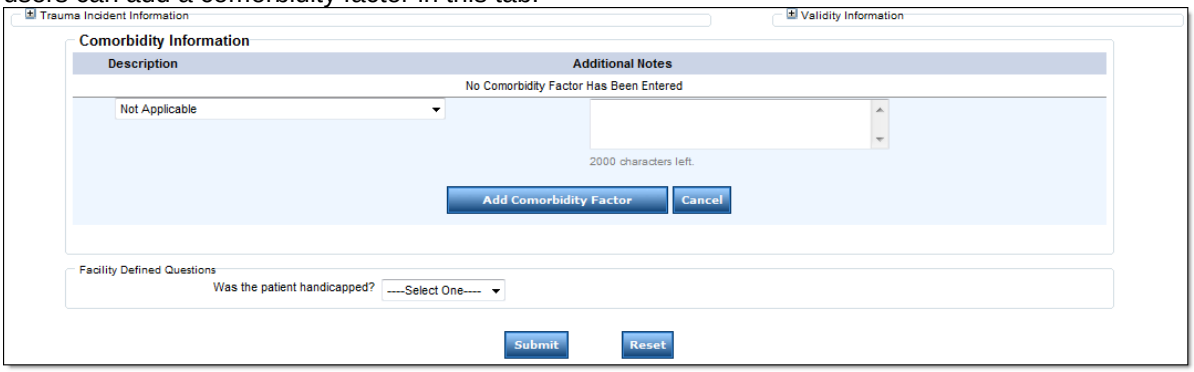
8. To choose a code that was recently used, click the *Historical Data* toolbar.
   A. Select the desired code.
9. To search for a code, click the *Search Codes* toolbar.
   A. Enter information into the text boxes.
   B. When finished, click *Search.*
   The results of the search appear.
   C. Select the appropriate code.
10. To find a code by body region, click *Browse Codes.*
    A. Select the body region to find the desired code.
    NOTE: The codes will get more specific as each region of the body is clicked on.
    B. Select desired code by clicking on the blue link on the right side.



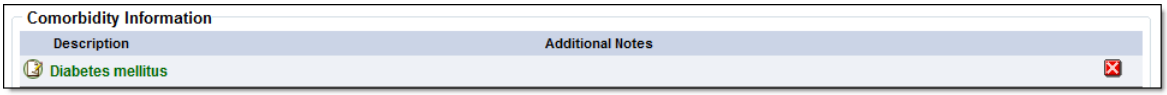
11. When a code is selected, click *Add Diagnosis.*
    The diagnosis is added.
    The *Injury Severity Score* and *Probability of Survival* are now calculated.
    NOTE: The *Probability of Survival* score will not appear if the patient's age, vitals and injury are entered.
12. If the score can also be entered manually.
13. When finished, click the *Submit* button to save the information and move to the next tab.

3.9 The Comorbidity Tab

System users can add a comorbidity factor in this tab.



1. To add a comorbidity factor, use the drop down menu to select the factor.
2. If desired, type a description into the provided text box.
3. When finished, click *Add Comorbidity Factor.*
   The factor is added.



4. Click *Submit* to save the information and go to the next tab.

3.10 The Procedures Tab

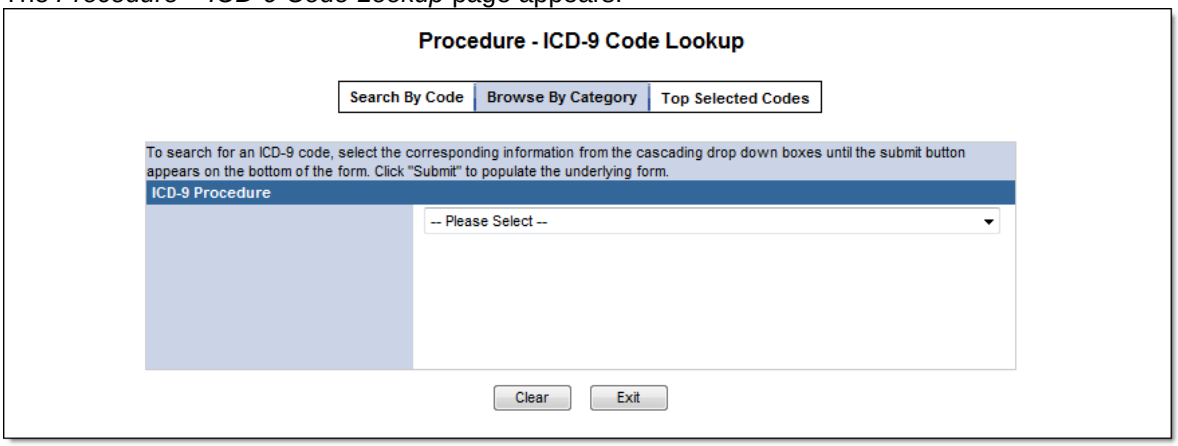
System users can add procedures that the patient received in the *Procedures* tab. Procedures are added by ICD-9 code.

1. If a procedure has been performed use the *Procedures Performed* drop down menu to select the desired response.

ICD-9 Codes

Procedures are entered by an ICD-9 code. Patient Registry features three ways to find the appropriate code.

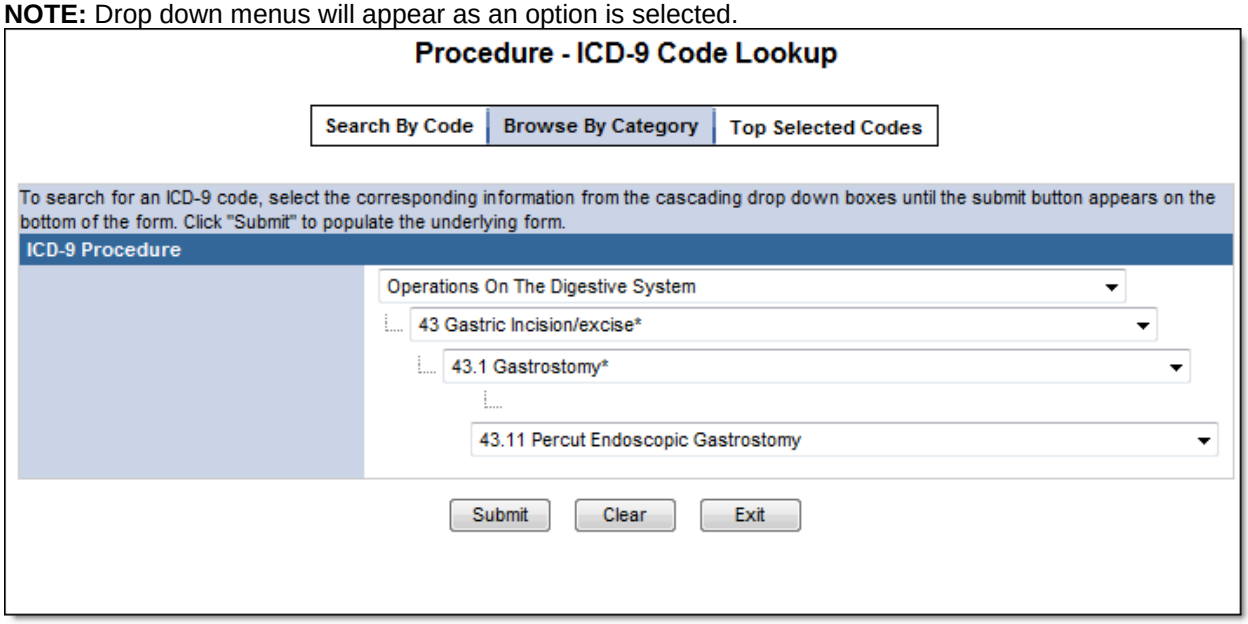
1. If the code is known, type it into the provided text box.
2. To search for the code, click *Lookup.*
   The *Procedure – ICD-9 Code Lookup* page appears.



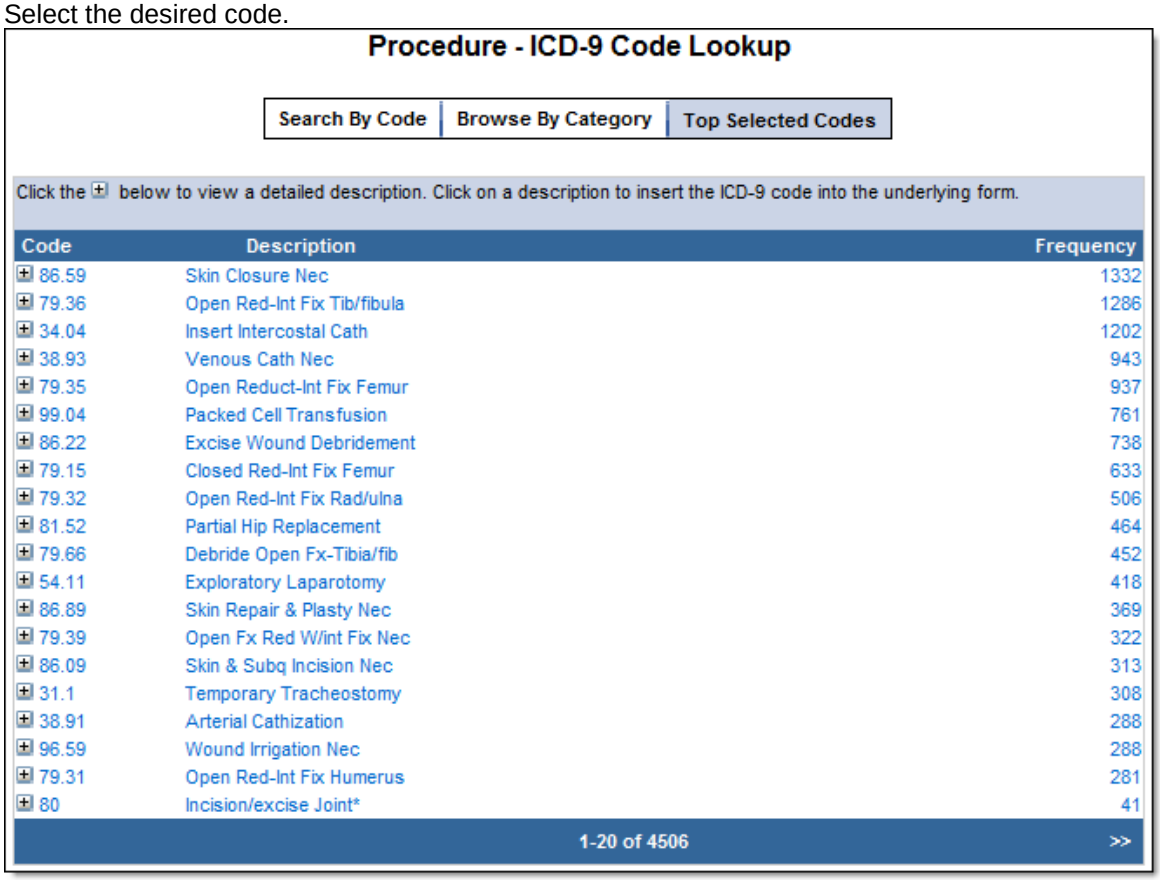
3. If part of the code is known, click the *Search By Code* toolbar.
   A. Type the partial code in the *ICD-9 Code* text box.
   B. If desired, enter a description.
   C. Click *Search.*
      The code appears.

   D. Click the desired code.

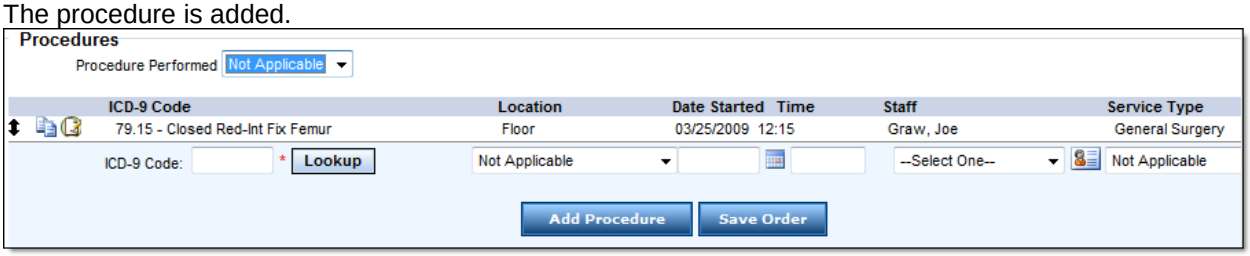
4. To browse through codes, click the *Browse By Category* toolbar.
   A. Use the drop down menus to select the desired code.
   NOTE: Drop down menus will appear as an option is selected.



   B. When finished, click *Submit.*
5. To choose the code that is used most frequently, click the *Top Selected Codes* toolbar.
   A. Select the desired code.



6. When the procedure code is added, use the provided fields to enter a location, date and any staff members.
7. When finished, click *Add Procedure.*
   The procedure is added.

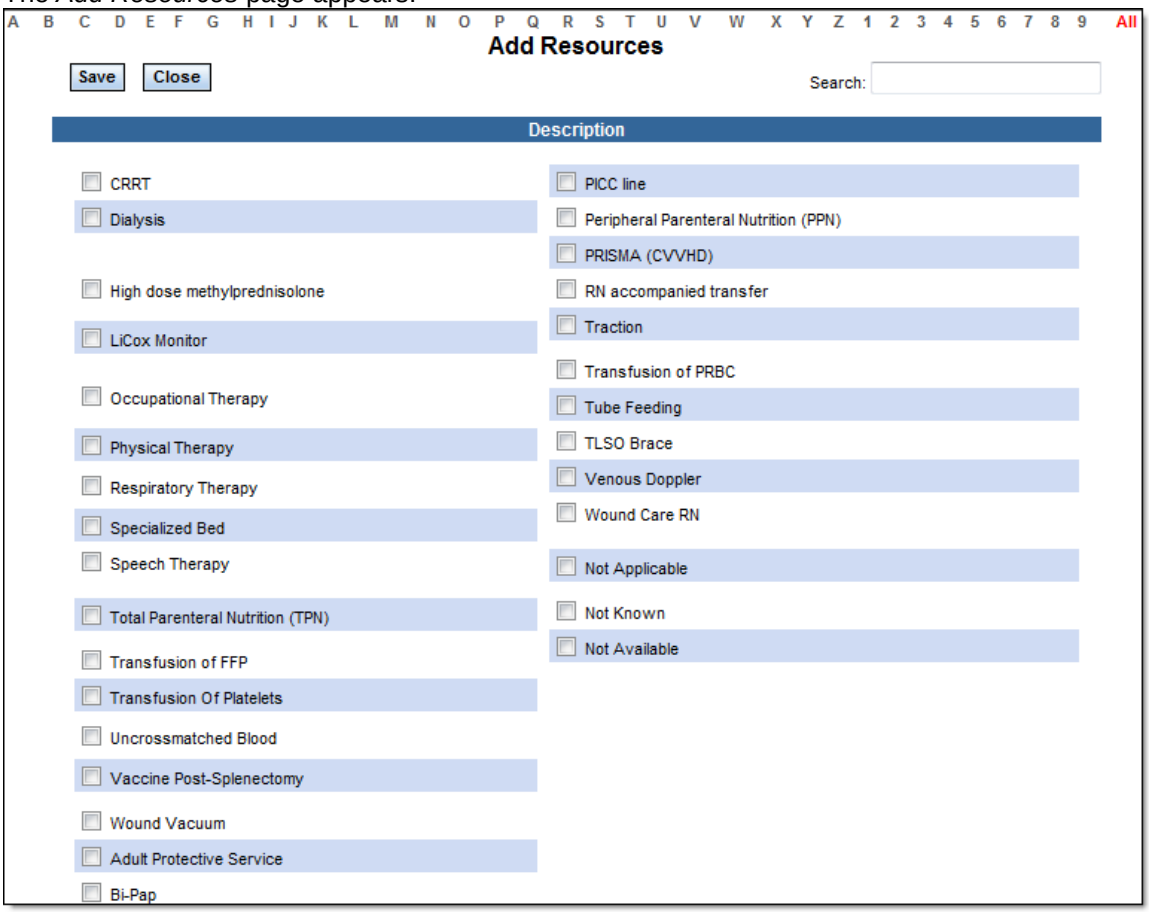


Adding a Resource

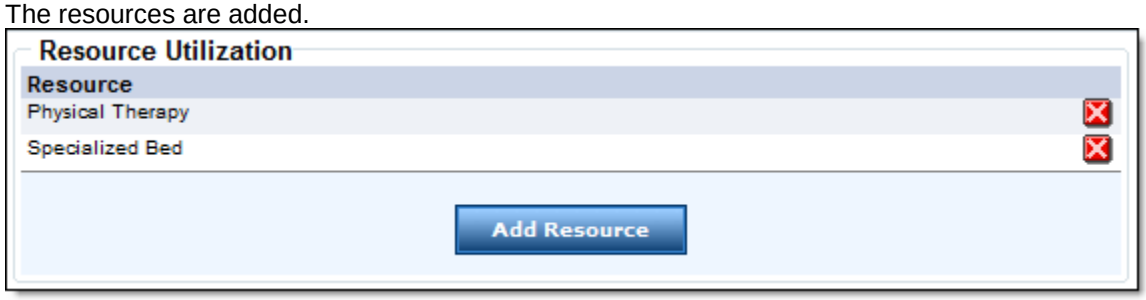
In the *Procedures* tab, system users can add resources. This allows users to see what resources were used in the procedures performed, also located in the *Procedures* tab.

1. Under *Resource Utilization,* click *Add Resource.*

The *Add Resources* page appears.



2. Check the desired resources.
3. When finished, click *Save.*
   The resources are added.



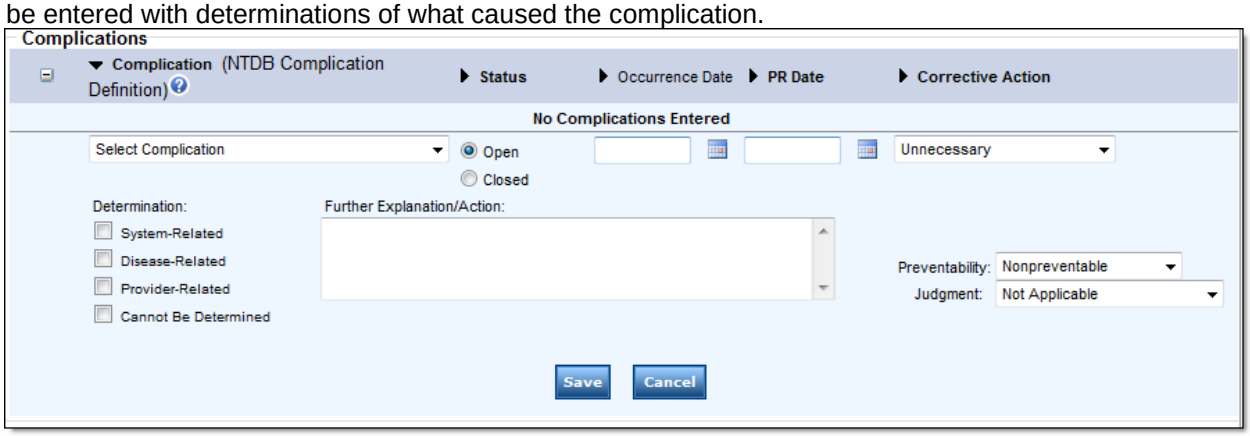
4. When finished, click *Submit* to save the information and move to the next tab.

3.11 The Complications and PI Tab

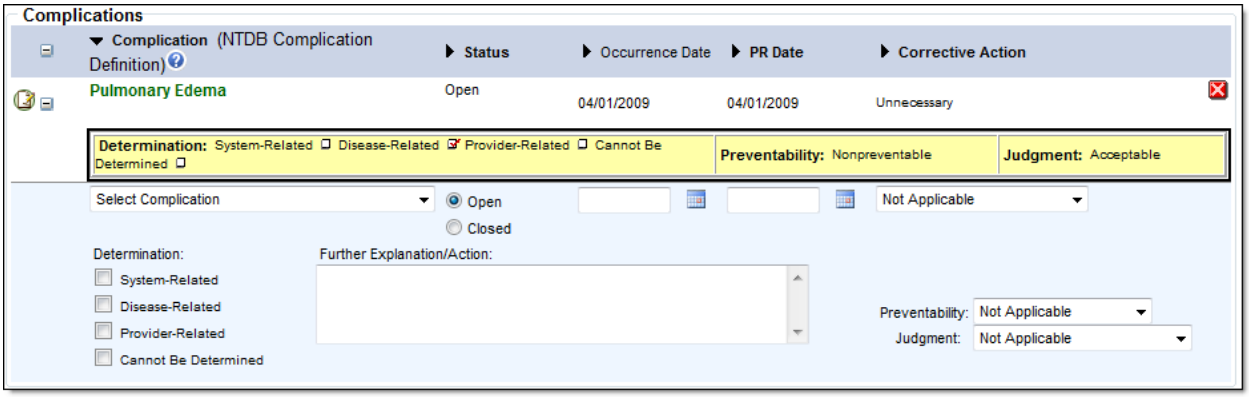
The *Complications and Performance Improvement* tab allows a user with proper permissions to add any patient complications, as well as an audit to improve staff and system performance.

Complications

System users can enter any complications the patient experienced in this section. Multiple complications can be entered with determinations of what caused the complication.



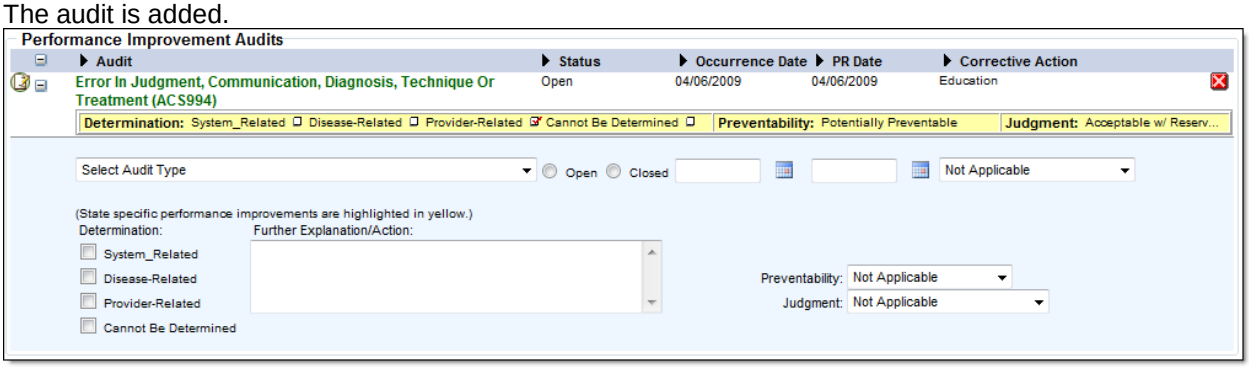
1. To select the complication, select the complication from the *Select Complication* drop down menu.
2. Enter the date and time of the complication in the provided fields.
3. If action was taken, select the action from the *Corrective Action* drop down menu.
4. Under the *Determination* section, select the checkbox of the desired determination.
5. If desired, type a narrative into the *Further Explanation/Action* text box.
6. Use the *Preventability* and *Judgment* drop down menus to select appropriate responses.
7. When finished, click *Add Complication.*
   The complication is added.



Performance Improvement Audits

With the proper permissions, the user can enter a performance improvement audit in the *Complications and PI* tab.

1. Use the drop down menu to select the type of audit.
2. Select if the audit is open or closed.
3. Enter the Occurrence and PR dates of the audit in the provided fields.
4. If action was taken, select the action from the *Corrective Action* drop down menu.
5. Under the *Determination* section, select the checkbox of the desired determination.
6. If desired, type a narrative into the *Further Explanation/Action* text box.
7. Use the *Preventability* and *Judgment* drop down menus to select appropriate responses.
8. When finished, click *Add Audit.*
   The audit is added.

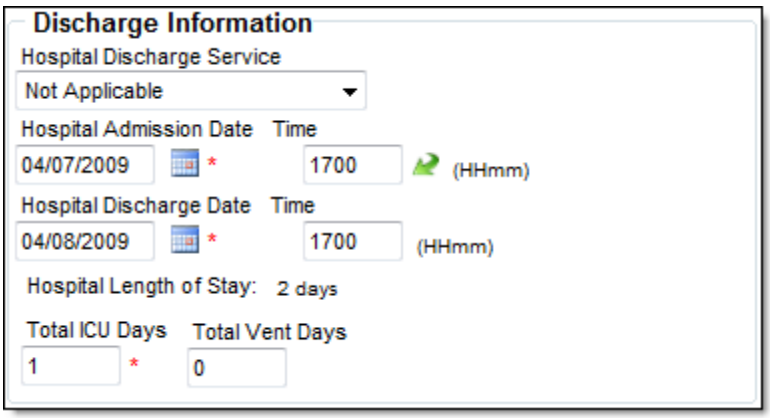


9. When finished, click *Submit* to save the information and move to the next tab.

3.12 The Outcomes Tab

The *Outcomes* tab allows the system user to enter any discharge and financial information. The user can also enter any information about a disability or a disposition.

1. From the *Discharge Information* section, select a hospital discharge service from the drop down menu.
2. To enter the date the patient was admitted, click the green arrow.
   NOTE: This will only appear if the admission date was added in the *ED/Acute Care* tab, and if the patient was admitted to the hospital.
3. Use the provided fields to enter the hospital discharge date.
   NOTE: The *Hospital Length of Stay* will populate.
4. Enter the total number of ICU and Vent days.

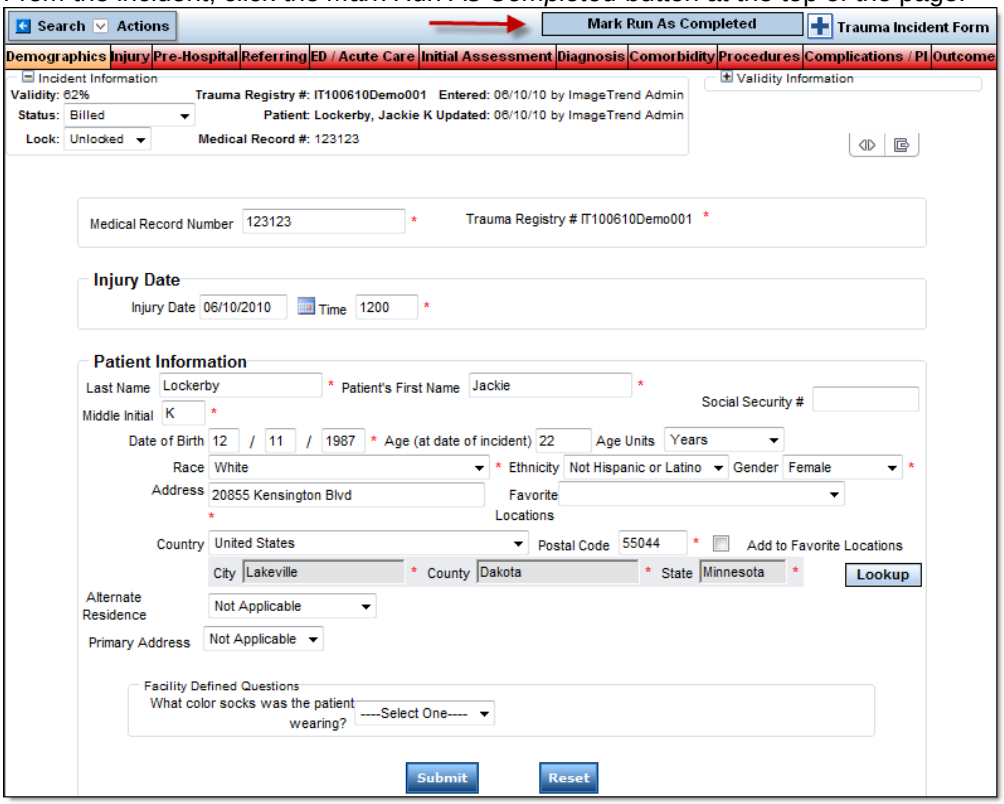


5. Use the drop down menus to enter financial information.
   NOTE: If the incident is work related, more drop down menus will appear.
6. Use the drop down menus to enter any disabilities the patient had at the time of discharge.
7. Use the drop down menus to enter a disposition.
8. When finished, click *Submit* to finish the tab.

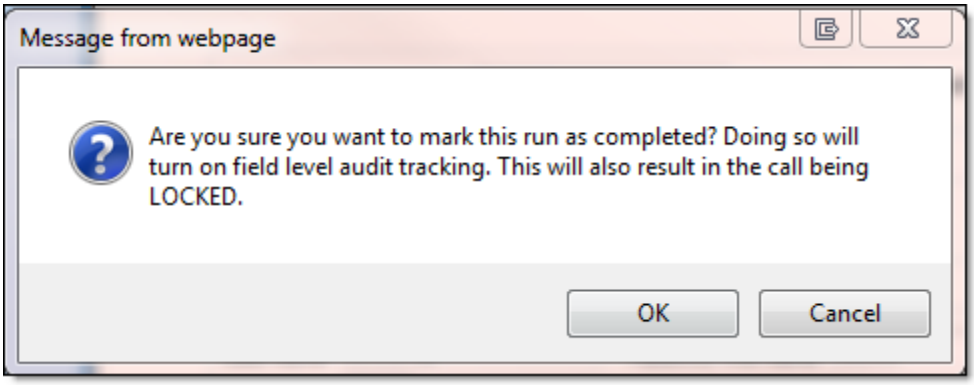
3.13 Marking a Run as Completed

Once a user has finished entering all of the information on a particular incident, the user can mark the incident as completed. This will lock the incident and create an audit trail.

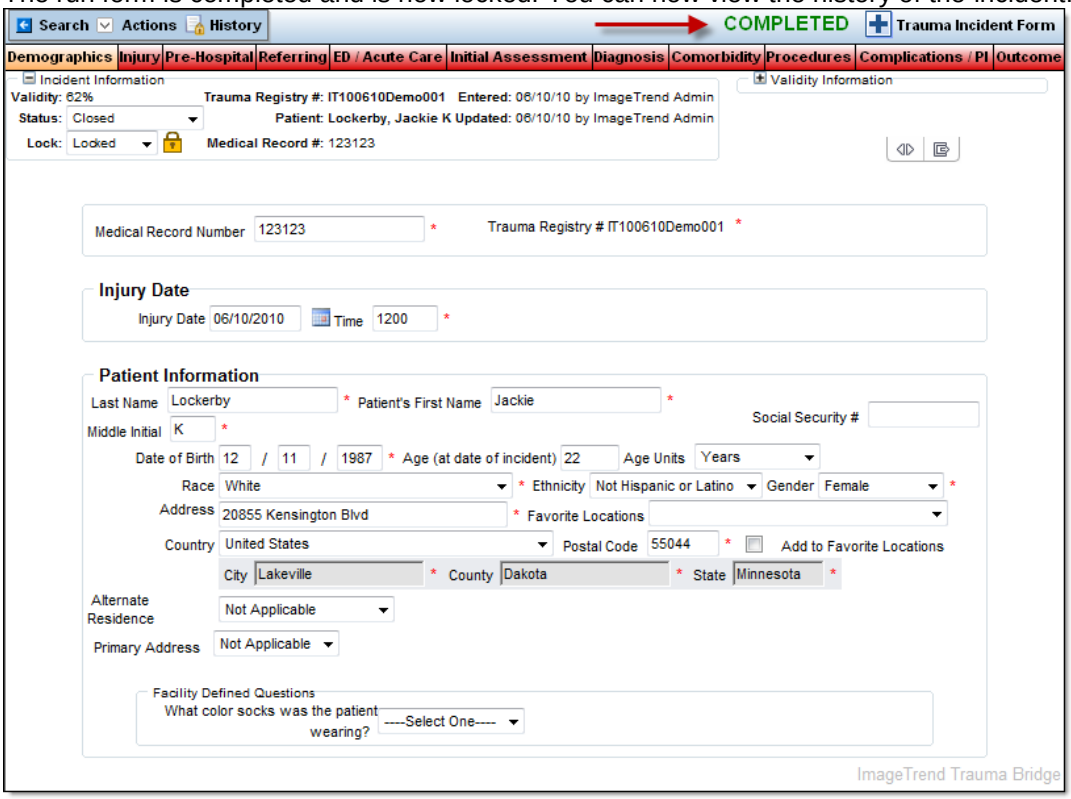
1. From the incident, click the *Mark Run As Completed* button at the top of the page.



A prompt will appear.



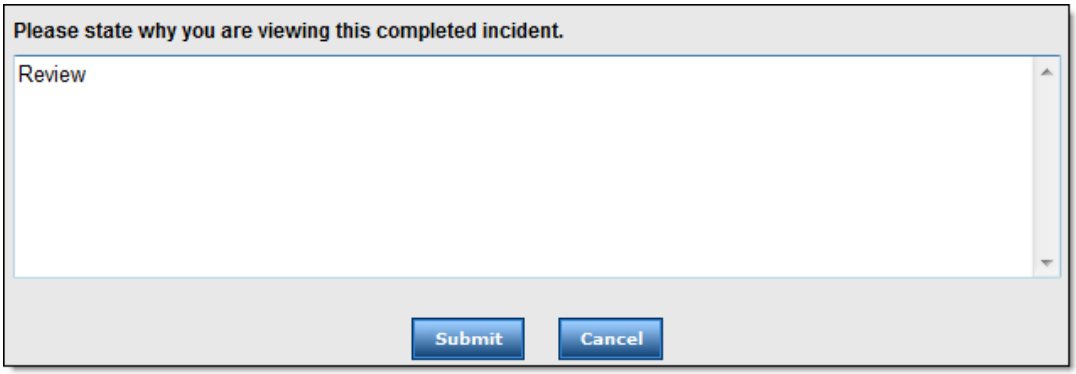
2. Click *OK.*
The run form is completed and is now locked. You can now view the history of the incident.



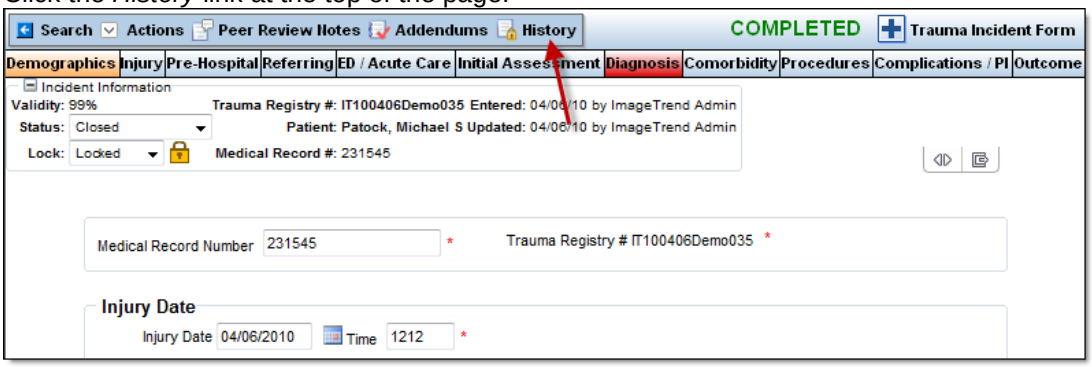
Viewing a Run's History

Once an incident is locked, the user can view the history of the incident, including any changes and who those changes were made by.

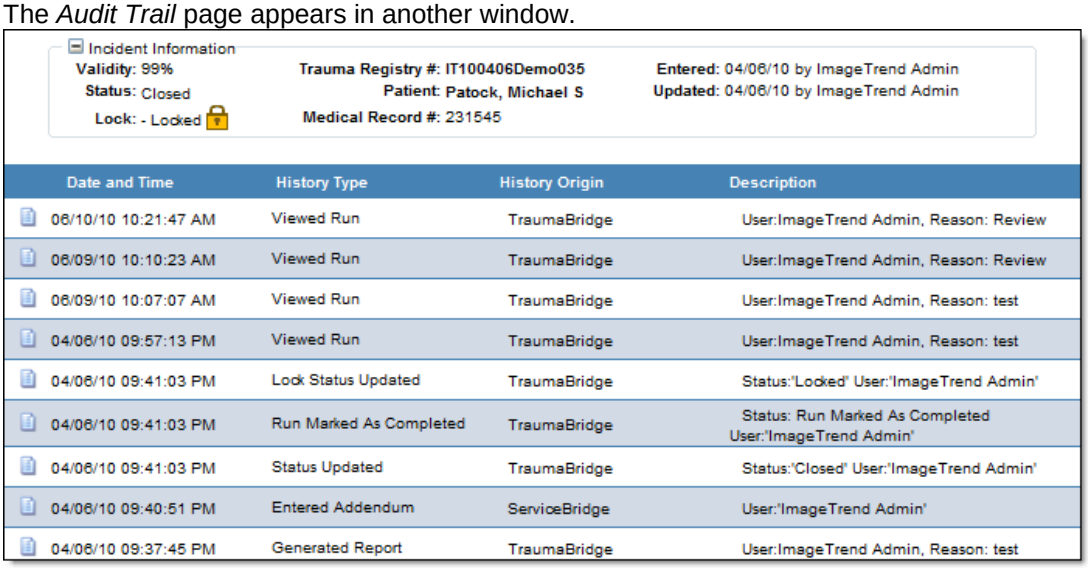
1. Click on the desired incident.
2. Enter a reason for viewing the incident.



3. When finished, click *Submit.*
4. Click the *History* link at the top of the page.



The *Audit Trail* page appears in another window.



Date and Time	History Type	History Origin	Description
06/10/10 10:21:47 AM	Viewed Run	TraumaBridge	User:ImageTrend Admin, Reason: Review
06/09/10 10:10:23 AM	Viewed Run	TraumaBridge	User:ImageTrend Admin, Reason: Review
06/09/10 10:07:07 AM	Viewed Run	TraumaBridge	User:ImageTrend Admin, Reason: test
04/06/10 09:57:13 PM	Viewed Run	TraumaBridge	User:ImageTrend Admin, Reason: test
04/06/10 09:41:03 PM	Lock Status Updated	TraumaBridge	Status:'Locked' User:'ImageTrend Admin'
04/06/10 09:41:03 PM	Run Marked As Completed	TraumaBridge	Status: Run Marked As Completed User:'ImageTrend Admin'
04/06/10 09:41:03 PM	Status Updated	TraumaBridge	Status:'Closed' User:'ImageTrend Admin'
04/06/10 09:40:51 PM	Entered Addendum	ServiceBridge	User:'ImageTrend Admin'
04/06/10 09:37:45 PM	Generated Report	TraumaBridge	User:ImageTrend Admin, Reason: test

Chapter 4

IMAGETREND PATIENT REGISTRY

Working With Users and Staff Members

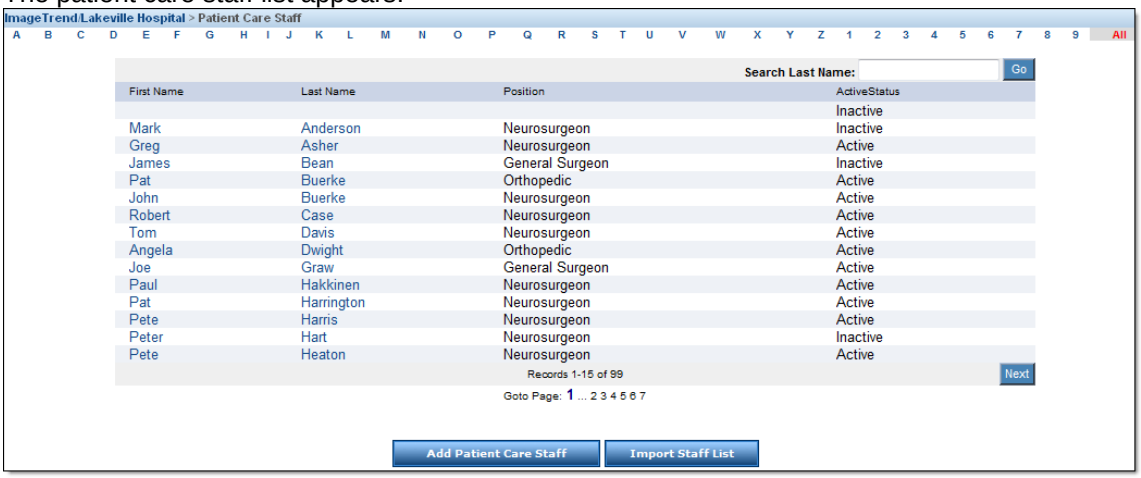
4.1 Chapter Overview

This chapter focuses on users and patient care staff members. Each can be added to the system. Registry users are individuals that use the Patient Registry system while Patient Care Staff Members are doctors, nurses and other staff members that will typically not have access to the Patient Registry system.

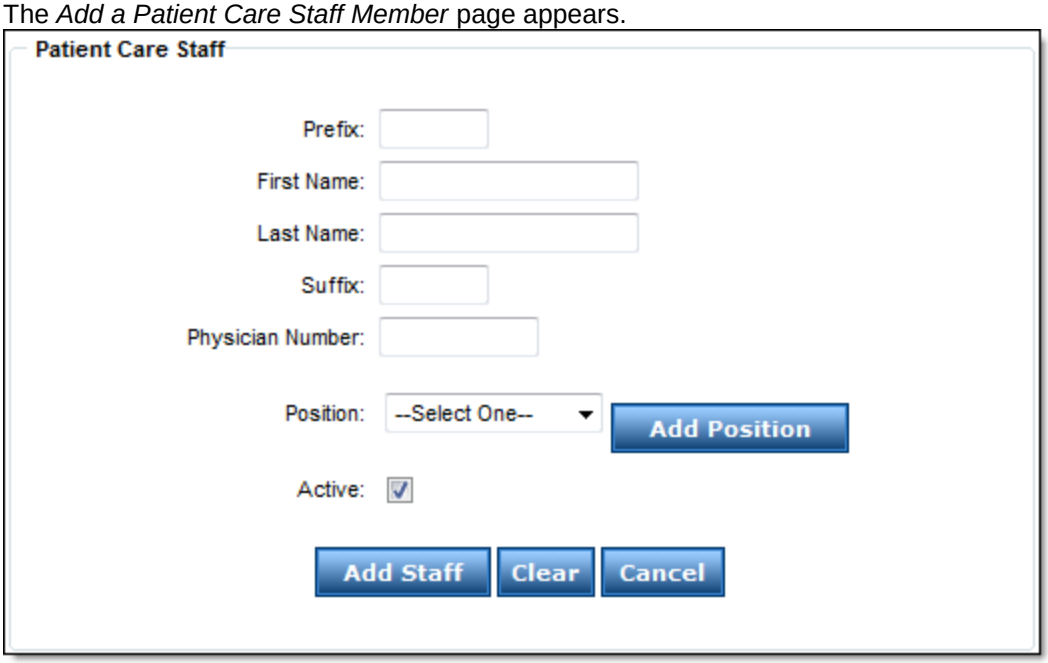
4.2 Adding A Staff Member

System users with the proper permissions can add a patient care staff member to the system.

1. From the left menu, select *Patient Care Staff.*
   The patient care staff list appears.



2. Click the *Add Patient Care Staff* button.
   The *Add a Patient Care Staff Member* page appears.

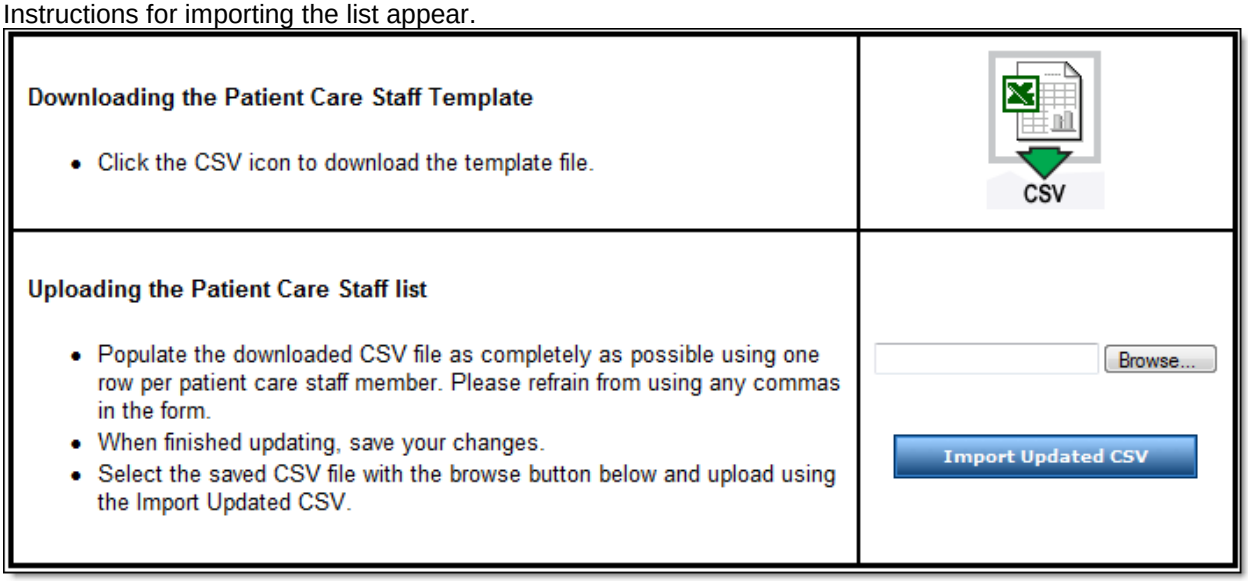


3. Use the provided fields to fill out necessary information.
4. When finished, click *Add Staff.*
   The staff member is added.

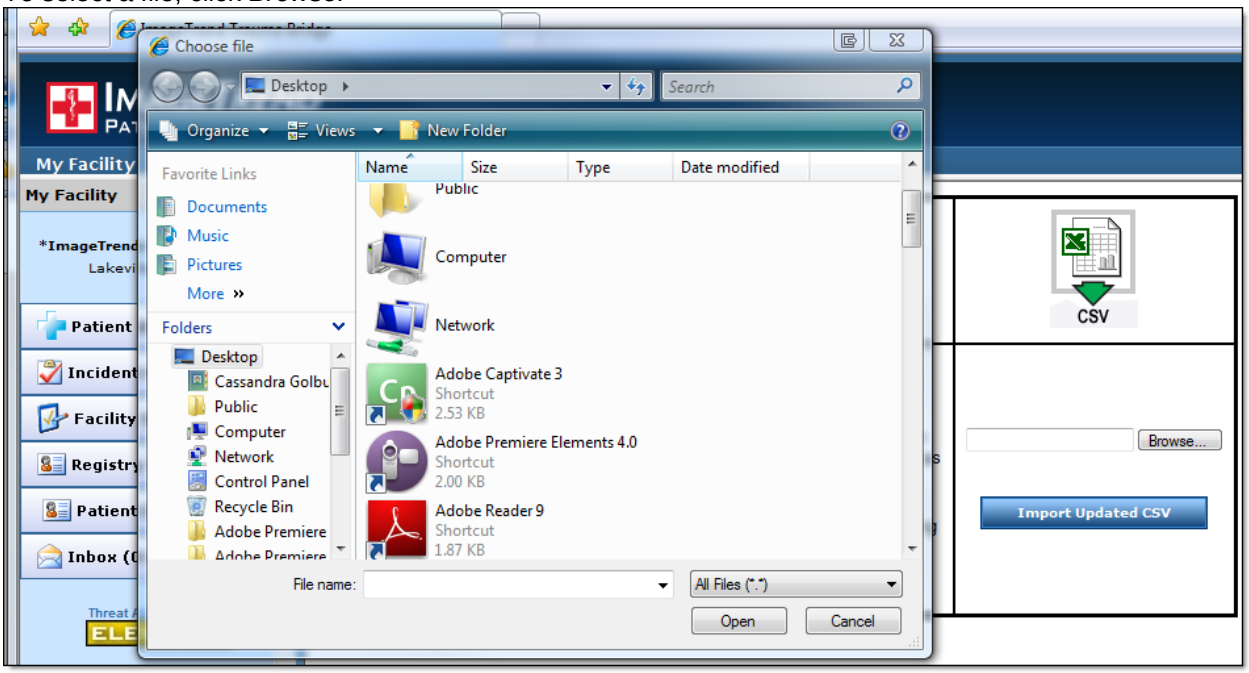
4.3 Importing a Staff List

System users with the proper permissions can import a staff list in the form of an CSV file. This saves the user time by eliminating the need to add a staff member one by one.

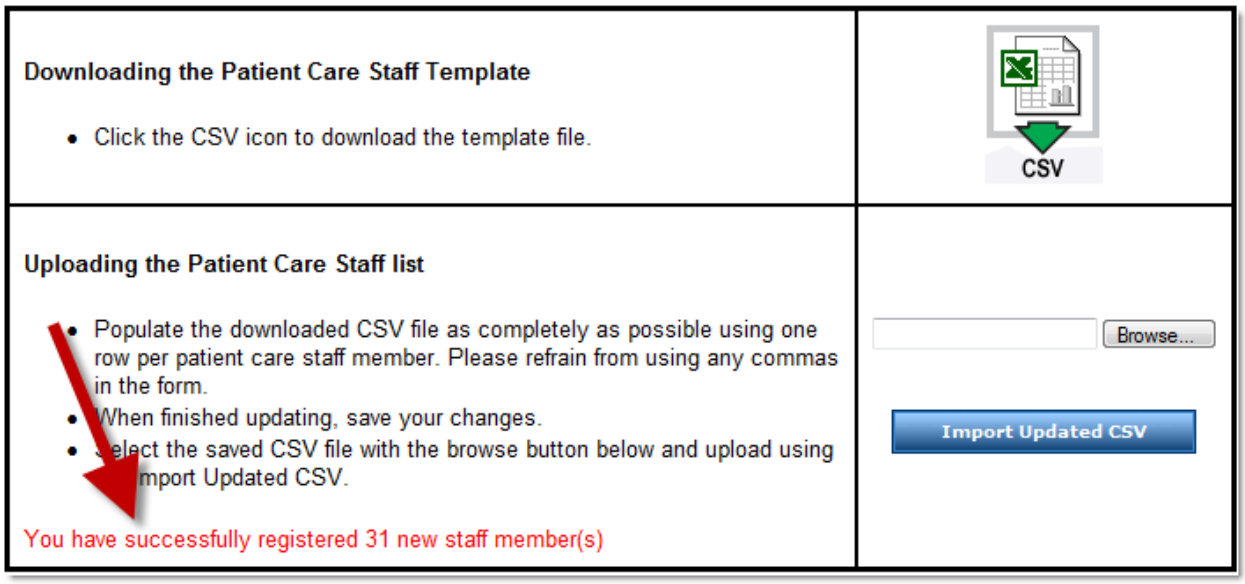
1. From the left menu, select *Patient Care Staff.*
   The patient care staff list appears.
2. Click *Import Staff List.*
   Instructions for importing the list appear.



3. To select a file, click *Browse.*



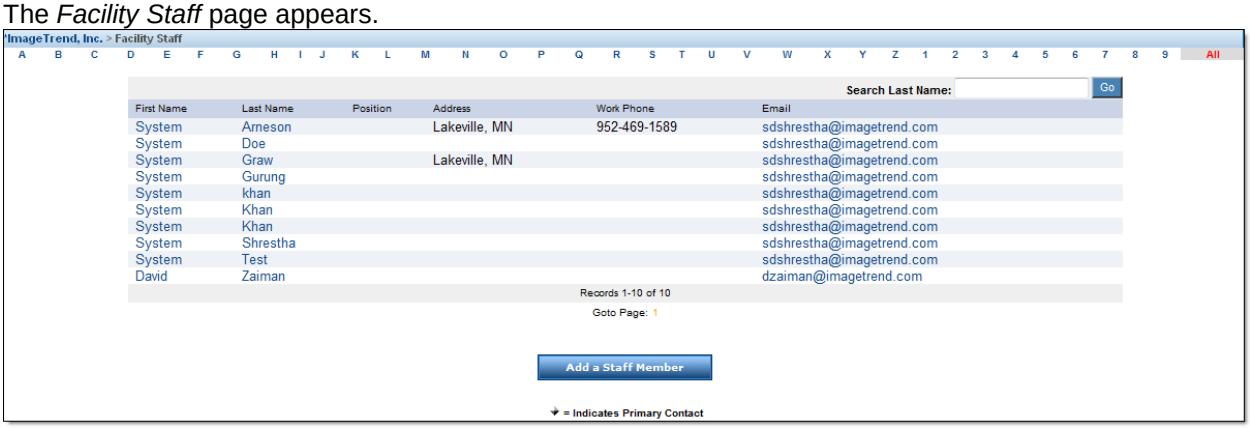
4. Select the desired file.
5. When finished, click *Import Updated CSV.*
   The list is imported.



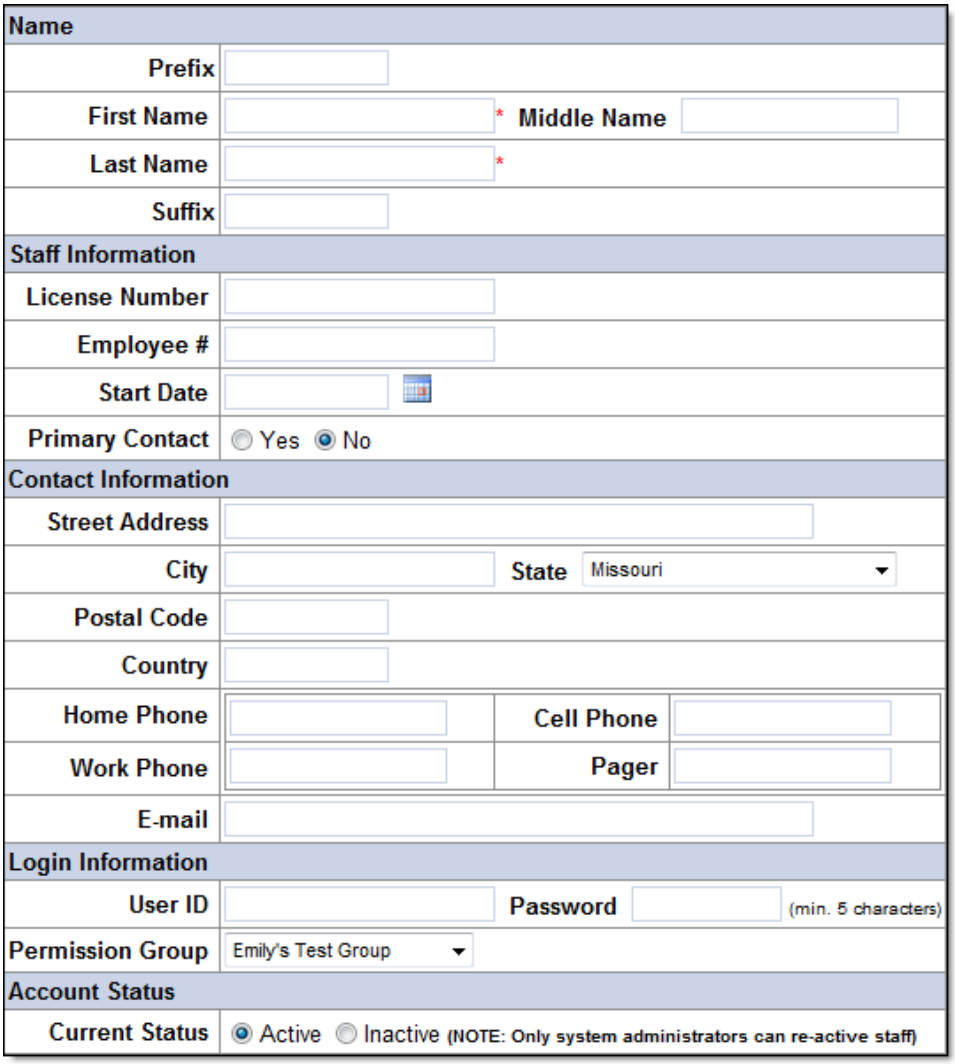
4.4 Entering A Registry User

Users with the proper permissions can add registry users to the Patient Registry system.

1. Once logged into the Patient Registry system, from the left menu, click *Registry Users.*
   The *Facility Staff* page appears.

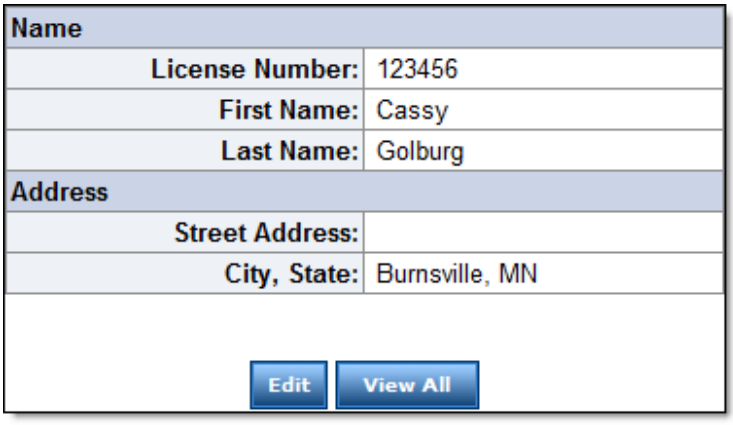


2. Click *Add a Staff Member.*
   The *Edit Staff Info* page appears.



3. Fill in the necessary information.
4. When finished, click *OK*.

The user is added.



Chapter 5

IMAGETREND PATIENT REGISTRY

The Actions Menu

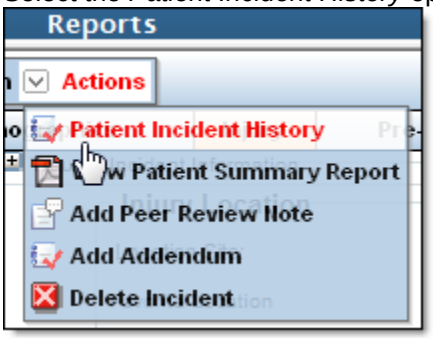
5.1 Chapter Overview

The Actions menu can be accessed within an incident. This chapter details how to create patient summary reports as well as add addendums. These features can be accessed at any time, but are most beneficial once the run form has been completed.

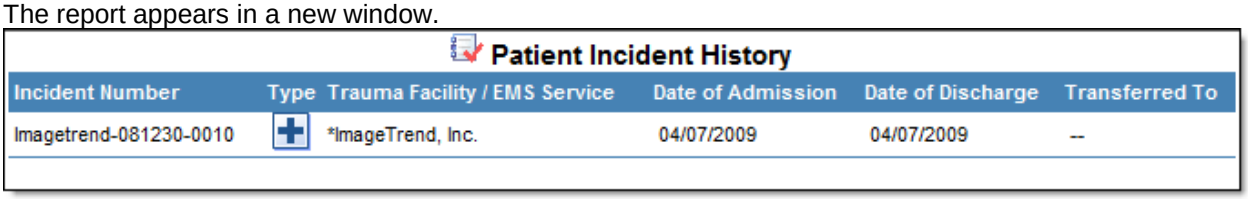
5.2 Viewing Patient Incident History

System users can view the patient's history. This report shows the user important information such as when the patient was admitted and discharged, and the corresponding dates.

1. Select the desired incident.
2. From the top left, click *Actions.*
3. Select the *Patient Incident History* option.



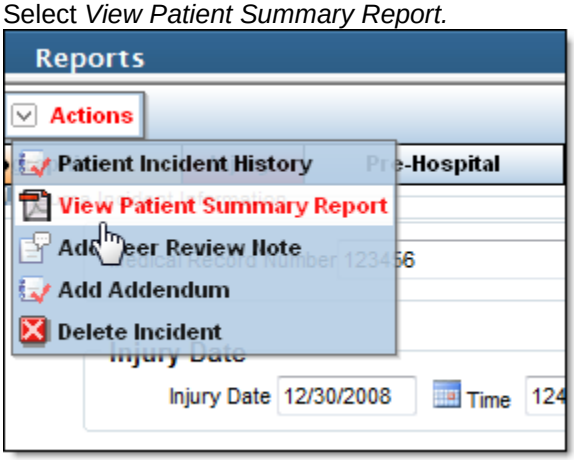
The report appears in a new window.



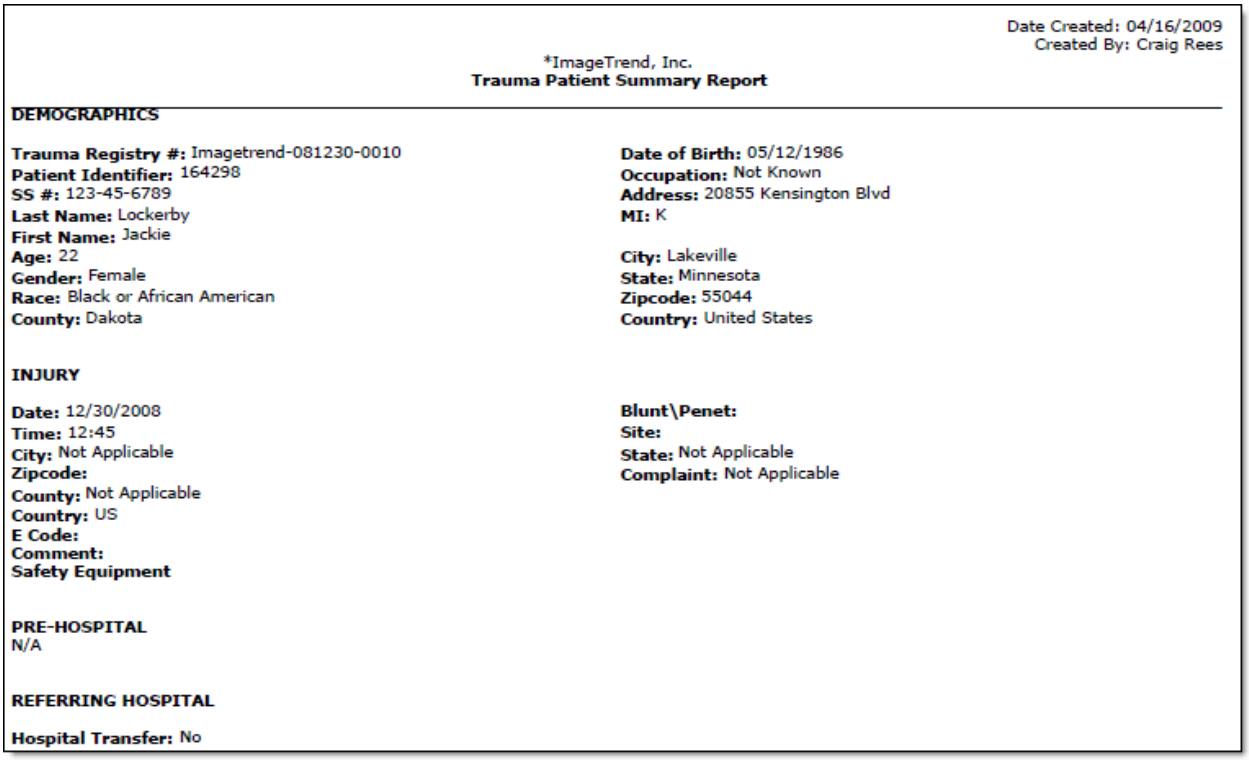
5.3 Creating a Patient Summary Report

System users can create a report detailing the history of the patient. The report includes any changes or additions to the patient's record. The report will generate in the form of a pdf file.

1. Select the desired patient record.
2. From the top left, click the *Actions* menu.
3. Select *View Patient Summary Report.*



The patient report appears in a new window.



Date Created: 04/16/2009
Created By: Craig Rees

*ImageTrend, Inc.
Trauma Patient Summary Report

DEMOGRAPHICS

Trauma Registry #: Imagetrend-081230-0010
Patient Identifier: 164298
SS #: 123-45-6789
Last Name: Lockerby
First Name: Jackie
Age: 22
Gender: Female
Race: Black or African American
County: Dakota

Date of Birth: 05/12/1986
Occupation: Not Known
Address: 20855 Kensington Blvd
MI: K

City: Lakeville
State: Minnesota
Zipcode: 55044
Country: United States

INJURY

Date: 12/30/2008
Time: 12:45
City: Not Applicable
Zipcode:
County: Not Applicable
Country: US
E Code:
Comment:
Safety Equipment

Blunt\Penet:
Site:
State: Not Applicable
Complaint: Not Applicable

PRE-HOSPITAL
N/A

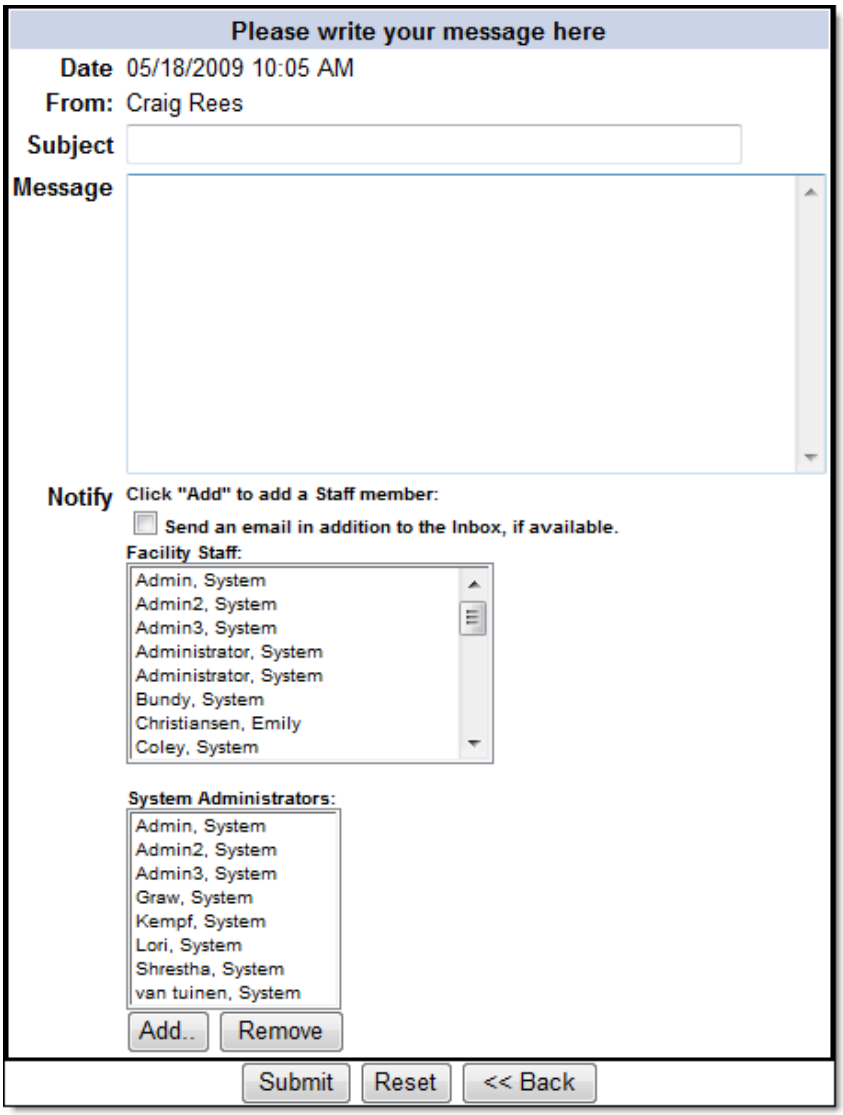
REFERRING HOSPITAL

Hospital Transfer: No

5.4 Adding A Peer Review Note

System users can add a peer review note, which allows the user to add notes about a run form.

1. Select the desired incident.
2. From the top left, hover over the *Actions* button.
3. Select *Add Peer Review Note* from the drop down menu.
4. To write a new note, click the *Send Message* icon  .
   The *Send Message* window appears.

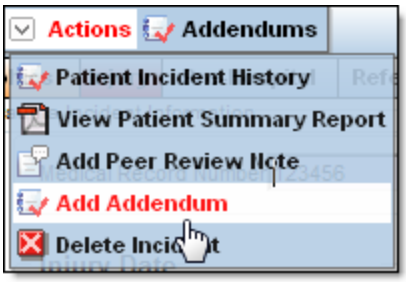


5. Type the review note.
6. When finished, select the desired recipient(s).
7. When finished, click *Submit.*
   The note is sent.

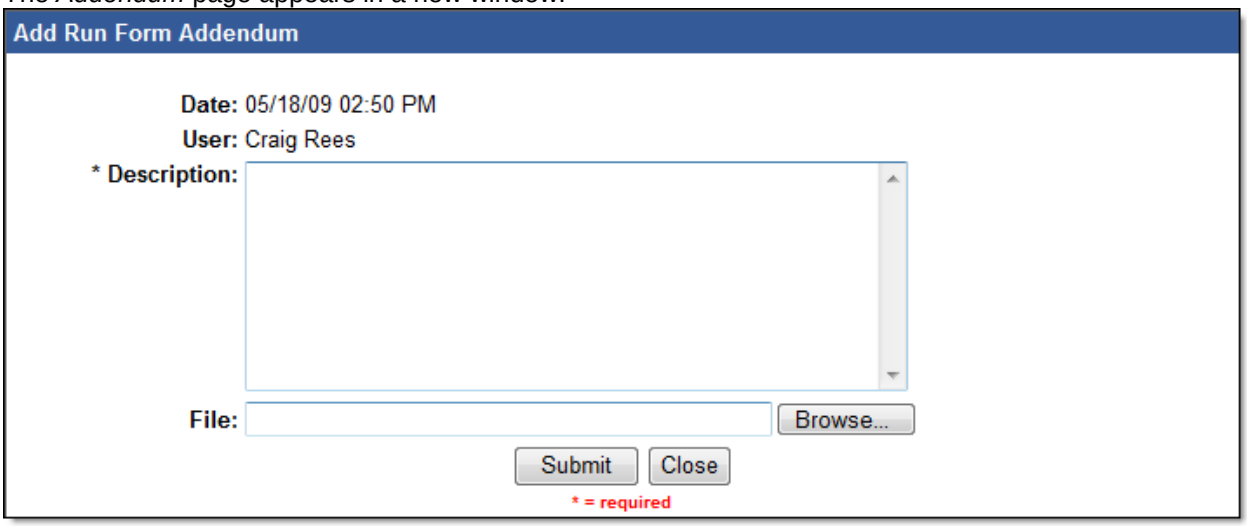
5.5 Adding An Addendum

System users can add an addendum to the incident record. This task can be completed in one of two ways.

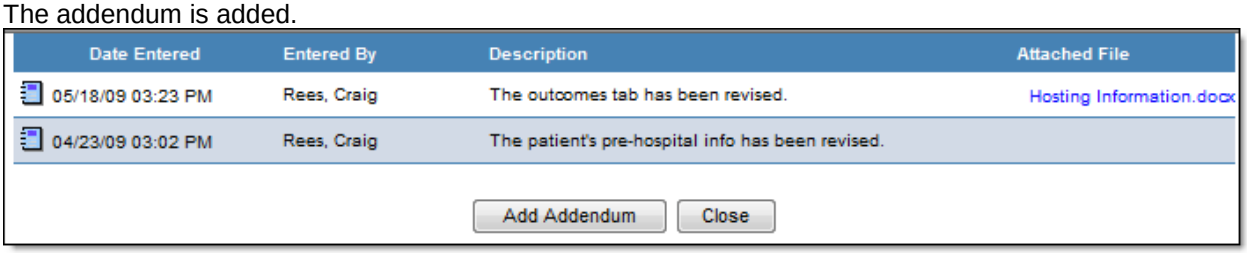
1. Select the desired incident.
2. In the top left hover over the *Actions* menu.
3. Select *Add Addendum.*



The *Addendum* page appears in a new window.

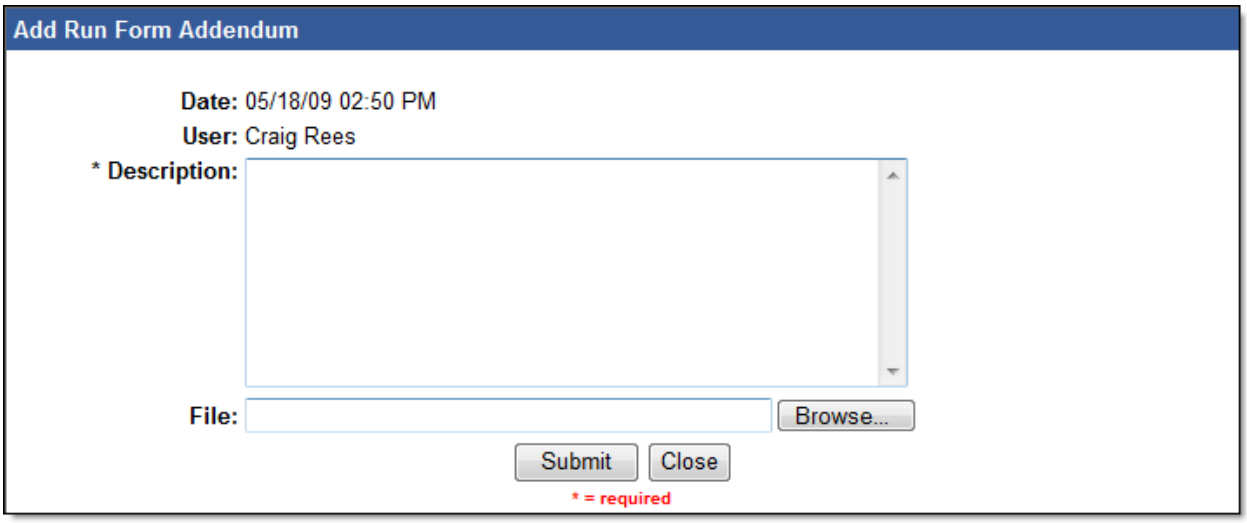


4. Type the addendum in the provided field.
5. If desired, attach a file by clicking the *Browse* button to upload.
6. When finished, click *Submit.*
   The addendum is added.

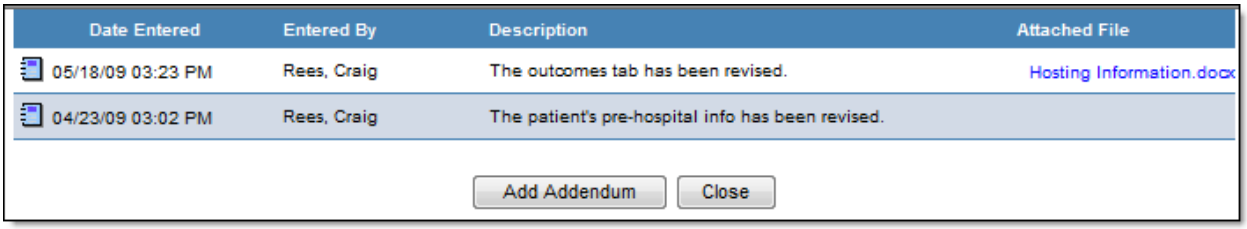


OR

7. After selecting the desired incident, from the top left, select the *Addendums* menu.
8. Click *Add Addendum.*
   The *Addendum* page appears in a new window.



9. Type the addendum in the provided field.
10. If desired, attach a file by clicking the *Browse* button to upload.
11. When finished, click *Submit.*
    The addendum is added.



Chapter 6

IMAGETREND PATIENT REGISTRY

Working With The Inbox

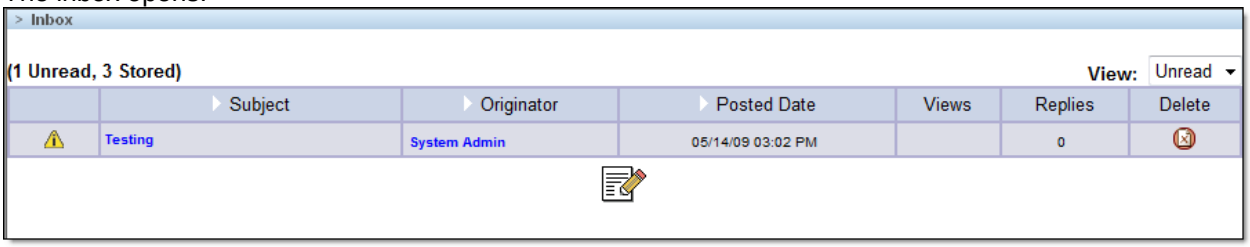
6.1 Chapter Overview

System users have an inbox that they can send and receive mail from. This allows the user to communicate with other users within the system.

6.2 Accessing the Inbox

System users can access the inbox in one of two ways.

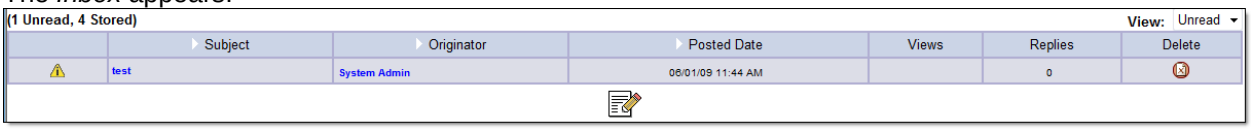
1. From the left menu, click the *Inbox* link.
   OR
   In the top right corner, click the *Inbox* link.
2. The inbox opens.



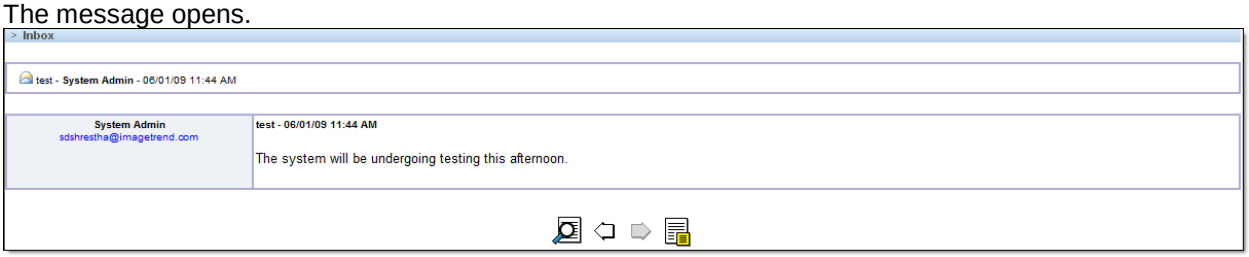
6.2 Viewing Messages With the Inbox

System users can receive messages from other users through the inbox. Once messages are read, they are automatically stored unless they are deleted by the user.

1. From the left menu, select the *Inbox* link.
   The *Inbox* appears.



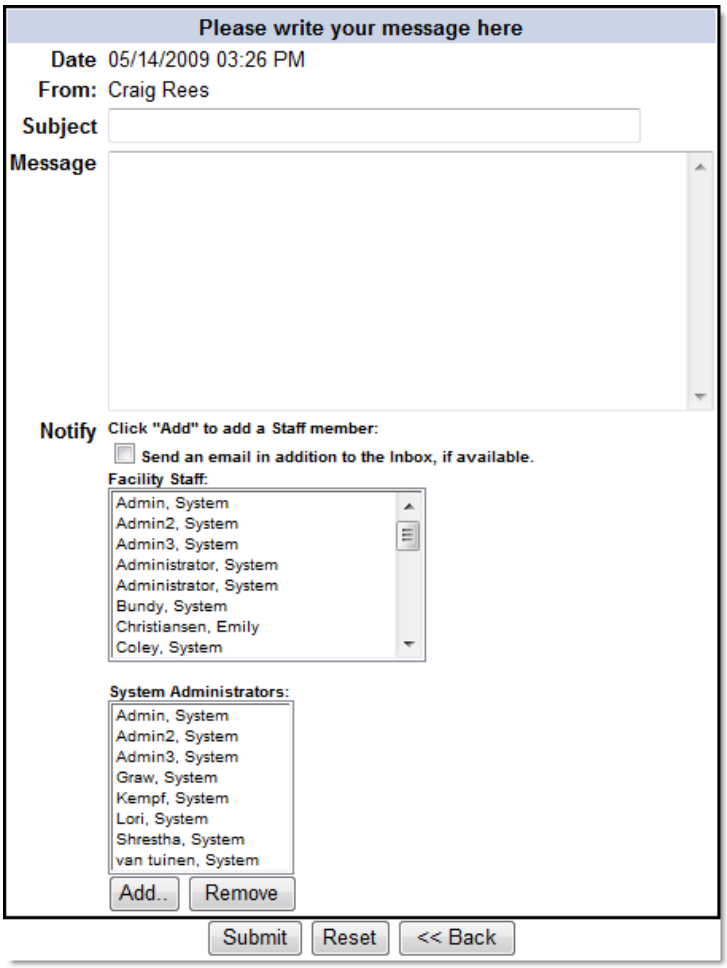
2. To open a new message, click the title of the message.
3. The message opens.



6.3 Sending a Message With the Inbox

System users can send messages to other users through the inbox. These messages can be sent to individuals or to groups of people.

1. In the inbox, click the *Send Message* icon  .



2. Type the subject of the message into the *Subject* line.
3. Type the message.
4. Select the desired recipients.
5. When finished, click *Submit* to send the message.
   The message is sent.

Chapter 7

IMAGETREND PATIENT REGISTRY

Help and Support

Help and Product Support

Before Contacting ImageTrend

Please have the following information accessible when calling ImageTrend:

- A description of your computer system.
- The name of your operating system and service pack version (if applicable).
- A description of what happened and what you were doing when the problem occurred.
- The exact wording of any error messages you see.
- Your company name and contact information.

Contacting ImageTrend

If you are unable to find the information needed to use Patient Registry effectively, please consult ImageTrend in any of the following ways:

- Phone (952) 469.1589
- Toll-Free (888) 469.7789
- Fax (952) 985.5671
- Email support@imagetrend.com
- Web http://support.imagetrend.com

ImageTrend support services are available:

Monday – Friday
8:30 a.m. to 5:00 p.m. central time

Technical Support

For 24-hour technical support, ImageTrend provides online assistance through their Web site and e-mail services:

- Email support@imagetrend.com
- Web http://support.imagetrend.com

Appendix J

VIRGINIA DEPARTMENT OF HEALTH
OFFICE OF EMERGENCY MEDICAL SERVICES

Cost Analysis of the Virginia Poison Control Network
August 2012

Table of Contents

Virginia Department of Health
Office of Emergency Medical Services
Glen Allen, VA

At the request of the Virginia Department of Health's (VDH) Office of Emergency Medical Services (OEMS), we have completed an analysis of the level of funding needed to support the operations and services of the poison control centers. In order to conduct this analysis, we interviewed poison center directors and obtained relevant financial data. We also obtained copies of annual reports from the VDH, and also researched and reviewed information available from outside sources. Data was obtained and reviewed for the state fiscal years ending (FYE) June 30, 2009, June 30, 2010 and June 30, 2011. Unless otherwise noted in this report, the analysis will focus on FYE June 30, 2011. This report specifically analyzes the level of funding needed to support the operations and services of the poison control centers, and the level of funding necessary to provide statewide coverage of poison control services by two centers.

Background Information – Virginia Poison Control Network

The Virginia Poison Control Network (VPCN) historically consisted of three poison centers that provided complete coverage of the Commonwealth of Virginia. The three centers that made up the VPCN are the Blue Ridge Poison Center (BRPC), the Virginia Poison Center (VPC), and the National Capital Poison Center (NCPC). All three centers performed the operations required by their contracts with the Commonwealth of Virginia, which included maintaining a poison control call center and educating medical professionals about poison information. Each center has medical directors who provide supervision to the poison control center and are also involved in research and education for medical professionals.

BRPC serves the Central and Southwest regions of Virginia and is associated with the University of Virginia Health System and the School of Medicine. The poison center is a primary part of the Medical Toxicology Department, which is a segment of the Emergency Department. The Medical Toxicology Department includes clinical and research segments. BRPC has a recorded phone system, and all the call information is manually entered into the poison center's database by the BRPC staff.

VPC serves the Central and Tidewater regions in Virginia and is a part of the Toxicology Department within the Emergency Medicine Department of the Virginia Commonwealth University Health System (VCUHS). The physicians that provide supervision to the call center are considered part of the VCU School of Medicine, while the staff and equipment fall under the Hospital. The VPC has a recorded phone system, and all the call information is manually entered into the poison center's database by the VPC staff.

NCPC, now a subcontractor of the VCUHS, serves the NOVA/DC metro area (DC, Montgomery and Prince George, MD, and the Northern Virginia region). NCPC is a free standing 501c3 charitable organization and is not associated with a hospital. NCPC has an advanced phone system that automatically tracks the location of the calls and records that information in the Center's database/records. Because the NCPC serves portions of Virginia and Maryland, and all of the District of Columbia, the NCPC allocates costs and revenues to each service area based on yearly call volume. For the years in question, the percentage of the call volume related to Virginia remained fairly consistent, with an average of 49.89% over the three year period. For the analysis that follows, unless otherwise noted, the NCPC amounts are only the Virginia portion of expenses, revenues and calls.

Poison Control Center Calls

Poison control center performance and measurements are typically considered with regard to call volume. Therefore, we began our analysis looking at the call volume each center handles. The majority of all calls are handled by Certified Specialists in Poison Information (CSPIs). There are several types of calls the centers receive: human exposure calls, animal exposure calls, confirmed non-exposure calls, and information calls. Additionally, the call center workers make follow-up calls which are not included in these figures. Because human exposure calls is the standard used by the AAPCC (American Association of Poison Control Centers) in measuring performance, we have focused on human exposure calls as well. However, it is important to keep in mind the poison control centers do handle other calls as well.

The poison centers report call volumes in the annual reports they are required to provide to the VDH. Human exposure calls remained relatively stable over the three year period reviewed, with a slight decrease year to year noted. NCPC had the highest call volume at 40,137 human exposure calls in SFY June 30, 2011. However, only 19,820 of them related to Virginia. VPC and BRPC reported 25,779 and 22,289 respectively. The figures that VPC and BRPC report are only for calls in their service area. Their total call volume is slightly higher because of incorrect call routing (generally due to cell phone originations).

Poison Control Center Costs

Our analysis found that the most significant costs for the poison control centers are the salary expenses of the call center workers. An evaluation of the FYE June 30, 2009, June 30, 2010, and June 30, 2011 financial data was conducted to determine the cost history for each poison center. Over the three year period, the three centers incurred an average total cost per year of approximately $4.2 million. Salaries and benefits of the CSPIs make up almost half of this total cost; salaries and benefits of the supervising directors, toxicologists, and other education and administrative staff account for another 30% of the costs, leaving only about $0.7 million in non-

salary or benefit costs. The average yearly cost per human exposure call was $61.59. The NCPC has higher costs than the other two centers because of higher non-salary costs. NCPC is a stand alone facility, while BRPC and VPC are associated with universities. As part of the universities, their overhead costs are passed down to the center through allocations performed by the accounting department. These overhead costs may or may not present a full picture of the value of the services received by the poison centers from the university, but are the best approximation available. As an example, NCPC reports higher rent, accounting/ audit, and computer support expenses than the other centers. For a summary of expenses by category and poison center, see **Appendix A**.

Poison Control Center Revenues

All three poison centers receive funding from the Commonwealth of Virginia. This funding has been reduced by 67% over the three year period under review. The centers also receive annual funding from a federal agency, the Health Resources & Services Administration (HRSA). Each center has at times received grants for providing additional services beyond their normal activities. Aside from the state and federal funding, VCU has a small amount of contributions and in-kind contributions. NCPC, on the other hand, receives significant funding from donors, corporations, and other private sources. They are also funded by Maryland and DC, because of the services provided to those regions. See **Appendix A** for a summary of revenues for each poison control center.

Both VPC and BRPC benefit from their hospital and school of medicine relationships. The difference between the revenues received by these centers and their expenses are funded by the medical centers. The difference for NCPC is covered by the funding from other states and the donations and endowment.

Poison Control Center Requirements

An evaluation of the AAPCC and the VDH minimum requirements related to VPCN was performed. Based on the submitted documentation and conversations with the directors, it appears that each center is adhering to the minimal requirements set by the AAPCC and the VDH. Each center maintains an educational program for medical professionals and the public. The centers indicated that they coordinate with one another in order to provide efficient and effective educational programs. All centers' maintained operations 24 hours a day, 365 days a year. A fully operational telephone system and database was also maintained throughout the years analyzed.

Each center maintains a managing director that demonstrates a full-time commitment to poison center related activities. The managing director for BRPC and NCPC also serve as the medical directors for the center; however, they have multiple associate medical directors that provide support to the center. VPC has a separate medical director and an associate medical director that

split time at the center. The individual or individuals providing medical direction devoted at least 20 hours per week to professional toxicology activities. The AAPCC requirements indicate that, "Additional medical direction is desirable and may be necessary." The center's medical directors appear to provide the necessary oversight based on the reported call volume. 10 hours of medical direction must be provided for every 25,000 human exposure cases handled at the center. Each center employs a cumulative average of one FTE for the medical director, associate medical director, and toxicologist(s).

The VDH contractual requirements indicate that a maximum of 4,500 and no less then 2,000 exposure cases can be handled by a CPSI per one FTE. During 2011, NCPC, BRPC, and VPC SPI's handled human exposure calls in the amount 2,942.77, 2,932.76, and 3,347.92 per one FTE. The three centers met the overall maximum and minimum human exposures requirements.

Based on the FTE information provided by the centers, an average of 7.35 CSPI FTE's were employed. If CSPI's at all three centers handled the maximum 4,500 human exposure cases per year, and average of 5.03 FTE's would be required per center.

Minimum Funding Requirements to Operate Three Centers

To calculate the minimal funding requirements for CSPI salary and benefits we used the maximum amount of human exposure calls that could be handled by a CSPI (4,500) to determine the minimal CSPI FTE's required. Our calculation indicated that a minimum of 5.03 FTE's were required. We then used the FTE support submitted to determine the average salary and benefits cost per FTE. Our calculation determined an average salary and benefits costs per CSPI FTE of $95,955. A total minimal CSPI salary and benefits cost for three poison centers was calculated to be $1,566,758. It should be noted that this reduction in CSPI FTE's may not adequately provide staffing for the centers, because of the need for proper staffing and coverage at all hours.

All three centers had a cumulative average of one FTE for all medical directors, associate medical directors, and toxicologist, plus one FTE managing director. Per the AAPCC requirements, the managing director that is also a medical director must have a full-time commitment to the center and must have adequate backup. Each poison center must also provide full-time toxicological supervision and at least 20 hours of medical direction per 25,000 human poison exposures. BRPC and NCPC had less than 25,000 human poison exposures; therefore, they would only require 10 hours of supervision at each. VPC had more than 25,000 so they would require 20 human poison exposure hours. The AAPCC indicates that, "Additional medical direction is desirable and may be necessary." Therefore, we determined that BRPC and NCPC could reduce their medical director coverage to 0.25 FTE each, instead of the current one FTE, and VPC to 0.5 FTE. Please note that this analysis considers it necessary for the center to have both the managing director and the medical director positions. The AAPCC requirement does permit the medical director role to be fulfilled by the managing director. Based on conversations

with the call center directors and descriptions of their duties and those of the medical directors, they find it necessary to staff more than one full time position in order to fulfill the call center duties.

All three centers employed an education coordinator and administrative employees. VPC and BRPC did not directly include salary expense related to human resources, accounting, IT, etc. because these are overhead costs to the larger university system. NCPC was able to provide accurate costs related to the above departments, since they are a separate entity. We determined that the three centers maintain an adequate level of administrative and other staff; therefore, we determined that the current staffing level, and therefore expenses, should be maintained to meet contractual and AAPCC requirements.

The above salary and benefits cost for all three centers total to $2,570,275. When these costs are compared to the current three year average salary and benefits costs, a potential reduction of $894,218 was noted.

We reviewed the other costs incurred by the three facilities. Other costs consist of call center equipment, training materials, travel costs, licensure costs, and other miscellaneous costs. All costs appear to be necessary to maintain current operational level and to meet their contractual and AAPCC certification requirements. Indirect costs currently are lower for VPC and BRPC than for NCPC because NCPC is a standalone facility.

The minimal total costs to operate three poison centers would be around $3,287,000 or about $48.50 per human exposure call. See **Appendix B** for a summary of costs under the minimal requirements for funding three centers. In 2011, the three facilities received $500,000 (combined) from Virginia OEMS. They also received $655,698 from a HRSA grant, and $359,518 in other funding (primarily related to NCPC). This funding amounts to about $22.30 per call.

Minimum Funding Requirements of Two Centers

To calculate the minimal costs for CSPI salary and benefits we used the maximum amount of human exposure calls that could be handled by a CSPI (4,500) to determine the minimal CSPI FTE's required. If call volume stayed consistent with the historical data, the average amount of human exposure calls for each of the two centers would be around 33,944 (total of 67,888). The current average human exposure call volume for each existing center is 22,629 (total of 67,888).

Our calculation indicated that the minimum of eight FTE's were required, per center (16 FTE's in total). We then used the FTE support submitted to determine the average salary and benefits cost per FTE. Our calculation determined an average salary and benefits costs per CSPI FTE of

$95,955. A total minimal CSPI salary and benefits cost for two poison centers was calculated to be $1,519,281. In the above analysis, CSPI FTE's were decreased from an average of 22 to 16.

The methodology used to determine the amount of FTE's related to the medical directors, associate medical directors, toxicologists, and managing directors for two facilities was as follows. Based on the requirement to have 10 hours per 25,000 calls, the two centers could each employ 0.5 FTEs for medical directors / associate medical directors / toxicologist. They would also employ one FTE for managing director. Overall, there would be a reduction in the number of medical directors, toxicologists, and managing directors to 1.5 FTEs at each center. A total minimal medical director, toxicologist, and managing director salary and benefits cost for two poison centers was calculated to be $462,877.

The two centers will need to employ an education coordinator and administrative employees. VPC and BRPC did not directly include salary expense related to human resources, accounting, IT, etc. because these are overhead costs to the larger university system. NCPC was able to provide accurate costs related to the above departments, since they are a separate entity. We determined that the level of administrative and educational staff currently in place could be reduced to the level currently provided by two centers, thus cutting out the expenses of one center.

The above salary and benefits cost for two centers total to $2,242,466. When these costs are compared to the current three year average salary and benefits costs, a potential reduction of $1,222,026 was noted.

Other non-salary costs consist of call center equipment, training materials, travel costs, licensure costs, and other miscellaneous costs. Because these are mostly fixed costs (with the exception of some of the educational material and call center equipment), we would estimate that a reduction of approximately $150,000 in other non-personnel costs (workspace, equipment, insurance, etc.) would be possible because of the elimination of a call center.

The minimal total costs to operate two poison centers would be around $2,780,000 or about $41.00 per human exposure call. See **Appendix B** for a summary of costs under the minimal requirements for funding two centers.

Conclusions

Based on the above analysis, a consolidation of the poison control centers from three to two would reduce the expenses required to operate the centers. However, the funding provided by the Commonwealth and by HRSA does not cover the minimum operations of the centers, under either scenario. The shortfall at BRPC and VPC is covered by the larger medical center entity.

For these two centers, some costs are fluid and not easily identifiable to the poison center. At NCPC, the shortfall is funded by donations and contributions. NCPC receives funding from Maryland and DC as well, which covers a large portion of the costs of the calls for those regions. Additionally, at all three centers, the medical directors provide services to the university community through their commitment to the university, where they have privileges and see patients. The poison control centers are required to maintain a 24 call center and to provide education to the medical community. The AAPCC standards do not identify more specific criteria for what educational opportunities should be provided. It does require that the call center be staffed to a certain level, and based on our analysis the centers could operate with fewer staff to meet the minimum requirements. Additionally, medical director costs could be reduced. However, we realize that in order to provide 24 hour coverage, staffing needs must be considered with regard to shifts, overtime, and emergencies and greater staffing may be necessary. Based on our review, funding does need to be increased to fully cover the needs of the poison control centers in Virginia. See **Appendix C** for a summary of projected profits or losses by funding level.

PHBV Partners LLP

August 31, 2012

Appendix A
Poison Center Revenues & Expenses

	Blue Ridge Poison Center			Virginia Poison Center			National Capital Poison Center			
	FYE 6/30/09	FYE 6/30/10	FYE 6/30/11	FYE 6/30/09	FYE 6/30/10	FYE 6/30/11	FYE 6/30/09	FYE 6/30/10	FYE 6/30/11	
EXPENSES										
Salaries - CSPIS	$ 479,089.55	$ 465,627.23	$ 456,612.00	$ 677,554.00	$ 729,873.00	$ 686,071.00	$ 526,944.57	$ 537,528.69	$ 580,228.71	**
Salaries - Managing / Medical Directors	243,290.83	260,654.51	277,216.00	257,780.00	272,000.00	268,800.00	194,651.12	216,027.32	193,249.56	**
Salaries - Admin / Other	107,576.15	94,654.61	99,454.00	29,220.00	30,193.00	30,864.00	126,388.72	133,157.90	178,704.69	**
Fringe Benefits	221,483.00	203,270.00	216,551.00	248,579.00	281,699.00	249,645.00	203,524.97	216,971.35	227,096.47	**
Total Salary & Benefit Costs	**$ 1,051,439.53**	**$ 1,024,206.35**	**$ 1,049,833.00**	**$ 1,213,133.00**	**$ 1,313,765.00**	**$ 1,235,380.00**	**$ 1,051,509.38**	**$ 1,103,685.26**	**$ 1,179,279.43**	
Call Center Equipment	$ 29,489.00	$ 32,608.00	$ 25,550.00	$ 45,795.00	$ 49,696.00	$ 52,179.00	$ 27,056.17	$ 29,830.35	$ 29,175.83	**
Call Center Training & Other	101,450.00	87,501.00	38,552.00	84,258.00	89,324.00	52,091.00	240,355.51	215,596.35	212,626.94	**
Admin & Overhead	106,417.74	99,471.79	80,188.42	111,062.00	55,000.00	49,904.00	143,549.34	150,278.31	176,413.98	**
Total non-salary costs	**$ 237,356.74**	**$ 219,580.79**	**$ 144,290.42**	**$ 241,115.00**	**$ 194,020.00**	**$ 154,174.00**	**$ 410,961.02**	**$ 395,705.01**	**$ 418,216.74**	
Total Expenses	**$ 1,288,796.27**	**$ 1,243,787.14**	**$ 1,194,123.42**	**$ 1,454,248.00**	**$ 1,507,785.00**	**$ 1,389,554.00**	**$ 1,462,470.40**	**$ 1,499,390.27**	**$ 1,597,496.17**	
REVENUES										
Virginia DOH	$ 548,361.46	$ 478,037.09	$ 170,000.00	$ 611,015.00	$ 519,382.00	$ 200,000.00	$ 390,314.53	$ 331,759.36	$ 130,000.00	
Other Virginia	-	-	-	56,062.00	30,116.00	-	-	-	-	
HRSA	169,565.00	191,353.00	173,957.00	218,793.00	246,907.00	259,581.00	167,702.78	186,198.56	222,160.31	**
Other Government	-	-	-	-	-	2,272.00	-	-	-	*
Donations / Contributions	-	-	-	-	142.00	41.00	41,823.53	41,779.81	48,101.75	**
Corporations	-	-	-	-	-	-	57,553.85	52,623.32	59,511.10	**
Campaigns & Foundations	-	-	-	-	-	-	86,920.05	48,006.36	28,592.91	**
In Kind Contributions	-	-	-	-	-	55,000.00	10,126.39	76,258.09	65,022.45	**
Other Revenues	-	-	-	35,000.00	44,235.00	41,240.00	47,901.90	49,362.55	59,736.85	**
Total Revenues	**$ 717,926.46**	**$ 669,390.09**	**$ 343,957.00**	**$ 920,870.00**	**$ 840,782.00**	**$ 558,134.00**	**$ 802,343.02**	**$ 785,988.05**	**$ 613,125.37**	
Human Exposure Calls - VA only	**25,039**	**23,527**	**22,289**	**26,719**	**25,693**	**25,779**	**19,887**	**20,274**	**19,820**	
Cost per Call	**$ 51.47**	**$ 52.87**	**$ 53.57**	**$ 54.43**	**$ 58.68**	**$ 53.90**	**$ 73.54**	**$ 73.96**	**$ 80.60**	
Revenue per Call	**$ 28.67**	**$ 28.45**	**$ 15.43**	**$ 34.46**	**$ 32.72**	**$ 21.65**	**$ 40.35**	**$ 38.77**	**$ 30.93**	

* NCPC receives revenues from DC, Maryland, and additional federal incentives. These are not included above as they are not designated for Virginia Poison Center funding.

** The noted NCPC expenses and revenues were multipled by the call percentage for VA (47.10%, 49.16%, and 53.40% respectively) to determine the applicable portion related to Virginia.

Appendix B
Minimum Funding Requirements

	FYE 6/30/11 Total Poison System Costs and Revenues		
	Current Operations	**Minimum - 3 Centers**	**Minimum - 2 Centers**
EXPENSES			
Salaries & Benefits - CSPIS	$ 2,153,945.81	$ 1,566,758.42	$ 1,519,280.90
Salaries & Benefits - Managing / Medical Directors	924,213.36	617,182.86	462,877.15
Salaries & Benefits - Admin / Other	386,333.28	386,333.28	260,307.99
Total Salary & Benefit Costs	**$ 3,464,492.45**	**$ 2,570,274.56**	**$ 2,242,466.04**
Total non-salary costs	**$ 716,681.16**	**$ 716,681.16**	**$ 537,348.19**
Total	**$ 4,181,173.61**	**$ 3,286,955.72**	**$ 2,779,814.23**
Human Exposure Calls	67,888	67,888	67,888
Cost Salary per Human Exposure Call	**$ 51.03**	**$ 37.86**	**$ 33.03**
Cost Other per Human Exposure Call	**$ 10.56**	**$ 10.56**	**$ 7.92**
Total Cost per Human Exposure Call	**$ 61.59**	**$ 48.42**	**$ 40.95**
REVENUES			
Funding - Virginia OEMS	$ 500,000.00	$ 2,271,739.35	$ 1,764,597.86
Funding - Other State & Federal	655,698.31	655,698.31	655,698.31
Funding - Other	359,518.06	359,518.06	359,518.06
Total	**$ 1,515,216.37**	**$ 3,286,955.72**	**$ 2,779,814.23**

Appendix C
Projected Profit / Loss by Level of Funding

	FYE 6/30/11 Total Poison System Profit (Loss)		
	Current Operations	**Minimum - 3 Centers**	**Minimum - 2 Centers**
Total Expenses:	$ 4,181,173.61	$ 3,286,955.72	$ 2,779,814.23
Total Revenue (excluding Virginia funding):	$ 1,015,216.37	$ 1,015,216.37	$ 1,015,216.37
Total Loss (excluding Virginia funding):	$ (3,165,957.24)	$ (2,271,739.35)	$ (1,764,597.86)
Funding Level - Virginia:			
$0	$ (3,165,957.24)	$ (2,271,739.35)	$ (1,764,597.86)
$500,000	$ (2,665,957.24)	$ (1,771,739.35)	$ (1,264,597.86)
$1,500,000	$ (1,665,957.24)	$ (771,739.35)	$ (264,597.86)
$2,000,000	$ (1,165,957.24)	$ (271,739.35)	$ 235,402.14
$2,200,000	$ (965,957.24)	$ (71,739.35)	$ 435,402.14
$2,800,000	$ (365,957.24)	$ 528,260.65	$ 1,035,402.14