COMMONWEALTH of VIRGINIA

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October 10, 2008

To: Ms. Kim Snead, Executive Director
Joint Commission on Health Care

From: Gary R. Brown, Director

Re: Office of Emergency Medical Services' Progress Upgrading its Prehospital Patient Care Reporting Program

In response to the Joint Commission on Health Care's report titled *Stroke Prevention and Care* (report document No. 145) please accept this briefing on the status of the information technology project called the "EMS Registry" which is currently pending within the VITA project management process. The EMS Registry project will provide significant upgrades to the existing Prehospital Patient Care Reporting Program, which collects data on almost one million EMS responses each year.

As you will see in the enclosure, significant planning and documentation for this project have occurred and can be made available to you upon request. If you require more information or have any question please feel free to contact the project manager, Paul Sharpe, Trauma/Critical Care Coordinator at paul.sharpe@vdh.virginia.gov or (804)864-7630.

ENCLOSURE

Emergency Medical Services EMS Registry Project

The Virginia Office of Emergency Medical Services (OEMS) maintains a patient level database that collects, analyzes, and reports response and treatment information for almost one million emergency medical service (EMS) responses per year. The program is currently named the Prehospital Patient Care Reporting (PPCR) program. The PPCR program has several components including the paper medical record form that EMS providers document patient care on, a software program that data extracted from the paper PPCR forms is entered into and creates an electronic file for submission to the State database, and an Oracle database for the storage and retrieval of data. Submission and the collection of PPCR data are both required by the Code of Virginia § 32.1-116.1 and EMS regulations.

The current PPCR software program and database are technologically outdated and cannot be improved upon due to the age of the technology used to create both programs. The OEMS has been developing a project plan to upgrade the technology used to collect and store EMS data since 2004. This project plan has been titled the EMS Registry Project within the Virginia Information Technology Agency's (VITA) Project Management Division. At the time of this writing the EMS Registry Project is before the Information Technology Investment Board for approval to place a Request for Proposals (RFP) out to the public to secure a commercial of the shelf (COTS) product to replace the current PPCR programs.

Additional features that the proposed EMS Registry Project will provide:

- Convert the database to a Web-based system, which will decrease the error rate of data being entered and make the data available for analysis closer to real time
- Convert the database's minimum dataset from the outdated National Highway Traffic Safety Administration (NHTSA) version 1 to the new National EMS Information System minimum dataset (NHTSA version 2)
- The ability to submit Virginia EMS data to the new national EMS database housed at NHTSA
- Change the technical format to Extensible Markup Language (XML) to allow for greater ease in communicating with other databases
- Provide users with access to their own data
- Provide Performance Improvement tools for use by the users and OEMS. This will assist both levels of users with meeting their Code of Virginia and regulatory requirements for Performance Improvement
- Initiate a data collection tool that has "up front validations" to eliminate poor quality datum from being entered into the system
- Add a communication tool within the program which will facilitate communication between OEMS database managers and the system users
- Encourage EMS agencies to move to electronic medical record technology to further simplify data submission, increase quality, and decrease length of time that data is available for analysis
- Developing an open/scalable database will allow better integration of future EMS system information technology needs

Reverse chronology of initiating upgrades to the EMS database

October 10, 2008

- October 16, 2008 - A response from the Information Technology Invest Board granting OEMS permission to release the EMS Registry RFP to the public is due on this date
- October 7, 2008 – Approval by the Commonwealth's Chief Information Officer to send the project to the State's Information Technology Investment Board is granted
- September 29, 2008 – The EMS Registry Project obtains Secretariat Information Technology Committee Approval
- February 2008 – OEMS contracted with Bearing Point Inc. to fulfill the VITA requirement of having an authorized project manager develop the VITA required project management documents required to place the project out for public bid
- November 2007 – OEMS received VDH Executive Management approval to contract with a VITA approved project manager to negotiate the VITA approval process to plan and procure a COTS EMS data collection, analysis, and reporting tool to be hosted within the VITA data warehouse in Chesterfield County.
- 2006 – OEMS worked with the VDH Office of Information to evaluate the feasibility of performing the needed upgrades to the PPCR program internally versus securing a commercial product
- August 2005 – A decision memorandum from OEMS was submitted to VDH Executive management requesting the authority to plan, with the intent to ultimately procure, a COTS EMS specific software program that meets the list of requirements listed above.
- 2005 – monthly stakeholder meetings held to develop the framework of what an upgraded PPCR program should incorporate
- November 2004 – the Joint Legislative Audit and Review Commission's report; *Review of Emergency Medical Services in Virginia* made several recommendations related to the PPCR program including the upgrade of the program to the new national dataset, the data should be used to assist in EMS system monitoring and policy decision making, and that OEMS should enforce submission requirements as required by the Code of Virginia.
- November 2004 – OEMS invited the National EMS for Children Data Analysis Resource Center to facilitate a S.W.O.T analysis of the PPCR program
- May 2004 – PPCR Program is reassigned within OEMS as the initial step to assess, plan, and implement significant programmatic improvements to the PPCR program

The upgrade of the PPCR program will be a significant step towards moving emergency medical services in Virginia to more of evidence based medical practice and begin the process of being maximizing our ability to share data with other state and national databases that are health and emergency response related. The modernization of technology used, access to the information by our users, and ability to communicate with other databases are consistent with the VITA Architecture vision. Further information can be obtained from Paul Sharpe, Trauma/Critical Care Coordinator at Paul.sharpe@vdh.virginia.gov or (804)864-7630.