



Central Shenandoah Emergency Medical Services Council

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Date: November 30, 2007
To: Regional EMS Providers
Regional EMS Agencies
From: Matt Lawler, Assistant Director *ML*
Re: Protocol Modifications and Additions
Cc: Regional Operational Medical Directors

The Medical Control Review Committee (MCRC) is pleased to announce some protocol modifications and additions. Foremost, is a new protocol that addresses ST-elevation myocardial infarction (STEMI) triage in the prehospital setting. The MCRC has been working on these guidelines since January 2007.

This year, Rockingham Memorial Hospital began staffing a cardiac catheterization facility 24/7. With catheterization facilities already operating at the University of Virginia and Roanoke Memorial Hospital, the committee addressed the need to more appropriately dispose patients in the region to facilities best equipped to treat patients with STEMI. Treatment of acute coronary syndrome (ACS), particularly STEMI, is extremely time-sensitive. Prehospital caretakers of ACS patients can have a big impact on patient outcome if they provide efficient triage, stabilization, and referral for cardiology care. Treatment of STEMI is reperfusion through administration of fibrinolytics or percutaneous coronary intervention (PCI).

The new protocol, ***Protocol 4.27: ST-Elevation Myocardial Infarction (STEMI) Triage***, is designed to be used by EMT-Intermediate and Paramedic level providers to determine whether a patient presenting with STEMI should be transported to the closest hospital or to a hospital capable of cardiac catheterization. The protocol is designed to be adaptable to allow for appropriate patient disposition if new catheterization services become available at other hospitals in the region.

The protocol, ***Protocol 4.4: Chest Pain (Non-Traumatic)***, has been modified to take into account the new STEMI triage guidelines. EMT-B and EMT-Enhanced level providers that have a patient presenting with a STEMI are prompted to consider ALS rendezvous, especially when the 12-lead indicates the patient is experiencing an acute myocardial infarction. EMT-B and EMT-Enhanced providers are also prompted to consider air medical support if the transport time to the cardiac catheterization facility is greater than 60 minutes for STEMI patients. EMT-Intermediate and Paramedic providers are directed to follow the STEMI triage guidelines.

All agencies are encouraged to review these guidelines with their operational medical director and develop intradepartmental policies and procedures that relate to these new guidelines. For example, agencies should have procedures that outline the steps in acquiring and transmitting a 12-lead ECG to any facility to which they may transport a patient. As another example, agencies need to ensure personnel are familiar with the alternate facility locations and communication procedures with those facilities.

Coinciding with the introduction of the STEMI triage guidelines, the procedure guideline ***Protocol 5.1: 12 Lead ECG Acquisition*** was expanded to include some extra helpful tips and precautions.

Earlier this year, the committee moved to remove use of intraosseous devices such as the Jamshidi and the F.A.S.T.1, recognizing the EZ-IO as the IO device of choice. Those sections in the protocols have been struck.

All of the protocol changes can be found on the enclosed protocol modifications and additions document. The revised protocols are posted on the Central Shenandoah EMS Council website at www.csems.vaems.org/protocols/. The CSEMS Council is available as a resource to help as agencies adopt these new guidelines. If you have any questions or concerns, please contact your OMD or the Council. The new guidelines will be effective January 1, 2008.



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IMPORTANT: PROTOCOL MODIFICATOINS & ADDITIONS

January 1, 2008

The following table summarizes modifications to the 2006 protocols effective January 1, 2008. The current protocol document, found at www.csems.vaems.org/protocols, has been updated accordingly. Agencies and providers are encouraged update printed versions of the document and make notes as necessary in field guides.

Page	Location	Modification
43	Protocol 4.4: Chest Pain (Non-Traumatic)	Modified line 7, Place patient on cardiac monitor to include the following: <ol style="list-style-type: none"> a. Obtain a 12 Lead ECG in accordance with 12-LEAD ECG ACQUISITION. b. Consider ALS rendezvous, especially when the 12-lead indicates the patient is experiencing an acute myocardial infarction. c. When a 12 lead ECG indicates "ACUTE MI" or "...INFARCT, ACUTE," consider air medical support if the transport time to the cardiac catheterization facility is greater than 60 minutes. d. Follow the ST-ELEVATION MYOCARDIAL INFARCTION (STEMI) TRIAGE (page 179) guidelines.
43	Protocol 4.4: Chest Pain (Non-Traumatic)	Deleted line 14, For a patient with 12-lead indicated myocardial infarction and a substantial ETA to the hospital, consult [Medical Control] and consider helicopter transport to an appropriate facility.
43	Protocol 4.4: Chest Pain (Non-Traumatic)	Added line 15, If time permits, complete the FIBRINOLYTIC CHECKLIST. Do not delay patient treatment, ongoing monitoring or transport to complete the fibrinolytic checklist.
44	Protocol 4.4: Chest Pain (Non-Traumatic)	Added the following in Key Points: <ul style="list-style-type: none"> • Ideally, 12-lead acquisition and treatment of the patient (i.e. administration of oxygen, aspirin, etc.) should occur concurrently. • The FIBRINOLYTIC CHECKLIST is available at www.csems.vaems.org/downloads/.
85	Protocol 5.1: 12 Lead ECG Acquisition	Added subsection "TRAINING: Providers shall complete training for 12-lead ECG acquisition prior to utilizing this protocol and ECG machines."
85	Protocol 5.1: 12 Lead ECG Acquisition	Added line 6, "Activation of an implantable cardioverter defibrillator (ICD)" as an indication.
85	Protocol 5.1: 12 Lead ECG Acquisition	Added the following items to the subsection PRECAUTIONS: <ol style="list-style-type: none"> a. Treatments such as oxygen, aspirin and nitroglycerin, or requesting advanced life support, should never be delayed to acquire a 12-lead ECG. Ideally, 12-lead acquisition and treatment of the patient should occur concurrently. b. Keep time on the scene to a minimum by moving the patient to ambulance prior to ECG if possible. c. Dirt, oil, sweat and other materials on the skin can interfere with obtaining a quality tracing. d. Being in a moving vehicle and engine vibration can interfere with obtaining a quality tracing.

85	Protocol 5.1: 12 Lead ECG Acquisition	Added the following to Procedure, line 3. "Limb lead electrodes are typically placed on the deltoid area and the lower leg or thigh as shown in Figure 5.1-A. Move limb leads proximally if artifact is experienced. Avoid placing limb leads on the torso unless necessary to minimize artifact. Avoid placing limb leads over bony prominences."
85	Protocol 5.1: 12 Lead ECG Acquisition	Modified CONSIDERATIONS, line 2, "For a patient with 12-lead indicated myocardial infarction, follow the ST-ELEVATION MYOCARDIAL INFARCTION (STEMI) TRIAGE (page 179).
85	Protocol 5.1: 12 Lead ECG Acquisition	Modified CONSIDERATIONS, line 3, "Acquire an additional 12-lead ECG every 15 minutes or if the patient's clinical condition changes.
103	Protocol 5.13: Intraosseous Insertion, Cook/Jamshidi Type	Procedure deleted.
109	Protocol 5.15: Intraosseous Insertion: F.A.S.T.1	Procedure deleted.
179 180	Protocol 4.27: ST-Elevation Myocardial Infarction (STEMI) Triage	Added the entire section.