

EMS Medical Oversight Base Station Command Course
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Office of Prehospital Care
Monroe-Livingston Region

Course Materials

1. Powerpoint slides
2. Text for slides
3. Trauma triage guidelines (NYS)
4. MOLST Form
5. MLREMS Protocols
6. Post Test for Certification

EMS System Introduction and Medical Oversight Base Station Command Course Text for Slides

Slide 1—EMS System Introduction

Welcome to the Monroe-Livingston EMS Medical Oversight Base Station Command Course. This is the self-study version. Please view the slides and read the accompanying text as well as the enclosed written documents. After you have become familiar with the material you are required to take and pass the post-test taken from the protocols. This course is required by New York State for all physicians who give prehospital Medical Command and is designed to provide an overview of the local system.

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This portion of the course is to familiarize physicians with the basic statutory authority for Emergency Medical Services in New York State. The legal statutes that govern the delivery of EMS originate from federal statutes 93-154 which were originally passed in 1973. The two main state laws, which we are responsible to, are article 30 and part 800 of the New York state Public Health Law.

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The state EMS structure is as follows.

The main oversight body is the New York state Department of Health. This is overseen by the Commissioner and the Bureau of EMS. Under this is the New York state Emergency Medical Advisory Committee, which is termed SEMAC. This is composed of physician advisors from all New York state EMS regions. Also under the bureau is the New York state Emergency Medical Services Council or SEMCO, which is made up of a multidisciplinary group of providers, physicians and other personnel who are responsible for EMS delivery in New York State. Under the council are various committees, which are advisory in nature to the council. It should be noted that this entire structure does not have authority to actually enact EMS provisions within the state. They serve only as an advisory body.

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The Regional EMS structure is as follows.

The Monroe-Livingston Program Agency, which is responsible for the provision of deliverables back to the state, is performed through the Office of Prehospital Care. The oversight body for our region is the Monroe-Livingston Regional EMS Council or MLREMS. This committee is charged with coordinating all EMS services within the region. It is directly responsible to the state council.

Under MLREMS are four main subcommittees. The first is Training, which oversees all EMS educational activities within our region. This includes both initial and ongoing training. Second is Advanced Life Support, which is responsible to approve all preceptors within the region and is also charged with the dissemination of information to all those services that provide advanced life support. The third subcommittee is the Regional Emergency Medical Advisory Committee or REMAC. This board is made up of physicians, who have voting privileges, and non-

physicians, who do not have voting privileges. It works to establish protocols and other medical parameters. Finally, there is nominations, elections, and governance, which is responsible for by-laws as well as annual awards.

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The Office of Prehospital Care exists as a joint effort between the University of Rochester / Strong Memorial Hospital, the Livingston County Department of Health, the Monroe County Department of Health, MLREMS, and the EMS providers of the region.

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The mission of the Office of Prehospital Care is to promote excellence in emergency medical services locally, regionally, and nationally through clinical practice, research, education, and community service. Specifically, the OPC aims to do the following:

1. To ensure the highest quality and safe patient care by providing appropriate clinical oversight and by developing and implementing process improvement activities.
2. To educate EMS providers using the most effective techniques to ensure their ability to provide quality care to the community.
3. To work with community leaders to promote the public health through an effective and efficient EMS system.

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The Office of Prehospital Care is under the directorship of the Regional EMS Medical Director, the Associate Medical Director, and a number of associated physicians. The Office Manager and QA/AI Coordinator run the day-to-day operations of the OPC.

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Part of the duties of each local EMS region is to make sure that patients with particular presenting complaints are transported to the most appropriate hospital. There are several hospitals with official state designations for these patients.

The first is trauma. Strong Memorial Hospital is the only officially designated trauma center for the Monroe-Livingston Region. This is for both adult and pediatric patients. Any patient that meets any trauma triage criteria should be transported to this hospital, however other considerations such as time and distance factors should be taken into account. Certain special situations such as a problem with the airway and all trauma arrests should be taken to the closest hospital. If the patient is able to be stabilized at the local hospital and transport to a trauma center is necessary, this can be done later.

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The trauma triage guidelines are passed at the state level and govern the transport and designation of trauma patients. They consist of physiologic criteria such as vital signs, anatomic criteria such as specific injury, but also take into account the mechanism of injury and special patient characteristics. When a patient is acutely unstable, he / she will be transported to the nearest facility for stabilization and then transfer, regardless of trauma status or diversion status. Please familiarize yourself with these guidelines, as they are included in your packet.

While much discussion and effort has been put into these guidelines to provide as clear direction as possible, very often there are questions and prehospital care providers are encouraged to call the Medical Command physician for clarification.

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The next designation is for burns.

Our local trauma burn center is Strong Memorial Hospital. The Burn Unit can treat all types of burns in both adults and pediatric patients.

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The next specialty receiving center has to do with patients that have symptoms of an acute stroke that have started within the last two hours.

The appropriate receiving facilities for these patients include Highland Hospital, Park Ridge Hospital, Rochester General Hospital and Strong Memorial Hospital. When transporting these patients, medics are requested to call the receiving hospitals' Medical Command to give them a heads-up that the patient is on the way.

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Three hospitals in the region have angioplasty available at all times, and if the patient has symptoms that are suggestive of a STEMI (an acute MI and a positive 12-lead EKG) they are requested to transport to one of the hospitals that are available to provide emergency PTCA. These hospitals include Strong Memorial Hospital, Park Ridge Hospital and Rochester General Hospital. Once again, medics are requested to call in to these hospitals when they are transporting to prepare ED staff.

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A frequently asked question is: Which hospitals are appropriate to receive the psychiatric patient? Those with official designation are Park Ridge Hospital, Rochester General Hospital and Strong Memorial Hospital. A common problem in the region is the need for medical clearance for these patients. Clearance can be achieved by any of the area hospitals with the subsequent transfer if necessary. However, if the patient has a straightforward psychiatric complaint it is better to transport to one of these institutions. It is not uncommon that the prehospital care provider will call Medical Command for input into this decision.

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As specified by New York state law, each individual agency that is an Advanced Life Support (ALS) provider must have a medical director. The essential qualifications for this person include a license to practice medicine or osteopathy in New York state, familiarity with the design and practice of Emergency Medical Services, and experience in out-of-hospital emergency care. The final essential qualification is that the physician should have history of and practice in the management of the acutely ill or injured.

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Physicians are also required to oversee certain other areas as it pertains to prehospital care. The Regional Medical Director oversees the entire system. Specific duties of this position include overseeing patient care, serving as a patient advocate, setting standards and ensuring compliance

with these care standards. The medical director is also required to sign-off on all EMS protocols and standing orders.

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Quality Assurance is also an important part of prehospital care. Patient care records are reviewed for a multitude of potential reasons, including legal concerns and for audits on a particular type of patient complaint. Every use of a controlled substance within the system must have the patient care record reviewed. Another charge from the state is to promote research into emergency medical services.

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There are also several areas in which the EMS medical director must expand their duties outside of the local region. This person must maintain a liaison relationship with the entire medical community and be familiar with national and state standards. He or she is responsible for or designating a person who travels to the state meetings in Albany. The regional medical director is also responsible for participating in federal, state, and local EMS activities. He or she is also required to participate in the planning and training for such situations as mutual aid, disaster planning, hazardous materials spills and weapons of mass destruction incidents. Finally, the EMS medical director must be a proponent for public education regarding emergency services.

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While most of us are familiar with medical care protocols that are used in the prehospital arena, there are also many other protocols that come into play within the system. In addition to the basic treatment protocols there is an accompanying set of protocols for how to perform approved procedures within the system. This includes initial certification. Destination protocols and review of compliance is one of the most important things the medical director can do, making sure the appropriate patient is taken to the proper facility is of paramount importance.

Another recent addition, which has gained much more significance over time, is how patients are responded to and transported. This includes what level of provider, such as advance life support or basic life support is sent and when an air ambulance versus ground ambulance is appropriate and whether they respond in transport with lights and sirens or in the standard transport mode.

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A question that is commonly brought up regarding EMS concerns medical legal problems. Law suits against EMS providers are exceeding rare. They have been found to occur in one per 24,000 to 27,371 patient encounters. This breaks out as one per approximately 20,000 actual patient transports. It is important that the command physician understands that many duties are covered under Good Samaritan laws, and that most states have a standard of gross negligence when it comes to the level for an appropriate lawsuit.

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In order for lawsuits against Medical Command Physicians to be successful, they typically must meet the following four criteria:

The first is that the command physician authorizes or specifically instructs a provider to perform a function or give a medication that is clearly outside of their scope of practice.

Number two is that the command physician willfully and wantonly disregards any of the regional patient care protocols.

Number three, which goes hand-in-hand with number two, is that the laws concerning the appropriate care transport of patients are willfully or wantonly disregarded.

The final basic requirement is that the order the command physician issues is clearly harmful, reckless or negligent and results in a bad outcome for the patient.

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Other areas that are of high potential for medicolegal problems are interfacility transports. Each physician should understand that it is the sending facilities responsibility to make sure that the proper care for the patient is maintained during the transport. This includes insuring that the appropriate people of the appropriate level of training are sent with the patient and that they have the appropriate medications and or devices to take care of any reasonably foreseeable complications with that patient. Each transport must also comply with all COBRA and EMTALA laws. The area of most concern with these types of transports is not having adequate staffing to take care of the patient, both in numbers and in qualification. Interfacility transport should have the highest level of provider that can be foreseen for the patient's acute problem.

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The next area of concern is HIPPA.

Originally when the law was proposed it was required that full consent is obtained from the patient prior to the command process. This was very quickly overturned, and consent for Medical Command is considered to be implied. In addition, this does not establish a preexisting relationship with the patient and the patient does not necessarily need to be transported to the command hospital. Sources of information such as the EMS report and patient care record are covered by HIPPA as part of the official patient record. QI reports and investigations of complaints are considered to be confidential and not discoverable in case of a lawsuit. However it does not apply when an EMTALA violation is charged, which is a federal statute. The final note on HIPPA is that the only official legal and proper way to provide EMS follow-up about a patient is in an educational setting. Therefore, EMS providers can obtain follow up from you regarding a patient that has been brought to your institution if they are obtaining it for educational purposes (i.e. how did they do in taking care of the patient).

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Automated external defibrillators are now commonplace in the prehospital arena. They are routinely carried by first responders, EMTs, and also in many cases paramedics. The primary point to understand about AED is that the public access defibrillation program is now in effect, in which the lay public are trained to recognize cardiac arrest and apply and use an AED. As a result of the institution of this program and other changes within the system, the survival statistics for cardiac arrest have been significantly improved. However, one of the mandates of this program is that each and every use will be reviewed by the appropriate medical personnel. In some cases you will be called by the Office of Prehospital Care soliciting your input into a

case. This is part of the routine quality assurance program and we would appreciate if you would cooperate as much as possible.

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Medical Direction can be divided into two types: Indirect (often referred to as Off-line) Medical Control, and Direct (also referred to as On-Line) Medical Control.

Indirect medical control includes protocols, education, (both initial as well as ongoing continuing medical education), QA/QI, systems supervision, and helping to renew certification of the prehospital care providers. The System Medical Director is ultimately responsible for ensuring the indirect medical control components to the local EMS region.

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A function of all physicians that work in any emergency department that provides Medical Command is the provision of real-time communication between the prehospital provider and the physician (Direct Medical Control). This process of Medical Command includes requirements as outlined within patient care protocols for the individual EMS region as well as real-time direction in non-standard situations or whenever the prehospital care provider has a question. Only medical command certified physicians may provide on-line medical control. Nurse practitioners, physician assistants, registered nurses, and non-certified physicians may not. Senior emergency medicine residents are qualified once they have been certified.

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Protocols are the backbone of the provision of care by the EMS provider. These serve as guidelines from which the provider is required to approach a patient based on chief complaint. Certain interventions in specific situations are called standing orders. These allow the prehospital care provider to initiate treatment without contacting Medical Command. This includes provisions for both medications and procedures.

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In the Monroe-Livingston Region the protocols are developed by the Regional Emergency Medical Advisory Council, termed REMAC. These protocols are approved and signed-off by the regional medical director and are required to be sent to the state where they are reviewed and approved by the State Emergency Medical Advisory Council, called SEMAC.

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Protocols can be found in three separate areas. The first is near the Medical Command telephone in each emergency department. The second is through the Office of Prehospital Care, the phone number of which is (585) 273-3961. Third they may be retrieved from the MLREMS website at www.MLREMS.org.

It is critical that you read and understand all of the MLREMS protocols. This self study module will not review each protocol.

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As part of the routine quality assurance process several relatively new protocols have been identified as being common sources of medical command errors. These would include the adult pain management protocol, the pediatric pain management protocol, the RSI protocol, and the

behavioral emergencies protocol. These protocols have undergone significant revision over the past several years. It is important that the command physician be familiar with these.

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The first is the pain management for adults, as shown on the screen. Please take the time to familiarize yourself with this protocol. Several points deserve specific attention. The first is that it is common for the prehospital care provider to request pain medication for the multiple trauma patient. This is inappropriate, as pain medication should only be given for a discrete isolated injury. Any potential for head, chest, abdominal or spinal trauma should not receive morphine. The administration of morphine is an absolute online procedure, meaning that the EMS provider must receive a Medical Command order before administering this medication. In cases of radio failure they are not allowed to proceed and give the medication. It should also be noted that a range of 2 to 5 milligrams IM or IV is approved for the initial dose. The physician providing medical control can increase the dose as needed. Cases of narcotic overdose from EMS administration are extremely rare, and inadequate pain control is unacceptably common. We encourage medical command physicians to provide adequate dosing as necessary. For an average sized adult, 5mg is an appropriate first dose.

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The next is pain management in children. The same cautions apply to this protocol, however, it should be noted that the medication dosage is 0.1 milligrams per kilogram IV or IO.

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One of the newer protocols in the Monroe-Livingston region is the ability for specially trained providers to provide rapid sequence intubation (RSI). This is a high risk procedure that requires significant physician involvement. These providers are especially selected and go through a rigorous process to determine their qualifications to be able to take the class, which prepares them and allows them to use paralytic drugs and sedative agents. Please review this protocol carefully. The basic tenants of this protocol are to provide sedation with etomidate followed by an induction dose of succinylcholine to achieve optimal intubating conditions when definitive airway management is indicated. Please note the list of indications found at the top of the protocol. Also, facilitated intubation, meaning use of sedative without paralytics, is not authorized. The regional medical director's office provides strict oversight of the RSI program, including an immediate QA debriefing of the RSI paramedic.

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After confirming proper tube placement, long-term paralysis may be administered using vecuronium. In addition, continued sedation may be used with Versed or Valium. Pain should be controlled with morphine. Please be aware that one of the common problems we have found during quality assurance review regarding this protocol is the performance of RSI to the post-ictal patient. Seizure patients rarely require RSI.

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Another new protocol is behavioral emergencies. Research has shown that common problems in which patients are harmed are those with mental illness or substance abuse problems who are combative. In the past these patients were restrained by the police and forcibly brought to the emergency department. In conjunction with the Law Enforcement Councils of Monroe and

Livingston counties, it was determined that chemical sedation would be preferable in any of these situations. Therefore, a protocol was developed that allows the administration of haloperidol (Haldol) at a dose of 5 milligrams usually given by the intramuscular route. Prehospital care providers are also required to call the receiving institution to inform them of the impending arrival of the patient that fits this protocol.

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The next areas in which we have identified concerns through the quality assurance process are special situation protocols. These include on scene medical personnel, Do Not Resuscitate orders, termination of resuscitation and obvious death.

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The situation in which there is another healthcare provider on scene attempting to care for the same patient as the prehospital care provider may be of concern. Prehospital care providers are required to request identification of the type of medical provider certification, such as proof of being a physician or nurse. The on-scene medical provider is not to interfere with the routine care provided by the emergency medical technician. In addition, the on-scene provider is required to write down any orders on the PCR (Patient Care Record) and to sign the form. If they wish to take over complete care of the patient they are required to accompany the patient to the hospital. It is within prehospital care provider's purview to ask that police remove an interfering person from the scene. Very often it is helpful for the command physician to speak directly to this on-scene medical provider to iron out any potential problems.

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The next protocol to be discussed is the Do Not Resuscitate (DNR) protocol. Often patients have a valid Do Not Resuscitate order, yet for some reason the emergency medical services provider is called and arrives on scene. Often there is no form to document the DNR order. The protocol outlines those forms of identification of a DNR order that are acceptable for the prehospital care provider. This protocol also directs the prehospital care provider as to what type of care and intervention they should provide in this situation. It should be noted EMS can honor any DNR order for patients in nursing homes.

There is one exception to this protocol in Monroe County. The MOLST form is acceptable within certain limitation. This will be discussed later.

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Next is the termination of resuscitation protocol. Currently, if the patient has undergone ACLS resuscitation by an ALS provider and meets certain criteria, including being in asystole or pulseless electrical activity rhythm for 25 minutes despite interventions, are eligible for termination of resuscitation at the scene. Please familiarize yourself with the other tenants of this protocol; much of it is a judgment call on the part of the prehospital care providers. If they are uncomfortable for any reason with providing termination of resuscitation at the scene they should transport the patient. Very often the prehospital care providers have relayed to us that they have received criticism for their transport of the patient. This is not appropriate and if there is a concern it should be relayed to the Office of Prehospital Care.

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Finally, there is the obvious death protocol. Occasionally, EMS will be called to the scene of a patient that has features which would negate any success at resuscitation. These are outlined within this protocol. In some cases the prehospital care provider may contact Medical Command to solicit input as to the appropriateness of this protocol. Please understand that these criteria are very strict and are approved at the state level. Resuscitation must be attempted in all pulseless patients who do not meet these criteria or do not have a valid DNR.

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Due to the continued ambiguity with Do Not Resuscitate orders, a committee has developed a special DNR form called the “Medical Orders for Life Sustaining Treatment” or MOLST form. The program was approved as a pilot project by the governor for Monroe County. The standard MOLST form, which is a bright pink form and is included in your packet, may be substituted for the standard, state mandated EMS form. This form was developed with input from multiple different healthcare providers, of many different specialties and has shown to improve compliance with the DNR process. It is designed to have an easier understanding than the standard form and is also portable between the patient’s home, hospitals, nursing homes, etc.

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While New York State is using the MOLST form as a pilot project it has been introduced in various forms in other states and has been very successful. In distinction from the standard DNR form, it has general DNR instructions as well as general DNI or Do Not Intubate instructions. The pages and sections that apply to prehospital care is the first page of the MOLST form.

These instructions are to be taken as physician’s orders because they are signed by the involved physician. The EMS provider is to follow the orders and then contact the Medical Control physician.

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When viewing this form if sections B and C (the signatures) are not completed there are no restrictions on what type of resuscitation efforts the patient should receive.

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We’ll now review the individual sections of the MOLST form. The first is section A, which consists of check boxes and caveats for the patient in full cardiac arrest. In this section, which is reproduced on this slide, are two check boxes. One is complete Do Not Resuscitate order, which is the first check box. The second is full cardiopulmonary resuscitation with no limitations, which is the second box. As you can see this is designed to give a clear indication of the patient’s wishes to the prehospital care provider.

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In Section B of the MOLST form is for the signature of the patient. Section C is for the physicians’ signature, and license number, which are required for completion of this section.

In the future, the other parts of the MOLST form will become usable by EMS. When that happens, updates will be distributed.

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Certain specialty protocols, because of their potential for misuse, require additional record keeping and documentation requirements. This includes controlled substances. This is an area in which the state is extremely vigilant and requires strict record keeping procedures including keeping these substances locked and documented at all times. The following is required by the state on every patient that receives a controlled substance, which in Monroe-Livingston County, include Morphine, Valium and Versed. The Medical Command physician must print their name and sign each form. In addition the date, time of the call, run identification number, patient name, ALS agency name and the medic or AEMT number and name must be documented on the command sheet form. The patient complaint and presenting problem are also required, as well as the name of the controlled substance, the dosage and route of administration, quantity, and route of administration. The final required element is the name of the receiving hospital.

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This is a reproduction of the controlled substances part of the current form used in the region.

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It is important to recognize that medical command sheet documentation and audio recording are required and serve as a legal document. It is required that each Medical Command action is recorded in such a way that it can be retrieved and used for quality assurance purposes. In each and every instance in which a controlled substance is used a complete review of the case is undertaken. This includes reviewing the patient care record (PCR) as well as the Medical Command sheet. Feedback to the providers both in the prehospital care arena as well as in the emergency departments may be provided. Occasionally the regional medical director's office will request to review the medical command tapes for QA purposes.

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These documentation items are required. Demographic information includes: medic unit, date and time, age, chief complaint. Clinical information includes vital signs, blood glucose level (as indicated), lung sounds, medication information, and controlled substance information. Finally, the form must be signed.

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You have now completed reviewing the slides for the Base Station Course. Please make sure you have read the protocols and the other documents we have provided. Once you have done that, you may take the Post-Test.

Submit the Post-Test to the OPC, where it will be graded. As long as you answer 75% of the questions correctly, you will pass and receive a certificate.

For any questions, call the OPC at 273-3961.