**Hudson Valley Regional**
**Emergency Medical Services Council**
103 Executive Drive ~ Suite 400, New Windsor, NY 12553
(845) 245-4292 ~ fax: (845) 245-4181
www.hvremsco.org

# QUALITY IMPROVEMENT GUIDELINES

**Developed by the**

**Hudson Valley Regional Medical Advisory Committee**

*Effective June 04, 2002*

## Section 1:

# Introduction

The primary goal of an Emergency Medical Services (EMS) system is to reduce death and disability from injuries and medical emergencies by providing timely, efficient and effective pre-hospital care to those who are in need of it. EMS provider agencies, hospitals, regional and state councils, and affiliated personnel must play a lead role in the implementation of Quality Improvement (QI) in an effort to improve the EMS system. Health care is a dynamic field that is constantly evolving. New discoveries and technologies are developed on a regular basis. This is especially true in the field of EMS. In order to ensure that our patients are receiving the best care available, we must routinely evaluate our standards of care and identify areas of strength and weakness. Evaluation is the essential process of assessing EMS quality and, where necessary, developing and implementing programs for improvement. QI is a continuous evaluation process that includes retrospective, concurrent, and prospective analysis. Assessment of the system's effectiveness and related costs, and patient outcomes is an essential part of a comprehensive EMS system evaluation. From a medical-legal perspective, such a program will reduce risk by reinforcing the delivery of appropriate patient care.

The Hudson Valley Regional EMS Council (HVREMSCO) has established these guidelines in an effort to assist and coordinate Hudson Valley Regional EMS system participants with the implementation of an effective non-punitive and standardized QI method. Realizing that QI methods are continuing to develop, the HVREMSCO recommends the following resources to enhance your organizations QI plan:

- A Leadership Guide to Quality Improvement for Emergency Medical Services (EMS) Systems, U.S Department of Transportation, National Highway Traffic Safety Administration, July 1997
- The Baldridge National Quality Program, Health Care Criteria for Performance Excellence, National Institute of Standards and Technology, Technology Administration, Department of Commerce, 2001

The HVREMSCO endorses the notion that QI is much more than solely a retrospective review of Patient Care Reports (PCRs) and promotes the incorporation of QI into all aspects of an EMS system.

## Section 2:

# Mission

EMS lies at the crossroads of public health, public safety, and medicine. The mission of EMS in New York State is to provide timely and appropriate emergency medical care to the ill and injured, thereby reducing deaths and disabilities resulting from sudden illness or injury. Emergency Medical Services are an integral part of the total health care delivery system of every community.
EMS begins with the public, which should be able to easily access an EMS system that uses medically approved dispatch protocols and functions under medical supervision. Often, initial responders to an emergency are members of the public safety sector who should possess adequate training in basic life support to stabilize the patient until trained emergency medical personnel arrive. Emergency response vehicles should be appropriately equipped and should be staffed by trained EMS personnel. The patient should be transported to a medical facility that can provide appropriate care. A system of medical oversight of all EMS services must be in place to ensure optimal levels of care consistent with accepted standards of medical practice and available resources. Finally, all

components of the EMS system should be linked together by a functioning EMS communications system and a quality improvement mechanism.[1]

**Section 3:**

# Vision

Accepting a vision for the future of EMS is an integral part of accepting an EMS plan. The New York State Emergency Medical Services System will encourage and enable regional EMS systems to become fully integrated into their own community health care systems by participating in programs of illness and injury prevention, providing quality acute illness and injury care, and contributing to the treatment of chronic conditions. EMS must work with other health care providers as well as with social service and public safety agencies. EMS will strive to improve community health and facilitate the appropriate use of acute health care resources. EMS is, and will remain, the emergency medical safety net for anyone in New York State with a perceived need for emergency medical assistance.[1]

**Section 4:**

# Pertinent Regulations and Legislation for Quality Control of Patient Care

1. Article 30 and Article 30a of the New York State Public Health Law, Emergency Medical Services:
   Establishes that every ambulance service and advanced life support first response service shall:
   a. Establish or participate in a Quality Improvement Program, which shall be an ongoing system to monitor and evaluate the quality and appropriateness of medical care provided by the ambulance service or advanced life support first response service, and;
   b. Pursue opportunities to improve patient care and resolve identified problems.

2. Article 28- New York State Public Health Law, Hospitals:
   a. Requires that the hospital have a pre-established, pre-hospital interactive system (mechanism) in place. Quarterly integration is a mandated minimum requirement. There must be medical interface regarding the quality of pre-hospital patient care which includes physicians (from both the community and the hospital), nurses and pre-hospital care providers.

3. 405 Regulations, New York State Hospital Code (Section 405.19):
   a. Require a review of emergency services at least four times a year as part of a hospital's overall QI program;
   b. Require review of medical control and medical oversight of the system for pre-hospital EMS;
   c. Require review of on-scene triage procedures and protocols for those patients in need of specialized care at designated hospitals (e.g., trauma/burn center, etc.);
   d. Require review of protocols and emergency care provided for patients. This must include pre-hospital care providers, emergency services personnel and appropriate physicians

[1] New York State Department of Health, "Emergency Medical Services Plan", 1998

4. Chapter VI of Title 10 (Health) – Part 80 – Rules and Regulations on Controlled Substances:
    a. Documents administrative rules and regulations pertinent to the handling of controlled substances. Also requires a Quality Assurance plan and lists pertinent responsibilities of the Medical Director.

5. Joint Commission on Accreditation of Healthcare Organizations (JCAHO):
    a. Requires review of staffing, training, and continuing education for emergency services. JCAHO standards encompass reviews in such areas as drug utilization, management of critical life and limb threatening conditions, and disaster planning.

6. Consolidated Omnibus Budget Reconciliation Act (COBRA):
    a. Mandates requirements for interfacility transfers and holds the individual practitioner liable for violations.

**Section 5:**

# Confidentiality

As outlined in Article 30 of the New York State Public Health Law, the information required to be collected and maintained, including information form the pre-hospital care reporting system which identifies an individual, shall be kept confidential and shall not be released except to the New York State Department of Health or pursuant to Section 3004A of Article 30 of the New York State Public Health Law. Notwithstanding any provision of law, none of the records or documentation or committee actions or records required pursuant to Section 3006 of Article 30 shall be subject to disclosure under Article 6 of the Public Officers Law or Article 31 of the Civil Practice Law and Rules, except as hereinafter provided or as provided in any other provision of law. No person in attendance of a Quality Improvement Committee shall be required to testify as to what transpired there at. The prohibition related to disclosure of testimony shall not apply to the statements made by any person in attendance at such a meeting who is a party to an action or proceeding, the subject of which was reviewed at the meeting. Prohibition of disclosure of information from the pre-hospital reporting system shall not apply to information which does not identify the ambulance service or individual. Any person who in good faith and without malice provides information to further the purpose of Section 3006 of Article 30 or who, in good faith and without malice participates on a Quality Improvement Committee shall not be subject to any action, civil damages or other relief as result of such activity.

**Section 6:**

# QI Requirements for Pre-hospital Provider Agencies

As outlined in Article 30 of the New York State Public Health Law, every ambulance service and advanced life support first response service shall establish or participate in a quality improvement program, which shall be an ongoing system to monitor and evaluate the quality and appropriateness of the medical care provided by the ambulance service or advanced life support first response service, and which shall pursue opportunities to improve patient care and to resolve identified problems. The quality improvement program may be conducted independently or in collaboration with other services, with the appropriate regional council, with an EMS program agency, with a hospital, or with another appropriate organization approved by the New York State Department of Health. Such a program shall include a committee of at least five members, at least three of whom do not participate in the provision of care by the service. At least one member shall be a physician,

and others shall be nurses, or emergency medical technicians, or advanced emergency medical technicians, or other appropriately qualified allied health personnel. The Quality Improvement Committee shall have the following responsibilities:

- To review the care rendered by the service, as documented in pre-hospital care reports and other materials. The committee shall have the authority to use such information to review and to recommend to the governing body changes in administrative policies and procedures, as may be necessary, and shall notify the governing body of significant deficiencies;
- To periodically review the credentials and performance of all persons providing emergency medical care on behalf of the service;
- To periodically review information concerning compliance with standard of care procedures and protocols, grievances filed with the service by patients or their families, and the occurrence of incidents injurious or potentially injurious to patients. A quality improvement program shall also include participation in the New York State Department of Health's pre-hospital care reporting system and the provision of continuing education programs to address areas in which compliance with procedures and protocols is most deficient and to inform personnel of changes in procedures and protocols. Continuing education programs may be provided by the service itself or by other organizations; and
- To present data to the regional medical advisory committee and to participate in system-wide evaluation.

The HVREMSCO recommends that all pre-hospital provider agencies identify a Quality Improvement (QI) Officer to oversee the agency QI plan and act as a liaison between the agency, hospital, and Regional QI participants. Additionally, it is recommended that all agencies integrate their QI procedures with other emergency services, hospitals, and/or the HVREMSCO whether or not agencies handle their respective internal quality control issues independently or collaboratively.

The Pre-Hospital Provider Agency's QI plan should include parameters that address, at a minimum, the following review criteria on a regular basis:

1. Time interval from the time the call for help is placed to the time of dispatch of emergency services
2. Time of response to scene
3. Time patient contact is initiated
4. Effectiveness of patient assessment and accuracy of presumptive field diagnosis
5. Appropriateness and effectiveness of pre-hospital medical care
6. Compliance with existing triage, treatment, and transport protocols
7. Appropriateness of on scene time
8. Appropriateness of patient transport procedure and destination
9. Continuity of pre-hospital to hospital care (e.g., communication, transfer of care procedures etc.)
10. Accuracy, legibility, and completeness of PCR and all related patient care documentation
11. Internal or external customer feedback (e.g., patient, family members, emergency responders, co-workers, managers, hospital staff etc.)
12. Efficacy of care (e.g., patient disposition at Emergency Department, if information is available)

Examples of QI review procedures include the following:

- Retrospective review; review of system processes after they have occurred (e.g., PCR review, patient complaints, critique sessions, etc.)
- Concurrent review; Real time review of processes (e.g., field observation, on-line medical control, etc.)
- Prospective review; measuring future events against predetermined parameters (e.g., implementing protocols, establishing time standards, etc.)

The HVREMSCO has developed the following list of the call events that require **mandatory review** by all QI committees. The established list will be re-evaluated on a continuing basis and will be modified as necessary.

- ALS Criteria Trauma Calls
- ALS Unavailable when Indicated
- Cardiac or Respiratory Arrest / Obvious Death
- Complaints or Grievances Filed with the Service by the Patient or Their Families
- Equipment Failure
- Helicopter Request Calls
- Hospital Diversions
- Incidents that are Injurious or Potentially Injurious to Patients
- Mass Casualty Incidents
- Medical Control Order Requests
- Patients Initially Treated by a Public Access Defibrillation (PAD) Organization
- Pediatric Calls (age<15yrs.)
- Rapid Sequence Intubations
- Refusal of ALS Care
- Unconscious Patients
- *Local or Regional Focused Study*

## Section 7:

# QI Information Reporting Procedure

1. All ambulance services and ALS first response services shall establish a QI committee either independently or collaboratively and shall conduct regular retrospective, concurrent, and prospective review of all mandatory call events outlined in section 6 of these guidelines utilizing the minimum review criteria also outlined in section 6 of these guidelines.
2. QI committees shall use the HVREMSCO QI documentation forms included with these guidelines or may develop similar forms of their own to record all QI reviews.
3. QI committees shall develop a written QI pan and/or make revisions as necessary and submit a copy of the plan to the HVREMSCO Regional Office.
4. QI committees shall conduct meetings at a minimum of one meeting every six months or as more often as necessary to discuss all QI issues including the effectiveness of the respective QI plan that is implemented by the ambulance service or ALS first response service.
5. QI committees will be required to develop written meeting summaries (minutes) and submit copies of the meeting minutes along with all pertinent QI documentation forms to the HVREMSCO Office no later than June 30th and December 31st respectively.

6. QI committees shall notify the HVREMSCO of all QI questions or concerns that require immediate review by the HVREMSCO QI Committee as soon as possible.
7. The HVREMSCO QI Committee will conduct meetings at least once every six months or as more often as appropriate to address serious Regional QI issues. The HVREMSCO QI Committee will provide summary reports to the Hudson Valley Regional Medical Advisory Committee (HVREMAC) and the HVREMSCO at all regularly scheduled HVREMAC and HVREMSCO meetings.

**Section 8:**

# QI Requirements for Hospital Emergency Departments and Services

Hospital emergency departments are a vital asset to the QI system. Therefore the HVREMSCO recommends that all Receiving and Medical Control Hospitals, as defined in the HVREMSCO Medical Control Plan, participate in the pre-hospital EMS QI system. All hospital emergency departments are required to perform data collection and QI activities as designated by part 405.19 item (f) of the New York State Hospital Minimum Standards Code. The HVREMSCO requires all Medical Control Hospital Medical Directors to:

- Ensure adequate QI training and familiarity with HVREMSCO QI Guidelines of all emergency department physician and nursing staff
- Develop and implement an effective QI program for continuous system and patient care improvement
- Direct and facilitate an on-going review of the medical control system and quality improvement program.
- Report any EMS personnel or ALS agency complaint, protocol violation or lack of cooperation with other aspects of medical control and or quality improvement activities, to the HVREMSCO executive director as established in the HVREMSCO protocols

It is recommended that each hospital appoint an EMS liaison to coordinate QI procedures between the pre-hospital and hospital QI participants. The hospital emergency department and services QI process should contain the following procedures:

- Conduct protocol and or patient care review sessions as necessary
- Evaluation of interfacility transports
- Incorporation of the PCR into the patient's permanent hospital record
- Monitor on-line medical control compliance with established protocols
- Provide feedback to agency QI Officer regarding appropriateness and efficacy of pre-hospital patient care
- Review of all emergency department deaths that are transported to the hospital by pre-hospital EMS

# References


1. Article 30 and Article 30A of the State of New York Public Health Law, New York State Department of Health
2. Part 405.19 of the New York State Hospital Minimum Standards Code, New York State Department of Health
3. New York State Emergency Medical Advisory Committee, Quality Improvement for New York State Pre-Hospital Care Providers, New York State Department of Health, 1996.
4. New York State Emergency Medical Services Council, Emergency Medical Services Plan, New York State Department of Health, 1998.
5. Robert A Swor, Quality Management in Pre-Hospital Care, NAEMS Physicians, Mosby, 1993.
6. U.S. Department of Transportation, National Highway Traffic Safety Administration, A Leadership Guide to Quality Improvement for Emergency Medical Services Systems, July 1997.

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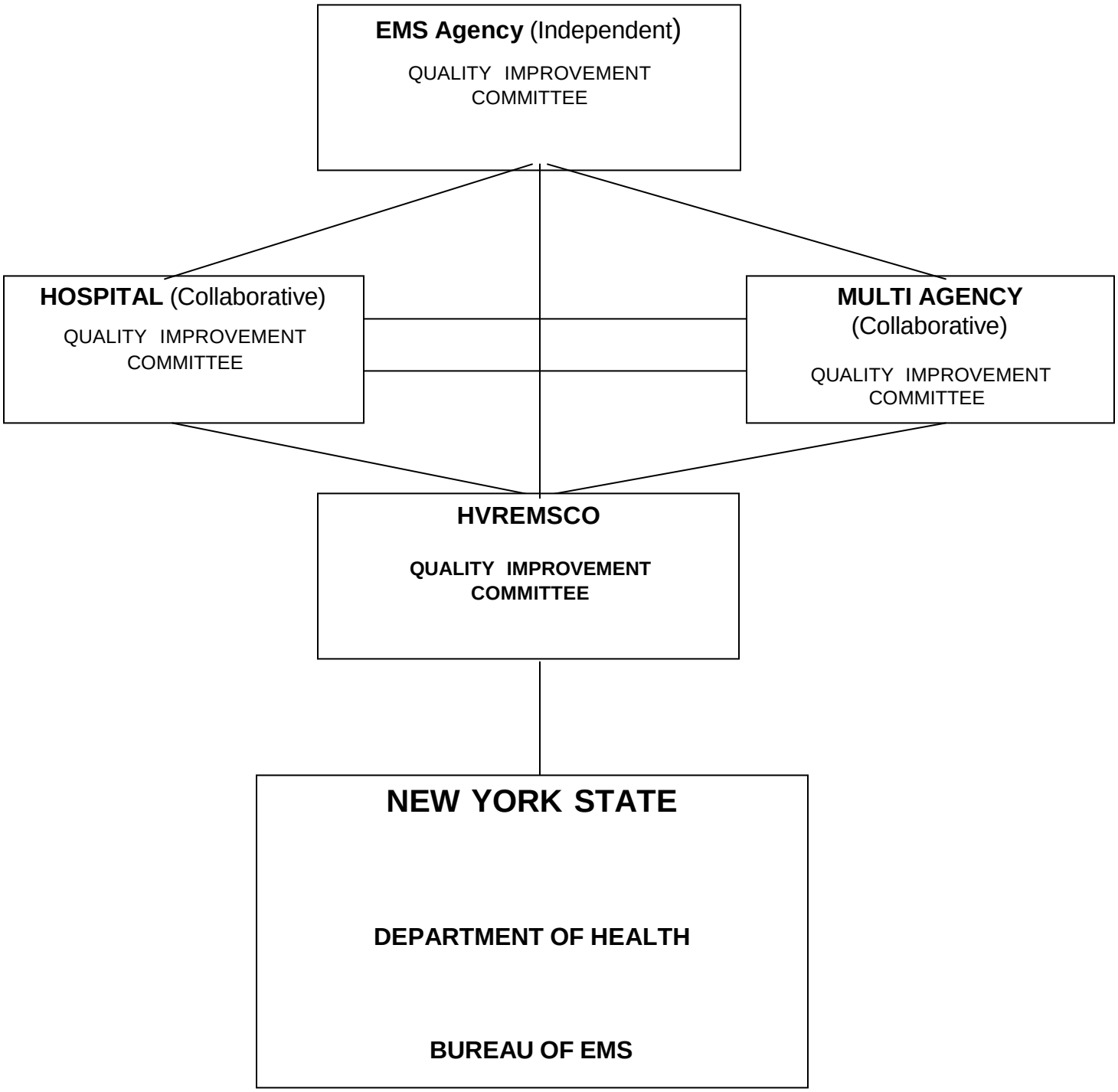
# Recommendations for Establishing a QI Plan

1. Determine if QI will be conducted independently or collaboratively.
2. Select an individual who has a pre-existing knowledge base of QI principles and/or offer QI education to an individual and designate them the agency QI Officer.
3. Offer educational in service to all members of the organization. In service can be conducted by agency QI Officer or external QI resource contact.
4. Establish a QI Committee consisting of a minimum of 5 individuals, at least 3 of whom do not participate in the provision of care by the service. At least one member being a physician and the others being nurses, EMT(s), AEMT(s), or other appropriately qualified allied health personnel.
5. Implement committee rules and regulations
6. Establish parameters that define an acceptable level of quality for the service and/or system.
7. Establish QI review criteria including local focus studies and mandatory regional requirements.
8. Determine frequency of and type of retrospective, concurrent, and prospective QI review procedures.
9. Establish recognition, remediation, education and reporting procedures.
10. Develop necessary QI documentation forms.
11. Develop communication of information flow process.
12. Develop written QI Plan that outlines all of the above information

# Hudson Valley Regional EMS Council

## Quality Improvement Flow Chart



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## Patient Care Report Quality Improvement Review Form

Call Review Type _____ Review Date_ Date of Call _____

EMS Agency_____PCR # _____

_____ NYS Certification #_____HVREMAC #_____Receiving Hospital ___

_____

Call Times are within accepted parameters? ( ) Yes ( ) No

If No, explain deviation. _____

Patient Assessment was thorough and revealed a presumptive diagnosis? ( ) Yes ( ) No

If No, explain deviation. _____

Pre-Hospital Medical Care that was provided was appropriate and effective? ( ) Yes ( ) No

If No, explain deviation. _____

Patient Care was provided in compliance with existing triage, treatment, and transport protocols? ( ) Yes ( ) No

If No, explain deviation _____

Patient transportation to an appropriate destination was performed in an acceptable manner? ( ) Yes ( ) No

If No, explain deviation. _____

Continuity of Pre-Hospital to Hospital Care was acceptable? ( ) Yes ( ) No

If No, explain deviation. _____

PCR and related documentation was complete, accurate, and legible? ( ) Yes ( ) No

If No, explain deviation. _____

Internal or External Customer Feedback? ( ) Yes ( ) No

If Yes, check what applies. ( ) Positive Feedback ( ) Negative Feedback

Describe. _____

Patient Disposition at Hospital (if available) reflects Pre-Hospital Care was provided appropriately?( ) Yes ( ) No

Describe. _____

*Continue on Back of Sheet*

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## Patient Care Report Quality Improvement Review Form

## EMS Provider Comments

Signature of EMS Provider

Date

**It is highly recommended to comment on the quality improvement review that was conducted in regard to the mentioned pre-hospital care report (PCR)**

**QI Resolution** (please list outcome of QI review)

This quality improvement review has been conducted as required by New York State Department of Health (NYSDOH) Law Article 30 Section 3006. The intent of this review is to ensure compliance with all NYSDOH and Hudson Valley Regional EMS Council (HVREMSCO) policies, procedures, protocols and standards of care. As a participant in the NYSDOH and HVREMSCO Quality Improvement Plan, all data that is collected and reviewed by the Quality Improvement Committee will be kept confidential as required by law and will be utilized to improve the quality and effectiveness of patient care that is offered to our patients by identifying deficiencies as well as areas of excellence in current policies, procedures, protocols and educational processes.

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## Quality Improvement Committee Meeting Report

**Agency Name:**_____ **Meeting Date:**_____

| QI Committee Members | Credentials | Affiliation |
|---|---|---|
| | Physician | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

### Pre-Hospital Care Report Review

Number of calls agency responded to:_____ During what time interval?_____

Number of PCR reviews:_____ Number of PCR reviews replied to by EMS personnel:_____

Was there compliance with (Yellow) PCR copy submission during this period? ( ) Yes ( ) No

If No, describe:_____

Number of deviations to accepted parameters:_____

Describe:_____

Number of identified excellences:_____

Describe:_____

List any continually occurring events or trends:_____

***Continue on Back of Sheet***

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List any deviations from standard of care procedures and/or protocols:_____

_____

List any grievances filed by patients or their families:_____

_____

List any occurrences of incidents injurious or potentially injurious to patients:_____

_____

List any significant deficiencies that were reported to the governing body:_____

_____

List any recommended changes in administrative policies and procedures:_____

_____

List any remediation or resolutions to any of the above listed information:_____

_____

List any changes in procedures or protocols in response to any of the above listed information:_____

_____

List any continuing education programs that were offered during this period:_____

_____

## EMS Credential Review

Date of last credential review:_____ Total of EMS personnel:_____

Number of: CFR_____ EMT-B_____ EMT-I_____ EMT-CC_____ EMT-P_____

Are all personnel's New York State Certifications current? ( ) Yes ( ) No

Are all ALS personnel's HVREMSCO credentials current? ( ) Yes ( ) No

Are all other required personnel certifications current? ( ) Yes ( ) No

## Verification

Quality Improvement Officer Signature:_____

Physician Signature:_____

***Please submit a copy of this form along with the QI meeting minutes to the Hudson Valley Regional EMS Council no later than June 30th or December 31st respectively.***