PURPOSE
To describe the continuous quality improvement (CQI) system, the responsibilities of the County of Riverside EMS Agency (REMSA), the responsibilities of each major EMS provider agency or service, and the incident review process.

AUTHORITY
California Health and Safety Code - Division 2.5: Emergency Medical Services [1797. - 1799.207.]

The Continuous Quality Improvement (CQI) System
The County of Riverside EMS Agency (REMSA) has established and will continue to facilitate a system wide CQI program to monitor, review, evaluate and improve the delivery of prehospital care services. The program involves all system participants and includes, but is not limited to, the following activities:

1. Prospective - designed to prevent potential problems.
2. Concurrent - designed to identify problems or potential problems during the course of patient care.
3. Retrospective - designed to identify potential or known problems and prevent their recurrence.
4. Reporting/Feedback - CQI activities will be reported to REMSA in a manner to be jointly determined by system participants. As a result of CQI activities, changes in system design may be made.

Agencies will conduct an annual review of their CQI plan and submit all prospective updates to REMSA for approval prior to implementation, but no later than December 31 of the same year. Section VI of the CQI Plan (Annual CQI Update) will be due by January 31.

EMS Continuous Quality Improvement Leadership Team (CQILT)
CQILT is an open group and participation is encouraged for all EMS stakeholders who participate in a CQI role.
Responsibilities of the CQILT include:
1. Attendance at CQILT meetings. If a representative is unable to attend a meeting, he or she is responsible to have a replacement to represent his/her agency.
2. Prepare and follow-up as appropriate for CQILT meetings.
3. Disseminate the information discussed at CQILT meetings to the represented group.
4. Maintain responsibility for monitoring, collecting data on, reporting on, and evaluating state and locally required and optional EMS System indicators from the EMS providers and hospitals within the jurisdiction of the Riverside County EMS Agency.
5. Identify and develop Riverside County EMS specific indicators for system evaluation.
6. Re-evaluate, expand upon, and improve local and state required EMS system indicators annually or as needed.
7. Prepare plans for improving the Riverside County EMS Agency’s CQI program.
8. Establish a mechanism to incorporate input from EMS provider advisory groups for the development of performance improvement plan templates.
9. Recommend the chartering of Quality Task Forces and review of their reports.
10. Seek and maintain relationships with all EMS participants.

The EMS CQILT meets quarterly according to a planned agenda. Results from indicators are reviewed and either continued or retired. New indicators are selected by the committee based on identified trends. Data from indicators decided upon by REMSA and CQILT are required from all providers and Base Hospitals. Prehospital Receiving Centers (PRCs) are strongly encouraged to participate in QI committees and in data collection. One of the primary functions of the CQILT is Root Cause Analysis (RCA). All system data and information is passed to the CQILT who performs an RCA. Once that is completed, the issue is passed to a specific group (Stroke System Committee, STEMI System Committee,
MCI Group, HEMS, TAC, etc.) to more fully investigate the issue. Once the group has reached consensus on the issue, their recommendations are passed back to the CQILT. Outputs of the CQILT include, but are not limited to, data for reporting on REMSA.US.

REMSA makes a distinction between system issues (“common cause”) and individual issues (“special cause”). REMSA looks at the system first to identify a system event and data is used to identify the differences between the two. REMSA stores the data collected on each incident as “special cause” could potentially be an early herald of a “common cause” issue. REMSA always looks at a first event as an early herald of failure for the system.

**REMSA Responsibilities**

**Prospective Responsibilities**

1. Comply with all pertinent rules, regulations, laws, and codes of Federal, State, and County applicable to emergency medical services.
2. Coordinate prehospital CQI committee(s).
3. Plan, implement, and evaluate the emergency medical services system including public and private agreements and operational procedures.
4. Implement advanced life support systems.
5. Approve and monitor prehospital training programs.
6. Certify/authorize/accredit prehospital personnel.
7. Establish policies and procedures to assure medical control which may include dispatch, basic life support, advanced life support, patient destination, patient care guidelines, and quality assurance guidelines.
8. Facilitate implementation by system participants of required CQI plans.
9. Design reports for monitoring identified problems and/or trends analysis.
10. Approve standardized corrective action plans for identified deficiencies in prehospital and base hospital personnel.
11. Monitor other systems for trends and plans.
12. Conduct disaster planning and coordination.
13. Monitor procedure(s) for informing all system participants of system changes.

**Concurrent Responsibilities**

1. Site visits to monitor and evaluate system components.
2. On call availability for unusual occurrences, including but not limited to:
   a. Mass Casualty Incidents (MCIs).
   b. Ambulance diversion.
   c. Disasters and major incidents.

**Retrospective Responsibilities**

1. Evaluate the process developed by system participants for retrospective analysis of prehospital care.
2. Evaluate identified trends in the quality of prehospital care delivered in the system.
3. Establish, monitor, and evaluate procedures for implementing the Incident Review Process for prehospital emergency medical personnel.
4. Collect, aggregate, and develop reports based on data submitted by providers and hospitals.

**Reporting/Feedback**

1. Evaluate submitted data from system participants and make changes in system design as necessary.
2. Provide feedback to system participants when applicable or when requested on CQI issues.
3. Design prehospital research and efficacy studies regarding the prehospital use of any drug, device or treatment procedure where applicable.
4. Regularly publish reports developed from data submitted by providers and hospitals.
EMD Provider Responsibilities
The EMD Provider will establish a CQI program.

A CQI program will address structural, resource, and/or protocol deficiencies as well as measure compliance to minimum protocol compliance standards as established by the EMD Physician Advisor through on-going random case review for each emergency medical dispatcher.

The CQI process will:
1. Monitor the quality of medical instruction given to callers including on-going random case review for each emergency medical dispatcher and observing telephone care rendered by emergency medical dispatchers for compliance with defined standards.
2. Conduct random or incident specific case reviews to identify calls/practices that demonstrate excellence in dispatch performance and/or identify practices that do not conform to defined policy or procedures so that appropriate training can be initiated.
3. Review EMD reports, and/or other records of patient care to compare performance against medical standards of practice.
4. Recommend training, policies, and procedures for CQI.
5. Perform strategic planning and the development of broader policy and position statements.
6. Identify Continuing Dispatch Education (CDE) needs.
8. Comply with reporting and other quality assessment requirements as specified by REMSA.

EMD case review is the basis for all aspects of CQI in order to maintain a high level of service and to provide a means for continuously checking the system. Consistency and accuracy are essential elements of EMD case review.

1. Critical components of the EMD case review process:
   a. Each CQI program will have a case reviewer(s) who is:
      i. A currently licensed or certified physician, registered nurse, physician assistant, paramedic, AEMT or EMT, who has at least two (2) years of practical experience within the last five (5) years in pre-hospital emergency medical services with a basic knowledge of emergency medical dispatch, and who has received specialized training in the case review process; or
      ii. An emergency medical dispatcher with at least two (2) years of practical experience within the last five (5) years, and who has received specialized training in the case review process.
   b. The case reviewer will measure individual emergency medical dispatcher performance in an objective, consistent manner, adhering to a standardized scoring procedure.
   c. The regular and timely review of a pre-determined number of EMD calls will be utilized to ensure that the emergency medical dispatcher is following protocols when providing medical instructions.
   d. Routine and timely feedback will be provided to the emergency medical dispatcher to allow for Improvement in their performance.
   e. The case reviewer will provide compliance-to-protocol reports at least annually to the EMD Physician Advisor to ensure that the EMD Provider Agency is complying with their chosen Emergency Medical Dispatch Protocol Reference System (EMDPRS) minimum protocol compliance standards, and agency policies and procedures.

BLS Provider Responsibilities
Prospective Responsibilities
1. Participation on committee(s) as specified by REMSA.
2. Education
   a. Orientation to EMS system.
   b. Continuing education activities to further the knowledge base of the field personnel.
   c. Participation in certification courses and the training of prehospital care providers.
   d. Establish procedure for informing all field personnel of system changes.
   e. Ensure attendance at skills proficiency demonstration sessions as required by the REMSA Medical Director.
3. Evaluation - Develop criteria for evaluation of field personnel to include, but not be limited to:
a. Patient Care Report (PCR) or other documentation if available.
b. Direct observation.
c. Evaluation of new employees.
d. Routine annual performance evaluations.
e. Problem-oriented.
f. Design corrective action plans for individual first responder deficiencies.

Concurrent Activities
1. Establish a procedure for evaluation of personnel utilizing performance standards through direct observation.
2. Provide availability of field supervisors and/or CQI liaison personnel for consultation/assistance.

Retrospective Analysis
1. Develop a process for retrospective analysis of field care, utilizing the PCR or other available documentation (if applicable), to include but not be limited to:
   a. Low Frequency – average less than 20 uses annually per EMT/paramedic.
   b. High Risk Skills – Improper technique can cause harm to the patient.
   c. Problem-oriented.
   d. Those calls requested to be reviewed by REMSA or other appropriate agencies.
   e. Specific audit topics established through REMSA or CQILT.
2. Develop performance standards for evaluating the quality of care delivered by field personnel through retrospective analysis.
3. Participate in the incident review process.
4. Comply with reporting and other CQI requirements as specified by REMSA.
5. Participate in prehospital research and efficacy studies requested by REMSA or other quality assessment committees.

Reporting/Feedback
1. Develop a process for identifying trends in the quality of field care.
2. Submit reports as specified by REMSA.
3. Design and participate in educational offerings based on problem identification and trend analysis.
4. Make approved changes in internal policies and procedures to comply with REMSA policies.

ALS Provider Responsibilities
Prospective Responsibilities
1. Participation on committee(s) as requested by REMSA.
2. Education.
   a. Orientation to the EMS system.
   b. Field Care Audits.
   c. Participate in continuing education courses and the training of prehospital care providers.
   d. Offer educational opportunities based on problem identification, job scope and trend analysis.
   e. Establish procedure for informing all field personnel of system changes.
3. Evaluation - develop criteria for evaluation of individual paramedics to include but not limited to:
   a. Patient Care Report review/tape review or other documentation as available.
   b. Direct observation.
   c. Evaluation of new employees.
   d. Routine annual performance evaluation.
   e. Problem-oriented.
   f. Design corrective action plans for individual EMT and paramedic deficiencies.

Concurrent Activities
1. Establish a procedure for the evaluation of paramedics utilizing performance standards through direct observation.
2. Provide availability of field supervisors and/or CQI liaison personnel for consultation/assistance.
Retrospective Analysis
1. Develop a process for retrospective analysis of field care, utilizing PCRs, audio tapes, or other applicable
documentation, to include but not limited to:
   a. Low Frequency – average less than 20 uses annually per EMT/paramedic.
   b. High Risk Skills – Improper technique can cause harm to the patient.
   c. Problem-oriented.
   d. Those calls requested to be reviewed by REMSA or other appropriate agencies.
   e. Specific audit topics established through REMSA or CQILT.
2. Develop performance standards for evaluating the quality of care delivered by field personnel through retrospective
   analysis.
3. Participate in the incident review process.
4. Comply with reporting and other CQI requirements as specified by REMSA.
5. Participate in prehospital research and efficacy studies requested by REMSA or other CQI committees.

Reporting/Feedback
1. Develop a process for identifying trends in the quality of field care.
   a. Submit reports as specified by REMSA.
   b. Design and participate in educational offerings based on problem identification and trend analysis.
   c. Make approved changes in internal policies and procedures to comply with REMSA policies.

Base Hospital Responsibilities
Prospective Responsibilities
1. Participation on committees as specified by REMSA.
2. Education
   a. Field care audits.
   b. Continuing education activities to further the knowledge base of the field and base hospital personnel.
   c. Offer educational programs based on problem identification, job scope, and trend analysis.
   d. Participation in certification courses and the training of prehospital care providers.
   e. Establish procedures for informing all base hospital personnel of system changes.
   f. Establish criteria for offering supervised student clinical experience to field personnel.
3. Evaluation - develop criteria for evaluation of individual base hospital personnel to include but not be limited to:
   a. Base hospital run sheets/tape review.
   b. Evaluation of new employees.
   c. Routine annual performance evaluation.
   d. Problem oriented.
   e. Design corrective action plans for individual MICN or base hospital physician deficiencies.
4. Authorization - establish procedures, based on REMSA policies, for MICNs regarding:
   a. Initial authorization.
   b. Maintaining authorization.
   c. Reauthorization.
   d. Challenge process.

Concurrent Activities
1. Provide on-line medical control for field personnel within the REMSA approved scope of practice.
2. Develop a procedure for identifying problem calls.
3. Develop internal policies regarding base hospital physician involvement in medical control according to REMSA
   policies and procedures.
4. Develop a procedure for obtaining patient follow-up when requested by REMSA.
5. Develop performance standards for evaluating the quality of on-line medical control delivered by the MICNs and the
   base hospital physicians through direct observation by the base hospital liaison personnel.
Retrospective Analysis
1. Develop a process for retrospective analysis of field care and base direction utilizing the base hospital run sheet, audio tape, PCR, and patient follow-up, to include but not be limited to:
   a. Low Frequency – average less than 20 uses annually per EMT/paramedic.
   b. High Risk Skills – Improper technique can cause harm to the patient.
   c. Problem-oriented.
   d. Those calls requested to be reviewed by REMSA or other appropriate agencies.
   e. Specific audit topics established through REMSA or other CQI committees.
   f. Review of ALS non-transport with base hospital contact.
2. Develop performance standards for evaluating the quality of medical control delivered by the MICNs and base hospital physicians through retrospective analysis.
3. Evaluate medical care delivered by prehospital care providers based on performance standards through retrospective analysis.
4. Perform audits on calls as required by Title 22, California Code of Regulations, and REMSA policy.
5. Participate in the incident review process.
6. Comply with reporting and other CQI requirements as specified by REMSA.
7. Participate in prehospital research and efficacy studies requested by REMSA or other CQI committees.

Reporting/Feedback
1. Develop a process for identifying trends in the quality of medical control delivered by base hospital MICNs and base hospital physicians.
   a. Submit reports as specified by REMSA.
   b. Design and participate in educational offerings based on problem identification, scope of practice and trend analysis.
   c. Make approved changes in internal policies and procedures to comply with REMSA policies.
2. Participate in the process of identifying trends in the quality of field care delivered by EMS personnel.