Blue Ridge Regional EMS Council

Agency

QUALITY ASSURANCE

2006

Program

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Introduction

The primary goal of an EMS System is to reduce death and disability from injuries and/or illnesses. As research continues into the impact that Prehospital care has on the ultimate outcome of patients, the need to evaluate the quality of the care that we as individuals and organizations provide becomes paramount. However, because we don't exist in isolation we must evaluate our care as it relates to the EMS System in which we practice and, ultimately, to the rest of the Blue Ridge EMS Region (BREMS).

Health care is a dynamic field constantly in a state of change. New discoveries and new technologies are constantly on the horizon. This is especially true in the field of EMS. In order to ensure that our patients are receiving the best care that we can provide, we must routinely evaluate our standards of care and identify areas of strengths and weaknesses. Then we must be willing to share our strengths and correct our weaknesses.

Quality Improvement (QI) is a program of systematic evaluation to ensure excellence. Instead of asking "Who caused this to happen?" QI asks "What is wrong with the process that caused this to happen?" It is a ***judgment*** linked to mechanisms or a system to effect positive change. That judgment is based on acceptable standards of care provided by written protocols and on-line medical control.

A quality improvement program has several components. These are case review, evaluation of indicators, tracking and evaluation of repeating problems, incidents and complaints and scanning monitors.

Quality improvement activity is a means to guarantee continuous quality of care to our patients, educational programs for our providers and a means for identifying areas of concern before they become problems. It requires the cooperation of all EMS players from first responder to the Paramedic and Hospital staff. It must recognize common needs for education, structured feedback, professionalism, mutual respect and, above all, ***confidentiality*** of all quality improvement activities.

Guidelines for Prehospital Provider's & Agencies

Service specific quality improvement activity should be conducted by the most capable person(s) available within each agency. The development of the QI process begins with the identification of the Agency Reviewer.

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The Agency Reviewer has available resources such as:

1. Existing protocols and standards
2. Your service and/or system Medical Director
3. Prehospital Care Reports (PPCR)
4. Service specific data available from the State PPCR System
5. Field supervision by experienced personnel
6. Education curricula

A basic tool for any pre-hospital QI program is PPCR review. This is called retrospective review and is the easiest to implement.

To begin, the QI Reviewer should select specific indicators that will be reviewed on a regular basis. These indicators will cause certain PPCR's to "fall out".

The basic list of indicators that trigger review will be established by the BREMS Regional QI Coordinator in cooperation with the Regional OMD.

Some examples of review indicators are:

1. ***All pediatric transports age 6 and under**
2. ***Cardiac Arrest**
3. ***Multiple Trauma**
4. Shock of any origin
5. Unconscious/unknown cause
6. Heart rate less than 60 or greater than 120
7. BP greater that 160/90 or less than 90 systolic
8. Respirations greater than 28 or less than 12
9. Service/provider/patient/family/hospital complaint
10. Protocol deviation
11. *GCS <13
12. Any other issue of concern

*These are the minimum identifiers as established by the BREMS Regional QI Coordinator and the Regional OMD. The frequency of review is determined by the Agency, QI Coordinator, Agency OMD and Regional OMD with approval of the Regional OMD, and can be based on frequency of runs, types of runs, number of personnel, etc. However, the agency should review on at least a quarterly basis.

Once the PPCR's are identified to be reviewed from your list of indicators, the QI Reviewer will be assessing such things as:

1. Appropriateness of care: the degree to which the correct care is provided given the current state of the art. Are written protocols current? Was there any deviation from written protocol?
2. Continuity of care: the degree to which the care needed by patients is coordinated among providers and across organizations and time. Was medical control contacted appropriately?
3. Timeliness of care: the degree to which care is provided to patients when it is needed. Was on-scene time less than 20 minutes?

As the service QI Reviewers begin to ask questions about the system and identify areas of concern, they can turn to the many resources described above. In particular, the primary receiving hospital can provide data, education and expertise in problem solving.

QI is an ongoing activity, including regular periodic review. The process described above will help each service document its care, provide constructive feedback, identify deficiencies and improve performance through appropriate in-service programs. From a medical-legal perspective, such a program will reduce risk by reinforcing the delivery of appropriate care. More importantly, from the patient perspective, your efforts will contribute to the overall goal of EMS: reducing death and disability.

In addition to regular review of the service list of indicators, periodic review of such things as all patients with chest pain, all pedestrian injuries or diabetic problems might be selected for a focused study.

Follow the steps listed below for the review process, use approved review forms and proceed from there.

The basic steps for review are:

A. Selecting a subject for study, which includes an operational definition of the condition or procedure under study and a definition of patients to be included.

B. Developing criteria and standards, defining acceptable levels of quality.
C. Collecting data.
D. Comparing data to criteria and standards in order to identify areas of excellence and deficiencies.
E. Determining causes of deficiencies and taking corrective action, including:

    1. determining who or what is expected to change
    2. determining who is responsible for implementing action
    3. determining what action is appropriate , and
    4. determining when it is expected to occur.

F. Evaluating the study.

Focused studies are done as a need arises, not on a regular basis. For example, perhaps there is a concern over cardiac patients not being given O2 as per protocol you might pull all PPCR on cardiac patients for a 3 month period. Look to see if O2 was administered in all cases. If not, what percentage did not receive O2. If your acceptable level of practice as determined beforehand is 100% and compliance in your study is only 80%, then you must in-service your personnel, send out a memo, post notices, contact service medical director, etc. Then, after a pre-established period of time, you must complete a similar review to see if compliance has improved. Quality Improvement is a way of looking at improving care, not finding problems for punitive action.

Guidelines for Reporting Process and Information Flow

1. Agency QI Reviewers will review PPCR based on indicators established by the Regional QI Committee and STREMAC using the PCR audit tool. If the PCR does not meet established Area QI and Regional QI standards it is referred on to the Area QI Coordinator for review. The Area QI Coordinator will determine whether the particular PCR will go to the Area QI committee or be handled individually.

2. The service QI Reviewer will prepare a monthly report, using the General Audit Summary Form, for the Area QI Committee. If totals do not meet the established completion standard, the Area QI Committee will determine what corrective action to take, based on problem areas identified. Is it protocol deviation, illegibility, vital signs not taken, etc.?

3. If areas of excellence are identified, the service or the provider will be notified of a job well done.

4. The Area QI Committee will meet at least quarterly and will review the monthly General Audit Summaries from the various services in their catchments area, problems identified by the QI Coordinator or issues related to quality improvement.

5. The Area QI Committee will provide a quarterly summary in writing of all QI activity to the Regional QI Committee.

Agency QI Reviewer

The Service QI Reviewer will identify all PPCR's that meet the Regional QI criteria. Using the appropriate forms and documentation, each service QI reviewer will report their findings to the Area QI Coordinator The Area QI Coordinator will review reports and report findings to the Area QI Committee.

The goal of this position will be data gathering and maintaining patient confidentiality at the hospital level.

Duties and Responsibilities

1. Identify PPCRs that meet the regional QI criteria.

2. Participate on the Area QI Committee and report back to service membership through their monthly meetings.
3. Provide leadership to other service members in improving prehospital care.
4. Maintain own skills and knowledge base.

Regional Quality Improvement Committee

Membership shall number at least five and include at least:

- Agency OMD & 3 EMS providers (EMT P , EMT I , EMT B)

These shall be selected by the agency OMD .

Responsibilities:

1. Present quality improvement data to the regional emergency medical advisory committee.
2. Receive and review data from the Area Quality Improvement Committee and to recommend to the Council changes in administrative policies and procedures.
3. Notify the Council of significant issues related to the provision of quality prehospital care.
4. Receive and review from the Area Quality Improvement Committee reports on provider credentialing and performance.
5. Receive and review reports from the Area Quality Improvement Committee on:
    a. Quality of care
    b. Compliance with standard of care procedures and protocols.
6. Establish and/or provide continuing education programs to address areas in which compliance with procedures and protocols need to be improved.
7. Periodically evaluate system's Quality Improvement Program.

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Responsibilities:

1. Review care rendered by those services that care for patients transported to the Area QI Committees identified hospital.
2. Notify Regional Quality Improvement Committee of significant issues related to the

provision of quality prehospital care.

3. Quarterly review:
   a. Quality of care
   b. Compliance with standards of care procedures and protocols.
   Grievances filed with services by patients or their families.
   d. The occurrence of incidents injurious or potentially injurious to patients. Report these findings to the Regional Quality Improvement Committee.
4. Suggest continuing education programs to address areas of compliance with procedures and protocols that need to be improved and recommend to the Regional Quality Improvement Committee regional continuing educational programs and/or topics.
5. Participate in the system wide evaluation of the quality improvement program

Meetings will be held at least quarterly or as needed to fulfill the committee's responsibilities. Minutes will be maintained in a secure area and marked, "Confidential, for QI purposes only."

Glossary

Continuous Quality Improvement: The sum of activities undertaken by the service to provide confidence to its patients and maintain a standard of excellence. It is a dynamic process based on multiple activities to maintain the ultimate goal of the Emergency Medical Service System: the provision of timely, efficient and effective prehospital care to all those who need it.

Indicators: Any of a group of predetermined values that are of high risk to the provider or service that should be periodically reviewed to reduce risk. They can be either high or low volume.

Concurrent Review: Real time review of processes through on-line medical control, ED observation, field observation, etc.

Prospective Review: Measuring future evens against predetermined standards. This is accomplished through standardized protocols, establishment of time standards, etc.

Retrospective Review: Review of system processes after they occur. This is accomplished through PCR review, critique sessions, patient complaints, etc.

Structural Evaluation: Deals with the presence of mandated resources and includes standard setting for non-personnel issues. This includes evaluating physical facilities, equipment stocking and control procedures, etc.

Process Evaluation: Deals with the use of resources and appropriateness of such utilization. This deals with patient processing, triage, utilization of available resources, etc.

Outcome Evaluation: Deals with the results of care provided. This deals with stabilization and survival through to recovery and hospital discharge.