Iowa Department of Public Health
Bureau of Emergency and Trauma Services

Continuous Quality Improvement (CQI) Policy Guidance

PURPOSE:
To provide policy and procedure guidance to transport and nontransport service programs for the development of a continuous quality improvement (CQI) program in order to maintain compliance with Iowa Code Chapter 641 - 132(147A).

DEFINITIONS:
"*Continuous quality improvement*" or "*CQI*" means a program that is an ongoing process to monitor standards at all EMS operational levels.
"*Credentialing*" means a clinical determination that is the responsibility of a physician medical director. It is the employer or affiliating organization's responsibility to act on the clinical credentialing status of EMS personnel in making employment or deployment decisions.
"*EMS clinical guidelines*" or "*minimum EMS clinical guidelines*" means a minimum clinical standard approved by the department upon which a service program's medical director shall base service program protocols.
"*Medical director*" means a physician designated by the service program and responsible for providing medical direction and overall supervision of the medical aspects of the service program.
"*Patient care report*" or "*PCR*" means a report that documents the assessment and management of the patient by the emergency care provider.
"*Protocols*" means written directions and orders approved by a service program's medical director utilizing the EMS clinical guidelines.
"*Service director*" means an individual designated by the service program who is responsible for the operation and administration of a service program.

BACKGROUND:
Iowa Code 641-132 establishes the following with regard to the development of a continuous quality improvement (CQI) program:
132.3(2) *Medical Director*
b. A medical director shall:

(4) Develop, approve, and update service program protocols that meet or exceed the minimum EMS clinical guidelines approved by the department.
(5) Ensure that the emergency medical care providers rostered with the service program are credentialed in the emergency medical skills to be provided and the duties of the emergency medical care provider do not exceed the provider's scope of practice as referenced in 641—subrule 131.5(2) and the service program's EMS service level of authorization.
(6) Be available for individual evaluation and consultation with service program personnel.
(7) Have authority to restrict a service program's authorized functional EMS service level.
(8) Have the authority to permanently or temporarily restrict a service program member to function within a lower level scope of practice or prohibit a service program member from providing patient care
(9) Approve the service program's CQI program.
(10) Perform or complete, or appoint a designee to perform or complete, the medical audits in the service program's established CQI policy.
(11) Randomly audit (on at least a quarterly basis) documentation of calls where emergency medical care was provided.
(12) Randomly review audits performed by the qualified appointee.

c. A medical director may:

(1) Make additions to the department-approved EMS clinical guidelines when developing service protocols provided the additions are within the service program's level of authorization, the EMS provider's scope of practice, and acceptable medical practice.

132.3(3) Service director

b. A service director shall:

(5) Ensure the service program is in compliance with service program policy, Iowa Code chapter 147A and these rules.

(6) Ensure that duties of the service program's emergency medical care providers do not exceed the providers' scope of practice as referenced in 641—subrule 131.5(2) or the service program's EMS service level of authorization.

132.3(7) *Continuous quality improvement (CQI).*

a. A service program shall develop, maintain, and follow a CQI program that follows a written CQI policy.

b. The CQI program shall include medical audits that review patient care provided.

c. The CQI program shall be utilized to identify deficiencies or potential deficiencies regarding medical knowledge or skill or procedure performance.

d. The CQI program shall review at a minimum 911 response and scene times.

e. The CQI program shall develop a written plan that monitors, identifies and documents at a minimum continuing education, credentialing of skills and procedures, and personnel performance for the service program's emergency medical care providers, drivers, PA and RN exceptions.

f. The CQI program shall establish measurable outcomes that reflect the goals and standards of the service program.

g. The CQI program shall ensure completion of loop closure/resolution of identified areas of concern.

POLICIES AND PROCEDURES:

Transport and nontransport service programs shall develop, maintain and follow a CQI program that follows a written CQI policy. CQI policy development should define, but is not limited to:

a. Medical audits – Medical audits are performed by the medical director or their designee and provide a systematic review of the care that was provided to the patient that identifies deficiencies or potential deficiencies regarding medical knowledge, skill or procedure performance. Medical audits can also be utilized to identify EMS system response deficiencies, such as response times, scene times, transport times, transport destination decisions, protocol adherence, protocol deficiencies, and adequate documentation. Audits are not meant to be punitive in nature but are an opportunity to identify deficiencies and correct. Specific response types, as identified by the service medical director, such as cardiac arrest, CVA, refusals, and trauma patients should be set as audit criteria, or a certain percentage of responses. Audits should be completed on a quarterly basis at a minimum.

b. 911 response and scene times – Response time is defined as the time the unit was notified until enroute. Scene time is defined as the time the unit arrived on scene until the time the unit leaves scene. Response and scene times should be monitored and measured by all service programs to identify potential deficiencies in system response. For example, if it is noted over a period of time that response times are longer during the day time vs night time, or a certain day of the week, it would be an indicator to identify the reason as to why and seek a possible solution. Each service program should measure and set a standard response time that realistically reflects their situation taking into consideration metro vs rural response locations.

c. Continuing education – In consultation with the service program medical director, continuing education, including skills maintenance, shall be identified and documented for all service program rostered staff. Continuing education should not be identified as just completing the recertification requirements for a providers level of certification, but should include courses such as BCLS, ACLS and PALS, maintaining current driver's license, drivers training, and skills such as measuring vital signs, cardiac arrest management, airways, and medications as defined by the providers scope of practice.

d. Credentialing of skills and procedures – As defined, credentialing is a clinical determination that is the responsibility of a physician medical director. Monitoring of a providers skills and the ability to perform specific

procedures is essential in providing patient care. Through medical audits and skills maintenance it can be identified if a provider needs further education. For example, a provider is identified to be deficient in cardiac rhythm interpretation. The medical director can make the recommendation that the provider attend a rhythm interpretation class in order to rebuild the deficient skill set. The medical director is responsible for identifying what specific skills and procedures are to be completed and the frequency that they are to be completed (e.g. monthly, bimonthly, quarterly, biannually, annually, a certain number per quarter, etc.).

e. Measureable outcomes – This should reflect the goals and standards of the service program. Response time under 5 minutes 85% of the time, scene times for medical 20 minutes or less and trauma patients 10 minutes or less 80% of the time, and administering aspirin to eligible patients complaining of chest pain prior to transport 90% of the time are all examples of measureable outcomes. Some measureable outcomes should be consistently monitored, such as response times, and some should be changed over time as specific goals are achieved or identified as being deficient. If a goal is set but is not being met, it should be investigated as to why and a solution identified and implemented and then reassessed.

f. Loop closure and resolution – Identified areas of concern should be documented with regard to what the problem was (e.g. skill deficiency, system response issue, vehicle problem), the action that was taken to correct the concern, and the outcome of the corrective action.

Other CQI policy development considerations:

a. Scope of Practice – Ensuring that service providers have been trained on and review the most current Scope of Practice so as to understand the specific psychomotor skills that they can perform and knowledge base that they must poses at their specific level as authorized by Iowa law.

b. Protocols – Ensuring that providers have been trained on and review the service programs medical director authorized protocols which are based upon the EMS clinical guidelines.

c. Orientation Process – Completion and documentation of a standardized service program orientation process to include, but not limited to, service policies and procedures, service protocols, skills monitoring and documentation for initial credentialing purposes, and emergency driving.

d. Supplies and equipment maintenance – Ensuring that the proper supplies and equipment in the appropriate amounts are present and are in proper working condition and that it is documented. Ensuring that routine equipment maintenance per manufacturer recommendations is completed and documented

e. Vehicle maintenance – Ensuring that the services response vehicle(s) are in proper operating condition and that maintenance is being performed as recommended by the manufacturer and documented.

Upon completion of the signed and dated CQI policy it should be uploaded to your services AMANDA account and your regional coordinator should be notified in order to review the document. Revisions or changes to CQI policies or new CQI policies should be uploaded to your services AMANDA account and your regional coordinator should be notified in order to review the document.

For questions or assistance with regard to the development of a CQI policy, please contact your regional coordinator.

For further information with regard to Iowa Code 641-132 (Emergency Medical Services – Service Program Authorization), please go to https://idph.iowa.gov/BETS/EMS.