



MEDIC ONE/EMERGENCY MEDICAL SERVICES DIVISION



QUALITY MANAGEMENT PLAN 2020-2025

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KING COUNTY EMS VISION, MISSION, AND VALUES

Vision: To be a world leader in prehospital emergency care.

Mission: To increase survival and reduce disability from out-of-hospital medical emergencies in King County by using innovation, collaboration, measurement and continuous quality improvement.

Organization Goals

- Recognize the contributions and commitments of our community partners essential for the ongoing success of EMS, including fire departments, private ambulance services, hospitals and physicians, and County and local elected officials.
- Maintain open communications and commit to cooperation and consensus building with our partners who are essential to our continued success.
- Monitor the performance of the EMS system. Collaborate with our partners in identifying, planning and implementing improvements.
- Provide evidence-based, best practice in pre-hospital emergency treatment and care through dedicated medical direction and leadership and continuous quality improvement.
- Value the dedication, creativity, and contributions of our employees. Encourage and support excellence in individual and team efforts. Acknowledge employee success.
- Provide our employees and those of our EMS system partners with quality training programs and innovative systems for delivering instruction.
- Demonstrate a commitment to managing levy funds in an open and fiscally sound manner. Uphold the trust that residents of King County have shown in funding the EMS system for more than 40 years.

King County EMS Values

Successful leadership is essential to fulfill the mission of EMS. The following are guiding values for employees at every level of the organization. We commit to being consistent, reliable, and inspiring, and hold ourselves accountable for our actions. These characteristics and supporting behaviors are evident in our daily actions, interactions, and decisions.

Honesty

We commit to transparency, being truthful, and earning and sustaining trust while owning our actions and leading with integrity and self-awareness.

Effective Communication

We dedicate ourselves to being open, engaged, and transparent in our communications with people at all levels of the organization. Effective communication requires active listening, comprehension, involves equal access to information, and is collaborative.

Fair

Our actions and decisions are consistent, ethical, equitable, and free of bias. We remain open-minded, flexible, and respectful. We hold ourselves and others accountable for our actions as an integral part of the organization.

Supportive

We foster an inclusive, supportive, and respectful environment throughout the organization. We inspire personal growth through mentorship and encouragement.

Visionary

We strive to be innovative, creative, and forward-thinking. We inspire others through our actions, ideas, and feedback.

INTRODUCTION

In 2012, the State of Washington approved the 2013 Quality Management Plan for the Division of Emergency Medical Services (EMS) in King County in accordance with the Washington Administrative Code ([WAC](#) 246-50.020) and the [Revised Code of Washington \(RCW\) 43.70.510](#). This plan was written to describe the comprehensive review program reflecting the practice of quality emergency medical services in the region, including the prevention of medical malpractice for an already established high standard of patient care. The state-approved program was provided exemption from discovery and Public Records Act disclosure under RCW 43.70.510(3) and (4). The framework of the Quality Management Plan was designed to establish general principles of quality improvement practice across major components of the EMS programs in King County and intended to meet, and where possible, exceed the requirements set by the State of Washington.

The *Medic One/EMS 2020-2025 Strategic Plan* further supports the EMS Division's efforts for a dynamic quality management system with the continued support of the Regional Quality Improvement (RQI) Section as part of the EMS Division's regular operations. All EMS agencies in King County have established at least some aspects of a quality improvement program, including ongoing review of electronic patient care records (ePCRs) (formerly paper-based medical incident report forms (MIRFs), and evaluation of sentinel cases.

The EMS Division provides continued support for the assessment, development, and maintenance of quality improvement activities. The Division's Regional Quality Improvement (RQI) Section is comprised of three teams: 1) Data Retrieval, Evaluation, Assurance, and Management (D.R.E.A.M) Team, 2) Data Analysis Team and the 3) Center for the Evaluation of EMS (CEEMS). These teams are responsible for activities focused on data collection, review of Advanced Life Support (ALS) care provided by paramedics and Basic Life Support (BLS) care provided by emergency medical technicians (EMTs), BLS run review enhancements, and research in the field of pre-hospital emergency care. The Community Programs Section also employs staff responsible for quality improvement activities for dispatch activities. The Training and Education Section provides initial training, continuing education, and instructor/evaluator education for EMTs in King County.

The Medic One/EMS 2020-2025 Strategic Plan continues this effort into the 2020-2025 levy period.

Document Update: The EMS Division's 2020-2025 Quality Management Plan provides an update to the previous 2013 QM Plan and reflects the various changes and improvements that have occurred over the past six (6) years. Regional quality improvement across our EMS system is conducted by the EMS Division on an ongoing basis, in cooperation with the local area EMS agencies, to identify and enhance the process of EMS quality improvement across King County. It is the intent of the EMS Division to continue to enhance this well-established standard.

EMS SYSTEM OVERVIEW

The Medic One/EMS system operates in a coordinated partnership among numerous stakeholders across the region to provide high quality prehospital medical care. It is the continuum of consistent, standardized medical care and collaboration that allows the system to excel and obtain the best possible patient outcomes. The use of a tiered response system ensures the most appropriate care provider responds to each 9-1-1 call. The tiered regional Medic One/EMS system consists of the following five major components:

 <p>ACCESS TO EMS SYSTEM Bystander calls 9-1-1</p>	EMS SYSTEM ACCESS: A patient or bystander accesses the Medic One/EMS system by calling 9-1-1 for medical assistance. Bystanders' reactions and rapid responses to the scene can greatly impact the chances of patient survival.
 <p>TRIAGE BY DISPATCHER Use of Emergency Medical Response Assessment Criteria</p>	TELECOMMUNICATOR (DISPATCHER) TRIAGE: 9-1-1 calls are received and triaged by telecommunicators at one of the four dispatch centers: North East King County Regional Public Safety Communication Agency (NORCOM), Valley Communications Center, Seattle Fire Alarm Center, and Port of Seattle). Following medically-approved guidelines, telecommunicators determine the most appropriate level of care needed and resources(s) (e.g., BLS, ALS) to dispatch to the scene, or refer the caller to the Nurseline. Pre-arrival instructions for most medical emergencies guide the caller through life-saving steps, including CPR and instructions to use an AED, until the Medic One/EMS provider arrives.
 <p>FIRST TIER OF RESPONSE Basic Life Support (BLS) by firefighter/EMTs, CMTs, and Nurseline</p>	FIRST TIER RESPONSE – BASIC LIFE SUPPORT (BLS) SERVICES: Emergency Medical Technicians (EMTs) respond to 100% of emergency medical calls and usually arrive first on scene. Approximately 4,300 EMTs are employed by 28 fire-based agencies (Note: King County Medic One is the only non-fire-based EMS agency in King County). BLS provides medical care (advanced first aid, CPR/AED) to stabilize the patient. BLS units arrive at the scene in approximately 5.2 minutes, on average. EMTs are certified by the State of Washington and are required to complete initial and ongoing continuing education and training to maintain certification. In response to low-acuity calls, Community Medical Technician (CMT) units may be dispatched to respond.
 <p>SECOND TIER OF RESPONSE Advanced Life Support (ALS) by paramedics</p>	SECOND TIER OF RESPONSE – ADVANCED LIFE SUPPORT (ALS) SERVICES: Paramedics respond to about 25% of all calls and usually arrive second on scene to provide emergency care for critical or life-threatening injuries or illness. Regional paramedic services are provided by five (5) agencies operating 26 ALS units throughout King County, including: Bellevue (4), Redmond (3), Shoreline (3), Seattle (7), and King County Medic One (9). A contract with Snohomish County Fire District 26 provides EMS services to the Skykomish and King County Fire District 50 area, from Baring to Stevens Pass. Each year, approximately 270 paramedics in our system receive over 2,500 hours of intensive training through the University of Washington/Harborview Medical Center Paramedic Training program.
 <p>ADDITIONAL MEDICAL CARE Transport to hospital</p>	ADDITIONAL MEDICAL CARE – TRANSPORTS TO HOSPITALS: Once a patient is stabilized, EMS personnel determine whether transport to a hospital or clinic for further medical attention is needed. Transport is provided by an ALS or BLS agency, private ambulance, or taxi for lower-acuity situations.

QUALITY MANAGEMENT ORGANIZATION

The following describes the general EMS quality management infrastructure in King County. It reflects the complex, interactive nature of providing EMS care in the region. There are five major sections in the document:

- Section 1. Regional Medical Control
- Section 2. Regional Medical Quality Improvement
- Section 3. Advanced Life Support (ALS) Program
- Section 4. Basic Life Support (BLS) Program, and
- Section 5. Emergency Medical Dispatch

This document also describes the quality improvement governance under WAC 246-50-020 Coordinated quality improvement program - Components.

In King County, the responsibility for regional oversight is shared by both the Medical Program Director for clinical matters and the EMS Division Director related to administrative and operational issues, and as such constitute the "governing body." The committee responsibility identified in WAC 246-50-020 1.bi.i-v are shared by the Medical Program Directors' Committee that oversees clinical matters, and the Emergency Medical Services Advisory Committee (EMSAC) that tends to financial and operational issues, as follows:

- (i) Reviewing services rendered, both retrospectively and prospectively, to improve the quality of health care by measuring key characteristics such as effectiveness, accuracy, timeliness, and cost;
- (ii) Reviewing categories and methodologies of services rendered and to be rendered with the goal of improving health care outcomes;
- (iii) Overseeing and coordinating the program;
- (iv) Ensuring information gathered for the program is reviewed and used to revise health care policies and procedures

Responsibilities identified in WAC 246-50-020 1. C-J are delegated to individual EMS agencies at a local level with oversight by the EMS Division.

Under RCW 43.70.510, (4) and (5):

(4) Information and documents, including complaints and incident reports, created specifically for, and collected and maintained by, a quality improvement committee are not subject to review or disclosure, except as provided in this section, or discovery or introduction into evidence in any civil action, and no person who was in attendance at a meeting of such committee or who participated in the creation, collection, or maintenance of information or documents specifically for the committee shall be permitted or required to testify in any civil action as to the content of such proceedings or the documents and information prepared specifically for the committee. This subsection does not preclude: (a) In any civil action, the discovery of the identity of persons involved in the medical care that is the basis of the civil action whose involvement was independent of any quality improvement activity; (b) in any civil action, the testimony of any person concerning the facts that form the basis for the institution of such proceedings of which the person had personal knowledge acquired independently of such proceedings; (c) in any civil action by a health care provider regarding the restriction or revocation of that individual's clinical or staff privileges, introduction into evidence information collected and maintained by quality improvement committees regarding such health care provider; (d) in any civil action

challenging the termination of a contract by a state agency with any entity maintaining a coordinated quality improvement program under this section if the termination was on the basis of quality of care concerns, introduction into evidence of information created, collected, or maintained by the quality improvement committees of the subject entity, which may be under terms of a protective order as specified by the court; (e) in any civil action, disclosure of the fact that staff privileges were terminated or restricted, including the specific restrictions imposed, if any and the reasons for the restrictions; or (f) in any civil action, discovery and introduction into evidence of the patient's medical records required by rule of the department of health to be made regarding the care and treatment received.

(5) Information and documents created specifically for, and collected and maintained by, a quality improvement committee are exempt from disclosure under chapter [42.56](#) RCW.

Additionally, documents for quality improvement purposes and PHSKC will be marked "EXEMPT" in accordance with the WAC 246-50-060 Public record disclosure:

A program plan and all supplemental material are public records and are subject to the public record disclosure law, chapter 42.17 RCW, once the department receives them. Health care entities submitting material they believe is exempt from public record disclosure should clearly mark the portion or portions as "exempt" and state the specific statutory basis for exemption. The department will notify the health care entity of a public record disclosure request for material the entity marked "exempt" in accordance with this subsection. The department will allow the health care entity ten work days from when it receives department notice to deliver to the department proof that the entity has initiated formal action to secure an injunction under RCW 42.17.330. Upon receiving such proof, the department will notify the public record requester of the action the health care entity initiated under RCW 42.17.330, and take no further action pending a decision by the court. The health care entity must notify the department if it withdraws or takes any other action to terminate the judicial process under RCW 42.17.330. Absent proof from the health care entity that it has initiated action under RCW 42.17.330, the department will disclose the records consistent with state and federal law.

SECTION 1: REGIONAL MEDICAL CONTROL

The Medical Program Director (MPD) is responsible per [WAC 246.976.920](#) for medical control and direction of all certified EMS personnel in King County. The MPD may share this responsibility by delegating medical oversight to ALS Program Medical Directors. Regional medical control involves attending physicians at hospital emergency departments that are notified when EMS will transport a patient to a hospital facility. The MPD also assists in the development of policies and procedures related to the provision of ALS and BLS services, and provides written treatment guidelines for BLS personnel. The MPD meets regularly with the EMS Advisory Committee (EMSAC) and the Central Region EMS and Trauma Care Council to review and discuss relevant information.

The MPD evaluates a variety of new and existing programs and activities involving telecommunicators, EMTs, paramedics as part of an overall approach to system oversight and improvement. These evaluations require ongoing review of patient care record data (in digital or paper format) and/or focused data collection and analysis of specific patient types.

The MPD utilizes the Medical Directors' Committee as a forum for conducting EMS discussions from a clinical perspective. The committee is comprised of individual medical directors and medical services administrators from each ALS provider agency. The committee meets on a quarterly basis to address pertinent medical issues, including:

- Review of current pre-hospital medical practices and protocols in the county
- Evaluation of new techniques, equipment, and medications
- Recommendation of procedures where consistent practice throughout the county would be appropriate
- Suggestions to enhance patient care
- Review of sentinel events
- Oversight of continuing education

The MPD works closely in coordination with the EMS Division's Regional Medical Quality Improvement Section, Community Programs Section, and Training and Education Section, and EMS agency chiefs to review and discuss EMS service delivery in the region. Other topics may include: EMS personnel training, system trends, and quality of patient care (refer to sections 2 to 4 for more information).

The MPD also meets regularly with the Dispatch Review Committee (DRC) to discuss Emergency Medical Dispatch (EMD) training and sentinel dispatch events (refer to Section 5. Emergency Medical Dispatch for more information). The MPD and Medical Director's Committee approve the Criteria-Based Dispatch (CBD) guidelines when revised, approximately every three years.

SECTION 2. REGIONAL MEDICAL QUALITY IMPROVEMENT

In accordance with the Revised Code of Washington (RCW) 43.70.510 and the Washington Administrative Code (WAC) 246-50.020, the Public Health – Seattle & King County, Division of Emergency Medical Services, under the oversight of the Medical Program Director, is responsible for evaluating the full spectrum of EMS patient care. The Division supports regional data collection and analysis and continuously measures and improves by reviewing countywide systems and patient care records (both digital and paper). Findings are analyzed by appropriate committees for identification of patterns or trends that suggest opportunities for improvement. Any recommended protocol changes are processed by Regional Medical Control and the EMS Division for review and approval.

Regional Quality Improvement and Surveillance

Regional quality improvement activities are devoted to emergency medical incidents involving EMS agency personnel. These emergencies include, but are not limited to: cardiac arrest, acute myocardial infarction, stroke, major trauma, and anaphylaxis. QI data for these emergencies may include computer-aided dispatch (CAD) reports and recordings, paper and electronic patient care records (ePCRs) and paper-based medical incident report forms (MIRFs), telemetry information (e.g. CO2), electrocardiogram (ECG), defibrillator recordings (voice and ECG), automatic external defibrillator (AED) records, including police and public access defibrillator (PAD) recordings, and paper and electronic hospital records – just to cite a few examples.

Regional Medical QI activities are divided into the following three areas:

1. **Advanced Life Support (ALS) Services:** The goal of ALS Quality Improvement is to improve the quality of ALS services in King County. To accomplish this, studies of ALS protocols and invasive procedures are undertaken to assess safety and efficacy. Two procedures – intubation and placement of central lines – are continually monitored. Refer to Section 3. ALS Program for additional information.
2. **Basic Life Support (BLS) Services:** There goal of BLS quality improvement in King County is to improve the quality of BLS services in King County. EMS recognizes the role that EMTs play as first-response medical providers. BLS Training and QI Initiatives better connects data review to training and improvement activities, increasing knowledge proficiency and collaboration. This also includes the development, implementation, and evaluation of BLS performance through run the run review process and individual case reviews to evaluate adherence to protocols. Please refer to Section 4. BLS Program for additional information.
3. **Emergency Medical Dispatch (EMD) Services:** The goal of EMD Quality Improvement focuses on assuring the quality of dispatch services in King County. Sending the appropriate resource in the appropriate manner is a critical link in the EMS system. The EMS Division provides comprehensive initial and continuing education training to dispatchers in King County, outside of the City of Seattle. King County dispatchers follow medically-approved emergency triage guidelines called Criteria-Based Dispatch (CBD) Guidelines which are developed by the Division. This uses specific medical criteria based on signs and symptoms to send the appropriate level of care with the proper urgency. Refer to Section 5. EMD Program for more information.

Cardiac Arrest Surveillance System & the Cardiac Case Review Program

For over 40 years, cardiac arrest resuscitations have been rigorously evaluated to improve survival rates in our community. The EMS Division developed a multi-faceted and comprehensive approach to quality improvement, which includes the collection and analysis of dispatch, defibrillator, pre-hospital and hospital patient care record data, and death certificates for every cardiac arrest case.

The creation of the Cardiac Arrest Surveillance System (CASS) database was the foundation for this analytic process. Defibrillator data that includes both voice and electrocardiogram (ECG) files enables review of each case to collect metrics about the cardiac arrest such as explanations for pauses in CPR, difficulty in intubation and vascular access, and external distractions. In turn, these metrics may be used to identify potential opportunities to train EMS personnel in the most effective methods of resuscitation by providing clinical feedback to the providers involved in the emergency medical incident, or to manufacturers of medical devices used by EMS personnel regarding software and hardware design based on feedback from EMS personnel.

A specialized process of individual cardiac arrest case review occurs both at the local EMS agency level, and the regional system level. The regional Cardiac Case Review Program provides local pre-hospital personnel with secure online access to a detailed annotated review of their specific event with feedback provided by medical directors. The information collected is dependent on the device(s) used, which may include a public access defibrillator (PAD)¹ and automated external defibrillator (AED), and an on-scene EMT or paramedic defibrillator (including both voice and ECG files). In addition, information relating to the event prior to EMS arrival to the scene is included via 9-1-1 dispatch recordings. A thorough review is conducted by EMS program managers comparing key data points from each case to established performance standards. The Medical Program Director and training officer provide additional commentary. The Cardiac Case Review Program strives to minimize the turnaround time for feedback to the dispatchers and providers, allowing them to make timely adjustments to their patient care plan in an effort to increase community cardiac arrest survival rates.

Center for the Evaluation of EMS (CEEMS)

In addition, the EMS Division's Regional Quality Improvement Section's Center for the Evaluation of Emergency Medical Services (CEEMS) team conducts research in the field of pre-hospital emergency care for medical events and serious traumatic injuries. Research studies, by their very nature, endeavor to establish evidence-based standards of care. Information from these research studies have local implications with regard to care and ongoing quality assurance.

All research studies initiated by CEEMS are reviewed and approved by the University of Washington Institutional Review Board (IRB) and the Public Health Research Administrative Review Committee (RARC). This ensures that the highest standards of human research protection and privacy are observed and implemented.

¹ In 1999, RCW 70.54.310 (Semiautomatic external defibrillator – Duty of acquirer – Immunity from civil liability) specified the duties of acquirers of AEDs, including notification of the local EMS authority after a cardiac arrest to enable the defibrillator data to be downloaded and given to EMS to conduct quality improvement activities. In King County, the local EMS authority is the EMS Division, Public Health – Seattle & King County. The MPD and EMS Division staff are responsible for monitoring the program and acquiring the defibrillator data when available. Defibrillator data downloaded from an AED used in a cardiac arrest is obtained by the Regional QI Section for inclusion in the CASS database. This information may also be used to inform patient care decisions at hospitals upon request.

Advisory Committees

Regional Medical Quality Improvement utilizes various committees as forums for discussing ongoing quality improvement and research activities, individual case reviews, and project and program development.

The Medical QI Committee is comprised of the Medical Program Director, CEEMS Co-Directors, project/program managers, researchers, research assistants, and epidemiologists. This meeting is the primary vehicle for communication and decision making regarding Regional Medical Quality Improvement.

The Center for the Evaluation of Emergency Medical Services (CEEMS) Committee is comprised of the Medical Program Director, Seattle Medic One Director, CEEMS Co-Directors, project/program managers, researchers, research assistants, and epidemiologists. Selected cases are referred to CEEMS to ensure data abstraction and analysis among research and QI entities is uniform and consistent.

SECTION 3. ADVANCED LIFE SUPPORT (ALS) PROGRAM

Program Overview

The goal of quality improvement in ALS is to ensure the provision of the highest level of paramedic services in King County, an internationally-recognized program. There are a variety of components to the paramedic program that create a solid foundation based on standardized training, provide ongoing program oversight, and establish a system of quality management.

Major quality improvement activities for ALS services in King County:

- Paramedic assessment and oversight
- Sentinel event and inquiries
- ALS patient care record review

These activities are the responsibility of the individual delegated medical program directors with support of the Medical Program Director and the Regional Medical Quality Improvement (QI) Section. For more information, refer to Section 1. Regional Medical Control and Section 2. Regional Medical QI of this document. Paramedics are required to complete a standardized training program and recertify on a regular basis. The following sub-sections describe the specifications.

Paramedic Training and Certification

All initial paramedic training is completed through the Harborview Medical Center (HMC)/University of Washington (UW). This affiliation with the HMC/UW must be maintained for certification purposes. Training exceeds 2,000 hours and includes the following components:

- Didactic learning (lectures, labs, medical rounds, tutorials)
- Internship and evaluations
- Field, emergency room, critical care unit experience

Paramedic Re-certification Requirements

Paramedics in King County recertify every two years. Requirements include the following:

1. 50 hours of Continuing Medical Education (CME) per year which must include at least six (6) hours of pediatric training every two years.
2. Successful completion of at least 12 intubations and 36 intravenous (IV) procedures per year.
3. Skills review and testing at least once each recertification period to include: CPR, airway management, spinal immobilization, back-boarding, intraosseous (IO) cannulation, and tracheostomy review.
4. Passing score on the recertification examination administered by Harborview Medical Center/UW.
5. Affiliation with HMC/UW.

Paramedic Continuing Medical Education (CME)

The objective of the CME program is to provide continuing medical education to paramedics consistent with the quality of their original training from HMC/UW. Each year, Harborview Medical Center offers 30 hours of CME (total of 60 hours during the two-year recertification period), which includes the following at a minimum:

- Courses directly related to emergency medical care;
- Courses focused on specialties such as neurology, cardiology, pharmacology, pediatrics, trauma, respiratory, and OB/GYN;
- Skills courses which include IO cannulation, Advanced Cardiac Life Support (ACLS), airway management, including intubation, placement of central IV access, utilization of an advanced medication formulary, cricothyrotomy review, Pediatric Advanced Life Support (PALS), Pre-hospital Trauma Life Support (PHTLS);
- Courses related to personnel and patient safety and injury prevention, legal aspects of providing healthcare, and causes of malpractice claims; and
- Operational issues such as driving courses provided by the individual agencies.

Documentation

Documentation of continuing medical education, practical and invasive skill requirements are submitted to the certifying body prior to the re-certification exam. Excellent documentation is the requirement of the professional paramedic and responsible agency, including the patient care record. Agencies must keep accurate and complete records.

ALS Contract Agreements

The EMS Division contracts with paramedic agencies to provide ALS services in King County. These contracts currently include the Bellevue Fire Department, Redmond Fire Department, Shoreline Fire Department, and the Seattle Fire Department (via an inter-local agreement). Each ALS agency must participate in regional quality improvement activities and document their internal quality review activities, which includes both the management of sentinel events and required reporting procedures. Although King County Medic One operates directly under the auspices of the EMS Division, all paramedic programs are held to the same regional system standard.

SECTION 4. BASIC LIFE SUPPORT (BLS) PROGRAM

Program Overview

The goal of quality improvement in BLS is to ensure the provision of the highest level of BLS services in King County. The various BLS program components create a solid foundation based on standardized training, provide ongoing program oversight, and establish a system of quality management.

Major quality improvement activities for BLS services in King County include:

- Emergency Medical Technician (EMT) assessment and oversight
- Sentinel event and inquiries
- BLS patient care record review

These BLS quality improvement activities are directly monitored by the individual agency providers in close coordination with the King County Medical Program Director and the Regional Medical QI Section. For more information, refer to Section 1. Regional Medical Control and Section 2. Regional Medical QI. EMTs are required to complete a standardized training program and recertify on a regular basis.

Emergency Medical Technician (EMT) Training and Certification

Initial EMT-Basic Training and certification is coordinated by the EMS Division. EMT training is derived from the National Highway Traffic Safety Administration's Standardized Course and includes approximately 160 hours of lecture and skills. EMTs are certified by the Washington State Department of Health and the National Registry of Emergency Medical Technicians. The EMT-Basic Training Program incorporates a variety of methods to ensure quality improvement. This comprehensive approach allows for any necessary changes in order to maintain a high level of quality training. Methods include:

- Competency Based Training (CBT) workshops to maintain continuity amongst the hundreds of EMT Evaluators used throughout King County.
- Use of senior EMT instructors (SEIs) to maintain a high level of quality and standardization of instruction for each of the multiple, initial EMT courses offered annually.
- Evaluation of SEIs by students and EMT Evaluators.
- Evaluation of classes and course content by students.
- Evaluation of EMT Evaluators by both the SEIs and students.
- Use of Small Group Instructional Diagnosis (SGID) by the students to determine their satisfaction and needs in current and future classes.
- Evaluation of patient care record data to determine if what is being taught is making its way to the field.

BLS Initial Training Accreditation

In 2016, the EMS Division earned its accreditation from the Commission on Accreditation for Prehospital Continuing Education (CAPCE) for EMS Online (EMSO), the County's online platform. EMSO is a website that enables emergency medical providers to access, complete, and earn credit for continuing education courses completed online. CAPCE is the leader in online continuing education. Earning the CAPCE accreditation demonstrates the EMS Division's commitment to excellence in EMS Continuing Education and leadership. The CAPCE accredited continuing education hours (CEH) earned on EMS Online, approved by the State, also meets the distributive education requirements for the National Registry of EMTs (NREMT).

EMT Competency-Based Training (CBT)

King County utilizes the State-approved King County Ongoing Training and Evaluation Program (OTEP) for recertification. EMTs recertify every three years through a combination of quarterly, in-person CBT training exercises coordinated throughout the certification period by the affiliated BLS agency, as well as continuing education credits provided through EMSO. Testing includes a series of CBT exercises coordinated throughout the recertification period by the hiring agency. By state law, WAC 246.976.920, King County's Medical Program Director must provide oversight of the OTEP plan and audit the CBT Training Program. The CBT Program utilizes a variety of methods to ensure quality improvement, including:

- CBT EMT Evaluator workshops to maintain continuity among evaluators throughout King County.
- Use of standardized CBT/OTEP curriculum to maintain continuity of continuing education for EMTs throughout King County.
- Quarterly and annual CBT/OTEP summary reports to track compliance and exam performance.
- Use of local EMS agency training officers in instructor and evaluator audits and the recertification process to maintain continuity in training among BLS agencies in King County.
- Agency EMT record audits performed by local training officers in fire stations to assess compliance with the CBT and OTEP programs and determine training needs.
- Evaluations of the curriculum by evaluators and students, and the evaluation of Senior EMT Instructors and evaluators by students and EMS agency training officers.
- Evaluation of patient care records is used to assess the effectiveness of training and application in the field.

Documentation

Documentation of CME, and practical skill requirements are presented to the EMS Division prior to recertification. Excellent documentation, including the patient care record, is a requirement of the professional EMTs and the responsible agency. EMS agencies are required to keep accurate and complete records.

BLS Contract Agreements

The EMS Division contracts with BLS agencies that provide BLS services in King County. These contracts specify that each BLS agency will participate in regional quality improvement activities and conduct and document internal quality review activities such as the management of sentinel events and required reporting. Although the Port of Seattle operates its own fire department, and an Inter-Local Agreement (ILA) with the City of Seattle exists to authorize the transfer of EMS levy funds collected in the city to support the provision of BLS services within the city, all BLS programs maintain the same regional system standard.

SECTION 5. EMERGENCY MEDICAL DISPATCH (EMD) PROGRAM

Program Overview

The goal of Emergency Medical Dispatch (EMD) is to increase the incidence of appropriate dispatching for EMS units and to enhance the EMD program and training for dispatch agencies. The Dispatch Review Committee (DRC) meets quarterly and regularly reviews both trending and sentinel event data to monitor dispatch activities. Members of the DRC include representatives from each of the call centers supporting EMS in King County outside of Seattle (NORCOM, Valley Com, and Port of Seattle), EMS providers (fire departments), paramedic providers, and King County EMS. In addition to improving the system, the DRC looks at current topics, future planning, revising the King County Criteria-Based Dispatch (CBD) Guidelines. Results are used to evaluate the quality and impact of EMD training provided by the EMS Division and the consistency and appropriateness of the use and application of the Criteria Based Dispatch (CBD) Guidelines. These guidelines offer a mechanism for providing standardized dispatching across the County.

As noted in Section 1 of this QM Plan, the MPD also meets regularly with the Dispatch Review Committee (DRC) to discuss Emergency Medical Dispatch (EMD) training and sentinel dispatch events. The MPD and Medical Director's Committee approve the Criteria-Based Dispatch (CBD) guidelines when revised, approximately every three years.

The EMD quality improvement process includes a feedback system to telecommunicators, supervisors, and the EMS Division. It also provides an opportunity to conduct QI in key areas and conduct systemwide review in areas where there is potential over-utilization of EMS services.

Quality improvement for Emergency Medical Dispatch in King County consists of the following broad categories:

1. Individual case/9-1-1 call review
2. Review of sentinel cases by dispatch agencies and/or the DRC
3. System review of compliance data
4. Random or selected review of EMD cases/9-1-1 call review
5. Evaluation of EMD training

Emergency Medical Dispatcher Training

Initial training and dispatch continuing education are defined and coordinated by the EMS Division. Basic training is a 40-hour course which includes anatomy and physiology and training in the use of the CBD Guidelines. Basic training is a team-taught by a dispatch instructor and a certified paramedic as authorized by the EMS Division. Instruction is both didactic and scenario-based and focuses on major categories of medical illness and trauma.

Dispatch Continuing Education

Dispatchers and call receivers are required to attend eight (8) hours of continuing education annually. Continuing education courses are offered either in-classroom or as web-based training. The EMS Division maintains training records for all EMD training in King County, outside of the City of Seattle.