## The Medic One/EMS System Design And Operation

Anytime you call 9-1-1 for a medical emergency, you are using the Medic One/EMS system. In the late 1970's, Leonard A. Cobb, M.D. and Chief Gordon Vickery of the Seattle Fire Department, pioneered this system to deliver pre-hospital emergency care in King County. The program was novel in that it placed a team of highly specialized paramedics in the field, responding to the most critical calls for medical assistance, especially cases of cardiac arrest. Recognized by the American Heart Association in 1991 as the 'Chain of Survival', the system identifies the interdependence of essential links that are directly tied to cardiac patient survival and health status.

## The five major components in the regional tiered Medic One/ EMS system are:

**Universal Access:** A patient or bystander accesses the Medic One/EMS system by calling 9-1-1 for medical assistance. A caller's rapid recognition of a problem and quick response to an incident can greatly help the chances of patient survival.

**Dispatcher Triage:** Calls to 9-1-1 are received and triaged (medically sorted) by professional dispatchers who determine the most appropriate level of care needed. Dispatchers are trained to provide pre-arrival instructions for most medical emergencies, and guide the caller through life-saving steps,



including CPR and Automatic External Defibrillation (AED) instructions, until the Medic One/EMS provider arrives.



AdvancedLifeSupport (ALS) services: Paramedics provide ALS out-of-hospital emergency medical care for critical or life-threatening injuries and illness. Paramedics respond on average to about 30% of all Medic One/EMS responses.

**Basic Life Support (BLS) services:** BLS personnel are the "first responders" to an incident, providing immediate basic life support medical care that includes advanced first aid and CPR/AED to stabilize the patient. Staffed by firefighters trained as Emergency Medical Technicians (EMT), BLS units arrive at the scene on average in under five minutes.



**Transport to Hospitals:** Once a patient is stabilized, it is determined whether transport to a hospital or clinic for further medical attention is needed. Transport is provided either by an ALS agency, BLS agency, or private ambulance.

Monitoring the uniformity and consistency of the system is the EMS Advisory Committee. Developed in late 1997, this Committee provides key counsel to the King County EMS Division regarding regional Medic One/EMS policies and practices in King County. Members convene on a quarterly basis to review the implementation of strategic



plans as well as other proposals put forward, including Strategic Initiatives and medic unit recommendations. The Committee also reviews major governance and consolidation issues, such as the South King County feasibility study and the successful transition of Evergreen Medic One to the Redmond Medic One consortium.

## Tiered Medic One/EMS Response System

Access to EMS System: Bystander Calls 9-1-1

Triage by Dispatcher:
Use of Medical Response
Assessment Critieria

First Tier of Response: Basic Life Support (BLS) by Firefighter/EMTs

Second Tier of Response: Advanced Life Support (ALS) by Paramedics

Additional Medical Care: Transport to Hospital Today, the regional Medic One/EMS system provides an internationally renowned regional service to the residents of King County, responding in an area of 2,134 square miles and serving a population over 1.8 million. It operates in coordinated partnerships based on the acknowledgement by the BLS agencies and ALS providers that the benefits of regionalization, collaboration, and cross-jurisdictional coordination far exceed the individual benefits associated with other Medic One/EMS service delivery and funding mechanisms. The success of the system is testimony to the commitment of all its participants to provide the high quality services to the residents of King County.