

Wilderness Emergency Medical Services Institute

<http://www.wemsi.org>



A PROJECT OF THE
APPALACHIAN
SEARCH AND RESCUE CONFERENCE
AND THE
CENTER FOR EMERGENCY MEDICINE

The Wilderness EMS Institute (WEMSI)

WEMSI's mission is to improve medical care for people remote from the Emergency Medical Services system. We work for improved Wilderness EMS in three ways: teaching; research; and providing a model Wilderness EMS service.

Our **teaching** activities include providing the curriculum and quality-assurance oversight for classes for field personnel and the physicians who provide medical oversight for them. Organizations offering Wilderness EMT or Wilderness Command Physician classes that follow our entire curriculum, and meet a few quality-control requirements, may register their classes with WEMSI. Participants in WEMSI-recognized classes receive cards and patches from WEMSI. WEMSI does not become involved in the finances of such WEMSI-recognized classes.

We also make our Wilderness EMT and Wilderness Command Physician curricula available to those who wish to follow it without registration, or adapt it for their own use. For more information, please request a **Wilderness EMT and Wilderness Command Physician Classes** brochure and orderform from the Center for Emergency Medicine (address and phone on the back).

WEMSI promotes **research** into topics relevant to the needs of wilderness EMS providers. We also serve as an information resource for physicians and members of search and rescue teams and EMS agencies inter-

ested in applying the medical literature to wilderness EMS.

WEMSI is working toward a model **Wilderness EMS** system in Pennsylvania, Maryland, and other nearby states. We are working with state organizations such as the Pennsylvania Emergency Health Services Council, the Pennsylvania Division of Emergency Medical Services, the Pennsylvania Search and Rescue Council, the Pennsylvania Emergency Management Agency, and the Maryland Institute for Emergency Medical Services Systems.

While working toward such an ideal system, we provide medical oversight to selected Pennsylvania search and rescue teams as an interim model. Our interim Wilderness EMS system in Pennsylvania is parallel and separate from the existing EMS system. But, we support the idea of tightly integrating wilderness EMS with the existing "street" EMS system. In Pennsylvania, WEMSI operates under the broad delegated practice provisions of the Pennsylvania Medical Practice Act, providing sophisticated care beyond the capabilities of the state EMS system. WEMSI is also working closely with Maryland as it develops a formal WEMS system.

WEMSI Wilderness Command Physicians are also available for immediate on-line consultation by local medical control physicians dealing with wilderness medical problems; call the Mercy Hospital Communications Center at 1-800-232-5921.

The Organizations

The **Appalachian Search and Rescue Conference (ASRC)** is a volunteer search and rescue organization. ASRC missions include wilderness search for lost persons and the rescue of injured persons from hiking, hunting, or other accidents. The ASRC also conducts special technical operations including mountain and cliff rescue. There are currently ASRC Groups in Pittsburgh, Pennsylvania; Columbia and College Park, Maryland; in Washington, D.C.; and in Virginia, at Charlottesville, Chesapeake, Richmond, Blacksburg, and Norfolk. ASRC Groups also are part of the Appalachian Region of the Mountain Rescue Association. The ASRC is affiliated with the Eastern Region of the National Cave Rescue Commission and the National Association for Search and Rescue.



The **Center for Emergency Medicine of Western Pennsylvania (CEM)**, founded in 1978 and incorporated in 1983, is a consortium of Pittsburgh-area hospitals and the University Health Center of Pittsburgh, the largest single medical campus in the U.S. Through its large residency program (the University of Pittsburgh Affiliated Residency in Emergency Medicine) the Center trains emergency physicians, and it also conducts a highly-respected paramedic training program. The Center provides medical command for the city of Pittsburgh, and provides emergency ground



and aeromedical transportation services (STAT: Special Treatment And Transport). The Center for Emergency Medicine is well-known for its research in emergency medicine and pre-hospital care (the use of lighted stylets for intubation is a recent CEM innovation). The Center publishes many papers in the *Annals of Emergency Medicine* and other medical journals. It is the center for Pennsylvania's *Basic Trauma Life Support* training, and it is the headquarters of the National Association of Emergency Medical Services Physicians.

The Wilderness EMT Curriculum

A primary WEMSI goal is to produce a comprehensive, realistic, peer-reviewed Wilderness EMT Curriculum, including *Lesson Plans*, a *Course Guide*, and a textbook. We are developing a Wilderness Command Physician course, and provide medical oversight to local SAR teams as a demonstration project.

The purpose of our Wilderness EMT Curriculum is to “fill in the gaps” between search and rescue and EMT/EMT-P training. And, we want to extend both the SAR (search and rescue) and the EMS system so they can meet “in the middle” in the person of the WEMT. Our ultimate goal is to provide better care of those injured or ill in the backcountry.

The target population for the curriculum includes members of mountain, cave, and other wilderness search and rescue teams, and members of rural rescue squads with wilderness search and rescue responsibilities. The curriculum is **not** designed for outdoor recreation trip leaders or guides, unless they are part of a wilderness EMS system with a physician medical director.

The **prerequisites** for the curriculum (and a “post-requisite”) and the reasons for them, are as follows.

Virginia Ground Search and Rescue **Field Team Member certification** or similar training is required, so that we don't have to repeat basic search and rescue training in the WEMT course. Adequate SAR training is readily avail-

able in our area (i.e., the Virginia GSAR training program, and training and certification offered by organizations such as the ASRC). Programs such as the National Association for Search and Rescue's *Fundamentals of SAR* and the National Cave Rescue Commission's *Orientation to Cave Rescue* are available from coast to coast.

EMT or EMT-P training is required. It is readily available throughout the U.S., and is the basis for all recognized U.S. prehospital continuing education courses (e.g., Prehospital Trauma Life Support and Basic Trauma Life Support courses). We are developing EMT equivalency guidelines for Canada.

Clinical training in the Emergency Department is considered a “post-requisite” of the class; although we believe that specific clinical training is essential to the education of the WEMT, we cannot integrate this into the curriculum itself. Therefore, we will provide clinical training recommendations to each student, and to each student's Wilderness EMS medical director. We will urge that this clinical training be arranged by the medical director, and that this clinical training should continue on a regular basis. See the *Clinical Rotations: Outline and Checklist* for specifics of clinical training.

After much discussion, we decided in 1987 to develop a **single WEMT curriculum** for EMTs and for Paramedics. We use the same curriculum for EMTs, EMT-Ps, and in between. Why? First, we felt we must teach something about advanced techniques even to Basic EMTs. Compared to street EMS, wilderness EMS is very much a team effort. Basic WEMTs need to assist their WEMT-Paramedic team members with advanced skills (e.g., helping prepare IV bags and lines under the WEMT-Ps supervision).

Basic WEMTs must know much of the same pharmacology, anatomy, and physiology that the wilderness paramedics must know. Basic WEMTs must know about the proper use of medications commonly carried in outdoors enthusiasts' medical kits, must understand the principles of oral fluid replacement, and must be able to deal

with common primary care problems, as must wilderness EMT-Ps.

No advanced skills beyond EMT-P skills are needed for routine wilderness ALS. Central lines, Foley catheters, chest decompression, and NG tubes are all legitimate parts of the standard EMT-P training curriculum. Therefore, the WEMT module need not teach any new invasive skills. Escharotomy and fasciotomy are surgical skills that are occasionally needed, but require surgical training far beyond that given to EMT-Ps, and should be reserved for physicians or others already trained for them.

We only offer a **course completion certificate**. We rely on state EMS agencies to coordinate with state search and rescue agencies to establish state WEMT licensure, and rely on local or regional medical command physicians to establish appropriate protocols. WEMSI does not offer refresher training but expects that organizations licensing WEMTs will require wilderness-EMS-specific continuing education; WEMSI provides guidelines for such. For WEMSI's interim Pennsylvania medical oversight program, Wilderness Command Physicians and WEMT members of search and rescue teams must meet WEMSI credentialing requirements before providing medical care under WEMSI authority.

In addition to information at our World-Wide Web site, <http://www.wemsi.org>, the following free brochures are available from: Center for Emergency Medicine
230 McKee Place, Suite 500
Pittsburgh, PA 15213-4904
412-578-3203
wemsi+@pitt.edu

- A CURRENT SCHEDULE OF WEMSI-RECOGNIZED CLASSES
- “THE WILDERNESS EMT CURRICULUM”
- “WILDERNESS EMT DOCUMENTS” (ORDER FORM)
- “WILDERNESS EMT AND WILDERNESS COMMAND PHYSICIAN CLASSES”