INTRODUCTION TO WILDERNESS INSTRUCTOR

Minimum Guidelines and Standards for Wilderness First Aid

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Wilderness emergencies may require you to recognize and cope with a variety of medical problems or environmental hazards, improvise bandages or splints for injuries to different parts of the body, or extricate and carry victims from difficult terrain as well as water. All of these topics and skills were included in *American Red Cross Standard First Aid & Personal Safety*, 2nd Edition, published in 1979.¹ *American Red Cross Advanced First Aid & Emergency Care*, 2nd Edition,² used in the courses taught until 1993, also included techniques for extricating a victim with spinal injuries from water and lowering from a height—skills not found even in urban emergency medical technician (EMT) courses. But students in most urban Basic First Aid courses today practice no skills except a pressure bandage for bleeding control, using a dummy EpiPen, and perhaps applying a simple splint. And students in 60-hour Emergency Medical Response courses practice only a fraction of the skills that were taught in Advanced First Aid.

First aid training for civilians who are not medical professionals began in 1878, when 2 British military officers started classes under the auspices of the St. John Ambulance Association, based on what they had been teaching to military stretcher-bearers.³ In New York City, the first classes for civilians were taught by volunteer doctors in 1880. In 1908, Major Charles Lynch (a US Army Medical Officer) prepared a first aid textbook for the American Red Cross (ARC), which started classes for the public (taught by volunteer physicians) in 1909. These classes were taught in special railroad cars designed as mobile classrooms. Then in 1910, Dr. Matthew J. Shields (who had been teaching first aid to coal miners in Pennsylvania) was hired as the ARC Staff Physician. And eventually, the ARC began training lay people as first aid instructors.⁴

Although these are the earliest records of first aid classes for civilians, first aid manuals have a much longer history. For example, in 1633, a physician named Stephen Bradwell published *Helps for Suddain Accidents*

*Endangering Life By which Those that live far from Physicians or Chirugions may happily preserve the Life of a poor Friend or Neighbor, till such a Man may be had to perfect the Cure.*⁵ Compare the topics in the table of contents to those recommended for wilderness first aid (WFA) courses today:

Chapter I. Prevention of Mischiefe by Poysons eaten or drunke.

Chapter II. A General way of Curing such as are hurt by Inward Poysons.

Chapter III. A more Particular way of Cure, wherein is touched the eating of Mushrooms, Muskles, and Periwinkles.

Chapter IIII. Serpents or Worms crept into the Body.

Chapter V. Poysonous Humours Spurting or dropping out of the wounded bodies of venomous creatures and lighting upon a Mans skinne.

Chapter VI. Certaine Generall Notions for the Help of Such as are Stung or Bitten by venomous Beasts.

Chapter VII. The Generall Method of Preventing and Curing all venomous Stingings and Bitings.

Chapter VIII. Stingings of Hornets, Bees, and Wasps.

Chapter IX. Bitings of Adders, Slow-wormes, Efts, the Shrew-mouse, and other such venomous Beasts.

Chapter X. The Biting of a Madde Dogge.

Chapter XI. Bitings of Creatures not venomous, yet in some Constitutions apt to turn into venom.

Chapter XII. Inward or Outward Bruises by a fall from an high place.

Chapter XIII. For those that are almost Strangled by a Halter, Garter, or such like means.

Chapter XIIIII. For such as are almost Drowned and stifled in Water.

Chapter XV. For those that are Choked with Smoke of new kindled Coales in a close Roome.

Chapter XVI. For such as are Suffocated with Stinking Smells.

Chapter XVII. For things Sticking in the Throate.

Chapter XVIII. For Scaldings with Water, Oyle, Lye, Milke, or any other Liquor. As also for Burnings with Fire, Gun-powder, Lime, or such like.

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Medicine in the 17th century was still based on the ancient concept of 4 elements (earth, air, fire, and water); 4 qualities (hot, cold, moist, and dry); and the balance of 4 temperaments that determine human health (sanguine, choleric, melancholic, and phlegmatic). Medical treatment was designed to correct imbalances in temperament by sweating, bleeding, emesis, or purging as well as diet. For example, one of Dr. Bradwell's treatments for poisoning (which would probably not be recommended today) is to "[t]ake a found horse, open his belly alive, take out all his entrayles quickly, and put the poysened partie naked into it, all save his head, while the body of the horse retains his natural heate: and there let him sweat well." And his treatment for snakebite (perhaps influenced by a residual belief in sympathetic magic) is curiously absent from current recommendations: "Outwardly, the best thing to be applied [to the snakebite] is the flesh of the same beast that did the hurt, pounded in a mortar, and applied in manner of a Poultice." But his treatment for a bleeding wound is less alien to current practice: "Stop not the blood too soone (if it bleed well) for many times the noxious humours that are mixed with the blood, are very happily evacuated that way. But if on the other side it bleed too much: Take the white of an egge...and binde it on gently for straying the wound.... As for the Cure of a Greene [infected] Wound, there are so many Balsams abroad, that I need not teach any." And for an obstructed airway (Chapter XVII), one of the techniques he recommends (back blows) is still used for conscious choking infants, and was only phased out for conscious choking adults and children in 1986. The proportion of chapters on bites, stings, and poisoning (including cases where we would suspect infectious disease) reflects the living conditions of most people in the 17th century and the hazards to which they were exposed.

Until the Emergency Medical Services Act in 1973 codified the plan for an EMS system, there was no way to bring medical care quickly to the scene of most emergencies, so there was a need for first aid training. As the EMS system developed and improved, however, urban first aid courses shrank until they now include little more than recognizing common emergencies, bleeding control, and assisting a patient in taking a prescribed medication; even emergency medical response courses include only what a responder might need to do in the 10 or 15 minutes until an ambulance arrives.

But as urban courses have shrunk, WFA courses have retained and updated the topics and skills that used to be part of all first aid training. Unlike urban first aid, however, WFA has no legislated guidelines specifying what must be included in the course for a certification to be valid. The *Wilderness Medical Society Practice Guidelines for Wilderness Emergency Care* describes wilderness hazards and injuries, and recommends treatments

based on the best current evidence. But the *WMS Guidelines* do not prescribe what should be included in a WFA, wilderness first responder, or wilderness EMT course. It is up to WFA instructors to decide what topics and skills to include in a relatively short course, and design their own curricula. The authors of this article have put together a WFA curriculum based on their teaching experience, showing core topics and skills that they think should be in every course, and elective topics that can be included or added depending on the interests of the group they are teaching. Although most WFA courses probably have very similar curricula, this article should encourage instructors to think about what we are teaching in WFA and share ideas, which may lead to more consensus or disagreement. We should also think about how much it is practical to teach in 16 hours (which seems to have become the standard length for WFA courses)—although that may vary depending on whether the students in a class have any previous training. For example, this author has taught WFA classes for groups of paramedics and flight nurses.

What kind of research, however, would enable us to go beyond consensus? First, we could ask our students to write essays on real wilderness emergencies that they have experienced or witnessed, including what they or others did to cope with those emergencies, so as to get a better idea of what WFA skills are likely to be used.⁶ Second, we could encourage researchers to test WFA skills in graduates of different WFA courses, to see how much they have learned and retained. There have been many such studies published of mainstream emergency care skills, especially cardiopulmonary resuscitation. Perhaps it is time to start evaluating the effectiveness of WFA training more objectively.

References

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