WILDERNESS INSTRUCTOR

Introduction to *Mountain Rescue Casualty Care and the Undergraduate Medical Elective*

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On a winter ski ascent of Mount Rainier, a woman fell and skidded downhill about 100 m, fracturing her femur. Everyone in the group turned to the one member who was a doctor. But he explained that he was a dermatologist and had no idea how to splint a fracture. Therefore, a woman trained as a wilderness first responder (WFR) improvised a traction splint with the patient's ski poles and kept her warm until the paramedics evacuated her by helicopter. The paramedics left the improvised splint in place, saying that it was as good as anything they could provide.

This accident reminds us how specialized modern medicine has become, and when we compare it to the medicine of previous eras, we see other differences that are equally dramatic. First, as medicine has become more scientific, laboratory tests and high-tech diagnostics have increasingly replaced thorough patient examination, making medicine more impersonal. Second, medicine has become increasingly bureaucratic, which means that doctors often spend more time doing what is still called paperwork (though it is mostly data entry on computers) than they do examining and treating patients.

In wilderness situations, doctors need to be able to cope with any injuries or medical problems (regardless of their specialties), using only what they have with them or can improvise and often in adverse environmental conditions. They need to assess patients themselves, usually with very limited equipment, and in wilderness emergencies they need to do tasks that in urban situations are delegated during transit or in the hospital.

It is not surprising then that the instructors of this elective had to train medical students to use not just mountain rescue gear, but also emergency medical services equipment such as oxygen, airway adjuncts, and splints. Other wilderness medicine electives are reportedly based

on WFR courses to teach participants basic and improvised skills that are no longer part of doctors' training.¹

Arthur Conan Doyle modeled Sherlock Holmes on one of his medical professors, Joseph Bell. Dr. Bell would have Doyle bring a patient whom he had never seen into the classroom and from observation deduce many facts about the patient's medical problems, life, and occupation.² Although few doctors would try to emulate Bell's feat in front of a room full of medical students, it does remind us what can be learned without complex technology.

In a wilderness emergency, doctors must rely on their own senses and their skill at asking questions to find out what is going on with their patients. The elective therefore includes training in asking medical history questions, doing a physical examination, and finding vital signs with no tools except a stethoscope and blood pressure cuff—the same assessment skills that we teach in WFR, emergency medical technician, and wilderness emergency medical technician courses.

The elective uses scenarios to help participants put their skills together, and the authors cite an article on the use of low-tech simulation in scenarios.³ Scenario-based training is used in most WFR and WEMT courses, and in the National Ski Patrol's outdoor emergency care course, because it comes as close as possible to the experience of coping with real emergencies, especially if staged in wilderness settings.⁴

In their discussion section, the authors say that the “skills taught in this module are immediately transferrable to any environment, urban or otherwise.” In other wilderness medicine elective programs (in the United States), many participants said in their evaluations that they expected to use what they had learned not only in the wilderness but also in their practices.⁵ It would be interesting to know how much of their wilderness-oriented skills they were able to apply in their practices.

According to a Mayo Clinic study, “More than half of US physicians are now experiencing professional burnout.”⁶ The number-one cause of burnout, according to Medscape surveys, is “too many bureaucratic tasks.”⁷ Although

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wilderness medicine electives (and using that training with real patients) may not significantly change these statistics or the medical system, at least they give participants the experience of practicing medicine the way they were trained to do: focusing completely on patient care, with no bureaucrats looking over their shoulders.

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