THE WILDERNESS INSTRUCTOR

Classroom and Reality, Part II: More Lessons From Real Emergencies

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By reflecting on real emergencies they have experienced or witnessed, students in Wilderness First Responder courses can put their training in perspective. And by writing essays about those experiences, they can help instructors decide what classroom activities will prepare them to provide emergency care. In the summer 2000 issue of *Wilderness & Environmental Medicine*, this column drew on several student essays to show what the students would do differently (after taking the course) and what instructors could learn from them. This article will elicit somewhat different lessons from another set of student essays.

Assignment given to the students

Write the story of a real emergency that you experienced or witnessed and that caused a serious injury or medical problem. If possible, it should be something that happened in the wilderness or another situation where help was not immediately available. Remember the following:

- Set the scene (people, place, situation, and activity).
- Recall if there were any warning signs that people should have heeded before the emergency happened.
- Describe how it happened.
- Describe the injuries or medical problems.
- Describe how people reacted (victim, friends, bystanders, and rescuers if any).
- Describe what people did to help the patient and/or organize a rescue.
- Explain how the group (if it was a group) made decisions.
- Describe the outcome.

Then explain what (if anything) you would now do differently in a similar situation.

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Hypothermia at the outhouse

As they neared the top of the Mt Whitney summit trail, a group of hikers was caught by an unpredicted October snowstorm. Some of them continued to the summit and then slogged back down to join the rest of the group in camp by 5:30 PM. When the author of the essay stopped at the outhouses, she noticed a man sitting at their base, dressed in wet cotton sweatpants and a flannel shirt. His ancient cotton sleeping bag was tied loosely to his pack and was also getting wet from the snow. He was confused and disoriented, with a vague plan to spend the night in an outhouse. He was also complaining of thirst but was unable to unscrew the cap of his canteen. They persuaded him to go to their camp (500 feet away) by promising hot drinks. There, they got him inside a tent and replaced his wet cotton with dry clothes and then warmed him with hot water bottles and rehydrated him. The group decided to hike out to the trailhead, since they weren't really equipped for the snow. By this time, the patient was warmed and hydrated enough to be more responsive, so they persuaded him to go with them.

What did the student learn by reflecting on this experience? Her first lesson was that she should always be equipped to survive a change in the weather, and during the course, she learned more about what kind of clothing has the highest survival value. Second, she learned that a victim of hypothermia (or any other condition that affects mental functions) may not respond to reason. Fortunately, several members of her group were familiar with hypothermia and knew how to treat it. Instead of trying to change the plans of someone who was barely coherent, they took it one step at a time: promised him hot drinks in response to his acknowledged thirst, got him into camp to rewarm him, and finally (when he was revived enough to think more clearly) persuaded him to walk out with them. If he had camped in an unheated outhouse during a cold snowstorm, dehydrated and in wet cotton clothes and sleeping bag, his condition by

morning would have been much more serious, and he would almost certainly not have been able to walk out.

What can instructors learn from this account?

- Wilderness equipment and survival are essential parts of wilderness emergency care training.
- Students need to learn how hypothermia and other conditions can affect a patient's behavior and communication.
- Students need to practice, in realistically acted scenarios, dealing with patients who are confused, disoriented, and not responding to reason.

Listen to the patient

Toward the end of a 50-mile solo bicycle ride, the student blacked out. She woke lying on her right side, which was covered with road rash. Her shoulder hurt, she had a severe headache, and her helmet was broken. She was also feeling cold, and the road was deserted. So she got on her bike and rode the last 7 miles to her car, pedaling with only 1 leg because of a hamstring injury. Later, she realized that she had passed a fire station and California Highway Patrol headquarters. After reaching her car, she drove home (in spite of considerable pain) and had her roommate drive her to the hospital.

In the emergency room, the doctor who treated her insisted that she must have blacked out after hitting her head on the pavement. He did not listen to her account of how it happened. Her injuries did include a concussion, as well as a broken clavicle, a chipped pelvis, and a torn hamstring. On the way back from radiology, however, she blacked out again, which persuaded him to order an MRI (magnetic resonance imaging). It showed that she had a malignant glioma in the brainstem.

From this experience, the student learned the importance of reconstructing the mechanism of injury and not jumping to conclusions. She also learned not to push self-reliance to the point where she would endanger others as well as herself, as she did by driving home in her condition.

What can instructors learn from her account? The obvious moral is to train students to listen to the patient and to put all the clues together before ruling anything out. Scenarios in which unsuspected medical problems cause accidents can challenge students to develop their assessment skills.

Seizure of unknown origin

At the time, the student was sharing a large house with her boyfriend and 2 of his college friends. They were all strong and athletic. One of them, however, had been

depressed for several months. He felt drained and fatigued after doing physical labor (he was a landscape architect specializing in rock walls) and was also getting tension headaches. He sought relief by drinking heavily.

One morning, she got up to find things knocked over and rugs kicked into piles. His door was ajar, so she asked him about it. He was fully clothed, lying partly on his futon and partly on the floor, and did not remember how he got there. After breakfast, when she was leaving, she heard the sound of something falling and ran back in to see him convulsing on the floor. She moved furniture out of the way, and after a few moments, he fell asleep, snoring noisily. When the paramedics arrived, they were unable to find any explanation of the seizure in his medical history, and he had no memory of the episode. But it turned out that he had experienced similar episodes in the past. A computed tomographic scan showed a problem area in his brain, finally identified as a wormlike parasite he had picked up in South America, which had eaten away some of his brain tissue. It was killed by radiation, but he still suffers from vertigo and slow speech.

From this experience, the student learned to find out the medical history of anyone with whom she spends time traveling or camping and always to find the cause of an unexplained medical problem. Perhaps the main lesson for instructors is that while they must train students to take care of the most common problems, they also need to prepare students to spot problems that don't fit the usual pattern. Responses to common problems are likely to be reinforced by experience with real emergencies, large and small. But rare conditions can catch responders by surprise, or they can be misinterpreted.

A case of denial

Three mountain bikers were practicing for a race on Mt Tamalpais in California. One of them was relatively inexperienced and was using a borrowed bike that didn't fit her very well. While going down a steep trail, she lost control on a turn. Her companions found her on her left side, with her legs tangled in the bike. She complained of sharp pain in her left side, especially when she tried to get up, and she could not move her left thumb, which was bloody.

As her friends cleaned the wound, she went through a series of emotions: first, surprise and shock; then, anger with herself; and finally, denial. She tried to ignore her injuries and refused to consider calling for help. The author of the essay speculates that she was minimizing the pain because she did not want her friends to be upset with her. When she finally managed to stand up, she got on her bike and started coasting down the trail, in spite

of her friends' misgivings. But after 10 minutes, the bouncing ride became so painful that she had to get off and walk, using the bike for support. At the trailhead, she insisted on driving herself home. When her roommate took her to the hospital that night, she learned that she had a broken thumb and 2 broken ribs.

From this experience, the student learned several important principles of emergency care: Always provide a good assessment, even if the patient is trying to deny serious injuries. Try to base treatment and evacuation decisions on the assessment, not on emotions. Instructors can learn the importance of training students to recognize and work through a patient's psychological responses to an accident, which often include denial. Staged scenarios can demonstrate these responses to the students. Then, after students have performed some role-playing scenarios with relatively cooperative patients to reinforce their basic skills, instructors can present them with more difficult patients. These patients should be coached to act out emotional upset, anger at themselves or others, and denial, so that students can learn to cope with the psychological effects of accidents. They will also learn to provide a good assessment in spite of distractions and to develop their skills at persuasion so as to gain a patient's cooperation in the best course of treatment.

The unhelpful guides

Four college friends drove to the Salmon River for a spring weekend of rafting. Two were experienced, and 2 were novices. After a day of running class 3 and class 4 rapids, they drove to the beginning of a class 5 run. Their guides were concerned that the river was swollen after 3 nights of heavy rain, and they showed them the route they were going to take (on the right side) to get down the first falls safely. But they had to wait for another group to pass—a group of 12 middle-aged men who had cameras and camcorders and seemed to be on a corporate outing. The guides of this second group looked very neat and well groomed but had no safety lines prepared.

This group went over the falls on the left side, where their 2 boats overturned on a boulder. The 4 friends drove with their guides downstream to an access point, where they watched for survivors. Shortly, 1 victim came floating by, and they tossed him a rope, but he was apparently unconscious. One of their guides went in after the victim with a half-sealed dry suit. They retrieved the guide downstream—he'd had to let go of the victim to save himself because his suit was filling with water. When they went back upstream, they found the rest of

the other group laughing and joking as they climbed out of the water. Apparently, neither they nor their guides were even aware that they had lost someone. His body was later found caught in an undercurrent where the river flows over a large boulder.

From this experience, the student learned how important it is to know the qualifications of people on whom your safety depends. His group did know that their guides were highly trained and very experienced. The other group apparently just went by appearances, since their guides obviously did not know the river and did not take any safety precautions. The student also learned not to become a victim—when their guide tried to perform a swimming rescue with an unsealed dry suit, he was risking his own life with little chance of success.

Instructors can learn from this incident the importance of teaching students about risk assessment, preparing for possible emergencies in wilderness activities, and group decision making. All of these skills can be practiced and reinforced in scenario exercises. The guides of the student and his friends set a good example, except for the hasty attempt at a swimming rescue. The guides of the other group obviously didn't have a clue.

A night in the crevasse

A small group of experienced mountaineers started up Glacier Peak in the North Cascades at 2:00 AM. They reached the first glacier just as the sun was coming up and noticed an ice ax stuck in the snow. Near the ax was a crevasse, and at the bottom of the crevasse, 20 feet down, was the owner of the ice ax. He said that he had climbed the peak the day before and that while descending, he had fallen into the crevasse, where he spent the night.

After setting up a pulley system and dropping a climbing harness to him, the group hoisted him out. He was wearing only a lightweight water-resistant jacket over a cotton T-shirt, cotton jeans, gaiters, and construction boots. During the night, he had stayed dry by crawling inside a couple of plastic bags. He seemed confused and disoriented but had no apparent injuries. After they boiled some water for him (which he gulped without waiting for it to cool), one member of the group offered to go down to camp with him. After sleeping in a tent for a few hours, he started out, leaving a note that said, "Send me some pictures of me in the hole. Thanks."

Although the group was trained in mountain rescue techniques, none of them knew wilderness emergency care. Had he had such training, the student would have asked questions and checked for injuries, even though

none were apparent. He also would not have trusted the victim's obviously impaired judgment and tried to persuade him to go out with the group, since the walkout from camp was 10 miles of steep terrain.

For instructors, the lesson is that they need to train students to be persuasive, especially with victims whose judgment is impaired. They also should train students to be educators who pass on some of what they have learned when they have the opportunity. Sometimes, however, they will encounter people who do not listen and do not learn. For example, the climber in the crevasse showed no sign of changing his habits in the future. If anything, the positive outcome to his experience probably reinforced the behavior that got him into trouble.

Conclusion

Every time instructors teach a course in first aid or emergency care, they should do frequent reality checks. They should ask themselves how what they are doing in the classroom will actually prepare students to prevent or cope with emergencies. Assigning a student essay on real emergencies they have experienced or witnessed helps the students evaluate and focus their training. When reading the essays, instructors should ask themselves how their class prepares students to cope with similar emergencies and how they can improve their lessons so as to make the training more realistic.