Society Issues Backwoods Cardiac Care Guidelines

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SNOWMASS, COLO. — You're camping in remote backcountry when someone in your party develops chest pain that you believe is due to an acute coronary syndrome.

Now what?

New practice guidelines from the Wilderness Medical Society tackle this issue for the first time. It's a topic that was long overdue for a thoughtful look by experts on medical care in the outdoors, William W. Forgey, M.D., said at the annual meeting of the Wilderness Medical Society (WMS).

"We've had a lot of feedback that at our society meetings we didn't do enough to address this particular issue," according to Dr. Forgey, a family physician at Indiana University, Indianapolis, and editor of the fifth edition of the practice guidelines.

The guidelines stress that immediate evacuation to a hospital saves lives in patients with acute coronary syndrome (ACS). If that can't be accomplished expeditiously by helicopter, litter, or another form of assisted transport, the patient should self-evacuate when possible via slow walking while taking 0.4 mg of prophylactic sublingual nitroglycerin every 10-15 minutes to prevent angina during exertion.

The WMS guidelines recommend early and aggressive use of four medications:

► **Aspirin.** Four chewable 81-mg tablets immediately, then one per day.

► **Nitroglycerin.** Sublingual 0.4 mg every 10 minutes unless the patient has a heart rate below 60 bpm, no palpable pulse in the standing position, signs of hypotension, or a systolic blood pressure below 100 mm Hg.

► **Clopidogrel.** A 300-mg loading dose immediately, then 75 mg per day. An obese individual may require a 600-mg loading dose.

► **β-Blocker.** Metoprolol or atenolol at 25 mg beginning 30 minutes after chest pain onset and continuing every 6 hours, even if chest pain improves. β-Blocker drugs should not be given to a patient with a heart rate below 60 bpm, severe shortness of breath, or wheezing.

The guidelines also advocate a number of adjunctive measures including treatment of pulmonary edema with nitroglycerin and/or rotating extremity tourniquets tight enough to impede venous return but not arterial flow. Other recommended adjunctive measures include supplemental oxygen, having a patient who feels faint cough deeply and repeatedly in order to prevent loss of consciousness during bradycardia or ventricular tachycardia, and having the patient in shock sit head down/feet up to prevent progressive coronary hypoperfusion.

The guidelines also address managing botanical encounters, orthopedic injuries, burns, high-altitude illnesses, and more.

Dr. Forgey pointed out that the guidelines are written for use by generalist physicians. Specialists such as cardiologists or cardiac surgeons may opt to act more aggressively.

Managing ACS in the wilderness is 1 of 26 topics addressed in the practice guidelines. Others range from what to store in a wilderness medical kit to managing botanical encounters, orthopedic injuries, burns, high-altitude illnesses, anxiety and stress reactions in the wilderness, and the thorny issue of hyponatremia as a consideration in oral fluid and electrolyte replacement.

The new edition for the first time adopts an evidence-based medicine approach, with all recommendations graded based upon the quality of the supporting evidence.

Dr. Forgey is particularly excited about the first-ever chapter on eye pathology.

"I think this guideline is one of the most important we've ever developed," he declared. "You cannot go into the wilderness without running into the problem of the red eye. It's a topic noticeably lacking from the wilderness medicine literature. Knowing how to handle traumatic and nontraumatic eye problems in the wilderness—and having the correct medications along—saves you so often." ■

The practice guidelines, free with membership in the Wilderness Medical Society, also can be purchased at www.wms.org.

Pages 18a—18b