Mass Casualty: What Are You Prepared to Do?

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SAN FRANCISCO — Every physician should consider how he or she would manage as the only medical professional in a mass-casualty situation, Lt. Cormac J. O'Connor, MC, USN, said at the annual meeting of the American Academy of Family Physicians.

Dr. O'Connor, a second-year resident in family medicine at Naval Hospital Camp Pendleton (Calif.), offered a mnemonic—SAGGY PRIDE—to help physicians remember the critical steps in managing mass casualties. He was assisted in his presentation by Lt. Donnelly Wilkes, M.D., MC, USN. (Dr. O'Connor emphasized that his suggestions are his own and do not represent official positions of the U.S. Navy or the Department of Defense.)

SAGGY PRIDE stands for Situational Awareness, Gather a Group and Yell, Plan Rapidly, Issue Directives, and Execute.

A "mass casualty" is any situation in which the number of casualties overwhelms the medical capabilities available. This can range from a single, critically ill person in a remote location to thousands of people in an urban area who are victims of a natural disaster or a terrorist attack.

"As a whole, civilian physicians are not trained to deal with mass casualty events," said Dr. O'Connor, who has served in combat with the U.S. Marine Corps in Iraq.

"[Nevertheless] as a physician, you're expected to know what to do when many people are hurt, regardless of whether that falls within the nature of your practice."

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During a mass casualty event, remembering the mnemonic SAGGY PRIDE could help manage the situation, said Dr. Cormac J. O'Connor.

Situational Awareness

In less than 1 minute, if possible, you need to get a grasp of what has happened. What is the nature of the calamity? How many people are involved? What is the location's condition and physical layout? What resources are likely to be available?

Gather a Group and Yell

Using a loud voice, identify yourself as a physician and bring all the able-bodied people together. By definition, you will not be able to handle the situation yourself, and you will need as much help as you can muster. "You need to be the puppeteer," Dr. O'Connor said.

"You need to be the director helping things to happen."

Be sure to discern whether there are any other medically trained personnel available to assist you.

You need everybody's help, but you must have control and confidence, something that physicians who practice emergency medicine gain with experience, but which may not come as easily to other physicians.

Plan Rapidly

Divide the work into a short game and a long game. The short game is to do the best for the people who are going to die or suffer a serious injury if you don't act immediately. The long game is to consider how you're going to evacuate all of the injured to a higher level of care.

Triage is the first step in the short game. Don't waste time with people who are not seriously injured; conversely, don't focus your resources on those who are likely to die given the resources you have available.

In combat, as in other mass casualty situations, the two major causes of preventable death are extremity exsanguination and pneumothorax, Dr. O'Connor said. Since a physician who happens on a mass casualty is unlikely to have the equipment needed to help a patient with pneumothorax, the best thing he or she can do is to keep patients from bleeding to death from a hemorrhage of the extremity.

The best way to do this is to apply direct pressure, but even if you had a group large enough to apply direct pressure to every injured person, consider whether that is the best use of your resources.

The other alternative is to use tourniquets. While many physicians have been taught that tourniquets should never be used because they can lead to the loss of a limb, Dr. O'Connor disagrees.

He described one combat casualty he treated who had a leg wound so severe he could see the man's sciatic nerve. He applied a tourniquet that stayed on for a full 8 hours. The man lived and has full use of his leg. The truth is that peripheral muscle can stand to be deprived of oxygen for extended periods. For the long game, think first about communicating to emergency services.

These days almost everyone carries a mobile phone, but what are you going to do if cell service is down? Perhaps someone has a working BlackBerry, a CB radio, or maybe there's even a working land line.

Then think about how emergency services are going to get to the site and how they're going to leave. Plan a route that gives one way for emergency vehicles (possibly including helicopters) to get in, and another way to get out. Plan to put the people who can be helped best by being evacuated at sensible collection points and to move less seriously injured people—and the dead and dying—out of the way.

Issue Directives

Be very specific and speak directly to individuals. Don't say, "Somebody, please phone for help," Dr. O'Connor recommended. Instead say, "Ma'am, I see you have a cell phone. Call 911 right now!"

Have able-bodied people move the dead out of the way, and preferably out of sight. Designate an assistant to move the walking wounded to another location. Say, "This is Mary. If you can walk, follow her."

If possible, assign someone to stay with those who are likely to die within a short time. Get them to a quiet area. Find somebody who is mature, but who may not be physically very strong, to stay with these folks and comfort them during their last minutes or hours.

Execute

Have a group of worker bees search for heavy extremity bleeding and apply pressure dressings or tourniquets. Instruct them to use any available materials, including belts, shirts, and bras.

Finally, don't forget to continually reevaluate the situation. This may include retriaging the injured as their situations change. ■