Teaching CPR: Someone's life depends on it

In 1966, a National Academy of Sciences–National Research Council (NAS–NRC) Conference on Cardiopulmonary Resuscitation (CPR) recommended the training of medical, allied health, and other professional personnel in the external chest compression technique as established by the standards of the American Heart Association (AHA).[1,2] In 1973, a second national conference on CPR and Emergency Cardiac Care, cosponsored by the AHA and the NAS-NRC, recommended that CPR training programs be extended to the general public.[3] Since then, multiple studies have indicated that bystander-initiated CPR improves survival rates of patients who have cardiac arrest in a nonhospital environment.[4,5]

A recent study by Gallagher and colleagues[6] provides further evidence of the value of bystander-initiated CPR. The authors gathered data from 2071 out-of-hospital resuscitations performed during a 6-month period in New York City. They sought to determine how much the "quality" of bystander-initiated CPR influenced survival. Effective bystander-initiated CPR was associated with a 4.6% survival rate. Effective CPR was defined as ventilation producing visible chest compression plus chest compression producing palpable carotid or femoral pulse. Victims of cardiac arrest in the study were characterized as "survivors" if they were discharged from the hospital to home. Overall, survival in this study was 2.9% among the 662 victims who received bystander-initiated CPR and 0.8% among the 1409 victims who received no bystander-initiated CPR.

These results contrast those findings from a 1982 Seattle study by Cobb and Hallstrom.[7] The researchers noted that the survival rate was the same in victims whether they received CPR by highly trained rescuers or lay rescuers. Both of these studies support CPR as the initial component to *any* successful resuscitation from cardiac arrest.

With this in mind, the American Osteopathic Association (AOA) in its position paper on CPR training strongly supports the instruction of CPR techniques to the general public. It also "encourages member physicians to qualify as instructors in basic life support so as to enable them to teach cardiopulmonary resuscitation courses in schools, churches, and other organizations on a voluntary basis."[8] The osteopathic medical profession rests on the tenet of health promotion/disease prevention. The rest of the healthcare profession seems to have adopted a preventive approach as well, and the AHA has developed a 4-hour basic life support module that includes information for the lay public on cardiac risk factors and prudent heart living. The prevention of cardiac disease constitutes part of this approach to living. Strong disease prevention messages delivered during CPR training may have as great an impact on cardiovascular mortality and morbidity as the teaching of emergency measures themselves. Through community education and involvement, CPR may serve as a means of controlling coronary artery disease through prevention.

In accordance with a mandate in the Osteopathic Medicine Oath, "I will be ever vigilant in aiding in the general welfare of the community...," osteopathic physicians should teach the community to function as the ultimate coronary care unit. This concept assumes a lay public able to recognize the symptoms of a possible myocardial infarction and educated enough to seek prompt entry of the victim into the emergency medical services system. Citizens must be trained to support the life of the cardiac arrest victim until advanced cardiac life support resources become available. The entire community must be trained in recognition and reduction of reversible risk factors among the population with known coronary artery disease, and they must eagerly support an effective emergency medical services system.

Many colleges and state societies afford practicing physicians opportunities to continually renew their CPR certification and to become instructors in these life-saving techniques. Some osteopathic physicians do use the opportunities associated with CPR training to teach their patients and the general public the importance of healthy lifestyles to prevent cardiovascular disease in the first place. But all DOs

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should accept the responsibility to educate the public in the prevention of heart disease and in the proper techniques of CPR. Neglecting this responsibility could very well cost someone's life.◆

John W. Becher, DO
Director of Emergency Medicine Residency Program
Department of Emergency Medicine
Albert Einstein Medical Center
Philadelphia, Pa

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