Cardiopulmonary resuscitation (CPR): saving lives in the USA

Heart disease and stroke are the first and third leading causes of death for both men and women in the United States accounting for 40 percent of all deaths. The Centers for Disease Control and Prevention (CDC) estimated the economic impact of heart disease and stroke in 2005 to be $394 billion. This includes healthcare expenditures and lost productivity from death and disability. According to the National Registry of Myocardial Infarctions, about 1.5 million heart attacks occur in the United States each year with about 500,000 deaths. Heart attack occurs about every 20 seconds with a heart attack death every minute. Almost 14 million Americans have a history of heart attack or chest pains related to heart problems. About 50 percent of deaths occur within one hour of the heart attack outside the hospital setting; six percent to nine percent of early deaths from heart attacks occur in those who make it into the hospital.

The American Heart Association (AHA) has reported that heart attack victims when provided with early CPR and shock delivery with a defibrillator (electric shock to the chest) by trained lay rescuers and first responders have a survival rate of between 50 percent to 70 percent. Some community lay rescuer programs have reported high survival rates from heart attacks as a result of early CPR and early defibrillation using computerized automated external defibrillators (AED) that can be operated by trained lay rescuers.

About 30 percent of U.S. adults are estimated to be hypertensive and another 31 percent are prehypertensive. Consequently, it is important to address risk factors associated with heart disease and stroke — such as diabetes, tobacco use, physical inactivity, poor nutrition, being overweight and obesity through lifestyle changes. Scheduling a yearly physical examination at the physician’s office will allow for early diagnosis and early treatment of conditions that predispose to heart attacks. The AHA has made available many course options to the lay rescuer in order to improve access to early CPR and defibrillation in the community hoping that this will not only improve survival for heart attack victims, but it will also reduce long term complications associated with untreated heart attacks. These courses are open to the general public and are provided by trained AHA certified CPR instructors. A typical CPR class lasts for about 6 to 8 hours and certification is good for two years after which cardholders will have to recertify. Below are some courses available:

- HDHHS CPR training classes
- CPR for Family and Friends
- CPR in Schools
- Heart saver CPR
- Heart saver AED (Automated external defibrillator)
- Basic life support (BLS) for Healthcare Providers
- Heart saver FACTS, and Mass training

It is the goal of the AHA that many people become CPR certified and the courses are completely user friendly. Also, the Automated External Defibrillator (AED) has undergone some modifications allowing it to be easily applied by a trained lay rescuer. About 330,000 heart attack deaths occur out of hospital and emergency department in the United States each year. This number can be reduced by training the community on providing adequate and prompt assistance once a person is experiencing symptoms of a heart attack.

Further references: www.americanheart.org/cpr
www.womensheartfoundation.org
www.cdc.gov/nccdphp/publications/aag/cvh.htm