

CPR

Cardiopulmonary Resuscitation

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Volume 2, Number 2

CPR Standards Get Overhaul

As this bonus issue of **CPR CITIZEN** was going to press, 100 specialists in basic and advanced cardiac life support were preparing for a trip to Dallas. With little prior fanfare, the **1979 National Conference on Standards for Cardiopulmonary Resuscitation and Emergency Cardiac Care** was scheduled for September 19th and 20th at the American Heart Association's National Center. Co-sponsors of the **Conference** include the American Red Cross and HEW's Division of Emergency Medical Services.

The current **Standards for CPR and Emergency Cardiac Care** were established by a **National Conference** which convened in Washington, D.C., in May, 1973. In announcing the **1979 Conference**, the American Heart Association reported that the original (1973) **Standards**, as published in the February, 1974, supplement of **JAMA (Journal of the American Medical Association)**, are in need or revision. "Changes have occurred in Advanced Cardiac Life Support and in Basic Cardiac Life Support which require an updating of the **Standards**," the AHA said in its **Conference** announcement.

The Dallas confab was scheduled to include reports from special task groups which have reviewed and rewritten sections of the **Standards** based on published research and current accepted clinical practice. Drafts of these reports have already been subjected to peer critique by a group of over 50 reviewers. According to AHA, the **Conference** is intended to provide a forum to review, discuss and make recommendations for the draft documents prior to publication.

The number of participants was limited to 100 for the 1979 meeting and participation was to be by

1979 National Conference
on Standards for
Cardiopulmonary
Resuscitation

CPR

and Emergency Cardiac
Care

ECC

September 19-20, 1979
American Heart Association
National Center
Dallas, Texas

Sponsor:  American Heart
Association

Cooperating Agencies:

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Research Council
American Red Cross
Inter-Society Commission for Heart Disease
Resources
Division of Emergency Medical Services —
Health Services Administration —
Department of Health, Education and Welfare

invitation. Efforts were made to secure a balance of specialties, as well as geographical and agency representation. The ACT Foundation was to be represented by its Executive Director. Serving as Chairman of the **1979 Conference** is Kevin McIntyre, M.D., J.D., of Boston. According to Dr. McIntyre, agreement has already been reached for the updated **Standards** to be published in another supplement of **JAMA**.

Although the **Conference** program was divided into specific topics, the Obstructed Airway Panel promised to be the focal point of intense debate and controversy. Scheduled to chair that Panel was Dr. Eugene Nagel, of Johns Hopkins. Listed as

Discussants on the Panel were Doctors Archer Gordon, Charles Guildner, Henry Heimlich, and American Red Cross official, C.P. Dail.

Subject to permission from the American Heart Association, highlights of the **1979 National Conference on Standards for Cardiopulmonary Resuscitation and Emergency Cardiac Care** will be reported in a future issue of **CPR CITIZEN**. ▲

"Save-A-Life" In Hollywood

About seven years ago, during the first season of the television program, "Emergency!," producers of the show were receiving critical letters from physicians and others involved in emergency care and transportation throughout the U.S. Most often, the criticism was aimed at the program's depictions of CPR. "That's not how it should be done," complained one doctor. Another writer labelled as "dangerous" inaccurate television depictions of the life-saving technique. Still another offered to travel to Hollywood and teach the program's performers how to perform CPR.

Producers of "Emergency!" were aware of the problem long before the letters began to arrive. They had sought and received abundant technical advice in producing the show. But how do you depict CPR accurately on a conscious actor who just happens to be playing the role of victim?

In one of the early one-hour programs, for example, veteran character actress Iris Korn was to play an elderly woman who suffered cardiac arrest in an

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"Save-A-Life"

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elevator which stuck between floors during evacuation from a burning building. After hours of setting up lights and cameras, and preparing actors for the scene, the Director called "Action!" As paramedics "Gage" and "DeSoto" began to perform CPR on the 80-year old actress (as they had been instructed by their real-life counterparts and technical advisors), Miss Korn cried out in agony. And the Director hollered "Cut!" With production costs running \$9,000 per hour, the scene was re-shot quickly, with flexing elbows and abbreviated chest compressions.

The problems faced by the cast and management of "Emergency!" were understandable. Despite continuing dissatisfaction and complaints from CPR "purists," the program must be credited with making CPR and emergency care subjects of household conversation during its six years of production. But what about other television shows and movies where there is no apparent effort to include CPR where it should be, or where grossly inaccurate techniques and concepts are uttered or broadcast?

All movies and television shows get started with a script, and those scripts are created by writers — members of the Writers Guild of America. About a year ago, the western branch of the Writers Guild (located in Los Angeles) formed a "Save-a-Life" Committee and writer Mort R. Lewis (Bonanza, Rawhide, This Is Your Life, Bewitched) was named chairman. Earlier, Lewis and his wife, inspired by the CBS "Sixty Minutes" segment on emergency care in Seattle, had taken CPR training from Heart Association instructors.

Before long, Mr. Lewis and about 20 other writers were being trained as CPR Instructors by Los Angeles County paramedics. At about the same time, the ACT Foundation loaned to the Writers Guild a copy of our own film — "A Life in Your Hands" — for showing at Writers Guild meetings and functions. Very shortly, 700 members had signed up for instruction.

Mort Lewis (left) looks on as actress Kathleen Hughes (Mirror, Mirror; The Last Hero; And Your Name is Jonah) demonstrates CPR technique for Writers Guild Instructor Jim Tisdale (Incredible Hulk; Harris and Company; Third Annual Circus of Superstars) and recent graduate of the Provider course, writer Carolyne Lacy (Days of Our Lives).

Photo Credit: Amanda Blanco



For the past year, in addition to a fast pace of CPR training activities, Mort Lewis has been penning a monthly column about the CPR training program for the Writers Guild newsletter. And he's been trying to get the Screen Actors Guild, the Directors Guild of America, and AFTRA to follow suit and establish training programs for their members. According to one film director, who asks to remain unnamed, his organization is pursuing the topic with the speed of an "arthritic snail."

As the actors and directors struggle to get their CPR scenario together, the writers have expanded their program beyond the confines of their professional peers. They have begun to teach CPR to nurses, medical technicians and, in one case, to a group of physicians, not to mention friends, neighbors and relatives.

It's only a matter of time 'til the Writers Guild "Save-a-Life" program is instrumental in saving the life of one or more victims of cardiac arrest. But to those of us who have suffered through the "Call a Doctor!" routine on television, the training program holds additional hope. With every writer, director or actor who is trained to perform CPR properly, there is less chance that America will be exposed to thunderous precordial thumps, abdominal compressions, and pillows under the head of a pulseless, non-breathing victim of cardiac arrest. ▲

Anatomy of a United CPR Campaign

At least once a week, we receive requests from readers wanting to know how to start a CPR training program. Although the design of a program may be different for each community, there are some basic considerations that are nearly universal. The following article, submitted to us by one of our subscribers, offers information which should be helpful to training veterans, as well as newcomers.

As a first step, establish a planning group including those already involved in CPR instruction in your community. If no such training programs exist, arrange for involvement and participation of those who would share your interest in such a program. Organizations and agencies to be included in such a planning group include the local American Heart Association affiliate and the local Red Cross Chapter. Local schools (both high schools and colleges) should be invited to participate. Other important participants would include the Health Systems Agency, medical association or society, hospitals, social service agencies, and service clubs such as Jaycees, Junior League, Rotary, Optimists, Kiwanis, etc.

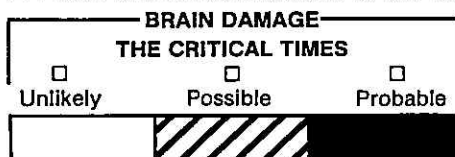
Call representatives of these various groups or organizations

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CPR Refresher Quiz

1. After lunch, a friend complains of nausea and pressure in his chest. He comments that his lunch caused indigestion. You notice he is a bit short of breath and sweating heavily. You should have him:
- Go home immediately
 - Rest quietly while you arrange his entry into the appropriate emergency medical system
 - Take an antacid and leave work early if it doesn't help.

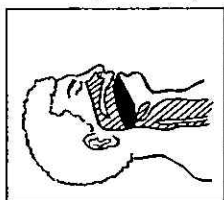
2. Place the correct letters in the boxes on the graph:



- 6-10 minutes
- 0-4 minutes
- 4-8 minutes
- 4-6 minutes

3. Your neighbor collapses while mowing his lawn. You determine that he is unresponsive. Next, you should:
- Quickly run into your house and call an ambulance
 - Check for pulse and begin compressions if necessary
 - Position the victim to open the airway and check breathing

4. The tongue is the most common cause of airway obstruction in the unconscious victim. The simplest technique to open the airway in most cases is:



- Tilting the victim's head back
- Opening the mouth with the cross finger technique
- Delivering sharp blows to the back.

5. Which of the following statements is **not** correct?
- Opening the airway may allow the victim to start breathing for himself.
 - The airway must be open to accurately assess breathing.
 - An open airway will increase the possibility of stomach distension from artificial ventilation.
 - It is not possible to ventilate a victim properly unless the airway is open.
6. After opening the airway, the most reliable way to assess breathing is to:
- Check the pulse
 - Place your ear close to the victim's mouth, face the chest and look, listen and feel for signs of air and chest movement
 - Place your hand on the chest to feel breathing movements.
7. A woman collapses near you at a store. You assess unresponsiveness, roll as a unit while calling for help, and open the airway. She is not breathing. Immediately, you should:
- Breathe once, then check the pulse
 - Give four quick breaths
 - Begin chest compressions

8. The victim's pulse should first be checked:
- For 5 seconds immediately after opening the airway
 - For 5 to 10 seconds after determining unresponsiveness
 - For 5 to 10 seconds after the first four ventilations

9. To perform chest compressions on an adult, kneel beside the victim's chest, place one hand on top of the other with the heel of the lower hand on:
- The lower half of the sternum
 - The xiphoid process
 - The middle sternum.

10. When doing chest compressions, the rescuer's shoulders should be directly over the victim's sternum and elbows should be kept straight. This body position is important because:
- Compressions should be straight down
 - You will achieve adequate pressure for effective compression depth
 - You will tire less quickly using your body weight rather than pushing with your arms
 - All of the above

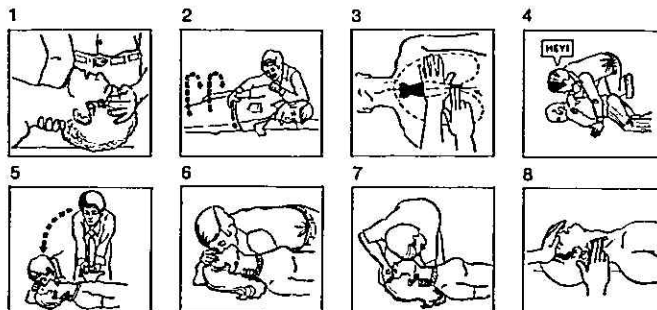
11. The depth of compressions for the average adult is:
- 1 to 1½ inches
 - 1½ to 2 inches
 - 2 to 2½ inches

12. The compression rate for single rescuer CPR is:
- 60 times per minute
 - 40 times per minute
 - 80 times per minute.

13. When one rescuer is performing CPR on an adult victim, the ratio of compressions to ventilations is:
- 10 compressions to 2 ventilations
 - 5 compressions to 1 ventilation
 - 15 compressions to 2 ventilations

14. Cardiac compressions are most effective when:
- Done rhythmically, with compression time equal to release time
 - The chest is allowed to return to its normal position on release
 - There is no pause between compressions
 - All of the above

15. Arrange the following illustrations in the proper sequence for single rescuer CPR:



Refresher Quiz answers appear at page 5 (over)

CPR Refresher Quiz Answers

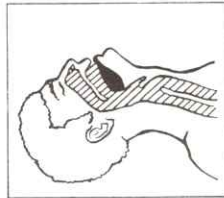
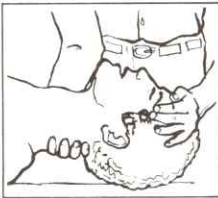
See CPR Refresher Quiz at page 4

1 - b. Warning signs indicate a possible heart attack. He should be quiet, he should be reassured and he should have medical attention. He should **not** be left alone.

2 - b-d-a. You have 4-6 minutes to assess the victim and respond as indicated to prevent brain damage.

3 - c. If there is no response to your "shake and shout," follow the ABC's. Have someone call an ambulance, after the pulse check, when you can give vital information.

4 - a. Press down on the forehead and gently lift up on the neck:



As the lower jaw moves up, the tongue is lifted away from the back of the throat:

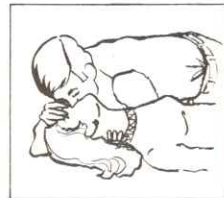
5 - c. One of the most common mistakes in CPR is failure to hyperextend the neck. A partially blocked airway interferes with ventilation and increases the possibility of stomach distension.



6 - b. If air is moving in and out of the lungs, it must pass through the mouth and nose:



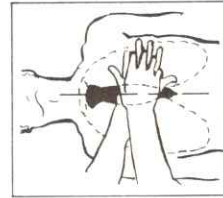
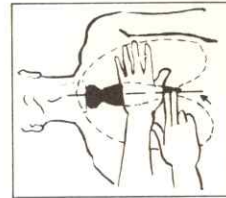
7 - b. Pinch the nose, seal the mouth with your lips, and blow forcefully. The victim should not exhale completely between breaths:



8 - c. Supply oxygen by ventilating, then take enough time to be sure whether or not the victim has a carotid pulse:

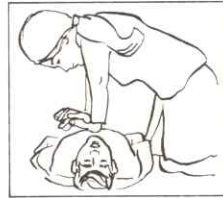


9 - a. Slide your fingers up the ribs and locate the proper place for compressions:



Keep your fingers tipped up off the ribs:

10 - d. Good body position can improve your effectiveness.



At best, CPR is only 25 to 30% as effective as the beating heart.

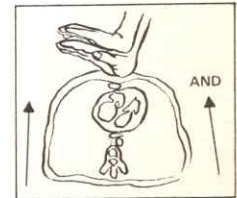
11 - b. Remember to check your "landmark" each time before beginning compressions.

12 - c. The compression rate of 60 is for two-person CPR.

13 - c. Check the pulse after the first four cycles, then every four to five minutes:



14 - d. A smooth even count (one-and-two-and-three, etc.) helps maintain both rhythm and rate:



15. The proper sequence is: 4 - 2 - 1 - 7 - 6 - 8 - 3 - 5

Note: The **CPR Refresher Quiz** and **CPR Refresher Quiz Answers** have been published in this issue of **CPR Citizen**, Volume 2, No. 2, (published by ACT Foundation, P.O. Box 911, Basking Ridge, N.J. 07920). Readers are urged to use this material to refresh CPR knowledge and skills, and to share it with others. However, publication or duplication of the illustrations require approval from CPR Publishers, Inc., 4133 E. 43rd Street, Tulsa, Oklahoma 74135. ▲

Anatomy

Cont. from p. 2

together to talk about CPR instruction in your area. You can do it as an individual — just to get the ball rolling. Concerned that you don't have an official title or status? Don't worry about it. Tell them you read this article, you were inspired, and it can happen in Yourtown, Anywhere, USA.

Your goal should be a united effort. If such a united effort can benefit your community, how can you pool resources and mobilize the energies of interested persons and organizations?

Why a united effort? Why not let every organization pursue the program in its own way and at its own speed? Efficiency and economy are two good reasons. For example, when the program gets underway, you'll need instructor and support personnel to meet the demands for training. Many of your instructors will be volunteers. Their efforts need to be utilized fully and efficiently — full classes, properly-functioning manikins, necessary supplies and enough lead time to allow the volunteer to fit easily into the time schedule. Better yet, fit the class time to the volunteer.

Before your planning meeting has concluded, the issue of funding will have been raised. How much will be needed, if any, and what will it be used for? Purchase and maintenance of manikins is an important cost item. But it's possible that there are already some manikins in your community which could be used to get the united program underway. One or more of the various participating agencies or organizations might be able to commit funds to the program. It's possible that one of the social service agencies, a school or college, can purchase a manikin to get the program started.

As the program gets underway, a small fee can be charged to attendees for purchase of additional manikins and course materials. Each trainee then plays a part in making instruction possible for those who follow.

Some instructors report that trainees tend to take the whole matter more seriously if they have two or three dollars invested in the course.

What about manikin maintenance? Annie does require some care if she's going to perform well for you. After each training class, the instructor or another specified person should clean all manikins in accord with proper procedures. Keeping Annie clean and healthy is simply good health care for your trainees.

Every seasoned instructor has arrived at a scheduled class to find a manikin unworkable or needing repair. This dilemma just isn't fair to people who donate their time to serve your community. Consider a memo system. At the end of each class, the instructor reports on manikin condition on his/her arrival, and whether any problems turned up during training which might require maintenance. If the memo gets turned in with the trainee roster, and if there is someone clearly responsible for reviewing and responding to the memos, a smoothly-functioning system of maintenance can be devised. Pride in the CPR training equipment cannot be over-emphasized. It generates enthusiasm for the program, it's essential to the life and performance of the equipment, and it's a key to the success of the entire program.

Where will you hold classes? In most communities, the options are numerous, ranging from schools, colleges, fire stations, hospitals, churches, YMCA, etc. In planning for the various sites (if there is to be more than one), consider the wear and tear on equipment and instructors. Hauling heavy equipment all over town, night after night, has been known to cause "burnout" among CPR instructors. Possibly each of the participating agencies can be responsible for one or more training sites, with scheduling of courses accomplished through a central scheduling office.

In one city, the united CPR training program set up a central scheduling office, designated it

"CPR Central," and got the phone number: 494-2772 (which also reads: 494-CPRC). A phone answering device was obtained and the office is staffed part time by volunteers. You can be a part of the program even if you don't want to teach.

Volunteer instructors can be scheduled for their duties far in advance. For example, if a given instructor wants to teach on certain evenings and during certain months, s/he can be scheduled accordingly (for example, Tuesday evenings during March and June). This information can be supplied to the central

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About the CPR Refresher Quiz

According to numerous studies, most CPR-trained persons experience serious skill decay in relatively short periods after training. In a 1978 study of this topic by researchers at Baylor College of Medicine, it was found that persons who had engaged in after-training study, review and practice of the technique experienced lesser degrees of skill decay (see **Journal of the American Medical Association** (JAMA 241: 901-903, 1979) and **CPR CITIZEN** (Vol. 1, No. 4)).

After consultation with the Baylor research team, we concluded that we could serve our readers by offering materials for study and review. With assistance from CPR Publishers, Inc., sponsors of this bonus issue of **CPR CITIZEN**, we have developed the CPR Refresher Quiz that appears at pages 4 and 5.

We hope the CPR Refresher Quiz and the quiz answers are helpful to you and your trainees. We would welcome you to use this material to refresh your own CPR knowledge and skills, and to share it with others. The illustrations, however, are copyrighted. Publication or duplication of these illustrations requires approval from CPR Publishers, Inc., 4133 E. 43rd Street, Tulsa, Oklahoma 74135. ▲

This Issue Brought To You By . . .

This bonus issue of **CPR CITIZEN** has been published and mailed under the sponsorship of CPR Publishers, Inc. of Tulsa, Oklahoma, a non-profit organization. Nearly two years ago, CPR Publishers made available an important booklet which is now used in CPR training programs throughout the U.S.

Entitled **Cardiopulmonary Resuscitation, CPR**, this 48-page, fully-illustrated paperback handbook incorporates all of the official American Heart Association standards for CPR and airway obstruction maneuvers. It was prepared by AHA affiliate faculty, with guidance from physicians. Included in the 6" x 9" booklet are 100 study questions with keyed answers, and four Basic Life Support performance tests. The publication has a table of contents, it progresses in logical order, and it includes a "CPR Action Diagram" (decision tree) which can be useful in personal planning for action in advance of an emergency.

Aside from its value as a training aid, some training projects have provided for copies of the booklet to be issued to trainees as a take-home item, for periodic review and refresher exercises. Although

single copies are available from the publisher for \$1.00, substantial discounts are available for bulk purchases. There is no official connection between the ACT Foundation and CPR Publishers, Inc., but we do appreciate their generosity in sponsoring this bonus issue of **CPR CITIZEN**. For additional information concerning their booklet, contact CPR Publishers, Inc., at 4133 East 43rd Street, Tulsa, Oklahoma 74135.

Meanwhile, we would be pleased to hear from any other CPR-related organization that might like to sponsor a special issue of **CPR CITIZEN**. Inquiries should be directed to the Executive Director, ACT Foundation. ▲

Anatomy

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scheduling office for matching trainees with instructors on pre-determined dates.

Again, don't overlook the "care and feeding" of instructors. Avoid those last minute "panic" calls to arrange for an instructor who has already put in a day's work. Remember that manikins are heavy and don't fit into most cars very well. After the volunteer instructor has climbed a flight of stairs with a manikin, only to learn that it is broken, motivation tends to become fragile. Early class

scheduling, manikins already at the teaching location, and proper attention to maintenance all serve to keep the volunteer spirit alive and well.

What about quality control — especially in large programs with numerous instructors and training sites. Obviously, instructors should be certified through the American Heart Association or the American Red Cross. Both organizations have clearly-defined instructor requirements and reporting systems. Despite the organization that unifies and coordinates training at the community level, the integrity of instructor responsibility to the certifying agency must be maintained and is an important key to quality control.

These are but a few of the elements involved in a united effort to train large numbers of citizens in CPR. Because they are basic, they tend to be overlooked. But the experience of numerous successful programs suggests that the most basic of details deserve the most diligent attention. ▲

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