



ADVISORY BULLETIN

March 4, 2004

Mouth-to-mouth resuscitation: is it really a thing of the past?

As reported in an article published in *USA Today* on February 23, 2004, doctors from major cities across the United States are leading a significant change in providing Cardiopulmonary Resuscitation (CPR) to heart attack victims.

At a meeting of emergency medical service directors, doctors from a dozen cities, including New York, Los Angeles and Chicago, have decided to join seven other cities already advising 9-1-1 callers to do chest compressions without mouth-to-mouth "rescue breathing."

This new technique is designed to avoid losing time trying to explain rescue breathing instructions to callers who are untrained in CPR or reluctant to give mouth-to-mouth resuscitation.

Since this article was published, PowerPhone has received many inquiries from customers across the United States about the impact this will have on PowerPhone's pre-arrival system. To address the inquiries we've been receiving, this advisory bulletin sets out PowerPhone's perspective on the issue.

PowerPhone protocols remain the same

In the *PowerPhone Dispatcher's Desk Reference Manual, 4th Edition*, first published in 2001, the company was one of the first to address compression-only CPR. PowerPhone recognized that in situations where the caller is unfamiliar with CPR, lay rescuers should be advised to provide compression-only resuscitation.

In light of what now appears to be greater acceptance of this approach, this advice should be given greater consideration.

Research has demonstrated that in adult cardiac arrest of relatively short duration, bystander CPR using only chest compressions seems to be as effective as bystander CPR using ventilation *and* chest compression. This theory is based upon the premise that a successful resuscitation outcome can be correlated with the timing and degree of restored oxygenated blood flow to vital organs. Time spent attempting ventilation may take away valuable seconds in achieving this.

Evidence suggests the vast majority of cardiac arrests occur in a person's own residence. In these cases, the person most

likely to be present and witness the arrest is the victim's spouse or partner. As the largest group of cardiac patients is men over age 60, the most probable CPR provider is an older woman who is not likely to have received CPR training.

THE BOTTOM LINE

While the move toward compression-only CPR may save seconds and lives in some emergencies, it's important for agencies to remember one thing: ***rescue breathing is not yet a thing of the past***. All call-handlers should keep the following points in mind when handling cardiac/respiratory arrest calls.

Longer response times may still require rescue breathing

Dispatchers should note that the recommendation to advise compression-only CPR assumes that an average response time of 4 to 6 minutes is achievable by responders equipped with a defibrillator. In instances where resuscitation duration is longer, advice to ventilate the patient should be given, although this may be after compression-only resuscitation has been initiated.

Compression-only CPR applies only to certain types of cardiac arrest situations

The most applicable clinical scenario for delaying mouth-to-mouth ventilation is an adult (***older than 40 years***), who ***suddenly collapses and is witnessed by a bystander who can immediately initiate chest compressions***. With children and young adults, respiratory compromise, not cardiac arrest, is the more common threat to life. In these situations, early mouth-to-mouth resuscitation continues to be recommended if the bystander is willing and able to do so.

AHA and local standards are still most important

At present, the American Heart Association (AHA) continues to stand by its CPR guidelines, which recommend a combination of chest compression and mouth-to-mouth resuscitation when administered by someone who has taken a CPR training course. PowerPhone recommends that agencies consult with their local Medical Director to establish their view on this matter and adopt a practice that is locally supported to meet the needs of the community they serve.

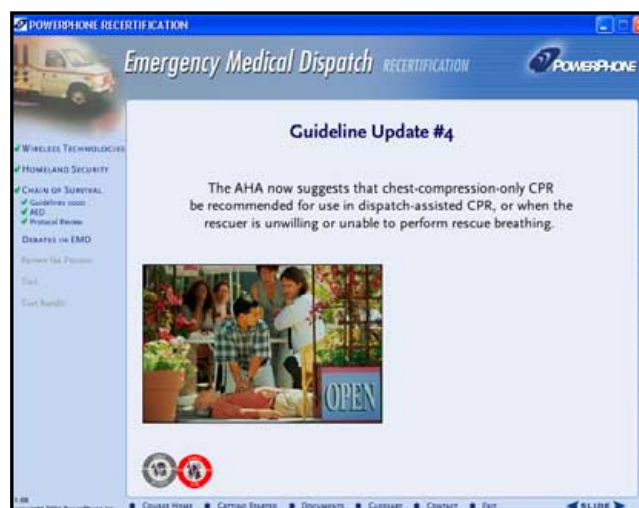
March 4, 2004

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Protocol Excerpts

PowerPhone has been recommending the use of chest-compression-only CPR for lay rescuers in certain situations since 2001. Below are examples of where this appears in our Dispatcher's Medical Desk Reference Manual, 4th Edition and our Computer-Based Recertification Program.

- **YES, *with normal breathing*:** Roll victim onto his/her side (PROCEDURES Tab #3) Monitor ABC's closely. Tell me immediately if there is any change!
 - **YES, *with abnormal breathing*:** Start rescue breathing (AIRWAY Tab #3)
 - **NO**, open the mouth! Do you see anything inside?
 - **YES (SOLID)** – Remove it with your fingers!
 - **YES (LIQUID)** – Wrap your fingers with a cloth (If available) and clean it out!
 - **NO** – Will you do mouth to mouth?
 - **YES:** Go to Step 2.
 - **NO:** Go to Step 5.
- NOTE: If the callers are completely unfamiliar with CPR, go directly to Step 5.**
- Step 4: Give 2 Rescue Breaths** (Hands are positioned as instructed in Step 2. Open the Airway)
- a. Put your mouth tightly over the victim's mouth and pinch the nose closed with the thumb and finger of the hand you have on the forehead and keep tilting the chin up with your other hand!
 - b. Give 2 slow breaths, and watch the chest rise with each one! Did the chest rise?
 - **NO** – Make sure the head is tilted back and give 2 more breaths!
 - **YES** – Go to Step 5.
- Step 5: Check for Signs of Circulation**
- a. Is he/she moving, coughing or breathing normally?
 - **YES** – Turn the victim onto his/her side (PROCEDURES Tab #3) Monitor ABC's closely. Tell me immediately if there is any change!
 - **NO** – AED available – Go to AED Tab
 - **NO** – AED not available – Go to Step 6.



Sample screen from PowerPhone's **Emergency Medical Dispatch Computer-Based Recertification** program (Version 1.08, © Copyright 2004, PowerPhone, Inc). Program is available on CD-ROM for previously certified emergency medical dispatchers.



Excerpted from *Cardiac/Respiratory Arrest (Adult)* protocol in the *Dispatcher's Medical Desk Reference Manual, 4th Edition* (© Copyright 2001, PowerPhone, Inc.).

For more information, please visit www.powerphone.com or call us at 1.800.537.6937 (outside the U.S., please call +1 203.245.8911).