

December 10, 1984

News

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***CPR taught using interactive video /
computer system.

DALLAS--Computers, the lifeblood of modern society, save us vast amounts of time, money and energy. In recent years in the health care field, they have also enabled us to perform the most vital function of all--to save lives.

Cardiopulmonary resuscitation (CPR) is now being taught using a new computer system complete with an interactive video disc program and manikin.

Four years ago when David Hon, an American Heart Association computer expert, discussed the concept with a group of doctors, the technology to carry out his idea did not even exist. Since then, of course, computer automation has advanced significantly. And Hon, along with other experts including Dr. James M. Atkins, associate professor of Internal Medicine and co-coordinator of Emergency Medicine Education (formerly Emergency Medical Services Training) at The University of Texas Health Science Center at Dallas, have perfected the possibility of a CPR program on video disc and made it available for commercial use.

The system teaches CPR step-by-step, A to Z, says Atkins. No instructor is necessary and students can learn in privacy at their own pace. Providing continuous instruction and feedback, the computer teaches, grades and certifies students and even stores records of how well they did.

The system uses an intricate electronic version of the Resusci-Annie, or it can be hooked up to an infant manikin. Sensors inside the dolls measure every aspect of the students' training--position of their hands, feeling for a pulse, shouting for help, and whether compressions and ventilations are too deep, too shallow, too slow, too fast.

When the student makes an error, the computer explains in depth how to correct the mistake. The more often the student acts incorrectly, the more in-depth the computer's explanation is.

The potential use of such a system is immeasurable, says Atkins. Currently, he and other American Heart Association volunteers have finished the first disc--a basic program--that teaches Advanced Cardiac Life Support. In the future, he says, there will probably be programs for trauma, burns, poisonings, weather disasters and "anything where the student would benefit from being interactive."

"This computer provides a great teaching aid. The more interactive the student is in the learning process, the better the learning is," says Atkins. "It frees up instructors' time to concentrate on other areas, provides more in-depth lifesaving skills, and will prove very cost effective in the long run."

The EME program at the health science center has a modified version of the sophisticated system. Its computer is designed only to test and grade but not teach CPR performance.

But Atkins hopes to have the entire system for the department in the near future.

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PHOTOS AVAILABLE UPON REQUEST.

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