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Austin/Travis County EMS Adopts Continuous Chest Compression Protocol

July 2005, MERGINET—Austin/Travis County EMS is the primary medical rescue provider for the city of Austin, Texas. Working under a single medical director are about 1,000 Austin firefighters certified at the EMT-B level or higher, and more than 250 volunteer and paid EMS first responders from neighboring Travis County.

On January 18, 2005, they officially adopted a CPR/defibrillation protocol calling for 90 seconds of chest compressions only in adult cardiac arrest patients who did not experience a witnessed cardiac arrest or a traumatic arrest. Following 90 seconds of continuous chest compressions, at a rate of 100 compressions per minute, rescuers follow AED prompts or prepare for manual defibrillation.

"Evolving evidence suggests that there is a distinct arrest population that may benefit from chest compressions prior to defibrillation," explained Ed Racht, MD, medical director for Austin/Travis County since late 1995. The group that may benefit the most from this intervention "is the patient that has been pulseless for four to five minutes." "In operational terms," he told Merginet, "that would usually translate into all arrest calls where CPR was not being performed on arrival of the [emergency medical] responders."

The Austin/Travis County EMS protocol states that adult cardiac arrest patients receive 90 seconds of chest compressions as the initial intervention unless:

- At least 90 seconds of uninterrupted chest compressions (no ventilations) has been adequately performed by a healthcare provider, as determined by Austin/Travis County EMS personnel,
- The arrest is caused by a traumatic incident, or
- The arrest is witnessed by on-scene, credentialed Austin/Travis County EMS personnel who then initiate immediate defibrillation.

The protocol has been very well accepted, but Racht noted it was "a major, *major* cultural change," since "historically, we have so strongly emphasized the importance of rapid defibrillation." But establishing the use of continuous chest compressions under the stated conditions "is a very appropriate, defensible move at this point, given where the science is," Racht told Merginet. "It may not end up being the best way, but it certainly appears that it may be a better way."

Austin/Travis County EMS continuously monitors outcomes in its cardiac arrest patients and expects its first assessment of the new protocol by fall of this year.