New NAED Dispatch Protocol Incorporates AHA CPR and Compression Standards: Cardiac Arrest Quotient used for First Time

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The National Academies of Emergency Dispatch (NAED), which is the lead standards-setting organization for emergency dispatch practice, announces the release of Version 11.3 of the Medical Priority Dispatch System. This latest release integrates the recommendations published by the American Heart Association (AHA) in the *2005 AHA Guidelines for Cardiopulmonary Resuscitation (CPR) and Emergency Cardiovascular Care*. The AHA guidelines are based on the evidence evaluation from the *2005 International Consensus Conference on CPR and Emergency Cardiovascular Care Science With Treatment Recommendations*, in collaboration with the International Liaison Committee On Resuscitation (ILCOR).

Through a combination of science review and expert consensus, the NAED has developed and approved a dispatch-specific protocol that reflects the new AHA guidelines. Notable enhancements include changes to the compressions to ventilations ratio of CPR, modifications to breathing evaluation scripts, and alterations to instructions regarding compressions and ventilations. Among other advantages, these new protocols allow for enhanced evaluation of agonal versus effective breathing in the unconscious patient, which facilitate rapid, effective treatment of patients experiencing

cardiac arrest, and simplify the CPR entire process for untrained callers, which was a primary goal of the new AHA guidelines.

Additionally, the Automatic External Defibrillator (AED) Support Protocol was augmented to reflect a consensus recommendation of a single, initial shock, followed by a therapeutic two minutes of CPR prior to the next series of shocks. This is because evidence now strongly suggests that after four to seven minutes of cardiac arrest, compressions may chemically enhance the therapeutic value of defibrillation. Because AED use is now recommended for children as well as adults, the new protocol instructs callers to retrieve and use, if needed, an AED for patients greater than one year of age. Instructions to retrieve an AED were further refined by calculating the Cardiac Arrest Quotient (CAQ) of individual Determinant Descriptor codes of the MPDS. Research has shown that cardiac arrest is more likely among specific codes. Therefore, instructions to retrieve an AED can be logically based on such CAQ probabilities, and inappropriate AED retrieval can be reduced.

In version 11.2 of the MPDS, released in January of 2005, a standard-setting sequence of "Compressions First" CPR was implemented for victims of cardiac arrest not likely to be of respiratory origin. Because there was little in the way of dispatch-specific recommendations from the AHA at that time, the Academy assembled a group of resuscitation and dispatch experts to interpret the rapidly evolving science and create a dispatch-specific standard of care. The result was a dual pathway of CPR instruction, specific to cardiac arrest etiology, that put into practice a relatively new resuscitation concept and revolutionized how CPR would be delivered in the dispatch

environment.* The implementation of version 11.2 put into practice the now evident, critical importance of early, uninterrupted chest compressions for victims of cardiac arrest. Version 11.3 has built upon these advancements by incorporating the latest recommendations contained in the current Guidelines 2005 document.

In addition to the enhancements to the resuscitation protocols, the Academy has incorporated new AHA first-aid guidelines for elapid snakebite, avulsed teeth, prescribed inhaler use for asthma patients, and spinal stabilization for victims of trauma into existing protocol. Other improvements include enhancing the Stroke Protocol to enable better chief complaint selection, the addition of an OMEGA (referral) Determinant Descriptor for carbon monoxide detector alarms (without priority symptoms) to Protocol 8, a Key Question order change on the Falls Protocol to prevent inappropriate shunting, and the ability of the Stab/Gunshot/Penetrating Trauma Protocol to handle OBVIOUS DEATH cases.

*For more on the origins of the "Compressions First" model of CPR, see the paper entitled: *Modified Cardiopulmonary Resuscitation (CPR) Instruction Protocols for Emergency Medical Dispatchers: Rationale and Recommendations*, which can be found on the Academy's web site under the Resources/Research Articles link www.emergencydispatch.org