USE OF THE NATIONAL CARES REGISTRY TO GUIDE QUALITY IMPROVEMENT EFFORTS TO IMPROVE SURVIVAL FROM OUT OF HOSPITAL CARDIAC ARREST IN NORTH CAROLINA

ACC Moderated Poster Contributions
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Background: Regional systems of coordinated care have potential to improve survival from Out of Hospital Cardiac Arrest (OHCA) by effectively improving every point in the chain of care. As part of the HeartRescue Project, North Carolina is organizing a statewide approach designed to increase survival by 50%. In order to establish a baseline measure, we present data from the Cardiac Arrest Registry to Enhance Survival (CARES) Registry.

Methods: A total of 2561 OHCAs between 2005 and 2010 in the North Carolina CARES registry, representing 3 large metropolitan centers and approximately 28% of the state’s population, were analyzed. Overall survival and Utstein survival (defined as a witnessed arrest and a shock-able rhythm) were the primary outcomes of interest.

Results: A total of 2134 (81.3%) arrests were due to a cardiac etiology, of which 809 (37.9%) were witnessed. Bystander initiated CPR and automatic external defibrillator (AED) rates were 26.1% and 1.7%, respectively. Among patients with OHCA with a cardiac etiology, the overall and Utstein survival rates were 12.9% and 35.2%, respectively. Among patients with a witnessed arrest with an initial rhythm of ventricular tachycardia or fibrillation, 32.7% had a good neurologic outcome.

Conclusions: This work represents the first state-wide application of the CARES registry. OHCA survival in North Carolina is comparable to some of the better regions of the country, particularly involving witnessed shock-able arrests. This analysis demonstrates significant room for improvement in OCHA survival and in the prevalence of bystander initiated CPR and AED. These data provide a foundation for regional quality improvement efforts to improve survival from cardiac arrest.