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**King County, Seattle, WA**

# Cardiac Arrest Case Reviews – A Culture of Quality Improvement

## **BRIEF BACKGROUND**

Since 2012, Public Health – Seattle & King County Division of Emergency Medical Services (EMS) has published over 1,450 cardiac arrest cases as part of its internal regional case review program. Visible only to the medical director, training officer, and crew that provided patient care, each case review is a composite of defibrillator data (including rhythm and CPR) synced with scene audio to create a continuous post-arrest electrocardiogram video. Event performance metrics such as compression fraction, time to successful intubation, and others are annotated within the videos. However, the hallmark of the review is physician feedback from county medical directors that provide feedback on patient management (e.g., cardiopulmonary resuscitation [CPR] time keeping), course of treatment (e.g., drug selection) and suggestions on care.

In 2019 they added the dispatch recording so telecommunicators can be part of the cardiac case review. Including dispatch center personnel within the case review process opens new opportunities to improve cardiac arrest patient care from the 911 call to care at the scene. Including all personnel who are involved in the response and care of cardiac arrest patients builds upon the culture of excellence within King County to provide post-arrest feedback for continuous quality improvement.

## **STEPS TAKEN**

Since March, 2019 the regional cardiac arrest surveillance system collects 911 recordings for all non-traumatic cardiac arrest incidents that occur before EMS arrival to scene and attaches the recording to the EMS case review.

## **CHALLENGES**

There were technical challenges requiring changes in the learning management system to enable the cardiac case review to include the 911 recording and access by telecommunicators.

## **RESULTS**

Feedback from EMTs and paramedics has been uniformly positive.

## OUTLOOK

King County EMS will provide case reviews to local 911 telecommunicators beginning January 1, 2020. Performance metrics and physician feedback will highlight successes and potential areas improvement or learning. Dispatch center personnel will be able to utilize the reviews to augment their quality improvement efforts. Future areas for expansion include law enforcement as part of the case review process as they are often first on scene and perform CPR and apply defibrillators to cardiac arrest patients.

## CONTACT

Christopher Drucker: [cdrucker@kingcounty.gov](mailto:cdrucker@kingcounty.gov)



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