Improving Overall Survival to Discharge Through Efforts at the EMS/Hospital Interface in Hawaii

BRIEF BACKGROUND
Hawaii’s out-of-hospital cardiac arrest (OHCA) survival rates had fallen below the national average of many CARES cities and states despite quality HP-CPR by first responders. First responder HP-CPR was implemented across the state from May 2014 through July 2017, with no consistent corresponding improvement in overall survival to hospital discharge. CPR performed in hospitals at patient handoff was not consistent with what was done by pre-hospital rescuers, leading to inconsistency in care and non-adherence to the principles of HP-CPR. Fire and EMS personnel sought to improve outcomes by focusing on all rescuers along the chain of survival and ensuring that emergency rooms were up-to-speed with HP-CPR.

STEPS TAKEN
Fire and EMS personnel engaged in a pilot project to educate ER staff (nurses, physicians and technicians) about the principles and performance of HP-CPR in select hospital emergency departments. First responders educated the ER staff about what and how HP-CPR was done in the field, which facilitated a smoother patient handoff at the transition of care to the emergency department. With oversight and coaching from a firefighter, ER staff performed HP-CPR using a hands-on feedback manikin to ensure quality chest compressions and ventilation.

CHALLENGES
Robust training was provided by first responders and hospital staff, but as in any large organization, there was turnover in personnel. The frequent need for training incoming staff was a challenge. The degree at which first responders could continue to assist with training for hospital personnel was unclear. Physician acceptance and participation differed at various institutions, while staff buy-in remained positive.

RESULTS
The most recent CARES report captured just six months of implementation at one facility, so it is premature to determine whether there will be a significant impact on overall survival. Responses from hospital staff were universally positive regarding a smoother patient handoff, better adherence to the principles of HP-CPR and the ease in which resuscitations were performed. The team anxiously awaits data demonstrating an improvement in survival rates across the state.
OUTLOOK

Once data demonstrates an improvement in survival rates, other hospitals across the state will be encouraged to implement HP-CPR in their emergency departments. Additionally, the team is evaluating other areas along the chain of survival where efforts may improve overall survival.

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