

**TITLE:** What Really Interrupts Cardiopulmonary Resuscitation in an Out of Hospital Cardiac Arrest?

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**RESEARCH PROJECT DESCRIPTION** (brief overview of background, hypothesis, methods, role of medical student, funding and relevant publications -- SHOULD NOT EXCEED ~ 250 WORDS)

**Background:** Cardiac arrest is a leading cause of death in the United States. Victims of cardiac arrest have a poor chance for survival. Emergency Medical Services (EMS) are the first medical personnel to contact these patients, and play a key role in performing actions leading to improved survival. The most important task in Out of Hospital Cardiac Arrest (OHCA) resuscitation is good quality non-interrupted chest compressions.

**Research Hypothesis:** Training research assistants and EMS fellow physicians to observe OHCA resuscitation in the field to accurately collect data will identify key causes of cardiopulmonary resuscitation (CPR) interruptions.

**Significance:** This study is the first introduce direct observers into the field during a cardiac arrest. EMS data is difficult to obtain due to the unpredictable environment and limited documentation, but this direct observation in the field could potentially answer many questions in OHCA resuscitation and even in other unrelated EMS presentations.

**Methods:** Research assistants will first undergo a standard training, a testing process, and then the assistants will be assigned shifts on the ambulances to directly observe OHCA resuscitation.

**Role of the medical student:** The research assistants will document the timing of BLS and ALS interventions, focusing on compressions and the details surrounding interruptions based only on what they are observing. Socio-demographic control variables will also be collected to help describe the population observed. The data will be collected only at the time of observation.

**Funding:** N/a

**Publications:** Abstract accepted to be presented at National Association of EMS Physicians (NAEMSP) January 2016