

**Title: Social Isolation in Resuscitation of Out-of-Hospital Sudden Unexpected Deaths**

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**Background:**

Community paramedicine has the potential to connect isolated patients with limited medical and social resources. We examined the association between social isolation and the initiation of cardio-pulmonary resuscitation (CPR) in a cohort of out-of-hospital sudden unexpected death (OHSUD) victims, a population that could have benefited from early connection with such resources.

**Methods:**

SUDDEN is a population based study of OHSUD victims in Wake County, NC. Variables selected a priori as markers of social isolation were obtained from Emergency Medical Services (EMS) referrals and death certificates. Medical records for patients were requested from local healthcare providers. Initiation of CPR was determined by EMS records. Relative rates of CPR initiation were calculated for each of six criteria (marital status, witness of event, location, attending on death certificate, education, and medical records available).

**Results:**

408 victims of OHSUD occurred from March 2013 to February 2015. CPR initiation is summarized in Table 1. For unmarried victims with an unwitnessed death at home, CPR was initiated 19.5% of the time (40/205, rr 0.41,  $p<0.0001$ ); with four criteria 12.4% (13/105, rr 0.30,  $p<0.0001$ ); and with five criteria 7.4% (2/27, rr 0.20,  $p=0.0016$ ). Of two victims with six criteria, neither was resuscitated.