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## Quality of Care and Outcomes Assessment

### SYSTEMATIC REVIEW AND META-ANALYSIS OF OUT OF HOSPITAL CARDIAC ARREST AND RACE OR ETHNICITY: BLACK U.S POPULATIONS FARE WORSE

ACC Moderated Poster Contributions

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**Background:** Several studies have reported racial/ethnic variation in out of hospital cardiac arrest (OOHCA) characteristics with varying

**Conclusions:** Our objective was to systematically review and meta-analyse the evidence for differences in OOHCA survival and characteristics between Blacks and Whites.

**Methods:** Medline and EMBASE databases were searched for studies investigating racial/ethnic differences in OOHCA characteristics. Studies of any relevant design that measured OOHCA characteristics and stratified them by Black and White racial/ethnic groups were included. Two independent reviewers extracted the following information: study population including race and/or ethnicity, location, age and OOHCA variables as per the Utsein template and a meta-analysis of studies was carried out.

**Results:** Nineteen studies compared Black and White populations and of these 14 were suitable for meta-analysis. Data presented in table 1 exhibits that Blacks were less likely to have bystander cardiopulmonary resuscitation (CPR), a witnessed arrest or an initial ventricular fibrillation/tachycardia (VF/VT) arrest rhythm compared to Whites. Blacks also had lower rates of survival to hospital admission and discharge.

**Conclusion:** Blacks fared less well, following OOHCA, at all stages compared to Whites. This review exposes inequality that demands urgent action.

Table 1: Results of Meta-analysis comparing OOHCA characteristics in White and Black populations

OOHCA Characteristic (n)	No of studies	Blacks, n (%)	Whites, n (%)	Odds Ratio (95% CI)
Bystander CPR (33397)	8	3543/13252 (27%)	6633/20145 (33%)	0.63 (0.53,0.76)
Witnessed arrest (14533)	7	2461/5617 (44%)	4613/8916 (52%)	0.77 (0.72,0.83)
VF/VT Arrest (16416)	10	1340/5972 (22%)	3669/10444 (35%)	0.69 (0.59, 0.79)
Survival to hospital admission (14864)	6	473/5300 (9%)	1617/9564 (17%)	0.59 (0.48, 0.72)
Survival to hospital discharge (107426)	11	3245/22826 (14%)	21533/84600 (25%)	0.72 (0.60, 0.86)