Gender Differences in Access to Post-Arrest Care: A SPARC Network Cohort Study

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Objective: To explore gender disparities in the delivery of targeted post-arrest care after out-of-hospital cardiac arrests (OHCA).

Methods: A prospective cohort study of consecutive adult OHCAAs with a return of spontaneous circulation for at least 20 minutes and without advance directives, presenting to any of the 34 hospitals participating in the Strategies for Post-Arrest Care Network. The primary outcome was the proportion of post-OHCA patients receiving angiography with or without percutaneous coronary intervention (PCI) within 90 minutes of documented ST-elevation myocardial infarction (STEMI) on a 12-lead ECG at admission to hospital. Secondary measures included rates of targeted temperature management (TTM) and withdrawal of life sustaining therapy.

Results: Of the 1053 treated adult OHCAAs meeting the inclusion criteria, 336 were women and 717 men with mean ages of 68 (17) for women vs. 66 (15) for men (p=0.07). Women were less likely to have favourable Utstein predictors of survival (p<0.02) and STEMI post-arrest (58 [18%] women vs. 208 [30%] men, p=0.0001). There was no observed gender difference between achieving the time target for angiography with or without PCI for STEMI positive (18 [31%] vs. 79 [38%], p=0.33). Women who were STEMI negative were less likely to receive coronary angiography (22 [8%] vs. 74 [15%], p=0.006) or PCI (7 [3%] vs. 30 [6%], p=0.04). Eligible women were less likely to receive TTM (147 [78%] vs. 382 [85%], p=0.04). Women were more likely to have life sustaining therapy withdrawn at any time (127 [38%] vs. 221 [31%, p=0.03) and within 72 hours (78 [61%] vs. 109 [49%], p=0.03). Women were less likely to survive to discharge (OR 0.67, 95% CI 0.5-0.9, p=0.005); however, this difference disappeared when
adjusted for Utstein predictors associated with survival which were more common in men (OR 1.2, 95% CI 0.9-1.6, p=0.32).

**Conclusion:** The frequency of meeting the time targets for STEMI post OHCAs was similar for both men and women. OHCA in women was associated with unfavourable predictors of survival, increased rates of early withdrawal of life sustaining therapy, reduced rates of TTM and less diagnostic testing when STEMI negative on ECG. Despite these differences, adjusted survival was similar for both genders.

**L.J. Morrison:** Employment; Significant; Endowed Chair in Research, St. Michael's Hospital. Research Grant; Significant; NIH, CIHR, HSFC, AHA, Laerdal Foundation. Other Research Support; Significant; Salary support from NIH for the ROC grant and the St. Michael's Hospital Foundation, in-kind donation from defibrillator companies for the Resuscitation Outcomes Consortium, Toronto ROC.  
**V.E. Rac:** None.  
**P. Dorian:** None.  
**S. Cheskes:** None.  
**R. Fowler:** None.  
**C. Zhan:** None.  
**K. Dainty:** None.  
**M. Gaudio:** None.  
**E. Racz:** None.  
**J. Parsons:** None.  
**A. Kiss:** None.  
**A. Slutsky:** None.  
**A. Bierman:** None.  
**B.L. Abramson:** None.  
**S. Gray:** None.  
**D. Scales:** None.