

The Importance of Considering Sex and Gender in Cardiovascular Research



To the Editor,

In 2016, Heart Lung and Circulation published the Australian Clinical Guidelines for the Management of Acute Coronary Syndromes, by the National Heart Foundation of Australia and Cardiac Society of Australia [1]. These guidelines aim to ensure that all cardiac patients receive the best evidence-based care.

Despite this, female cardiac patients in Australia and elsewhere are less likely to receive guideline-based, clinical care from health professionals [2] and emergency services [3]. When they do receive guideline-based care, women do not always benefit in the same way as men. Indeed, the effectiveness of common interventions (e.g. stents, coronary artery bypass grafting, pharmacotherapies) are often diluted for women, who are also at elevated risk of complications [4]. These alarming findings suggest that current clinical guidelines may not be sufficiently nuanced for the treatment of women, which may, in part, reflect the lack of female-representation in cardiovascular research [5].

Therefore, to determine the extent to which sex or gender were considered within the papers upon which the guidelines are based, we conducted an audit of the 200¹ papers included in the 2016 Guidelines [1].

Our key findings were:

- 70% of studies mentioned “sex” or “gender” in the text
- 78% of studies reported the number of men and women in the analytic sample separately
- 50% of studies reported sex- or gender-disaggregated results for the exposure
- 18% of studies reported sex- or gender-disaggregated results for the primary outcome
- 23% of studies included sex or gender in the analytic model

These findings highlight the urgent need for sex and/or gender to be considered in research. Indeed, there is an urgent need for greater investment in sex-disaggregated cardiovascular research, and publication policies and check-

lists that help to address these gaps are warranted, as recognised recently in The Lancet [6]. Neglecting or underplaying sex- and gender-specific aetiologies, risk factors, and pathophysiology are likely to perpetuate critical disparities in health care and outcomes for both women and men.

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AO conceptualised the audit. AJS completed the data curation and wrote the original draft. All authors contributed to reviewing and editing the paper.

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Declaration of Interest

None.

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¹200 papers excluding those cited in the Preamble.

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