

## CARDIOVASCULAR DISEASE: EFFECTIVENESS OF NURSE PRACTITIONER-LED CARE

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### Question

What is the best available evidence regarding the effectiveness of nurse practitioner-led care compared to usual care for the management of cardiovascular disease in adults?

### Clinical Bottom Line

Globally the prevalence of cardiovascular disease (including coronary artery disease, arrhythmias, congenital heart disease, cardiomyopathy, and heart failure) is rising, placing increasing demands on the healthcare system.<sup>1</sup> In the late 1960s and 70s a specialized nurse practitioner role was implemented in the United States and Canada and is now implemented in other parts of the world. The expanded role enables nurses to diagnose, prescribe and independently order treatment within specialized fields. Initially the focus of the role was within primary care and pediatrics however, the role has since expanded to include cardiovascular care in the acute care setting. Research has shown that the nurse practitioner role is associated with improved patient outcomes, patient satisfaction and a decreased length of stay in hospital. The nurse practitioner role within cardiovascular care may be a viable option to address the increasing demands the cardiovascular patient places on the healthcare system.

- A systematic review examined the effectiveness of cardiovascular nurse practitioner-led care (as a model of care) on the outcomes of adult patients. The intervention included the nurse practitioner as an independent practitioner or as a member of an inter-professional healthcare team providing outpatient heart failure care, post-operative heart surgery care or care in an outpatient risk reduction clinic. The findings indicated that nurse practitioner-led care, compared to usual care, showed no differences between the groups on 30-day readmission rates, length of stay, Short Form-36 (SF-36) physical composite score and SF 36 mental composite score. Nurse practitioner-led care was shown to decrease the risk of developing coronary heart disease by 12% over a 10-year period. Low to moderate evidence demonstrated that nurse-practitioner-led care was comparable to usual care; the authors recommended further high-quality research was needed.<sup>1</sup> (Level 1)

### Characteristics of the Evidence

This summary is based on a structured search of the literature and selected evidence-based health care databases. The evidence included in this summary is from:

- A high-quality systematic review of five randomized controlled trials (RCTs) including 887 nurse practitioners; patient population varied from 38 to 330 per study.<sup>1</sup>

### Best Practice Recommendations

- Nurse practitioner-led care for the management of patients with cardiovascular disease is comparable to usual care and can be an option as a model of care for practice (Grade B).

## References

1. Smigorowsky MJ, Sebastiani M, Sean McMurtry M, Tsuyuki RT, Norris CM. Outcomes of nurse practitioner-led care in patients with cardiovascular disease: A systematic review and meta-analysis. *J Adv Nurs*. 2020;76(1):81-95.

The author declares no conflicts of interest in accordance with International Committee of Medical Journal Editors (ICMJE) standards.

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For details on the method for development see Munn Z, Lockwood C, Moola S. The development and use of evidence summaries for point of care information systems: A streamlined rapid review approach. *Worldviews Evid Based Nurs*. 2015;12(3):131-8.

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