# To compare the use of the vascular access specialist team (VAST) for VAD insertion and care to a generalist model approach for hospital or community participants requiring a VAD in terms of insertion success, device failure, and cost-effectiveness" Carr et al (2018).

Abstract:

BACKGROUND: Most people admitted to hospitals worldwide require a vascular access device (VAD). Hundreds of millions of VADs are inserted annually in the USA with reports of over a billion peripheral intravenous catheters used annually worldwide. Numerous reports suggest that a team approach for the assessment, insertion, and maintenance of VADs improves clinical outcomes, the patient experience, and healthcare processes.

OBJECTIVES: To compare the use of the vascular access specialist team (VAST) for VAD insertion and care to a generalist model approach for hospital or community participants requiring a VAD in terms of insertion success, device failure, and cost-effectiveness.

SEARCH METHODS: We searched the Cochrane Central Register of Controlled Trials (CENTRAL; 2018, Issue 1); Ovid MEDLINE (1950 to 7 February 2018); Ovid Embase (1980 to 7 February 2018); EBSCO CINAHL (1982 to 7 February 2018); Web of Science Conference Proceedings Citation Index – Science and Social Science and Humanities (1990 to 7 February 2018); and Google Scholar. We searched the following trial registries: Australian and New Zealand Clinical Trials Register (www.anzctr.org.au); ClinicalTrials.gov (www.clinicaltrials.gov); Current Controlled Trials (www.controlled-trials.com/mrct); HKU Clinical Trials Registry (www.hkclinicaltrials.com); Clinical Trials Registry – India (ctri.nic.in/Clinicaltrials/login.php); UK Clinical Trials Gateway (www.controlled-trials.com/ukctr/); and the World Health Organization International Clinical Trials Registry Platform (WHO ICTRP) (www.who.int/trialsearch). We searched all databases on 7 February 2018.

SELECTION CRITERIA: We planned to include randomized controlled trials (RCTs) that evaluated the effectiveness of VAST or specialist inserters for their impact on clinical outcomes.

DATA COLLECTION AND ANALYSIS: We used standard methodological procedures

recommended by Cochrane and used Covidence software to assist with file management.

MAIN RESULTS: We retrieved 2398 citations: 30 studies were eligible for further examination of their full text, and we found one registered clinical trial in progress. No studies could be included in the analysis or review. We assigned one study as awaiting classification, as it has not been accepted for publication.

AUTHORS' CONCLUSIONS: This systematic review failed to locate relevant published RCTs to support or refute the assertion that vascular access specialist teams are superior to the generalist model. A vascular access specialist team has advanced knowledge with regard to insertion techniques, clinical care, and management of vascular access devices, whereas a generalist model comprises nurses, doctors, or other designated healthcare professionals in the healthcare facility who may have less advanced insertion techniques and who care for vascular access devices amongst other competing clinical tasks. However, this conclusion may change once the one study awaiting classification and one ongoing study are published. There is a need for good-quality RCTs to evaluate the efficacy of a vascular access specialist team approach for vascular access device insertion and care for the prevention of failure.

Full Text

Reference:

Carr, P.J., Higgins, N.S., Cooke, M.L., Mihala, G. and Rickard, C.M. (2018) Vascular access specialist teams for device insertion and prevention of failure. The Cochrane Database of Systematic Reviews. March 20th. .

doi: 10.1002/14651858.CD011429.pub2.

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