



The aim of this study was to quantify the utilisation of vascular access devices in Queensland public hospitals and their associated cost” Tuffaha et al (2018).

Abstract:

Objective: The aim of this study was to quantify the utilisation of vascular access devices in Queensland public hospitals and their associated cost.

Methods: Devices were broadly classified into peripheral intravenous catheters, central venous catheters and arterial lines. The number of catheters used was obtained from a central procurement department at Queensland Health and validated using Medicare Benefits Schedule (MBS) claims and/or hospital data from the Australian Institute of Health and Welfare for the same period. Resources consumed included equipment and staff time required to insert and remove catheters. Equipment costs were valued using negotiated hospital prices, and staff time was valued at the fixed industrial award wages in Australia or relevant MBS fees. Device maintenance costs (e.g. dressings) and costs of treating complications were excluded.

Results: Approximately 2.75 million vascular access devices were used in public hospitals in Queensland in 2016, at a total cost of A\$59.14 million. This comprised a total equipment cost of around A\$10.17 million and a total labour cost of A\$48.85 million.

Conclusion: Vascular access is an important component of healthcare expenditure. The present study is the first to characterise and cost vascular access devices in Queensland. Further research is needed on the costs of maintaining device function and of treating complications associated with vascular access.

What is known about the topic? The cost of vascular access in Australia has previously been estimated from modelling, using various assumptions, or based on device utilisation in other countries.

What does this paper add? For the first time, device utilisation for vascular access in Queensland has been quantified and costed. Results were obtained from reliable sources and validated against other databases.

What are the implications for practitioners? Practitioners and managers may now provide accurate estimates about the cost of catheter failure, a potentially preventable problem that affects up to 50% of all catheters placed. Attaching costs to such failure may also stimulate research into how to reduce the problem.

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Reference:

Tuffaha, H.W., Marsh, N., Byrnes, J., Gavin, N., Webster, J., Cooke, M. and Rickard, C.M. (2018) Cost of vascular access devices in public hospitals in Queensland. Australian Health Review. September 4th. .

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