



TITLE: Vasc-Alert for the Monitoring of Intra-Access Pressure During Hemodialysis: Clinical Effectiveness and Cost-Effectiveness

DATE: 12 February 2010

RESEARCH QUESTIONS:

1. What is the clinical effectiveness of Vasc-Alert for the monitoring of intra-access pressure during hemodialysis?
2. What is the cost-effectiveness of Vasc-Alert for the monitoring of intra-access pressure during hemodialysis?

METHODS:

A limited literature search was conducted on key health technology assessment resources, including PubMed, Embase, Biosis, The Cochrane Library (Issue 1, 2010), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI, EuroScan, international health technology agencies, and a focused Internet search. The search was limited to English language articles published between 2000 and February 2010. No filters were applied to limit the retrieval by study type. Internet links were provided, where available.

RESULTS:

One observational study was identified examining the role of venous access pressure ratio tests for hemodialysis access monitoring. No health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, controlled clinical trials, or economic evaluations were identified. Additional information of interest is provided in the appendix.

Observational studies

1. Frinak S, Zasuwa G, Dunfee T, Besarab A, Yee J. Dynamic venous access pressure ratio test for hemodialysis access monitoring. *Am J Kidney Dis.* 2002 Oct;40(4):760-8. [PubMed: PM12324911](#)

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APPENDIX – FURTHER INFORMATION:

Conference abstracts:

2. Frinak S, Lubkowski T, Besarab A, Yee J, Zasuwa G. Comparative testing of three methods of hemodialysis vascular access surveillance [abstract from the Internet]. *J Am Soc Nephrol*. 2003 [cited 2010 Feb 11];14(Abstracts Issue):725A. Available from: http://www.asn-online.org/education_and_meetings/renal_week/archives/2003-abstracts-archive.pdf (Presented at Meeting of the American Society of Nephrology Renal Week, San Diego, CA, USA; November 12-17, 2003). Abstract SU-PO862.

Notes: After downloading above file, click on "2003 Sunday Posters2.pdf" on left-hand side to retrieve abstract.

3. McLaughlin J, Poma T, Hebert K, Stankus N. Vasc-Alert (VA) system does not improve hemodialysis vascular access (HVA) patency. *J Am Soc Nephrol* [abstract from the Internet]. 2007 [cited 2010 Feb 11];18(Abstracts Issue):266A. Available from: <http://www.transonic.com/abstract.php?ReprintDataID=7544> (Presented at Meeting of the American Society of Nephrology Renal Week, San Francisco, CA, USA; October 31-November 5, 2007). Abstract F-PO748. Transonic reference # HD7532A.
4. Zasuwa G, Frinak S, Besarab A, Yee J. Vascular access surveillance reduces vascular access thrombosis rates (VATR) [poster from the Internet]. Poster presented at: Meeting of the American Society of Nephrology Renal Week, Philadelphia, PA, USA; November 8-13, 2005 [cited 2010 Feb 11]. Available from: <http://www.vasc-alert.com/educationalMaterial/poster.php>

Additional references

5. Soman S, Zasuwa G, Yee J. Automation, decision support, and expert systems in nephrology. *Adv Chronic Kidney Dis* [Internet]. 2008 Jan [cited 2010 Feb 11];15(1):42-55. Available from: <http://www.vasc-alert.com/resourceBook/references/automationDecSupportExp.pdf>
6. *Vasc-Alert*. In: 510(k) Premarket Notification Database Search [database on the Internet]. Silver Spring, MD: Center for Devices and Radiological Health, U.S. Food and Drug Administration (FDA); 2004 Nov 8 [cited 2010 Feb 11]. Available from: <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMN/pmnm.cfm?ID=16314>
7. *Flow methods in dialysis access (stenosis monitoring)* [Internet]. Los Angeles: Southern California Renal Disease Council Inc. / ESRD Network 18; 200?. [cited 2010 Feb 11]. Available from: http://www.esrdnetwork18.org/pdfs/QI%20-%20FF%20Tools/FFTool_FlowMethDialAccess.pdf