

THE POWER OF DATA – BRITISH COLUMBIA'S PROVINCIAL INITIATIVE OF REGULAR VASCULAR ACCESS OUTCOME REPORTING IMPROVES ARTERIOVENOUS FISTULA RATES

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INTRODUCTION: The interdisciplinary Provincial Vascular Access Services Team (PVAST) in British Columbia, supported by the BC Renal Agency, focuses on improving provincial vascular access (VA) outcomes. Phase 1 of the initiative focused on ensuring standardized guidelines, clinical pathways, education and targets (2005-2008). Building on this structure, phase 2 of the initiative (2009-present) involves regular reporting of VA outcomes, twice yearly, at the provincial, health authority, and hospital, and provider level. We hypothesized that regular reporting of VA outcomes in a real world environment would lead to improvement in AVF incidence rate over time.

METHODS: Resources were required to ensure provincial engagement, development of metrics, and the accurate capture of data and data analysis. These resources included BC Renal Agency support for a part time project manager, physician champion, and statistical support for data analysis and report generation. Estimated total provincial costs were \$27,000 per annum. Data capture was possible through the use of PROMIS, an electronic provincial renal database with a customized vascular access module. The resources required to provide vascular access creation and maintenance (operating room and radiology) remain funded by the individual health authorities. The reports disseminated to the province included information on patient demographics, vascular access incidence and prevalence, vascular access performance (primary failure, primary and secondary patency, complications), and wait times for vascular access. For patients that started with a hemodialysis catheter, a detailed "why catheter" report was generated which looked at the provider and patient or system factors that have previously been identified as barriers. These reports were available at the provincial, health authority, hospital, and provider level.

RESULTS: Through this initiative, the provincial AVF rate in all incident HD patients has improved from 15% in 2008/09 to 20% in 2011. For patients who were known to provincial nephrologists for at least 6 months in pre-dialysis care, peritoneal dialysis, or transplant prior to dialysis start, we also achieved an increase in the number of patients who started HD with an AVF from 23% in 2008/09 to 28% in 2011 (Figure).

AVF Rates of Incident HD Patients in BC



CONCLUSION: In conclusion, regular reporting of vascular access outcomes has led to an improvement in the AVF incidence rate in British Columbia despite no change in the resources available for creation and maintenance of AV fistulas. This suggests that the regular reporting of VA outcome data may be an important and cost effective strategy to improve VA outcomes.