

The goal of this study was to determine the prevalence and variation in CVC use across centres in the Irish health system” Hussein et al (2018).

Abstract:

BACKGROUND: Central venous catheters (CVC) are associated with substantial morbidity and mortality among patients undergoing haemodialysis (HD), yet they are frequently used as the primary vascular access for many patients on HD. The goal of this study was to determine the prevalence and variation in CVC use across centres in the Irish health system.

METHODS: Data from the National Kidney Disease Clinical Patient Management System (KDCPMS) was used to determine CVC use and patterns across centres. Data on demographic characteristics, primary cause of end-stage kidney disease (ESKD), comorbid conditions, laboratory values and centre affiliation were extracted for adult HD patients (n = 1, 196) who were on dialysis for at least three months up to end of December 2016. Correlates of CVC use were explored using multivariable logistic regression.

RESULTS: Overall prevalence of CVC use was 54% and varied significantly across clinical sites from 43% to 73%, $P < 0.001$. In multivariate analysis, the likelihood of CVC use was lower with increasing dialysis vintage, OR 0.40 (0.26-0.60) for 4 years vs 1 year vintage, rising serum albumin, OR 0.73 (0.59-0.90) per 5 g/L, and with cystic disease as a cause of ESKD, OR 0.38 (95% CI 0.21-0.6). In contrast, catheter use was greater for women than men, OR 1.77 (1.34-2.34) and for 2 out of 10 regional dialysis centres, OR 1.98 (1.02-3.84) and OR 2.86 (1.67-4.90) respectively compared to referent group).

CONCLUSIONS: Catheters are the predominant type of vascular access in patients undergoing HD in the Irish health system. Substantial centre variation exists which is not explained by patient-level characteristics.

Full Text

Reference:

Hussein, W.F., Mohammed, H., Browne, L., Plant, L. and Stack, A.G. (2018) Prevalence and correlates of central venous catheter use among haemodialysis patients in the Irish health system - a national study. *BMC Nephrology*. 19(1), p.76.

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