



Our findings demonstrate that the NexSite HD catheter equipped with ESM technology can achieve a CRBSI rate in compliance with the NKF KDOQI (National Kidney Foundation Kidney Disease Outcome Quality Initiatives) Clinical Performance Guidelines stated goal of less than 1.0/1,000 catheter-days when used in hemodialysis patients using current standard of care nursing protocols” Hoggard et al (2019).

Abstract:

PURPOSE: Decreasing the risk of catheter related bloodstream infections (CRBSIs) remains a key focus for improving outcomes and reducing cost of care for hemodialysis (HD) patients. Recent studies demonstrate CRBSI rates can be improved by managing bacterial colonization at the catheter exit site. Herein we present the results of a study documenting the clinical performance of the NexSite HD catheter, a new tunneled central venous catheter which incorporates Exit Site Management (ESM) technology.

METHODS: We conducted an observational study using a prospective, multi-center registry of HD patients implanted with the NexSite HD catheter. The primary endpoint for the study was CRBSI rate for a period up to 180-days following catheter placement. Secondary endpoints included device placement success rate, exit site healing, development of an exit site or tunnel infection, and early or late non-infectious catheter-related complications. All reasons

for early non-elective catheter removal were recorded.

RESULTS: A total of 115 HD patients at 6 sites were included in the final analysis. Cumulative catheter use was 10,924 days with a mean duration of 95 days. Seven patients experienced CRBSIs during the study period resulting in a CRBSI rate of 0.64 per 1,000 catheter-days. Seventy-four patients (64.3%) had either elective catheter removal (n = 56) or utilized the catheter for the entire 180-day observation period (n = 18). Thirty-five patients (30%) underwent non-elective device removal either due to CRBSI (n = 5), low flow (n = 16), exit site issues (n = 7), or for other causes (n = 7). Six patients died during the observation period with 1 death due to CRBSI-associated complications and the remaining 5 deaths attributed to non-device related causes.

CONCLUSION: Our findings demonstrate that the NexSite HD catheter equipped with ESM technology can achieve a CRBSI rate in compliance with the NKF KDOQI (National Kidney Foundation Kidney Disease Outcome Quality Initiatives) Clinical Performance Guidelines stated goal of less than 1.0/1,000 catheter-days when used in hemodialysis patients using current standard of care nursing protocols.

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Reference:

Hoggard, J.G., Blair, R.D., Montero, M., Moustafa, M.A., Newman, J., Pergola, P.E., Saucier, N., Wheeler, C.J. 3rd., Mermel, L.A., Ross, J.R. and Beserab, A.D. (2019) Clinical outcomes associated with the use of the NexSite hemodialysis catheter with new exit barrier technology: Results from a prospective, observational multi-center registry study. PLoS One. 14(10), p.e0223285. doi: 10.1371/journal.pone.0223285. eCollection 2019.

