

Paediatric haemophilia patients with CVADs experienced greater infection rates, healthcare utilization and higher hospitalization costs compared with non-CVAD patients” Buckley et al (2018).

Abstract:

INTRODUCTION: Central venous access devices (CVADs) facilitate repeated or urgent treatments for paediatric haemophilia patients, but are associated with complications. This study examined the burden of illness, healthcare utilization and costs for CVADs in a real-world hospital setting.

MATERIALS AND METHODS: This study included haemophilia patients ages ≤ 18 years with discharges during 2006-2014 in the US Premier Healthcare Database. Haemophilia was identified using ICD-9 diagnosis codes and CVAD exposure using billing information. After matching haemophilia patients with and without CVADs on demographic and clinical characteristics, we compared infection, thrombosis, length of stay (LOS), inflation-adjusted hospital cost (2014 \$USD) and readmission outcomes using generalized estimating equation models adjusted for hospital teaching status.

RESULTS: Among 4793 paediatric haemophilia patients treated at one of 548 hospitals, a total of 197 patients were identified with CVAD exposure. The matched sample included 310 haemophilia patients (155 CVAD and 155 non-CVAD). CVAD cases had greater frequencies of all-cause infections (29% vs 17%, $P = .01$) and thrombosis (6% vs 1%, $P = .06$), longer adjusted mean LOS (9.5 vs 4.7 days, $P = .002$), higher adjusted mean inpatient total hospitalization costs (\$47200 vs \$25389, $P = .02$) as well as more inpatient and outpatient visits at 30-, 60- and 90-days ($P < .05$ for all differences) compared with non-CVAD patients.

CONCLUSION: Paediatric haemophilia patients with CVADs experienced greater infection rates, healthcare utilization and higher hospitalization costs compared with non-CVAD patients. The results of this study may inform further research efforts to understand the costs and benefits of novel treatment alternatives for young haemophilia patients requiring CVADs.

Reference:

Buckley, B., Dreyfus, J., Prasad, M., Gayle, J., Kendter, J. and Hall, E. 2nd. (2018) Burden of



Burden of illness among paediatric haemophilia patients with and without central venous access devices | 2

illness and costs among paediatric haemophilia patients with and without central venous access devices treated in US hospitals. Haemophilia. March 25th. .

doi: 10.1111/hae.13404.