

This data suggests that the femoral site may be an important risk factor that should be considered in prevention strategies for catheter-associated VTE in children” Derderian et al (2018).

Abstract:

BACKGROUND: Central venous catheters (CVC) are vital to the management of critically ill children. Despite efforts to minimize complications, central line associated bloodstream infection (CLABSI) and venous thromboembolisms (VTE) still occur.

METHODS: We performed a retrospective review of a prospectively collected database for children admitted to the pediatric intensive care unit (PICU) between November 2013 and December 2016.

RESULTS: In total, 2714 CVC were in place, 979 of which were percutaneous CVC. During the study period, 21 CLABSI (1.6/1000 line days) were identified, of which, nearly half (n = 9, 42.9%) were associated with percutaneous CVC (2.6/1000 line days). Poisson regression analysis did not identify a single risk factor for CLABSI when adjusting for line type, anatomic location and laterality of placement, geographic location of placement, length of PICU admission, presence of gastrostomy tube, concurrent mechanical ventilation, age, weight, and height. Forty clinically significant VTE (2.9/1000 line days) were identified, with percutaneous CVC having the highest incidence (7.5/1000 line days, $p < 0.001$). Of percutaneous CVC, clinically significant VTE were more often associated with femoral vein cannulation (14.8/1000 line days) compared to internal jugular and subclavian vein (2.5 and 2.4/1000 line days, respectively, $p < 0.001$). **CONCLUSION:** This data suggests that the femoral site may be an important risk factor that should be considered in prevention strategies for catheter-associated VTE in children. **LEVEL OF EVIDENCE:** III.

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Reference:

Derderian, S.C., Good, R., Vuille-Dit-Bille, R.N., Carpenter, T. and Bensard, D.D. (2018)
Central venous lines in critically ill children: Thrombosis but not infection is site dependent.
Journal of Pediatric Surgery. December 27th. .

doi: [10.1016/j.jpedsurg.2018.10.109](https://doi.org/10.1016/j.jpedsurg.2018.10.109).