

## **We conclude that a MST kit requiring a dermatotomy does not increase the risk of early UEDVT” Suleman and McDiarmid (2017).**

### Abstract:

**Background:** Successful placement of peripherally inserted central catheters (PICCs) has increased with the use of a modified Seldinger technique (MST). However, differences exist between MST kits related to the transition between the introducer and dilator. When blunt, a skin nick (dermatotomy) is necessary to allow the dilator/sheath combination to pass through the skin. However, this does not reduce the trauma on the vein. Upper extremity deep vein thrombosis (UEDVT) is a PICC-related complication. It is unclear what effect the MST kit has on this complication. Our previous study found a rate of 0.76% UEDVT  $\leq$  2 weeks postinsertion using a MST kit without dermatotomy.

**Methods:** We performed a retrospective analysis on a cohort of patients at The Ottawa Hospital undergoing a PICC insertion using a MST kit requiring a dermatotomy between November 1, 2016, and January 1, 2017. We obtained a complete dataset for 701 patients and determined the incidence of UEDVT  $\leq$  2 weeks postinsertion.

**Results:** Of 701 patients included in the study, 8 patients developed symptomatic UEDVT  $\leq$  2 weeks postinsertion, for a rate of 1.14%. The odds ratio comparing the group that received a dermatotomy to the previous group who did not was 1.50% (95% confidence interval 0.40-4.62).

**Conclusions:** The odds ratio of UEDVT  $\leq$  2 weeks post-PICC insertion with a dermatotomy compared with those without was not significantly different. We conclude that a MST kit requiring a dermatotomy does not increase the risk of early UEDVT.

### Reference:

Suleman, A. and McDiarmid, S. (2017) A Retrospective Analysis of Catheter-Related Upper Extremity Deep Vein Thrombosis in Peripherally Inserted Catheters With and Without a Dermatotomy. *The Journal of the Association for Vascular Access*. 22(4), p.178-181.

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