

## B. VASCULAR ACCESS

SuO006

### PREVENTION OF TUNNELED CUFFED CATHETER DYSFUNCTION WITH PROPHYLACTIC USE OF TAUROLIDINE LOCKING SOLUTION CONTAINING UROKINASE: A PROSPECTIVE AND RANDOMIZED PLACEBO-CONTROLLED TRIAL

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**INTRODUCTION AND AIMS:** Prospective clinical trial to test the hypothesis that prophylactic weekly use of urokinase locks in tunneled cuffed hemodialysis catheters with a history of multiple thrombotic dysfunctions reduces the incidence of recurring thrombotic dysfunction by at least 50%.

**METHODS: Design:** Prospective, multi-center, randomized, double-blinded, placebo-controlled trial. Patients were allocated using block randomization with permuted blocks of 4, stratified for the participating centers. **Setting:** Eight Belgian hemodialysis high care and low care units. **Participants:** Adult prevalent patients undergoing hemodialysis at least 3 times a week via a tunneled cuffed catheter and having presented at least 2 separate thrombotic dysfunctions during the 6 months preceding inclusion.

**Intervention:** Taurolock<sup>TM</sup> U 25,000 once a week and Taurolock<sup>TM</sup> HEP500 after the two other dialysis sessions in the TauroU group versus Taurolock<sup>TM</sup> HEP500 3 times a week in the Control group. The Control group received the standard lock as a placebo indistinguishable from the Taurolock U<sup>TM</sup> 25,000 once a week. Follow-up 6 months.

**Main outcome measures** Incidence rate of thrombotic catheter dysfunction requiring urokinase as primary outcome. Catheter removal for thrombosis and overall treatment failure (catheter removal, systemic fibrinolysis and refractory thrombosis with impossibility of catheter removal or systemic thrombolysis) as secondary outcomes.

**RESULTS:** 68 patients were randomized (N=36 in the TauroU group, N=32 in the Control group) and followed for a total of 9821 catheter days at risk. 15/36 (42%) catheters in the TauroU group required at least one therapeutic lock vs 23/32 (72%) in the Control group (P=0.012). A total of 24 urokinase locks (4.8/1000 catheter-days) were administered in the TauroU group vs 59 (12.3/1000 catheter-days) in the Control group (Rate ratio 0.39; 95%CI 0.23 to 0.63; P<0.0001). 2 catheters were removed for resistant thrombosis in the Control group vs 0 in the TauroU group without significant difference in the overall incidence of treatment failure. No bleeding complications occurred during the study.

**CONCLUSIONS:** Taurolock U 25,000 once a week is highly efficient in preventing recurring thrombotic dysfunction of tunneled cuffed catheters.