



“Flushing PermCath with normal saline 0.9% is as effective as heparin in maintaining patency of the catheter, while it may reduce the risks associated with heparin.” Beigi et al (2014).

Reference:

Beigi, A.A., HadiZadeh, M.S., Salimi, F. and Ghaheiri, H. (2014) Heparin compared with normal saline to maintain patency of permanent double lumen hemodialysis catheters: A randomized controlled trial. *Advanced Biomedical Research*. (3)121. eCollection 2014.

Heparin compared with normal saline to maintain CVC patency [@ivteam](http://ctt.ec/y4Ssk+) #ivteam

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Abstract:

BACKGROUND: Heparin has long been used to prevent thrombosis in the permanent central venous hemodialysis catheters (PermCath). Other alternatives for heparin with fewer side-effects have recently been considered. We compared normal saline (0.9%) with heparin for flushing PermCath with regards to catheter patency and prevention of heparin complications.

MATERIALS AND METHODS: Chronic kidney disease patients who were candidate of PermCath placement were randomly assigned into two groups of heparin and saline. In the heparin group, the PermCath was flushed with heparin (1000 IU), and in the saline group, it was

flushed with saline 0.9%. Patients were followed for 24 hours, and outcomes included catheter thrombosis, maneuver needed to maintain catheter patency, and bleeding from catheter site.

RESULTS: Ninety six patients were included (age = 63.1 ± 11.2 years, 54.2% male). No one experienced catheter thrombosis. Two patient (4.2%) in the heparin and three ones (6.1%) in the saline group required catheter manipulation ($P = 0.520$). Four patients (8.5%) in the heparin and three ones (6.1%) in the saline group experienced bleeding ($P = 0.476$); differences between heparin and saline groups in the amount of bleeding (225.0 ± 62.4 vs. 200.0 ± 113.5 cc, $P = 0.721$) and bleeding time (6.5 ± 1.2 vs. 5.3 ± 1.5 min, $P = 0.322$) were not significant. In the heparin group, no significant increase was observed in PTT over time; baseline 30.9 ± 3.4 , 12 h 31.8 ± 3.4 , 24 h 31.2 ± 6.6 ($P = 0.628$).

CONCLUSIONS: Flushing PermCath with normal saline 0.9% is as effective as heparin in maintaining patency of the catheter, while it may reduce the risks associated with heparin.

Other intravenous and vascular access resources that may be of interest (External links - IVTEAM has no responsibility for content).

Guide for intravenous chemotherapy and associated vascular access devices from Macmillan. CancerUK IV chemotherapy information.

