To evaluate the effectiveness of HS compared to PS to prevent occlusion in CVAD” Re et al (2018).

Abstract:

INTRODUCTION: Prevention of central venous access devices (CVAD) occlusion is crucial to the continuity and quality of care. There is wide consensus on the need to carry out a periodic flushing of the lumen of device in order to ensure its patency. The most commonly used solutions are the heparin solution (HS) and the physiological solution (NaCl 0.9% - PS). There are still controversial opinions on HS’s effectiveness over PS.

OBJECTIVE: To evaluate the effectiveness of HS compared to PS to prevent occlusion in CVAD.

METHODS: A search strategy on four electronic databases (The Cochrane Library, Medline, Embase, CINAHL) was implemented on April 4, 2017. Records returned were independently analyzed; those complying with inclusion criteria were found in full text. They’ve been included systematic reviews of RCT or quasi-experimental studies that have compared the use of HS with PS. The quality assessment of reviews was done with AMSTAR checklist.

RESULTS: Seven moderate-high quality systematic reviews met inclusion criteria. HS is was not superior to PS in preventing CVAD occlusions.

DISCUSSION: Reviews included were of high quality methodological. The statistical heterogeneity between RCT was low while the clinical and methodological heterogeneity was high.

CONCLUSIONS: HS was no longer effective than PS to prevent CVAD occlusions. Waiting for better quality studies to evaluate the overall DAVC management process, it seems reasonable to recommend using PS.

Reference: