

## **The purpose of this study was to compare the effects of skin cleaning with 5% NaHCO<sub>3</sub> to 75% alcohol on the removal of skin grease and pain of patients with central venous catheters (CVC)” Wu et al (2017).**

Abstract:

**OBJECTIVES:** The purpose of this study was to compare the effects of skin cleaning with 5% NaHCO<sub>3</sub> to 75% alcohol on the removal of skin grease and pain of patients with central venous catheters (CVC).

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**MATERIALS AND METHODS:** This was a randomized, controlled, single-blinded and prospective study. From January-September 2015, 143 consecutive patients who met the inclusion and exclusion criteria and who underwent elective cardiovascular surgery with placement of a CVC were selected. Patients were randomly divided into 2 groups according to the disinfection preparation procedure: experimental group (n = 60), in which 5% NaHCO<sub>3</sub> and distilled water solution at 40-45°C were used, and the control group (n = 66), in which 75% alcohol was used. Main outcome measures were verbal rating scale pain score, satisfaction and bacterial count after 2 minutes of iodine disinfection.

**RESULTS:** The verbal rating scale pain scores were lower in the experimental group than in the control group (P < 0.001). In the control group, 4.5% of patients and 43% of nurses were satisfied with 75% alcohol cleaning before disinfection procedure, compared to 74% and 78%, respectively, in the experimental group. The bacterial count did not show any difference between these 2 groups after iodine disinfection (P = 0.455).

**CONCLUSIONS:** Cleaning of the CVC before disinfection with 5% NaHCO<sub>3</sub> and distilled water at 40-45°C alleviated pain and improved patient and nurse satisfaction compared with using 75% alcohol.

Reference:



Wu, H.L., Xu, Y.H. and Shi, J.H. (2017) 5% NaHCO<sub>3</sub> Is Appropriate for Skin Cleaning With Central Venous Catheters. *The American Journal of the Medical Sciences*. 353(1), p.12-16.

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