Peripheral intravenous catheter needleless connector
decontamination study | 1

There was no difference in the effectiveness of 70% IPA and 2% CHG in 70% IPA for NC decontamination for peripheral intravenous catheters in the clinical environment” Slater et al (2020).

Abstract:

Background: Needleless connectors (NCs) were introduced to reduce health care work needlestick injuries (NSIs). If not decontaminated prior to use, NCs can be a portal for patient blood stream infections. The optimal disinfectant, and its application duration, for NC decontamination has not been empirically established.

Methods: Factorial design randomized controlled trial comparing 70% isopropyl alcohol (IPA) and 2% chlorhexidine gluconate (CHG) in 70% IPA for 5, 10, or 15 seconds, in adult medical patients with peripheral intravenous catheters.

Results: At baseline, 153 of 300 NCs (51%) grew microorganisms commonly found on the skin. Decontamination was successful in 150/153 (98%). There was no significant difference in decontamination between 70% IPA or 2% CHG in 70% IPA (P = .62), or decontamination for 5, 10, or 15 seconds (P = .21).

Conclusions: There was no difference in the effectiveness of 70% IPA and 2% CHG in 70% IPA for NC decontamination for peripheral intravenous catheters in the clinical environment. Successful decontamination was not different for applications of 5, 10, and 15 seconds; 15 seconds did not always remove all microorganisms. Factors such as cost, feasibility of compliance, and low risk of allergy support 5 seconds decontamination with 70% IPA as an acceptable approach.

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Reference:

Slater, K., Cooke, M., Fullerton, F., Whitby, M., Hay, J., Lingard, S., Douglas, J. and Rickard,