The aim of this prospective study was to identify colonization on the external surface of needleless connectors on central venous catheters and measure the efficiency of 15 s of scrubbing with 70% alcohol” Devrim et al (2019).

Abstract:

PURPOSE: The optimal scrubbing time for the disinfection of the surface of needleless connectors has not been determined. The evidence for successful needleless connector decontamination with 70% isopropyl alcohol ranges from 5 to 60 s. The aim of this prospective study was to identify colonization on the external surface of needleless connectors on central venous catheters and measure the efficiency of 15 s of scrubbing with 70% alcohol.

METHOD: A total of 31 patients were included. Samples were collected adhering to aseptic no-touch technique policies. Two samples were collected from the injectable surface of the needleless connector with sterile sodium chloride 0.9% moistened and a dry swab from the same site. Then the surface was scrubbed with alcohol 70% for 15 s for disinfection and second couples of samples for the cultures were taken after disinfection.

FINDINGS: A total of 420 swabs were obtained. The number of colonization (equal or higher than 15 CFU/plate) was present on 21 of the needleless connectors (20.0%). Coagulase-negative staphylococci was responsible for all the colonization. After disinfection for 15 s, no
isolation exceeding 1 CFU/plate was present.

CONCLUSION: Scrubbing for 15 s with 70% alcohol was found to be successful at elimination of colonization of the surface of needleless connector even in high microorganism counts.

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Improving care associated with needleless connectors
Which microorganisms contaminate intravenous needleless connectors?
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Reference: