We examined whether SwabCaps affected the integrity of two luer access valves and were associated with alcohol injected into the lines” Sauron et al (2015).

Reference:


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Abstract:

AIM: The safety of SwabCap alcohol impregnated disinfection caps was questioned in our unit because of malfunctions in luer access valves. We examined whether SwabCaps affected the integrity of two luer access valves and were associated with alcohol injected into the lines.

METHODS: Our bench test study included seven circuits using SmartSite or CARESITE valves exposed to two environmental temperatures. Passive circuits consisted of a 96-hour contact system using SwabCap without other interventions. Active circuits consisted of nine sham injections during a 24-hour period, with the SwabCap replaced after each injection. The active control circuit used isopropyl alcohol impregnated pads to disinfect valves. Isopropyl alcohol was measured at the extremity of all active circuits by gas chromatography.

RESULTS: The visual appearance of all SmartSite valves and 67% of the CARESITE valves was changed by SwabCap use. The mean isopropyl alcohol dosages were 52 mmol/L in the SmartSite and 8 mmol/L in the CARESITE at room temperature and 73 mmol/L and 7 mmol/L, respectively, at 35 degrees Celsius. No alcohol was found in the control circuit.

CONCLUSION: The SwabCap altered the valves’ appearance and allowed significant amounts of isopropyl alcohol to be injected. It should not be used for neonates without further research.
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