

Alcohol-Impregnated Port Protectors: A New Potential Risk for Hyperbaric Chambers

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I BACKGROUND

Alcohol-impregnated port protectors on peripheral and central venous catheter hubs are being increasingly used to reduce nosocomial bloodstream infections. These contain isopropyl alcohol, prohibited in class B chambers (1) and very restricted in class A chambers (2) by NFPA guidelines due to risk of fire.

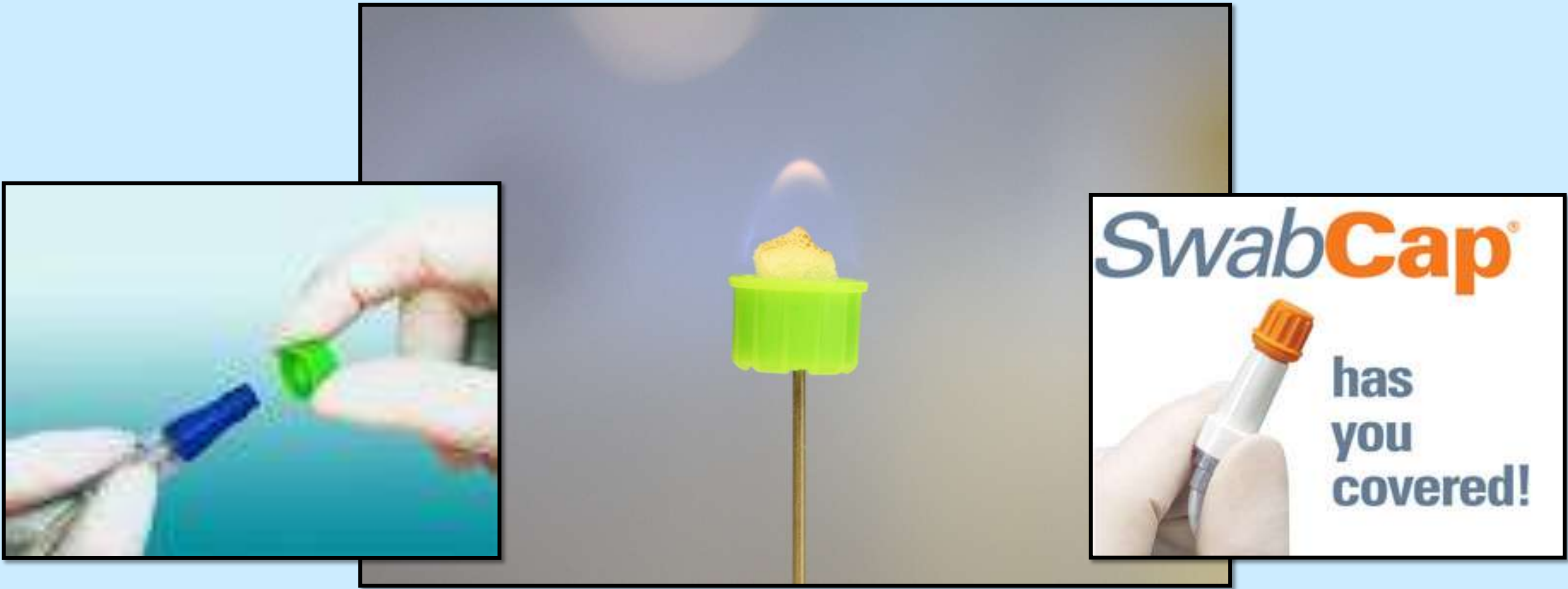
II MATERIALS AND METHODS

A literature review and web search was conducted as to the benefits, risks, and uses for alcohol impregnated port protectors.

III RESULTS

Line hub contamination is a risk factor for the development of bloodstream infections. In 2006, Menyhay reported that conventional disinfection of contaminated hubs with 70% alcohol swabs did not prevent entry of microorganisms as well as alcohol-impregnated port protectors (3). In 2013 Sweet showed a significant reduction in catheter-associated bloodstream infections using these devices.

Four brands of alcohol-impregnated port protectors are currently sold in the United States. “SwabCap” by Excelsior Medical (orange Leur lock cap), “Curos”,by Ivera Medical Corporation (white cap for dialysis catheters, and green for all other lines), “DualCap” by Catheter Connections (blue caps for both female and male ports), and “LifeShield EffectIV Cap” (clear white caps) by Hospira. These single use caps contain a sponge impregnated with 70% isopropyl alcohol that disinfects the port within 3-5 minutes and, if left in place, provides a barrier to contamination for 4-7 days.



IV CONCLUSIONS

There is a rapid increase in use of alcohol-impregnated venous port protectors for both inpatient and outpatient catheters but we have also found them on devices such as urinary catheter access ports. At our institution, we have placed cautionary signage at patient assessment stations and check for these devices during the safety “time out”. We recommend instituting protocols to insure that they do not enter the hyperbaric environment.

V REFERENCES

1. National Fire Protection Association. NFPA 99: Health Care Facilities Code. Quincy, MA NFPA; 2012 (14.3.1.5.2.3)
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