Abstract:

Background: Contamination of the catheter hub is an important source of central line-associated bloodstream infections (CLABSI); catheter hub caps incorporating a 70% isopropyl alcohol aim are designed to reduce contamination and hence CLABSI rates. Supporting data in high risk hematological and oncological patients on the clinical effectiveness of this approach is sparse. We conducted a before-after single center study accompanying the introduction of such caps at our department. Retrospective data from the year prior to the introduction were compared to one year of prospective data.

Results: The control and antiseptic barrier cap (ABC) groups consisted of 309 and 289 patients presenting a CLABSI rate of 15.28 and 10.38 per 1,000 catheter days (p=.042), respectively. However, after multivariate analysis, antiseptic barrier caps were not identified as a statistically significant independent protective factor for the occurrence of CLABSI (HR: 0.69, p=.120). There was no significant difference between the groups with respect to time to CLABSI (p=.681), nor the proportion of catheters removed due to suspicion of infection (p=.076).

Conclusions: The introduction of antiseptic barrier caps in this high-risk population did not significantly alter CLABSI rates.

Reference: