

**Abstract:**

**Purpose:** In spite of the recent application of a general infection control method, central line-associated infections is still relatively high in Korea. Central line bundle with Chlorhexidine gluconate (CHG) tegaderm dressing was reported to be effective in reducing catheter colonization and central line-associated bloodstream infections (CLABSI). Therefore, this study aimed to examine the incidences of catheter colonization occurrence and CLABSI while using Tegaderm vs. CHG Tegaderm dressings.

**Methods:** We used a descriptive design. 400 patients who had central venous catheters were selected from four hospitals in the Korean National Healthcare-associated Infections Surveillance System. Of all subjects, 200 used Tegaderm™ (Tegaderm group), and the remaining 200 used CHG Tegaderm (CHG Tegaderm group) dressing at the catheter insertion site. Data were analyzed using the  $\chi^2$  test or Fisher's exact test, t-test, and logistic regression analysis using SPSS WIN 21.0.

**Results:** In the Tegaderm and CHG Tegaderm groups, CLABSI incidences were 5.89 and 1.79 per 1,000 catheter-days, catheter colonization incidences were 3.93 and 1.43 per 1,000 catheter-days, and central line bundle compliance rates were 26.0% and 49.0%, respectively. Catheter colonization risk factors were 'reinsertion after failure' and 'Tegaderm dressing' at the central line insertion site. CLABSI risk factors were 'incomplete performance of 7 central line bundle items' and 'Tegaderm dressing' at the central line insertion site.

**Conclusion:** A further prospective study is needed to examine the effects of central line bundle with CHG Tegaderm dressing, avoiding central line reinsertion after failure, and improving the bundle compliance in reducing catheter colonization and CLABSI.

**Reference:**

Kim E, Lee H. The Incidences of Catheter Colonization and Central Line-Associated Bloodstream Infection According to Tegaderm vs. Chlorhexidine Gluconate (CHG)-Tegaderm Dressing. J Korean Acad Nurs. 2020;50(4):541-553. doi:10.4040/jkan.19215