



Central venous catheter-related bloodstream infections (CRBSI) are a frequent cause of morbidity and mortality in patients with chemotherapy-induced neutropenia. Chlorhexidine containing catheter securement dressings may prevent CRBSI” Biehl et al (2016).

Abstract:

BACKGROUND: Central venous catheter-related bloodstream infections (CRBSI) are a frequent cause of morbidity and mortality in patients with chemotherapy-induced neutropenia. Chlorhexidine containing catheter securement dressings may prevent CRBSI.

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PATIENTS AND METHODS: A multicenter randomized controlled trial was conducted at 10 German hematology departments. We compared chlorhexidine containing dressings with non-chlorhexidine control dressings in neutropenic patients. The primary endpoint was incidence of definite CRBSI within the first 14 days (dCRBSI14) of central venous catheter (CVC) placement. Secondary endpoints included combined incidence of definite or probable CRBSI within 14 days (dpCRBSI14), overall (dpCRBSI), incidence of unscheduled dressing

changes and adverse events.

RESULTS: From Feb 2012 to Sept 2014, 613 evaluable patients were included in the study. Incidence of dCRBSI14 was 2.6% (8/307) in the chlorhexidine and 3.9% (12/306) in the control group ($p=0.375$). Both dpCRBSI14 and dpCRBSI were significantly less frequent in the study group with dpCRBSI14 in 6.5% (20/307) of the chlorhexidine group as compared to 11% (34/306) in the control group ($p=0.047$), and dpCRBSI in 10.4% (32/307) vs. 17% (52/306), respectively ($p=0.019$). The frequency of dressing intolerance with cutaneous and soft tissue abnormalities at the contact area was similar in both groups (12.4% and 11.8%; $p=0.901$).

CONCLUSIONS: Although the trial failed its' primary end point, the application of chlorhexidine containing catheter securement dressings reduces the incidence of definite or probable CRBSI in neutropenic patients.

CLINICAL TRIALS NUMBER: NCT01544686 (Clinicaltrials.gov).

Reference:

Biehl, L.M., Huth, A., Panse, J., Krämer, C., Hentrich, M., Engelhardt, M., Schäfer-Eckart, K., Kofla, G., Kiehl, M., Wendtner, C.M., Karthaus, M., Ullmann, A.J., Hellmich, M., Christ, H. and Vehreschild, M.J. (2016) A randomized trial on chlorhexidine dressings for the prevention of catheter-related bloodstream infections in neutropenic patients. *Annals of Oncology*. July 25th. .

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