Impact of chlorhexidine-impregnated sponges on catheter-related infections rate.

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INTRODUCTION

Multimodal strategy targeted at prevention of catheter-related infection combine education to general measures of hygiene with specific guidelines for catheter insertion and dressing [1].

OBJECTIVES

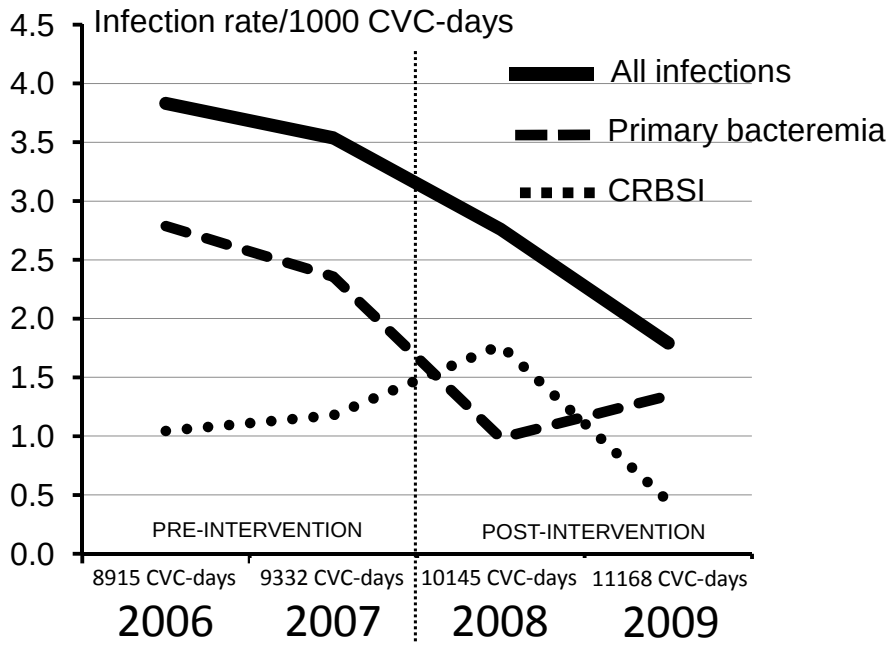
In this context, we tested the introduction of chlorhexidine(CHX)-impregnated sponges [2].

METHODS

In our 32-beds mixed ICU, prospective surveillance of primary bacteremia and of microbiologically documented catheter-related bloodstream infections (CRBSI) is performed according to standardized definitions. New guidelines for central venous catheter (CVC) dressing combined a CHX-impregnated sponge (BioPatch®) with a transparent occlusive dressing (Tegaderm®) and planning for refection every 7 days. To contain costs, Biopatch® was used only for internal jugular and femoral sites. Other elements of the prevention were not modified (overall compliance to hand hygiene 65 to 68%; non coated catheters except for burned patients [173 out of 9542 patients]; maximal sterile barriers for insertion; alcoholic solution of CHX for skin disinfection).

RESULTS

Median monthly CVC-days increased from 710, to 749, 855 and 965 in 2006, 2007, 2008 and 2009, respectively ($p<0.01$). Following introduction of the new guidelines (4Q2007), the average monthly rate of infections decreased from 3.7 (95%CI: 2.6-4.8) episodes/1000 CVC-days over the 24 preceding months to 2.2 (95%CI: 1.5-2.8) over the 24 following months ($p=0.031$). Dressings needed to be changed every 3 to 4 days



The decrease of catheter-related infections we observed in all consecutive admitted patients is comparable to that recently showed in a placebo- randomized trial [2]. Further generalization to all CVC and arterial catheters access may be justified.

CONCLUSIONS

Our data strongly suggest that combined with occlusive dressings, CHX-impregnated sponges for dressing of all CVC catheters inserted in internal jugular and/or femoral sites, significantly reduces the rate of primary bacteremia and CRBSI.

REFERENCES

Reference List

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(2) Timsit JF, Schwebel C, Bouadma L, Geffroy A, Garrouste-Org, Pease S et al. Chlorhexidine-impregnated sponges and less frequent dressing changes for prevention of catheter-related infections in critically ill adults: a randomized controlled trial. *JAMA* 2009; 301(12):1231-1241.