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
