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**The Impact of Education and Feedback of Outcome and Process Surveillance on Rates of CLABSI in 86 ICUs of 15 Developing Countries**

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**ABSTRACT**

**Background:** We have established an international nosocomial infection control consortium (INICC) in hospitals of the developing world and focus upon education and feedback of outcome surveillance (rates of infection) and process surveillance (compliance with infection control measures) to reduce rates of infection. We report a time-sequence analysis of the effectiveness of this approach on rates of central line-associated bloodstream infection (CLAB) in ICUs that have been members of INICC for at least six months.

**Methods:** Pooled rates of CLAB during the first three months (baseline) were compared with rates at six-month intervals during the first two years. The results of process surveillance at baseline were compared with data from the last three months.

**Results:** During the first six months, the incidence of CLAB declined 33%; over the next 18 months there was a cumulative reduction from baseline of 54% (16.0 to 7.4 CLABs per 1000 CL-days; RR 0.46, 95% CI 0.33 - 0.63, P< 0.001).

Compliance with hand hygiene improved from 50% to 60% (P< 0.0001), and ICUs using maximal sterile barriers at catheter insertion rose from 45% to 85% (P<0.01), adopting chlorhexidine for cutaneous antiseptics, from 7% to 25% (P=0.02) and making proactive efforts to remove unneeded catheters, from 37% to 83% (P=0.004); duration of CL placement declined from 4.1 to 3.5 days (P<0.0001).

**Conclusions:** Education and performance feedback of CLAB rates and process surveillance significantly improved compliance with basic infection control practices and resulted in a 54% reduction in the incidence of CLAB during the first two years.