
Education And Performance Feedback Effect On Rates Of Central Vascular Catheter - Associated Bloodstream Infections In Adult Intensive Care Units of One Brazilian Hospital of Sao Paulo

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Background:

To ascertain the effect of an infection control program utilizing education and performance feedback on intensive care unit (ICU) rates of intravascular device (IVD)-associated bloodstream infection (BSI).

Methods:

We studied three Level III adult intensive care unit of one Public hospital in Brazil. All adult patients admitted to the study had a central vascular catheter (CVC) in place for at least 24 hours. A prospective before/after trial in which rates of IVD-associated BSI were determined during a period of active surveillance without education and performance feedback (phase 1) were compared to rates of IVD-associated BSI after implementation of an infection control program utilizing education and performance feedback (phase 2). Phase one was from October 2003 to February 2004, and phase two was from March 2004 to September 2004.

Results:

3280 IVD-days were accumulated during phase one and 4237 IVD-days during phase two. Compliance with hand-washing and CVC site care improved from baseline during the study period. Overall rates of IVD-associated BSI were significantly lowered from baseline rates after implementation of education and performance feedback: 14.0 BSI per 1000 CVC days in phase I (46/3280) versus 7.1 BSI per 1000 CVC days in Phase 2 (30/4237), RR = 0.50, 95% CI = 0.32 – 0.80, P-value = 0.0029). The BSI rate reduction was 50% in six months.

Conclusion:

Implementation of an infection control program, utilizing education and performance feedback resulted in significant reductions in rates of IVD-associated BSI.