

Chakravarthy M, Jawali V, Rosenthal VD, Venkatachalam N. Process And Outcome Surveillance Plus Education And Feedback Effect On Device Associated Infections Rates In Indian Critical Patients. In: Proceedings and Abstract of the 7th Annual Meeting of the International Federation of Infection Control; 2006 5th July; Spier Estate, Stellenbosch, South Africa; 2006. p. 56.

PROCESS AND OUTCOME SURVEILLANCE PLUS EDUCATION AND FEEDBACK EFFECT ON DEVICE ASSOCIATED INFECTIONS RATES IN INDIAN CRITICAL PATIENTS

DR M CHAKRAVARTHY * (Wockhardt Hospital & Heart Institute) , DR V JAWALI (Wockhardt Hospital & Heart Institute) , DR VD ROSENTHAL (Medical College of Buenos Aires) , DR N VENKATACHALAM (Wockhardt Hospital & Heart Institute)

Background:

To ascertain the effect of Process and Outcome Surveillance plus Education and Performance Feedback on intensive care unit (ICU) rates of device associated infections.

Methods:

We studied three Level III adult intensive care units of a Private Indian hospital. A prospective before/after trial in which rates of overall infections were determined during a process and outcome surveillance without education and feedback (phase 1) were compared to rates of implementation of an infection control program utilizing education and feedback (phase 2). Phase one was developed from 09/04 to 12/04, phase two from 01/05 to 09/05.

Results:

402 patients representing 2,569 bed days were accumulated during phase one, and 1,207 patients representing 6,953 during phase two. Patients during each study phase were similar regarding gender (P value, 0.6683), Age (P.value, 0.0596), severity-of-illness score (P value, 0.7371), Diabetes (P value, 0.0616), COPD, (P.value, 0.0953), Cancer (P.value, 1.0000), Hepatic failure (P.value, 0.4144), Abdominal Surgery (P.value, 0.5638), Thoracic Surgery (P.value, 0.0953), Trauma (P.value, 0.0831), Previous Infection (P.value, 0.7968), Stroke (P.value, 1.0000) and Immunocompromise (P.value, 0.5683) Hand-washing compliance(63.7% vs. 92.1% [RR = 1.44, 95% CI = 1.25 – 1.67, P-value = 0.0000]) improved from baseline during the study period. Device associated infections rates were significantly lowered from baseline rates after implementation of education and feedback: 2.5% HAI per 100 patients in phase I (10/402) versus 0.17% HAI per 100 patients in Phase 2 (2/1207), RR = 0.07, 95% CI = 0.01 – 0.30, P-value = 0.0000), and 3.89 HAI per 1000 bed days in phase I (10/2569) versus 0.29 HAI per 1000 bed days in Phase 2 (2/6953), RR = 0.07, 95% CI = 0.02 – 0.34, P-value = 0.0000),

Conclusion:

Implementation of an infection control program, using process and outcome surveillance plus education and feedback resulted in significant reductions of device associated infections rates.