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#### **OBJECTIVE:**

To determine the rate, extra length of stay (LOS) and extra mortality of Device-associated infections (DAI) in 12 ICUs of 7 hospitals of seven cities members of the INICC in India.

#### **METHODS:**

Prospective cohort surveillance of DAI was conducted on adult patients admitted to tertiary-care ICUs. INICC designed the protocol, forms and data uploading and analysis system. Data were gathered at the ICUs. CDC-NNIS definitions were applied.

#### **RESULTS:**

From 07/04 to 03/07, we enrolled 10,835 patients, representing 52,518 bed days. The overall DAI rate was 4.4 per 100 patients, and 9.0 per 1000 bed days. The CVC-BSI rate was 7.9 per 1000 CVC days, the VAP rate was 10.46 per 1000 device days, and the CA-UTI rate was 1.4 per catheter days. The LOS of patients without DAI was 4.4 days; the LOS of patients with CVC-BSI was 9.4 days ( P, < 0.001); LOS of those with VAP was 15.3 days ( P, < 0.001); and LOS of those those with CA-UTI was 12.4 days ( P, < 0.001). Extra mortality for VAP was 19.0%, ( P=< 0.001); for CVC-BSI, 4.0% ( P=0.0174); and for CAUTI, 11.6% ( P=0.010). 27.3% of DAI was caused by *Pseudomonas sp*—28.6% resistant to ciprofloxacin, 64.9% to ceftazidime, 42.0% to imipenem, and 42.6% to piperacillin tazobactam; 6.2% by *Acinetobacter sp*; 3.1% by *S aureus* infections—87.5% MRSA; 46.4% by Enterobacteriaceae —71.4% resistant to ceftriaxone, 74.1% to ceftazidime, and 42.6%

to piperaciline tazobactam; 8.2% by *Candida sp*; 2.6% by *Enterococcus sp*.-33.3% resistant to vancomycin.

**CONCLUSION:**

This study has identified that CVC-BSI, VAP, and CA-UTI increased the LOS and are associated with higher mortality.