

Device Associated Nosocomial Infection Rates and Extra Length of Stay in Intensive Care Units of Brazil

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OBJECTIVES: To measure the incidence of device-associated nosocomial infections (NI) in intensive care units (ICU). To measure days of extra length of stay (E-LOS).

METHODS: We performed a prospective NI surveillance study in three ICUs of one private hospital. NIs were identified using the CDC-NNIS definitions. We calculated E-LOS subtracting nosocomial average length of stay (ALOS) of patients with and without NI.

RESULTS:

From October 2003 to February 2004 (five months), we enrolled 223 patients, 3,115 bed days (BD), 3,280 central vascular catheter (CVC) days, 2,612 mechanical ventilator (MV) days, and 2,883 urinary catheter (UC) days. The overall NI rate was 70.85% (158/223) and 50.72 (158/3115) per 1000 BD.

The most common site of NI was MV-associated pneumonia (41.77%) (66/158), followed by CVC-associated bloodstream infection (BSI) (29.11%) (46/158), and by UC-associated urinary tract infection (UTI) (29.11%) (46/158).

Pneumonia rate was 25.3 (66/2612) per 1000 MV days. The ALOS with Pneumonia was 14.1 the ALOS without NI was 5.8, with 8.2 days of E-LOS. BSI rate was 14.0 (46/3280) per 1000 CVC days. The ALOS with BSI was 13.6, representing 7.8 days of E-LOS. UTI rate was 16.0 (46/2883) per 1000 UC days. The ALOS with UTI was 10.0, representing 4.2 days of E-LOS.

CONCLUSION: Our infection control program must continue to be aimed at invasive device-associated nosocomial infections. A patient with BSI increases ALOS by 7.8 days, 4.2 days increase for UTIs, and 8.2 days increase for pneumonia.