Extra Mortality of Nosocomial Infections in Neonatal ICUs at Eight Hospitals of Argentina, Colombia, Mexico, Peru and Turkey.

Findings of the International Nosocomial Infection Control Consortium (INICC).

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OBJECTIVE: Our goal was to determine the extra mortality (EM) of the health care associated infections (HAI) at Neonatal intensive care units (ICU) of hospital members of the INICC in Argentina, Colombia, Mexico, Peru and Turkey.

METHODS: We conducted a case control analysis nested in a prospective cohort study in 8 Neonatal ICUs at 8 hospitals members of the INICC, between 2003 and 2005 (3 years) to analyze the extra mortality of patients with central vascular catheter associated blood stream infection (CVC-BSI), mechanical ventilator associated pneumonia (VAP), and catheter associated urinary tract infection (CA-UTI). All patients were assessed for mortality. Patients who died were called cases, while those who did not die, were called controls.

RESULTS: From 2003 to 2005, we enrolled 1,529 patients, representing 14,800 bed days. The overall HAI rate was 7.8 per 100 patients and 8.0 per 1000 bed days.

The CVC-BSI rate was 16.1 per 1000 CVC days, the VAP rate was 10.6 per 1000 device days, and CA-UTI rate was 5.3 per catheter days. 201 out of 1,529 (13.1%) patients without HAI died; 22 out of 65 patients (33.8%) with CVC-BSI died, the extra mortality of CVC-BSI was 22.1%, (RR, 2.89; 95% CI, 1.85-4.51; P, 0.0000); 7 out of 29 patients (24.1%) with VAP died, the extra mortality of VAP was 12.4%, (RR, 2.06; 95% CI, 0.97-4.39; P, 0.0557); 0 out of 1 patients (0.0%) with CA-UTI died, the extra mortality of CA-UTI was -11.7%, (RR, 0.00; 95% CI, -undef--; P, 0.7321).

CONCLUSION: This study has identified that CVC-BSI is significantly associated with higher mortality.