

**National Multi-Center Prospective Study to Evaluate Device-Associated Nosocomial Infection Rates in Intensive Care Units of Colombia: Benchmark with NNIS American Rates. SHEA meeting, Philadelphia, USA, April, 17th - 20th - 2004**

Sussmann O. Olarte N. Valderrama A. Alvarez C. Garzon Agudelo JE. Rosenthal VD

**Objectives:** To measure the incidence of device-associated nosocomial infections in ICUs in Colombia. To compare with NNIS rates.

**Methods:** We performed a prospective nosocomial infection surveillance study during three months in five Colombian ICUs. Nosocomial infections were identified using the Centers for Disease Control and Prevention National Nosocomial Infections Surveillance system definitions and site-specific nosocomial infection rates were calculated.

**Results:** We collected 434 patients, 2777 bed days, 2388 central vascular catheter days, 1682 mechanical ventilator days, and 2448 urinary catheter days. The overall nosocomial infection rate was 12.4% and 19.44 per 1000 patient days. The most common site of infection was ventilator-associated pneumonia (42.5%), followed by central venous catheter (CVC)-related bloodstream infection (BSI) (33%), and by catheter-associated urinary tract infection (16.6%). The ventilator-associated pneumonia rate was 13.67 per 1000 device-days (benchmark with NNIS rate, RR: 1.56; CI 95% 1.04-2.35; P value 0.003). The rate of catheter-associated bloodstream infections was 7.53 per 1000 device-days (benchmark with NNIS rate, RR: 1.97; CI 95% 1.24-3.14; P value 0.03). The symptomatic catheter-associated urinary tract infection rate was 8.85 per 1000 device-days (benchmark with NNIS rate, RR: 0.83; CI 95% 0.42-1.67; P value 0.83).

**Conclusion:** When we compare with NNIS rates we found our pneumonia rate 1.5 times above the NNIS rate, the BSI rate 2 times above NNIS rate, and our urinary tract infection rate similar to NNIS rate. In Colombia we need to develop interventions to reduce nosocomial infections, especially CVC-associated BSIs, and pneumonia associated mechanical ventilator.