BACKGROUND:

There are very few prospective clinical studies on neonatal health care-associated infection (HAI) surveillance. HAI surveillance helps reduce not only mortality, but also morbidity, length of hospital stay, and health care costs.

METHODS:

This prospective clinical study covered a period of 12 months in a tertiary neonatal intensive care unit (NICU). HAI rates were calculated using different denominators: number of patients hospitalized in the NICU, number of patient-days, and number of specific device-days.

RESULTS:

The HAI rate was 18%, and the incidence density was 17/1,000 patient-days. The most common HAI was bloodstream infection (n = 34; 50%). The most common pathogen was coagulase-negative staphylococci (CoNS; 54.9%) in gram-positive bacteria and in general. Methicillin resistance was 96.4% for CoNS. Klebsiella spp (13.7%) was the most common gram-negative bacteria. Extended-spectrum β-lactamase positivity was 14.3% for Klebsiella spp and 25% for Escherichia coli. HAI-related mortality was 0.3%.

CONCLUSIONS:

NICUs should perform their own HAI surveillance with prospective clinical design. Attention paid to handwashing, disinfection and sanitizing, complying with the terms of asepsis, extending in-service training, increasing the number of medical staff, preventing frequent changes in health care staff positions, and improving physical environmental conditions in NICUs might eventually decrease HAI rates.