

“The aim of this study was to evaluate and describe the results of surveillance of HAIs in a III level NICU in Naples, Italy during 2006-2010” Crivaro et al (2015).

Reference:

Crivaro, V., Bogdanović, L., Bagattini, M., Iula, V.D., Catania, M., Raimondi, F., Triassi, M. and Zarrilli, R. (2015) Surveillance of healthcare-associated infections in a neonatal intensive care unit in Italy during 2006-2010. BMC Infectious Diseases. 15(1), p.152.

Surveillance of neonatal healthcare-associated infections <http://ctt.ec/q9l8a> @ivteam #ivteam

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Abstract:

BACKGROUND: Healthcare-associated infections (HAIs) are a frequent complication associated with hospitalization of infants in neonatal intensive care units (NICUs). The aim of this study was to evaluate and describe the results of surveillance of HAIs in a III level NICU in Naples, Italy during 2006-2010.

METHODS: The surveillance covered 1,699 neonates of all birth weight (BW) classes with > 2 days NICU stay. Infections were defined using standard Centers for Disease Control and Prevention definitions adapted to neonatal pathology and were considered to be healthcare-associated if they developed > 2 days after NICU admission.

RESULTS: One hundred-fifty-three HAIs were diagnosed with a frequency of 9% and an incidence density of 3.5 per 1000 days of hospital stay. HAIs developed in all BW classes, but patients weighing \leq 1000 g at birth were more affected with a decreasing trend from the lowest to the highest BW classes. Sepsis proved to be the most frequent infection (44.4%), followed by urinary tract infection (UTI) (28.8%), pneumonia (25.5%) and meningitis (1.3%). Device associated infections (i.e. central line-associated bloodstream infections (BSIs), umbilical catheter-associated BSI and ventilator associated pneumonias (VAPs) represented 64.1% of all HAIs. Most frequent pathogens responsible for all types of infections were: *P. aeruginosa* (17%), *C. parapsilosis* (16.3%), *E. coli* (13.1%), *C. albicans* (10.5%), non-extended spectrum beta-lactamase (ESBL) *K. pneumoniae* (7.8%), and coagulase-negative Staphylococci (5.2%). No microbiological diagnosis was achieved for 6.5% of infections.

CONCLUSIONS: HAIs developed in all BW classes but low BW neonates were at major risk

to acquire HAIs in our NICU. Use of central line-, umbilical-catheter and mechanical ventilation was associated with higher risk of infection. Our findings highlight the importance of an extensive surveillance approach in the NICU setting, which includes all BW classes of neonates and monitors infections associated with the use of medical devices.

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