Surveillance systems are useful to reduce nosocomial infection in VLBW infants. Reduction in antibiotic and CVC use requires longer intervention time” Estañ-Capell et al (2019).

Abstract:

BACKGROUND: Nosocomial infection in very low birthweight (VLBW) infants is a common complication with high morbimortality. New strategies to reduce its occurrence have recently led to the development of neonatal surveillance programs.

AIMS: To determine whether the NeoKissEs surveillance system implementation in our neonatal unit has been associated with a decrease in nosocomial infection in VLBW infants, as well as a reduction in the use of antibiotics and central venous catheters (CVC).

STUDY DESIGN AND SUBJECTS: Retrospective and descriptive study of infants <1500 g admitted between January 2011 and December 2017. Rates of use of antibiotics and CVC were calculated, as well as late-onset sepsis incidence. Data were compared before and after the surveillance system implementation. RESULTS: 299 patients were recruited. We excluded seven patients, who died <72 h. Of the remainder (n = 292), 149 were in the pre-intervention period and 143 in the post-intervention period. We found a significant decrease in the incidence density of sepsis comparing these two periods (5.98 vs. 4.08) (p = 0.03). Although no differences in antibiotic and CVC rates of use between both groups were found, a significant decrease in antibiotic use was observed comparing the first and last year of the intervention (38% vs. 24%) (p = 0.03). A higher percentage of breastfed infants was observed (39% vs. 59%) (p = 0.001) in the post-intervention group. CONCLUSIONS: Surveillance systems are useful to reduce nosocomial infection in VLBW infants. Reduction in antibiotic and CVC use requires longer intervention time. Promotion of breastfeeding seems to be a very effective associated strategy.

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