CAN CHANGES IN CLINICAL PRACTICE DECREASE THE INCIDENCE OF CANDIDEMIA IN VERY LOW BIRTH WEIGHT INFANTS (VLBWI)?

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Background: The use of antibiotics and systemic steroids are/were common practice in the care of VLBWI. Several publications associated the use of cephalosporins and steroids with increased candidemia. We believe there are no reports of restricting use of cephalosporins and/or steroids that resulted in decreased candidemia.

Methods: We reviewed the records of VLBWI admitted to our NICU from 2000 to 2009. An effort to restrict the use of third generation cephalosporins and steroids was started in 2002. We compared the rate of candidemia between the periods as well as to Vermont-Oxford Network data. Birthweight, gestational age, gender, medications (cephalosporins, steroids, meropenem, prophylactic fluconazole), frequency of central lines and surgery were statistically analyzed.

Results: Of 457 infants studied, 45 had candidemia. Birthweight, gestational age and gender were comparable between groups. There was a significant decrease in the incidence of candidemia,

[Candidemia]

use of cephalosporins and steroids between the two periods (65.6% vs 44.1%, $p < 0.01$; 21.8% vs 6.5%; $p < 0.001$ respectively). No significant changes were found in use of H2 blockers, meropenem, prophylactic fluconazole, central lines and surgery.

Conclusions: We observed a significant decrease in incidence of candidemia in association with a decrease in use of cephalosporins and steroids in VLBWI. Although several confounders cannot be excluded, changes in these clinical practices may in part be responsible for the decreased candidemia.