QUANDRY OVER THE USE OF ANTIFUNGAL PROPHYLAXIS IN PRETERM INFANTS: SURVEY OF CURRENT PRACTICE IN THE UNITED KINGDOM

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Introduction Prophylactic anti fungal use reduces the incidence of colonisation and invasive fungal infection in premature neonates. We surveyed the current regimes for the use of antifungal prophylaxis in the tertiary neonatal units across the UK.

Method We enquired about indications for use, drug of choice for prophylaxis, criteria for stopping the prophylaxis and drug used for suspected or proven fungal infection.

Results Out of 52 units 42 (81%) responded. 7 units (17%) did not use any prophylaxis. 26 units (62%) had guidelines on the use of anti fungal prophylaxis. 9 units (21%) used prophylaxis but did not have any guidelines. Of the units using prophylaxis, 43% used birth weight as a criterion ranging from < 750grams to < 1.2kilogram. 51% of units used gestation as a criterion ranging from < 25weeks to < 32 weeks. 30% of units used antibiotic use as their only criterion for starting prophylaxis. 31% used presence of longline as a criterion. Small number of units used abdominal surgery, prolonged intubation, NEC, Candida colonisation, postnatal steroids and ranitidine as a criterion. The commonest drug used for prophylaxis was fluconazole (50%). 29% of units used nystatin and 12% of units used miconazole gel. 26% of units used the same prophylactic drug when treating suspected or proven fungal infection.

Conclusion Despite evidence of the efficacy of anti-fungal prophylaxis, 17% of tertiary units are not using antifungal prophylaxis for infants at high risk. There remains considerable heterogeneity in indications and the specific antifungal used for prophylaxis.

EPIDEMIOLOGY OF PROVEN NOSOCOMIAL SEPSIS IN LOW BIRTH WEIGHT INFANTS ADMITTED IN THE LEVEL 3 NEONATAL INTENSIVE CARE UNIT

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Background Nosocomial infections remains a leading cause of morbidity and mortality in Neonatal Intensive Care Unit (NICU).

Aim To assess incidence, etiology and outcome of culture-proven nosocomial sepsis in low birth weight (LBW) infants.

Methods Retrospective study of preterm infants with birth weight < 1500g and proven nosocomial sepsis admitted in NICU of Hospital Carlos Haya during 2011.

Results Thirty neonates experienced at least one or more episode of nosocomial sepsis out 160 LBW infants meaning an incidence of 18.75%. 61% positive blood culture. Table one. Mortality was 6.6% of all patient with proven sepsis and 4% of all positive blood culture. In our series fungal sepsis were the most aggressive being responsible of the 50% of deaths.

Comparative Analysis of Staphylococcus epidermidis Strains Isolated From Newborns

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Staphylococcus epidermidis are important opportunistic biofilm forming pathogens, particularly causing infection in patients with indwelling medical devices. Preterm infants represent a high-risk group for device-related S. epidermidis infections since they require the delivery of nutrients and drugs over long periods. The present study compared genetic and phenotypic characteristics of S. epidermidis strains isolated from blood stream infections of preterm infants (n=10) versus skin isolates obtained from healthy newborns (n=16). Two reference strains were also included the study. Insertion element IS256, as a marker for invasiveness, was analysed by PCR. Antimicrobial susceptibility was tested using the Kirby Bauer method. The incidence of invasive fungal infection was assessed by clinical and laboratory criteria. The study included a total of 26 strains from preterm infants and 16 strains from healthy newborns.

Overall infections rate is similar to the current reports for level 5 hospitals. Gram positives organisms were common being S. epidermidis the most frequent. Related to gram negative K. pneumoniae, S. marcesces and Enterobacter were the most frequently isolated. No cases of expanded spectrum of betalactamases bacterial. Mortality is less than previously reported.

Conclusion Overall infections rate is similar to the current reports for level 5 hospitals. Gram positives organisms were common being S. epidermidis the most frequent. Related to gram negative K. pneumoniae, S. marcesces and Enterobacter were the most frequently isolated. No cases of expanded spectrum of betalactamases bacterial. Mortality is less than previously reported.