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Background and Aims To study prevalent organisms causing sepsis, their sensitivity pattern and outcome in newborn babies with culture proven sepsis.
Methods Retrospective observation of hospital records of 4 years from November 2007 to October 2011 from 276 culture positive reports with their sensitivity to the antibiotics and measured outcome of the culture proven sepsis.
Results Most common blood culture isolates in decreasing order of frequency were Klebsiella (42.4%), Coagulase Negative Staphylococci (11.2%), Enterobacter (9.4%), Escherichia coli (9.1%), Pseudomonas (5.4%) and Acinetobacter (4.7%). Gram negative organisms were predominant in early and late onset neonatal sepsis as well as in inborn and outborn babies. Staphylococcus aureus and Enterococci were uncommon. Candida species were isolated in early onset sepsis and in babies weighing more than 1500 gm. Most gram negative organisms were resistant to ampicillin, gentamicin and cephalosporins. Sensitivity of amikacin, levofloxacin and piperacillin-tazobactam against Gram negative organisms ranged from 25% to 75%. Incidence of Methicillin Resistant Staphylococcus Aureus and Vancomycin resistant Enterococci was 33% and 20% respectively. Most Candida isolates were sensitive to antifungals. The most effective first line antibiotic combinations were amikacin with levofloxacin and amikacin with piperacillin-tazobactam. Overall survival rate in culture positive neonates was 43.4%.
Conclusion Gram negative organisms were the most common cause of neonatal blood stream infection with high degree of resistance to commonly used first line antibiotics. These findings would help judicious selection of antibiotics when initiating them before the culture reports are available.

1169 AMPICILLINE RESISTANCE EPIDEMIOLOGY IN NEONATAL SEPSIS IN THE ERA OF INTRAPARTUM ANTIMICROBIAL PREVENTION OF EARLY-ONSET GROUP B STREPTOCOCCAL (GBS) SEPSIS

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Objective To determine EOS ampicillin-resistant (AR) epidemiology and risk factors associated with ampicillin-resistant infection in newborns in the era of *GBS* prophylaxis.
Methods This was a retrospective analysis between 2002 and 2009, from microbiology laboratory database and hospitalization reports in one neonatal care unit. EOS was defined by a positive culture results for blood or cerebrospinal collection from infants aged ≤ 7 days, hospitalized in the university hospital of Poitiers. Data were analyzed using Chi(2), Student's test and binary logistic regression in univariate and multivariate models.
Results EOS was identified in 30 cases. Nineteen infants (63.3%) were preterm with GA ≤ 35 weeks. The overall mortality rate was 23.3%. *Escherichia Coli (E. Coli)* and *GBS* accounted respectively for 40% and 26.3% of the cases. Eighteen infants (62.1%) were infected with an AR pathogen. Among *E. Coli* isolated, 81.8% were AR. *E. Coli* was most frequently isolated in preterm infants, (10 cases; 52.6%), while *SGB* was predominant (7 cases; 63.6%) in term infants. EOS AR proportion was significantly higher among preterm than term infants (85% vs 10%, p≤0,001). In the AR group, GA was significantly lower, maternal age, intrapartum exposure to antibiotics and membrane rupture was higher, (p<0.05). In multivariate models, GA ≤ 35SA was an independent predicted factor associated with AR EOS (OR 28 [95%CI, 1.77–444.09]).
Conclusion *E. Coli* and AR EOS were predominant in preterm infants with GA ≤ 35 weeks. GA ≤ 35 weeks is an independent predicted factor of AR EOS.

1170 INCIDECE OF NEONATAL SEPSIS AND/OR MENINGITIS

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Beckground and aim Infections are important cause of mortality and morbidity in the neonatal period. The purpose in this retrospective study was to identifications the bacterial microorganisms caued neonatal sepsis and/or meningitis in the all newborns hospitalized in the Center of Neonatology, during the period of 2002, 2003 and 2004.
Method We used clinical, microbiological, laboratory and radiology methods.
Results 2086 infants were treated at the Center of Neonatology during the period of 2002–2004. Infants born at term (NT) were 1391, and infants born preterm (NPT) were 682. In the group of infants born at term In 528 with proven infections (omphalitis, cutaneus infections, mastitis, conjunctivitis, otitis media, infectio tracti urinary, pneumonia, diarrhea), 58 were diagnosed and treated for sepsis and/or meningitis (10.9%). Dominant pathogens responsabile for sepsis and/or meningitis were: *Staphylococcus k.n* (41.3%) i *Staphylococcus Aureus* (19%), *E.Coli* (5, 3%), then with equally frequency SGB, *Streptococcus alfa hemolyticus* rupe A, *Streptococcus pneumoniae*, *Enterococcus*, *L .Monocytogenes*, *Klebsiella pneumoniae*, (each one 1.7%). Meningitis were proven in 16 TNB or 27.6 per cent.

In the group of infants born preterm In 98 PNB with proven infections (omphalitis, cutaneus infections, conjunctivitis, infectio tracti urinary, pneumonia, diarrhea), 30 PTB were diagnosed and treated for sepsis and/or meningitis (30.6%). Dominant pathogens responsabile for sepsis and/or meningitis were: *Staphylococcus aureus* (26.6%), *Staphylococcus Co negative* (20.0%), *Klebsiella pnaeumonia* (20.0%), *Serratia marscensens* (13.3%). Meningitis were proven in 7 PNB or 23.3% per cent.
Conclusions Preterm infants have 3 fold higher incidence of serious neonatal infections sepsis and/or meningitis.

1171 SYSTEMIC CANDIDIASIS: IMPACT OF THE SELECTIVE PROPHYLAXIS WITH FLUCONAZOLE IN RN < 1500GR

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Introduction The invasive candidiasis supposes an important problem in NICUs with a direct mortality of 15–40%.
Aims and methods To describe the incidence of systemic Candida infection before and after the introduction of fluconazole prophylaxis in January 2009. Retrospective descriptive study of diagnosed patients with invasive fungal infection for 3 years in a level III hospital.
Results

Abstract 1171 Table 1

	2008	2009	2010
INCIDENCE<1000g	6/50(12%)	2/60(3.3%)	4/55(7.3%)
INCIDENCE<1500g	6/209(2.87%)	4/191(2.09%)	4/188(2.12%)
BIRTH WEIGHT<1000g	6	2	4
>1000g(<1500g)	0	2	0
GESTATIONAL AGE <28weeks	2	2	2
28–30weeks	3	2	2
>30weeks(<32weeks)	1	0	0
BLOOD CULTURES	6 C.parapsilosis	3 C.parapsilosis+1 C.albicans	2 C.parapsilosis+2 C.albicans
MORTALITY	2/6(33%)	0/4(0%)	2/4(50%)

85% had more than 4 risk factors, the most common: NICU admission(100%), central catheter(100%), parenteral nutrition(93%), broad-spectrum ATB use(86%) and IMV(71%). The most frequent associated pathology was catheter-related infection(43%) and necrotizing enterocolitis(22%). No CNS involvement was identified in any case.

Conclusions Systemic prophylaxis with fluconazole has been an effective measure for the reduction of invasive fungal infection in our unit, with a decrease between 40–70%. However, optimization of this strategy is necessary, focusing on those at highest risk (< 1000g and/or ≤27weeks).

1172 A 7-YEARS RETROSPECTIVE STUDY OF NOSOCOMIAL CANDIDA INFECTION IN TERTIALLY NICU

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Background Nosocomial Candida infections (NCI) with dominant C. albicans account for 6–18% of lateonset sepsis in NICU, with mortality rate 22–32% and increase health care costs.

Aim Evaluation morbility and mortality rate of neonatal NCI, considering sex, GA, BW, perinatal risk factors, occurence of other diseases, types of Candida, number of NCI episodes.

Material and Methods The analysis involved 70 newborns (41 boys, 29 girls), 27 ELBW, 20 VLBW, 11 LBW and 12 >2.5 kg, treated wihin 2002–7 years (4.2% of all), all with flukonazole prophylaxis. Mycological examination was based on Sabouroud medium and using Vitek 2 apparatus.

Results 103 cases of NCI (46 single, 4 double, 7 [3] 3) were diagnosed between 8 and 117 day of hospitalization (27% £15th, 32% between 16th and 30th, 41% >30th day). Eighteen types of C. were isolated (44% in blood), most often albicans (26%), sake (25%) and lusitaniae (18%). The significant dependence was stated between newbons' death and their GA and number of C. episodes. Presence of central catheters, MV, bacterial sepsis and ventilator associated pneumonia, total parenteral nutrition and severe RDS, BPD, IVH, NEC were founded as major risk factors for neonatal NCI.

Conclusions

1. Fetal maturity and number of NCI episodes determine the prognosis in newborns infected due to Candida.
2. Risk factors must be evaluated carefully in all sick newborns, because of longer NICU stay and necessity of invasive procedures.

1173 BURKHOLDERIA GLADIOLI SEPSIS IN NEWBORNS

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Background and Aim *Burkholderia gladioli* is a rare cause of bacteraemia and sepsis in patients without predisposing factors like chronic granulomatous disease, cystic fibrosis or immunsupressive disorders. There is little known about *B. gladioli* infections in newborns. The aim of this study was to evaluate the features of *B. gladioli* infections in newborns.

Methods Clinico-pathologic characteristics, patterns of antimicrobial susceptibility, predisposing factors and outcomes of *B. gladioli* bloodstream infections of newborn patients were analysed retrospectively from 2008 to 2011.

Results During the 3-year study period, *B. gladioli* was isolated from blood cultures of 14 patients (3.7 per 1000 admissions). Five out of 14 (35.7%) cases have a positive blood culture at the time of initial admission. Primary diagnoses of neonates were severe major congenital anomalies, congenital leukemia, prematurity with respiratory distress syndrome, pneumonia and parapneumonic pleural effusion. Eleven of the 14 patients (78.6%) had undergone at least one invasive procedure and 71.4% of the patients had undergone two or more of invasive procedures. The most susceptible antimicrobial agents were amikacin, gentamicin, imipenem, ciprofloxacin, trimethoprime/sulphametaxazole and ceftriaxone. The overall in-hospital mortality rate was 21.4%.The mortality rate was 7% for *B. gladioli* infections.

Conclusions *B. gladioli* might be a causative microorganism of both early neonatal and nosocomial sepsis in newborns. To our knowledge, this is the first report of *B. gladioli* infection in newborns. Although it seems to have a low pathogenic potential and insidious clinical course in newborns, resistance patterns to antibiotics may be a problem. Mortality was mainly associated with underlying diseases.

1174 SEPSIS AMONG PRETERM INFANTS WITH BIRTH WEIGHT≤750 G: EXPERIENCE OF A MEDICAL CENTER IN NORTHERN TAIWAN

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Background Sepsis is a major cause leading to neonatal mortality and morbidity, particularly for tiny preemies. The purpose of this study aimed to compare outcome between infants with birth weight (BBW)≤750 g having culture-positive sepsis and infants without any positive culture.

Methods This was a retrospective cohort study of infants with BBW≤750 g admitted to Chang Gung Children's Hospital between January 2006 and December 2010. Sepsis was defined as infants had clinical signs and positive blood culture results. Outcome, pathogens and clinical data were collected.

Results 154 infants were enrolled; the gestational age (GA) and BBW were 25.1±1.9 weeks and 639.6±88.5 g (mean±SD), respectively. 46 patients (29.9%) had sepsis and the incidence of sepsis was 5.2 episodes per 1000 patient days. There were 62 episodes of sepsis involving 66 pathogens during the study period. 38 gram-positive pathogens (57.6%), 22 gram-negative pathogens (33.3%) and 6 fungal infection (9.1%) were identified. The major causative pathogens were coagulase negative staphylococcus (n=24), Escherichia coli (n=7) and klebsiella pneumoniae (n=7). Infants received patent ductus arteriosus ligation or had retinopathy of prematurity requiring therapy were associated with developing sepsis thereafter. There was no significant difference in GA, BBW, gender, Apgar scores, intraventricular hemorrhage, bronchopulmonary dysplasia and mortality between sepsis and non-sepsis groups. The mortality rate was 42.9%, and sepsis related mortality accounted for 14.5% of mortality in the current study.

Conclusions One third of infants with BBW≤750 g had sepsis. Based on the finding of identified pathogens, nosocomial infection was still the major cause for sepsis.

1175 PATHOGENS WHICH CAUSING NEONATAL INFECTION IN MECONIUM STAINED AMNIOTIC FLUIDS

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Background Few studies considered that amniotic fluid is sterile but some others mentioned that contains pathogens. Even though not all meconium stained amniotic fluids MSAF develop into