base excess before the onset of clinical signs and symptoms of sepsis indicate infection in the early diagnosis of neonatal sepsis.
Methods A total of 118 infants were enrolled. The infants were classified into two groups: group 1 (sepsis, n = 49) and group 2 (control, n = 69). Blood gas analysis investigated for screening of neonatal sepsis.
Results A total of 49 infants with neonatal sepsis and 69 healthy controls were enrolled. A comparison of markers of sepsis revealed C-reactive protein, interleukin-6 level to be significantly higher and pH, pCO_2, HCO_3 and base excess values to be significantly lower in newborns with sepsis compared healthy controls ($p < 0.01$). The optimum cut-off value in the diagnosis of neonatal sepsis was found to be -5 mmol/L for base excess. Sensitivity, specificity, positive predictive value and negative predictive value of this base excess cut-off for neonatal sepsis were 75, 91, 86 and 84% respectively.
Conclusions This is the first study to determine the relationship between the decrease value of base excess and early stage of neonatal sepsis. If the value of base excess <-5 mmol/L without an underlying another reason, may need close follow up of infants for neonatal sepsis and it may help early diagnosis.

PO-0520 NEONATAL MENINGITIS DUE TO MORAXELLA OSLOENSIS; CASE REPORT AND REVIEW OF THE LITERATURE

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Introduction Neonatal meningitis causes substantial morbidity and mortality and is commonly caused by GBS. Moraxella osloensis is an aerobic, gram-negative coccobacillus infrequently isolated from CSF. There is little published related to risk factors of M. osloensis infections in the paediatric population. We report a case of Moraxella meningitis a neonate and review of cases in children.
Case report A 2 day old neonate was referred for jaundice and bilirubin check. He was noted to be jaundiced and lethargic. He was born at term complicated with maternal pyrexia and raised maternal inflammatory markers. He was discharged on day1 following 12 h of satisfactory observation.

A full septic screen was performed on the baby in-view of risk factor for sepsis. The biochemical work-up was suggestive of meningitis. The blood and CSF culture were negative; however the CSF PCR was positive for Moraxella Oslonesis.

Abstract PO-0520 Table 1 Laboratory Investigations:

Investigations:	*Day1 of admission*	*Day3 of admission*	*Day10 of admission*
CRP	10	6	<1
Bilirubin	192	176	22
Blood Neutrophils	5.4	4.6	3.7
Platelets	129	206	454
CSF glucose	1.5		
	Lymphocytes - 10%		
	Polymorphs-90%		
	Red blood cells -40,320/cu.mm		
CSF Microscopy	White blood cells -133/cu.mm		
Blood culture	No growth		
CSF culture	No growth		
CSF PCR	Moraxella. oslonesis		

He was treated with 3 week course of IV cefotaxime and discharged without any acute complications.
Discussion A PubMed search yielded 4 published cases of *M. osloensis* meningitis but none of them presented in the neonatal period. There was 1 published case of neonatal septicemia without meningitis, however there was no specific risk factor identified in any of these patients.

In conclusion, although *M. osloensis* meningitis is rare it may cause severe CNS infection in children we were able to definitely identify the species of the isolates only by using 16S rRNA gene sequencing and extended PCR must be performed on all babies presenting with possible meningitis.

PO-0521 AUDIT OF MANAGEMENT OF NEONATES PRESENTING WITH SUSPECTED SEPSIS AND/OR MENINGITIS

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Introduction Sepsis is a significant cause of mortality and morbidity in neonates. Diagnosis can be challenging as clinical features are nonspecific and the diagnostic tests have poor predictive accuracy.
Objectives To identify incidence of sepsis, risk factors and clinical presentation, sensitivity pattern of organisms, management and compare with local guidelines.
Project methodology Retrospective case notes analysis of babies up to 28 days age and presenting with features of sepsis during August 2011 to July 2013. Data collected on risk factors, clinical presentation, management and outcome.
Results 23 out of 88 babies had blood, urine or CSF positives for viral or bacterial organisms of which 11 were true positives. Significant number of babies presented with nonspecific symptoms. Risk factors for neonatal sepsis were not always documented. A significant number did not have urine or CSF cultures prior to starting antibiotics (urine 54% and CSF 77%). The total number of contaminants was 12/23 of which Coagulase negative staph was predominant.

Of the 12 true positives 3 had bacteraemia (1 died),1 had positive Group B streptococcus both in blood and CSF (died), 5 had urinary tract infection and 2 had CSF viral PCR positive (1 died).

Of the 9 various antibiotic combination used the most commonly used combination was Cefotaxime/Amoxicillin/Gentamicin (73%).
Conclusion The audit identified following areas for improvement:

· documentation of perinatal events,

· performing vital investigations like CSF and urine culture before starting antibiotics and ensuring strict aseptic technique in blood and CSF culture.

PO-0522 GENERALISED BULLOUS IMPETIGO IN A NEONATE DUE TO METHICILLIN-RESISTANT STAPHYLOCOCCUS

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Objective To describe a case of generalised bullous impetigo caused by *methicillin-resistant Staphylococcus aureus (MRSA)* in new born.

Observation A masculin infant was born at full term pregnancy to a healthy mother by cesarian section because of rupture of membranes and acute fetal distress. He was normal within 48 h of life and C reactive protein (CRP) was negative, so he was discharged from the hospital. He presented at the age of 3 days erythematous pultaceous lesions of the face without fever. He was hospitalised at the age of 5 days. On examination, we noted on his face, neck and back multiple shallow erosions and flaccid pus-filled bullae, varying in size.

Investigations including complete hemogram, renal function tests and CRP had results within normal limits. A smear from a pustular lesion and blood culture were done. The infant was started on intravenous oxacillin (100 mg/kg/day) and gentamicin (5 mg/kg/day). The culture of the two samples was positive for *MRSA* which was resistant to kanamycin and fusidic acid. Antibiotic therapy was modified by vancomycin and pristinamycin for total treatment duration of 14 days. The outcome was favourable with rapid regression of skin lesion. Search by PCR of the mecA gene and the gene encoding Panton-Valentine Leukocidine was positive for the 2 strains of *MRSA* isolated from blood culture and pustule.

Conclusion Community-acquired, methicillin-resistant *Staphylococcus aureus* infections are increasing among children. Early diagnosis and appropriate antimicrobial therapy improve outcomes.

PO-0523 TOXICITY AND VIRAL LOAD IN URINE DURING VALGANCICLOVIR THERAPY IN PREMATURE INFANTS

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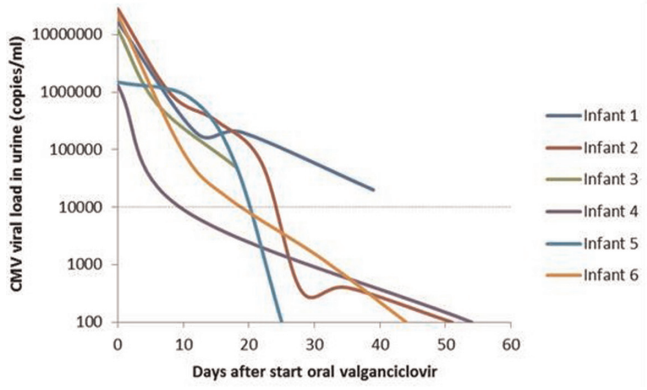
Background and aims Antiviral therapy with Valganciclovir, a relatively new but potentialtoxic oral drug, is recommended to prevent further hearing deterioration in infants with (congenital) CMV infection. Viral load monitoring can possibly beused as indicator for effective treatment.

Methods A retrospective cohort study (2005–2010) in a third level neonatal intensive care unit. Neonates ≤32 weeks of gestational age (GA) with CMV infection treated with oral Valganciclovir (30 mg/kg/day) were included. Time interval (days) to reach CMV viral load below detection level (<250 copies/ml) and assumed therapeutic level (<10.000 copies/ml) were determined. Toxicity was measured by plasma trough levels (target 0.2–1 mg/L), thrombocytopenia (< 100×10^9/L) and leukopenia (< 5×10^9/L).



Abstract PO-0523 Figure 1 CMV viral load during treatment with Valganciclovir

Results

Data of 6 infants, median gestational age 25^{+2} (range 25^{+1}–28^{+4}) weeks, 2 with congenital and 4 with postnatal infection, were analysed. Time interval between start of therapy and viral load below detection level was 25–54 days and below therapeutic level 10–31 days. 28/37 plasma samples were in the normal range, 3/37 above and 6/37 under the target concentration. Mild transient leukopenia (4.5×10^9/L) occurred in 1 infant. No thrombocytopenia occurred.

Conclusions A dosage of 30 mg/kg/day Valganciclovir in premature infants with CMV infection provided a fairly rapid decrease of CMV viral load in urine, without causing serious short term toxicity.

PO-0524 NEONATAL SYSTEMIC CANDIDIASIS: A 12-YEAR STUDY

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Background Invasive Candida species have become a common cause of late-onset sepsis in neonatal intensive care units. Significant risk factors include low birth weight, exposure to broad spectrum antibiotics, parenteral nutrition, lipid emulsion, central venous catheter and abdominal surgery.

Material and method We performed a retrospective study over a period of 12 years (Jan 2002 to Jan 2014) in our hospital NICU. The aims of this study were to investigate the incidence of the systemic candidiasis, mortality rate, the implicated Candida strains, specific risk factors and antifungal treatment.

Results All of our cases were outpatients. The average incidence of systemic candidiasis was 5.8% (111 cases) with a specific average mortality of 28%. In 96 cases (86.5%) not albicans Candida species were identified. 83 patients (74.7%) underwent abdominal surgery interventions; from these 42 had malformations of digestive tract and 16 presented abdominal wall defects. 12 operated patients remained with temporary ileostomies, 5 had colostomies and 4 cases associated short bowel syndrome. Also 23 (20.7%) were premature with birth weight under 1500 g; 25 cases presented also a bacterial sepsis. The antifungal therapy consisted of Fluconazol iv during the period 2002–2006; starting 2007 we used mainly Caspofungin iv. Also, starting 2011 all the patients with risk factors received oral prophylaxis with Nistatin.

Conclusions Neonatal sepsis with Candida species still has a high rate of mortality and morbidity mainly linked of specific risk factors and other severe illnesses. Thereof more randomised trials regarding both oral and iv prophylaxis are needed.

PO-0525 RETROSPECTIVE EVALUATION OF LINEZOLID AND VANCOMYCIN THERAPY IN INTENSIVE CARE NEONATES WITH STAPHYLOCOCCAL LATE-ONSET SEPSIS

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