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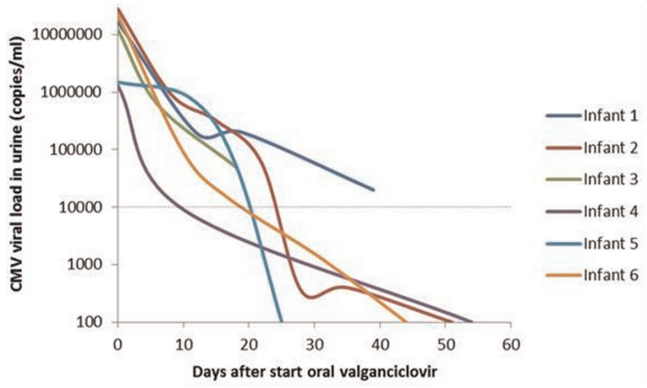
Background and aims Antiviral therapy with Valganciclovir, a relatively new but potentialtoxic oral drug, is recommended to prevent further hearing deterioration in infants with (congenital) CMV infection. Viral load monitoring can possibly beused as indicator for effective treatment.

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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Background Neonatal late-onset sepsis (LOS) is mainly caused by coagulase-negative staphylococci (CoNS). Most LOS-associated CoNS are resistant to methicillin, leading to a frequent use of vancomycin. We recently reported the dissemination of a *Staphylococcus capitis* clone with reduced vancomycin susceptibility in NICUs worldwide, raising the need to evaluate alternative anti-staphylococcal therapies such as linezolid.
Aims To compare outcomes of linezolid- and vancomycin-treated *S. capitis* LOS patients.
Methods Neonates who had *S. capitis* LOS from 2011 till 2013 in 3 French NICUs were included. Data regarding birth, antibiotic regimen and outcome were collected. Comparisons were made between patients treated with vancomycin only (n = 66) and patients treated with linezolid, preceded or not by vancomycin (n = 29), using either Student *t*-test or Fisher's exact test.
Results No significant difference regarding pre-treatment status were found between the groups. Linezolid-treated patients had significantly longer hospital stays and bacteremia and longer inflammatory syndrome. Frequencies of death, major morbidities (bronchopulmonary dysplasia, persistent ductus arteriosus and necrotising enterocolitis) and severe adverse events (haematological toxicity, neuropathy and renal failure) did not differ significantly between groups.
Discussion These findings suggest that linezolid safety and efficacy regarding death and morbidity in *S. capitis*-infected neonates are comparable to that of vancomycin. Longer bacteremia durations observed in linezolid-treated patients might be due to the fact that linezolid prescription was driven by a poorer estimated prognosis (vancomycin-resistant strain, prolonged bacteremia). Overall, we propose that linezolid could emerge as a credible alternative to vancomycin in the current context of vancomycin-resistant strain dissemination in the NICU.

PO-0526 NEONATAL ENTEROVIRUS INFECTION AS A CAUSE OF CARDIOGENIC SHOCK

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Neonatal enterovirus infection can show a septic disease with different organ manifestation and acute heart failure.

2 neonates admitted at the age of 10 and 18 days in cardiogenic shock with respiratory failure, massive lactic acidosis, significantly elevated proBNP and troponin values. Exclusion of congenital heart lesions. No detection of a bacterial infection. No sign of a congenital metabolic disorder. Radiologically significant cardiomegaly and pulmonary oedema. Echocardiography pronounced left ventricular dysfunction and suprasystemic pressures in right ventricle. In one patient, invasive exclusion of coronary pathology. Intensive care treatment with catecholamines and phosphodiesterase inhibitors and mechanical ventilation. Detection of human Coxsackie Virus type B3 in the blood, stool and tracheal secretions of both children. Stabilisation of both children after therapy but in echocardiography persistent left ventricular dysfunction.

Neonatal infection with enteroviruses may present as a decompensated congenital heart defect or neonatal bacterial sepsis clinically. After exclusion of these causes an enterovirus infection is to take into consideration. The prognosis is depending on recovery of cardiac function and other organ functions. In extreme cases, ECMO therapy has to be considered. The duration of the cardiac therapy (beta- blockers, diuretics, ACE inhibitors, etc.) is unclear.

PO-0527 IMPACT OF LOCAL VERSUS NICE GUIDELINES ON MANAGEMENT OF NEONATAL EARLY ONSET SEPSIS (EOS)

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Background and aims EOS is a major cause of neonatal morbidity and mortality that can progress rapidly with minimal clinical and laboratory signs. Early identification of at risk newborns and prompt antibiotic treatment is therefore crucial. In 2012, National Institute for Health and Care Excellence (NICE) guidelines for EOS were published. Our local guideline includes fetal distress (abnormal cardiotocography) and meconium stained liquor as risk factors. We compare the outcomes with NICE and local guidelines.
Methods Retrospective analysis of infants ≥35 weeks gestation admitted to a level-3 NICU over 4 months with suspected sepsis classified to have presumed (PS) or confirmed sepsis (CS).
Results Of 81 cases identified, 44(54.3%) had PS and 37 (45.7%) CS. 23(28.4%) babies in poor condition at birth received antibiotics on clinical grounds. Of remaining 58 cases, 36(62.1%) had PS and 22(37.9%) CS. Using local guideline in PS, 9(25%) required antibiotics, 13(36.1%) observed and 14 (38.9%) were low risk. With NICE guideline, 5(13.9%) received antibiotics, 8(22.2%) observed and 23(63.9%) low risk. Using local guideline in CS, 10(45.5%) required antibiotics, 4(18.2%) observed and 8(36.3%) low risk but with NICE guideline, 3 (13.6%) received antibiotics, 8(36.3%) observed and 11(50%) low risk did not require antibiotics or observations. Meconium was more common in CS (12/37; 32.4%) versus PS (6/44; 13.6%). Abnormal cardiotocography was noted in 40.5% CS cases versus 25% in PS.
Conclusions Local guidelines with fetal distress as a risk factor may enable earlier identification of EOS risk. Larger study may enable better evaluation of our antibiotic therapy and resource implications.

PO-0528 ESTIMATION OF LATE NEONATAL CONS BACTERAEMIA RATES USING THREE ALTERNATIVE DIAGNOSTIC DEFINITIONS

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10.1136/archdischild-2014-307384.1172

Background Infections caused by coagulase negative staphylococci (CoNS) form a large proportion of neonatal late-onset sepsis (LOS) episodes, contributing to mortality, healthcare costs and morbidity. CoNS is a commensal organism and true

Abstract PO-0528 Table 1

	NNAP/VON	VON/"Clinical"	NNAP/"Clinical"
Agreed (%)	30 (62.5%)	38 (79.2%)	30 (62.5%)
kappa	κ=0.169	κ=0.450	κ=0.194
(p value)	(p = 0.186)	(p= <0.05)	(p = 0.163)