Result 97 questionnaires were sent. Response rate was 50%. 54% were from general Paediatric consultants, 30% from Neonatologist, 4% from Neurologist and 12% were unmentioned.

56% will do lumbar puncture (LP) in well looking child with CRP >20. 35% will make decision of LP with clinical assessment of the neonates alone. In case of Clinical condition and elevated CRP, 33% will always do LP as compared to 50% who sometimes do LP and look for other blood markers. In case of positive blood culture and $\pm$ positive blood PCR 56% will do the LP in stable neonates. According to survey 75% of the LP decisions were made by clinicians without considering any international guidelines.

Conclusion The decision to perform a lumbar puncture in neonate with suspected EONM remains unclear. In the high risk & healthy appearing babies, the data suggest that likelihood of meningitis is extremely low. Most clinicians employ CRP as a complementary indicator to clinical decision rather than sole determinant of lumbar puncture in otherwise well babies. However many clinicians do use it sometimes to gear the decision. Absolute solution can only be yielded after outcome of lumbar puncture justifies the role of CRP. Guidelines through national consensus & neonatal clinical advisory group are recommended.

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GP261 NEONATAL BLOOD CULTURES: IS 36 THE 'MAGIC' NUMBER?

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Aims Early-onset neonatal bacterial infection is a significant cause of mortality and morbidity in neonates (1). Many septic work-ups are done on babies where there is a suspicion for sepsis or known risk factors for sepsis. These babies receive empirical antibiotic therapy for 48 hours in some centres.

Our aim was to determine if it is safe to stop antibiotics at 36 hours if blood cultures are negative.

Methods This was a 10 year retrospective review of positive neonatal blood culture in Our Lady of Lourdes Hospital Drogheda (OLOL) from 01/01/2007–31/08/2017. We identified the time blood cultures became positive and determined how many blood cultures that were negative at 36 hours that later became positive.

Results During the time period between 01/01/2007–31/08/2017, 206 blood cultures were positive. Twenty-eight out of 206 (14%) became positive after 36 hours.

The number of positive blood cultures in the Neonatal Intensive Care Unit has changed dramatically over time. There were 37 positive blood cultures in 2007 as compared to 11 positive blood cultures in 2015 and 2016. This is a 70% reduction in positive cultures in the unit. It is likely due to improved aseptic technique in the unit.

Conclusion Over a ten year period, we showed that 86% of blood cultures were positive within 36 hours. This has improved further to 95% positive at 36 hours over the past 4

years. These results show that discontinuing antibiotics at 36 hours is safe if the blood culture is negative and the baby is well.

There is a potentially huge financial saving if we can stop antibiotics at 36 hours and discharge the mother and baby. For OLOL this saving was estimated at approximately € 343,400/year based on an extra night's stay. This is equivalent to approximately 12 additional nursing/midwifery staff per year in OLOL.

GP262 SUBCUTANEOUS FAT NECROSIS OF THE NEWBORN: A CASE REPORT AND LITERATURE REVIEW

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Introduction Subcutaneous fat necrosis of the newborn (SFNN) is an uncommon but important complication of perinatal care. While most cases resolve spontaneously, complications can include hypercalcaemia (up to 70%), thrombocytopaenia and hypertriglyceridaemia.

We report a case of SFNN and a literature review of published cases.

Case A term infant was treated with therapeutic hypothermia for grade 2–3 hypoxic ischaemic encephalopathy.

On day 20 she was noted to have large plaques consistent with SFNN. At 4 weeks she developed hypercalcaemia requiring admission for intravenous fluids and furosemide. Her calcium normalised after 48 hours, and she commenced a low calcium diet. Parathyroid hormone and vitamin D were suppressed. She remains on low calcium formula at 7 months of age.

Literature review

Methods Pubmed was searched for English language articles using the keywords 'fat necrosis' AND 'neonate or newborn'. 214 articles were screened, of these, 102 articles were included for review.

Results Of 102 articles reviewed, 93% were case reports/case series, 4% were cohort studies and 3% were review articles.

Comprehensive information was available for 119 individual case reports of SFNN. There was no gender predilection. Perinatal asphyxia or stress was reported in 78% (93/119). Delivery information was provided in 116/119 cases. Of these, 44% (51/116) were delivered by emergency caesarean section, and 11% (13/116) had an instrumental delivery. 21% (25/119) had hypoglycaemia. 20% (24/119) underwent therapeutic hypothermia. Median onset of skin lesions was day of life 6 (range: 1–70). Median duration of skin lesions was 62 days (range: 14–390).

Hypercalcaemia developed in 53% (60/113). Median day of onset of hypercalcaemia was day 28 (range: 1–210). Median duration of hypercalcaemia was 26 days (range: 4–240). 52% (31/60) of hypercalcaemia was asymptomatic. Of those with hypercalcaemia, nephrocalcinosis was reported in 27% (16/60), subcutaneous calcification in 7% (4/60), and visceral calcinosis in 5% (3/60). Hypertriglyceridaemia was reported in 7% (8/119). Thrombocytopaenia was reported in 18% (21/119).

Information regarding treatment was provided in 109/119 cases. 47% (51/109) were managed conservatively. Hyperhydration was required in 30% (33/109), dietary restriction of

vitamin D/calcium in 27% (29/109), furosemide in 26% (28/109), glucocorticoids in 22% (24/109), bisphosphonates in 7.6% (9/119), and calcitonin in 3.7% (4/109).

Outcome information was provided in 106/119 cases. 87% (92/106) reported a full resolution. Persistent calcinosis was present in 5.7% (6/106).

Conclusion Babies treated with therapeutic hypothermia should be closely monitored for SFNN, and development of hypercalcaemia.

GP263 OCCURRENCE OF CLINICAL FEATURES AND RISK FACTORS IN CULTURE POSITIVE EARLY ONSET SEPSIS COMPARED TO NO SEPSIS IN NEONATES ≥ 35 WEEKS GESTATION

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Background Despite advances in prevention strategies the diagnosis of neonatal sepsis and clinical decision making remains challenging. Empirical antibiotic treatment is given to neonates when sepsis is suspected. However, clinical and laboratory signs are generally unspecific and most neonates who receive antibiotics are not ultimately diagnosed with sepsis. Many physicians view empirical antibiotics as the safest course of action in cases of equivocal clinical presentation. The long term effects of early gut flora modification are poorly understood but some scientists suggested this may alter activation of genes involved in modulating immune responses. This study aims to provide some insight into the level of risk associated with typical indications for neonatal septic workup at our institution.

Methods We conducted a retrospective case-control study. Infants born at ≥ 35 weeks gestation who received empirical antibiotics over a three months period were included along with all infants who were recorded to have culture positive sepsis in a ten year period. Three outcome groups were defined: (1) Culture positive sepsis (N=43) (2) Suspected culture negative sepsis (N=5) and (3) No sepsis (N=97). Rates of clinical symptoms and exposure to maternal and neonatal risk factors were compared. P-values were calculated using a test for equality of proportions implemented in the R programming language.

Results There was a statistically significant increase in red flag clinical features (mechanical ventilation, seizures, respiratory distress starting more than 4 hours after delivery and signs of shock) in the culture positive sepsis group compared to the no sepsis group ($p < 0.01$). There was no statistically significant difference in the occurrence of exposure to suspected chorioamnionitis, PROM or late prematurity.

Conclusion Respiratory distress and suspected chorioamnionitis were the most common indications for a sepsis workup but neither was significantly more common in the culture positive sepsis group. Observation and repeated evaluation may be suitable for infants with equivocal presentation. Critically ill infants with red flag clinical features and infants with a greater number of clinical symptoms should have a blood culture taken and IV antibiotics commenced without delay.

GP264 PROTEIN DOTATION NECESSITY IN LATE PRETERM INFANTS WITH IUGR: NEED TO REVISE GUIDELINES

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Due to frequent perinatal pathologies, including ones that are connected with enteral nutrition intolerance, premature infants often have growth retardation that may lead to negative effects of accelerated growth and therefore to metabolic disorders in adult life.

Aim to assess dynamics of anthropometric measurements and body composition in late preterm infants (gestational age (GA) ≥ 34 weeks) with and without intrauterine growth restriction (IUGR) at the first year of life.

Materials and methods food ration, length and body weight figures, and body composition of preterm infants with GA ≥ 34 weeks born with and without IUGR were studied from the moment of birth till the terms corrected age, at 3rd, 6th, and 12th months corrected age. 60 preterm infants without IUGR and 42 preterm infants with IUGR were included in the study. Perinatal period characteristics in both groups of premature infants had no significant differences. Statistically significant differences based on GA were not found. Birth weight was lower in the premature infants with IUGR. Infants who was born with weight ≥ 1800 g received unenriched human milk or nutrient-enriched formula. Body composition was estimated by the air plethysmography method with the use of apparatus by PEA POD, Cosmed, Italy.

Results The premature infants with IUGR and GA ≥ 34 weeks at the term corrected age had delay of growth development rates compared to the premature infants without IUGR, we associate that with the fact 87% of the infants received unenriched human milk. At the 3rd month corrected age these infants had a 'catch-up growth' accompanied by the increase of fat mass in the body composition. At the 12th month corrected age late preterm infants with IUGR caught up with the growth rate of preterm infants without IUGR that led to disappear of studied parameters significant differences between both groups.

Conclusion Therefore, nutrition approaches for preterm infants without IUGR are not appropriate for late preterm infants with IUGR and body weight at birth ≥ 1800 g. These infants need increased protein dotation during the neonatal period in order to provide adequate postnatal growth and minimise postponed metabolic disorders risks.

GP265 WHERE IS THE TIP? AN AUDIT ON PICC LINE INSERTION IN A TERTIARY LEVEL NEONATAL UNIT

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Objectives To determine whether the Peripherally Inserted Central Catheter (PICC) line tips are at appropriate positions when inserted and used in neonates

To determine the common complications associated with PICC lines.