Method A retrospective review of all the neonates who had PICC lines inserted from Jan2016- Jun2018 was collected from online patient data base and case notes. The online Picture Archiving and Communication System (PACS) was utilized to review all the X-rays done post procedure.

Variables including gestational age, birth weight, site of line insertion, line tip position on X-ray and its documentation in notes and formal radiology reports, any deliberate readjustment or change in line position in subsequent X-rays, duration of use, associated complications and reasons of removal were reviewed. Detailed review of the babies who suffered complications secondary to PICC line insertion was also done.

Results Total 62 PICC lines inserted in 43 babies were reviewed. The median gestational age was 27 weeks while the birth weight was 920 g. Right arm was the most common site of insertion (n=19, 31%). The median age at line insertion was 8d with 43% (n=27) lines passed during the first week of life. Median duration of use of these lines was 5d. Only about 26% (n=17) were optimally placed in the midline veins. Subclavian vein was the most common suboptimal position for the upper limb lines (61%, n=22) while for the lower limb was near the hip joint (n=7, 23%) or the left side of spine with potential risk of involvement of ascending lumbar vein (n=5, 22%). About 29% (n=18) of the lines were readjusted, amongst which the line tip within the cardiac silhouette being the most common cause. None of the lines with tips potentially in the ascending lumbar vein were readjusted or further investigated. The most common complication leading to early removal was line occlusion (n=8, 13%).

Discussion Malposition of the PICC tips is common and may result in significant morbidity if not recognized. Recognition of malposition, other than intracardiac, is low, and additional education is required. Additional imaging is required where tip position is unclear.

GP266 A RETROSPECTIVE AUDIT OF THE INCIDENCE OF HYPOGLYCAEMIA IN AT RISK NEONATES AND COMPLIANCE WITH LOCAL GUIDELINES

Susan Keogh*, David Corcoran. *Rotunda Hospital, Dublin, Ireland*

10.1136/archdischild-2019-epa.325

Introduction Neonatal hypoglycaemia is a common neonatal problem and there is active debate surrounding screening, associated factors and long term consequences. There is controversy surrounding the outcome of transient neonatal hypoglycaemia but Kaiser et al reported decreased proficiency in literacy and mathematics tests in these infants at follow-up, even when adjusted for gestational age. In 2011, the American Academy of Paediatrics revised the neonatal hypoglycaemia guideline, this outlined the infants at risk for hypoglycaemia i.e. large for gestational age, small for gestational age, IUGR, late preterm and maternal gestational diabetes. We have adopted a similar national and local guideline for screening and management of neonatal hypoglycaemia in Ireland.

Methods We evaluated the presence of hypoglycaemia <3 mmol/l in our neonatal population over a three month period. We did this using the results from the point of care blood glucose machine. We then performed a retrospective review using the NM-CMS system to view patient records for the neonate and their mother. We were able to determine whether

there were any neonatal or maternal factors that caused increased risk of hypoglycaemia.

Results We were able to retrieve data on 86 episodes of hypoglycaemia in this time period. Which occurred in 55 neonates.

Compliance with guideline Only 6 (10.9%) had a serum glucose sent to the lab, 49 (89%) had three pre feed glucose measurements taken prior to discharge. 23 (41.8%) were appropriately managed with glucogel.

Risk factors We identified 8 (14.5%) of infants that were late preterm, 9 (17.6%) infants were small for gestational age, 6 (10.9%) large for gestational age, 25(45%) maternal diabetes, 18 (32%) increased maternal BMI, 7 (12.7%) maternal beta blocker use.

43 (78%) of the infants identified were exclusively breast-feeding, 8 (14.5%) were exclusively formula feeding, and the remaining 4 (7.2%) were combination feeding. 40 (72.7%) mothers were over 35 years with 34.5% over 40 years.

Conclusion This audit confirms that hypoglycaemia is prevalent in our population, however it was not possible to identify all the hypoglycaemia episodes due to inaccurate recording on the care blood glucose machine so we have likely under estimated the true prevalence. Two of the most significant risk factors we have identified are advanced maternal age and exclusive breast-feeding. This may indicate a high-risk cohort which should be included in the early blood glucose monitoring and early feeding support to prevent negative sequelae.

GP267 PREVENTION OF GROUP B STREPTOCOCCUS INFECTION- RESULTS FROM A SCREENING PROGRAM

Catarina Ferraz Liz*, Sara Soares, Abílio Oliveira.

10.1136/archdischild-2019-epa.326

Centro Hospitalar Tâmega e Sousa, Penafiel, Portugal

Introduction Group B *Streptococcus* (GBS) remains one of the leading causes of early and late onset sepsis in neonate. This bacteria is present in the gastrointestinal and urinary tract of pregnant woman which could lead to vertical transmission to the newborn.

Following the first statements of the American College of Obstetricians and Gynecologists and the American Academy of Pediatrics, the Center of Disease Control and Prevention (CDC) released the first guidelines in 1996 which were reviewed in 2002 and 2010.

In the last revision, CDC recommends universal screening of pregnant women between 35–37 weeks of gestation and intrapartum antibiotic prophylaxis for those with a positive screening. This recommendation led to a decrease in GBS early onset sepsis worldwide.

In Portugal, screening is a universal practice, performed in the last prenatal consultation.

The goal of this study was to verify the main outcomes of the GBS screening program in a Portuguese maternity.

Methods A retrospective study, including all newborns > 36 weeks of gestation born between November 2015 and May 2016 in a Portuguese maternity was conducted. Data were collected from clinical records.

Results GBS screening was performed in 1090 mothers (96,9%), with a positive rate of 22,7% (n=247).

In 74 cases there was no/inadequate intrapartum prophylaxis (28,6%)

The final sample included 1125 newborns. The newborns were separated by groups based on the CDC recommendations. In 21 cases with a negative GBS screening (n=814), the approach differed from the recommended and 10 cases needed admission in a Neonatal Intensive Care Unit (NICU).

In the group where GBS screening was not performed/unknown, the recommended approach was performed in 41.9% and 3 cases needed admission in a NICU (1 for respiratory distress syndrome, 1 due to risk for infection and 1 for fetal growth restriction). When GBS screening was positive with a correct intrapartum prophylaxis, 96% followed the recommendations. In the suspicion of chorioamnionitis all newborns were screened accordingly to the recommendations.

No cases of GBS early onset sepsis were found during the studied period.

Conclusion The rate of mothers tested for GBS colonization (96.9%) was high, compared to similar studies, which could justify the absence of GBS related sepsis.

The group which led to a greater disagreement between the recommendation and the approach was the one with no/unknown screening test. Results from this screening program should be analyzed frequently to verify its efficiency and the main difficulties in the approach.

GP268

IMPACT OF THE USE OF ORAL DEXTROSE GEL FOR NEONATAL HYPOGLYCAEMIA AND ADMISSION RATES TO NEONATAL UNITS: A SYSTEMATIC REVIEW AND META-ANALYSIS

¹Grainne Egan*, ¹Claire Thompson, ²Declan Patton, ^{1,3}Roy K Philip. ¹University Maternity Hospital Limerick (UMHL), Limerick, Ireland; ²Royal College of Surgeons in Ireland (RCSI), Dublin, Ireland; ³Graduate Entry Medical School (GEMS), University of Limerick, Limerick, Ireland

10.1136/archdischild-2019-epa.327

Background Neonatal hypoglycaemia (NH) is a leading cause of admission to neonatal units. It affects 15% of newborn infants and 50% have risk factors. Dextrose gel (40%), often described as oral gel, can be administered to buccal mucosa and lingual surfaces of infant's mouth resulting in a rapid absorption into the circulation. Rawat *et al.* (2016) recommended that treatment with dextrose gel is noninvasive, inexpensive and easy to administer.

Objective To ascertain the impact of 40% dextrose oral gel on documented neonatal hypoglycaemia in the postnatal wards to prevent neonatal admission rates.

Method A systematic review (SR) of quantitative studies in medical databases including; Medline, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Embase and SCOPUS were searched in February 2018. Grey literature was searched for full-text conference papers in Irish Health Repository (LENUS) and the National Institute for Health and Care Excellence (NICE) inclusions. Using combinations of the relevant key words incorporating the PICO model ('dextrose gel', 'glucose gel', 'neonate', 'newborn', 'hypoglycaemia' and 'admission'), review was performed and English language limitation was applied. Quantitative studies that did not measure neonatal admission rates were excluded. Search results were reported following the PRISMA guidelines. Data from eligible studies were synthesized for a meta-analysis. A dichotomous analysis was

performed through Review Manager 5 software (RevMan® 5.3) to give a forest plot and funnel plot on the primary outcome as admission rates to a neonatal unit.

Results The search yielded 130 papers, including 128 from database search and two from grey literature. 21 duplicates were removed leaving 109 papers for screening and of these 19 full text articles were eligible for initial review. Five studies were identified fulfilling the predetermined criteria and included for analysis. Two randomised control trials (RCT's) were analysed and the meta-analysis shows that the use of 40% dextrose gel for neonatal hypoglycaemia decreases admission rates for at risk infants. Three quantitative studies of other designs also reported a decrease in admission rates for hypoglycaemia. Increased rate of exclusive breastfeeding was also consistently linked to the use of oral application of dextrose gel across the five studies.

Conclusion Dextrose gel (40%) as an oral mucosal application can be safely and effectively used as a method of treating neonatal hypoglycaemia in at risk infants in the postnatal wards, thus reducing admission to the neonatal unit. Secondary benefits of reduced mother-infant separation and improved breastfeeding also were noted.

GP269

ARE READMISSIONS FROM HOME POTENTIALLY PREVENTABLE?

Anandi Nayana Singh, Shree Vishna Rasiah*. Birmingham Women's and Children's NHS Foundation Trust, Birmingham, UK

10.1136/archdischild-2019-epa.328

Background There is a national strategy ATAIN aimed at reducing term admissions to the neonatal unit. Whilst this is aimed at looking at potentially preventable term admissions to the neonatal unit, it does not address the issue of re-admission following discharge from the postnatal ward or neonatal unit. Given the limited midwifery resources in the community, we believe some of the re-admissions are potentially preventable if there were adequate resources to support the mother and baby at home.

Aims To review the reasons for readmissions from home and identify potentially avoidable causes.

Methods We retrospectively reviewed the BadgerNet neonatal electronic patient record to identify readmissions over the last financial year between 01/04/2017 and 31/03/2018. A standard excel proforma was used to collect and analyse the data. The reason for admission, interventions carried out and outcome was reviewed including the length of stay.

Results In the last financial year there were 142 babies resulting in 143 readmissions to the postnatal or transitional care ward. Of these 120 babies were re-admitted for jaundice as a primary cause of admission. Of these jaundiced babies, 31 also had associated weight loss noted on admission. One baby had two episodes of re-admission for jaundice. Five of these babies had an infection screen, which were negative and antibiotics were discontinued by 48hrs. The median length of stay was 4 days and the range was between 3 and 11 days. Only one had admission to the neonatal unit with bronchiolitis. The total length of stay for the 120 babies was 446 days.

Another 22 babies were readmitted because of weight loss. The median length of stay was 3 days and the range was between 1-4 days. The total length of stay for the 22 babies