**Abstracts**

**GP259**  **FRESH OR FROZEN: WHAT IS THE DIFFERENCE?**

1Saira Tabassum*, 2Emma Conlon, 3Pamela O’Connor, 4Anne O’Sullivan, 5Daniel McCarrney, 6Martin White, 7Fiona Dunley, 8Anne Doolan. 9Coombe Women and Infants University Hospital, Dublin, Ireland, 10Royal College of Surgeons, Ireland, Dublin, Ireland, 11Dublin Institute of Technology, Dublin, Ireland, 12University College Dublin, Dublin, Ireland

Background Maternal expressed breast milk is the feed of choice for the preterm infant who is unable to latch to feed. Most mothers express and store milk in the fridge or freezer for later use. Irish Breast feeding guidelines recommends storage of fridge freezer for 3 months and deep freezer for 6 months.1 Some reports suggest no change in macronutrient content after freezing up to 3 months while others report a decrease in fat and caloric content of breast milk.2

Aim To compare the difference in macronutrient content between frozen and fresh breast milk samples.

Methods A total of 20 pooled expressed breast milk samples were collected from 15 mothers, expressing for their preterm infants with mean gestation at birth = 28.3 weeks. Mean infants birth weight was 1143 (±364) grams. As per local hospital policy samples were frozen at -25°C within 24 hours of expression. Breast milk samples were analysed by human milk analyser (MIRIS®) after ultrasonic homogenization after thawing in room-air and warming to 40°C.

Results Median time of freezing was 33 (7–70) days. Macronutrient composition varied (as shown in table 2), with fat and caloric content most effected. Some loss of protein content was observed.

**Discussion** Our study shows a decrease in fat and energy content of maternal expressed breast milk when frozen. This should be taken into consideration when using frozen breast milk for preterm infants and fresh breast milk used where feasible.

REFERENCES

**Abstract GP259 Table 1  Maternal and infants demographic details**

<table>
<thead>
<tr>
<th>Participant mothers of infants</th>
<th>n=15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age(SD) years</td>
<td>36.2 (4.7)</td>
</tr>
<tr>
<td>mean infants gestation at birth (SD) weeks</td>
<td>28.3 (2.65)</td>
</tr>
<tr>
<td>mean birth weight of infant (SD) grams</td>
<td>1143(364)</td>
</tr>
</tbody>
</table>

**Abstract GP259 Table 2  Macronutrients and caloric contents/100mls of expressed breast milk**

<table>
<thead>
<tr>
<th>Median (range)</th>
<th>day 0 value</th>
<th>frozen value</th>
<th>difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat g/100mls</td>
<td>3.85 (2.6–7)</td>
<td>3.450 (4.2–6.2)</td>
<td>0.35 g</td>
</tr>
<tr>
<td>Protein g/100mls</td>
<td>1 (0.8–1.5)</td>
<td>1 (0.8–1.45)</td>
<td>0.05 g</td>
</tr>
<tr>
<td>Carbohydrate g/100mls</td>
<td>7.55 (7–8)</td>
<td>7.45 (7–7.8)</td>
<td>0.11 g (0–0.45)</td>
</tr>
<tr>
<td>Energy kcal/100mls</td>
<td>70 (21–101)</td>
<td>67 (61–89)</td>
<td>3.3 kcal (1–12)</td>
</tr>
</tbody>
</table>

**GP260**  **INDICATION OF LUMBAR PUNCTURE IN WELL LOOKING NEONATES – NATIONAL BASED SURVEY**

Sheik Fareed Vinupachi*, Rizwan Khan. University Hospital Kerry, Tralee, Ireland

Background The incidence of early onset neonatal bacterial meningitis (EONM) was estimated to be approximately 0.3 per 1000 live births. Sign of EONM in term infants typically present by first 6 hrs and the majority presents within the first 24hr of life. Diagnostic investigations varies widely. However rational to do lumbar puncture in well looking neonates with raised CRP varies widely

Aims and methods To perform a national survey via questionaire to all paediatric consultant & neonatologist in Republic of Ireland. Questionnaire consists of questions regarding indication of lumbar puncture in well looking neonates with raised CRP and what level of CRP is indicative for Lumbar puncture.

REFERENCES
**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 ± 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.

**REFERENCES**
1. http://adc.bmj.com/content/99/Suppl_1/A172.2
2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2082975

GP262 **SUBCUTANEOUS FAT NECROSIS OF THE NEWBORN: A CASE REPORT AND LITERATURE REVIEW**
Niamh O’Brien*, Breda Hayes. Rotunda Hospital, Dublin, Ireland
10.1136/archdischild-2019-epa.ep21

**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 hypercalcemia (up to 70%), thrombocytopenia and hypertriglyceridemia.

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 hypercalcemia 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).

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