period. Timing of first full blood count, frequency of repeat full blood counts and the lab values were documented.
Results 42 babies with T21 were born from 2016–2018; 41 babies had a FBC within 5 days (see table 1).

Abstract P455 Table 1

Hb	WCC	Platelets
21.1 (16.9–25.8)	15.7 (9.3–24)	140 (34–271)

1/42 babies warranted an automatic referral to a tertiary haematologist because of significantly elevated blast cells on film (13%). Five other babies had evidence of blasts cells of 5% or less on their initial FBC with three of these babies having resolution of the blast cells to 0%. One baby was due follow up in a regional centre and one did not have a repeat FBC.
Conclusion The association of T21 with acute leukaemia is well documented. In keeping with international guidelines, our policy is to carry out a full blood count on all babies born with T21. We see that our incidence is less than the 10–15% reported case load of TAM[1] with only 1 baby reaching the criteria. This disorder develops over the first five years of life; meaning it is essential these children get annual blood tests for monitoring through their community paediatrician.

REFERENCE

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P456 MANAGEMENT OF CYSTIC LYMPHANGIOMAS IN THE NEWBORN: A STUDY OF 6 CASES

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Background Cystic lymphangiomas are rare congenital benign malformations of the lymphatic system. They are commonly located in the cervicofacial region. Clinical presentation depends on localization. Through this study we aim to identify epidemiology, clinical features, management and outcome of cystic lymphangiomas in the newborn.
Methods It's a retrospective study of all cases of cystic lymphangiomas registered in the neonatal intensive care unit of Sfax between 2008 and 2018.
Results Six full term newborns were included with a female: male ratio of 4:2. Prenatal diagnosis was performed in all cases. At birth all newborns was asymptomatic. Post natal diagnosis was based on the ultrasound study in all cases. Magnetic resonance imaging was performed in three cases. We registered cervical localization in three cases, cervicomediastinal localization in one case, carvicomediastinal localization associated to multiple lesions of the right arm in one case and perirenal localization in one case. The mean size of masses was 8.6 cm (5 to 15 cm). Total resection was performed successfully for the perirenal lymphangioma at day 22 of life. In the post operative course the newborn developed a transient hypertension and an urinoma that regressed after 10 days of drainage. Incomplete resection was performed in one newborn having cervicomediastinal localization with close relation to the atrium leading to severe respiratory distress at day 4 of life. The patient died of severe sepsis on the post operative course. Embolization was proposed for two newborns but they rapidly died. For the two other cases we opted for monitoring. Spontaneous regression was then noted. No recurrence was registered in all surviving newborns.
Conclusions Cystic lymphangiomas can arise in any organ or soft tissue. Mediastinal and abdominal localization are rare. Management and outcome depends on localization and relationship with adjacent structures. Less invasive therapeutic option and new therapies continue to emerge. However till now there are not uniform therapeutic protocols.

P457 TRANSCATHETER ARTERIAL EMBOLIZATION AS AN INNOVATIVE MANAGEMENT STRATEGY IN A PRETERM NEONATAL CASE OF COMPLICATED INFANTILE HEPATIC HAEMANGIOENDOTHELIOMA

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Infantile hepatic haemangioendothelioma (IHH) is the commonest benign vascular tumour occurring in the first six-months of life. Medical treatment is first-line but a transcatheter arterial embolization (TAE) was also used in this preterm neonatal case; this is an innovative procedure used to reduce hepatic shunting by occluding the feeding vessels.
Case report A 2.09 kg male infant was delivered at 31^{+3}weeks by emergency C-section. There were antenatal concerns regarding ascites and dilated bowel loops and at delivery he was noted to have hydrops. He required intubation and high frequency oscillatory ventilation. Extensive bruising and active bleeding from multiple sites was noted, so the massive blood transfusion protocol was initiated. An ejection systolic murmur was heard and he had hepatomegaly.

Initial blood-work showed anaemia and disseminated intravascular coagulopathy. Thrombocytopenia was likely from Kasabach-Merritt syndrome (KMS). He also had deranged liver enzymes, jaundice and an acute kidney injury. AFP, thyroid function tests and urinary VMA were reassuring. Echocardiography demonstrated a small PDA and moderately impaired biventricular function. Abdominal ultrasound showed a mixed lesion involving both liver lobes, measuring 8.2×5.7 cm with dilated hepatic veins and ascites. MRI was not possible due to his unstable clinical condition.

A large number of blood products were required including recombinant factor 7. Regular vitamin K and broad-spectrum antibiotics were initiated. Propranolol and dexamethasone were commenced to try to shrink the lesion. On day 3 of life he had embolization of his AVM, this was a novel procedure and involved accessing the coeliac axis via the umbilical artery and releasing micro-particles.Satisfactory devascularisation was achieved.

Despite this innovative technique, he deteriorated secondary to high-output CCF, pulmonary oedema, anuria and hepatic failure.It was apparent to his parents and the multidisciplinary team that he would not survive and life-sustaining care was withdrawn on day 6.
Discussion It is clear that a multidisciplinary approach is required for the best treatment options. Corticosteroids

(prednisolone) and propranolol are commonly prescribed and lesions unresponsive (15% cases) have been treated with anti-angiogenic agents such as IFN-alpha, sirolimus, vincristine and cyclophosphamide.Invasive measures like hepatic artery ligation or embolization may be tried in complicated cases. Surgical therapy is recommended for uni-lobe lesions, masses with low potential for regression or in suspected malignancy.

In summary, this case always had a poor prognosis as it was multifocal, had intra-hepatic shunting and was complicated by CCF and haemorrhage. Unfortunately TAE wasn't successful on this occasion but sub-speciality involvement was greatly appreciated.

P458 ARE PATENT DUCTUS ARTERIOSUS PAINFUL ENOUGH TO BE TREATED WITH PARACETAMOL?

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Background Patent ductus arteriosus causes significant dilemma about its management in the neonatal units around the world today. Historically, cyclooxygenase (COX inhibitors) such as Indomethacin or Ibuprofen have been shown to be effective pharmacological treatments for closing a PDA. Ibuprofen is currently the main pharmacotherapy in neonatal units in the UK since Indomethacin is no longer available. More recently, paracetamol has been suggested as an alternative to ibuprofen, though there is a paucity of evidence for its use. We started using paracetamol for the closure of PDA in preterm babies where there were contraindications to Ibuprofen.

Aim To determine the frequency of paracetamol use for the treatment of patent ductus arteriosus and the outcomes for the babies.

Methods We retrospectively reviewed the BadgerNet to identify all babies under 28 weeks gestation who received paracetamol for treatment of patent ductus arteriosus between 1st January 2017 to 31st December 2018. The notes were reviewed in order to ascertain the reason for paracetamol, as opposed to ibuprofen, as well as the rate of PDA ligation and final outcomes of the babies.

Results In the last two years, 21 babies were treated with paracetamol for their patent ductus arteriosus. The average gestation of babies receiving paracetamol was 24 completed weeks and the average weight was 710 g. Paracetamol was given between day 2 and day 29, but on average it was given on day 11 of life. In all cases, paracetamol was used because ibuprofen was contraindicated. The main reason for contraindication was low platelets in 10 babies and 5 with evolving or intraventricular haemorrhage. Three babies were because of renal failure, two with abdominal concerns and one with a pulmonary haemorrhage. Six babies went on to have PDA ligations performed following paracetamol treatment. In terms of outcomes, 71% survived and 29% died.

Conclusions In our practice, paracetamol has been used to treat patent ductus arteriosus in babies where Ibuprofen was contraindicated. This was for ventilated babies less than 28 weeks gestation. Nearly 30% of babies still required PDA ligation despite treatment with paracetamol. We believe further research is required in the use of paracetamol for the treatment of PDA. Where there are contraindications to Ibuprofen, paracetamol can be used cautiously to treat PDA.

P459 LOOKING AT THE LIPIDS: QUALITY IMPROVEMENT IN THE NICU

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Background and aims Parenteral nutrition is a vital part of our management of neonates in the NICU. The National Paediatric and Neonatal Parenteral Nutrition Guidelines were introduced in November 2016. The national guidelines recommend checking serum triglyceride levels on day 3–4 and day 5–7 of PN administration, as well as weekly thereafter if stable. We noted that this was not occurring in our unit and so aimed to audit compliance with national guidelines on lipid monitoring in neonates receiving parenteral nutrition in order to target a quality improvement initiative.

Methods This was a retrospective review of all babies on PN for greater than one week. Cases were identified using the PN order database maintained by the pharmacy team. The laboratory system was interrogated to assess if the babies had triglycerides or lipid indexes checked.

Results 20 babies on PN for greater than one week over the past six months. Only 15% of babies (n=3) had any lipid monitoring performed and no babies had been monitored in compliance with the guidelines. Some babies had both lipid index (performed on site) and triglycerides (performed off site, with a varying turnaround time.

Conclusion There is significant room for improvement in our management of lipid monitoring in our NICU and we are going to initiate a quality improvement initiative to improve compliance with the guidelines including education sessions with NICU staff.

P460 AN AUDIT ON MANAGMENT OF PAIN IN PRETERM BABIES IN UNIVERSITY MATERNITY HOSPITAL LIMERICK

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Background Pre term babies admitted in ICU settings routinely undergo many painful procedures influencing their long term development .We can improve the quality of care for these babies by following simple measures that are cost effective,safe and less time consuming.

Aim of the audit The aim of the audit was to look for pharmacological and non pharmacological measures being followed to reduce acute and procedural pain in pre term babies admitted in neonatal intensive care unit of University Maternity Hospital,Limerick.

Methodology Audit was prospective.

We followed 20 pre term babies who were admitted in NICU during 15 December 2018 to 31 January,2109.An already designed proforma was used to collect data regarding prematurity,name of procedure(heelstick,IV cannulation,phlebotomy,NG insertion,tracheal intubation,ROP screening,LP) and method of pain relief used.Data was analysed on the basis of pharmacological(sucrose,paracetamol) and non pharmacological measures(swaddling,non nutritive sucking,positioning,skin to skin care, breast feeding).

Results

1. Gestational age varies from 28+0 to 34+2 weeks.