

(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 MANAGEMENT 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, 2019. 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.

2. Birth weight varies from 1.01 kg to 2.80 kg
3. Out of 20 preterm babies 17(85%) had some form of pain relief.
4. 3(15%) of babies had received no pain control measures.
5. Non pharmacological measures were used in 15(75%) of babies.
6. Pharmacological measures were used in 13(65%) babies.
7. Oral sucrose was used in 10(50%)babies.
8. 3(15%) babies received topical analgesia for ROP screening.
9. Combined methods of pharmacological and non pharmacological pain relief were used in 13(65%)babies.

Conclusions Overall pain management was was not satisfactory in our unit.

Oral sucrose was used only in 50 per cent of the babies and also it was used inappropriately. In most of the babies it was given just before procedure or during the procedure. There were no records found for how many doses of oral sucrose given to any neonate in twenty four hours.

While giving vitamin K injection to babies they received no pain relief.

The use of combination methods of pain relief was relatively low.

Recommendations and action plan

Oral sucrose should be given at least 2 minutes before the procedure as per recommendations.

We can do better by following the use of combination methods.

While doing any procedure there should be documentation of pain relieving methods followed along with procedure notes.

It is also better to keep record of number of doses of sucrose given to any pre term baby in 24 hours.

P461 THE DIGITS DON'T ADD UP: EXOMPHALOS AND DIGITAL DYSPLASIA

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Baby Girl S was born at term by elective caesarean section for an antenatal diagnosis of exomphalos. At delivery she was noted to have exomphalos major with distal dysplasia of the second, third, and fourth digits on her left hand. X-ray confirmed the second and third digit to have only two ossified phalanges, and the fourth digit to have only one ossified phalanx. On review of digital anomalies and exomphalos we found that digital dysplasia had not been previously described in infants with exomphalos.

Exomphalos is a midline abdominal wall defect occurring at the base of the umbilical cord affecting about 1 in 5000 pregnancies.¹ The defect contains abdominal viscera and is covered by a membrane of amnion, peritoneum, and Wharton's jelly.² Exomphalos can be further classified as exomphalos minor, where the opening is less than 4 cm and only contains the intestine, and as exomphalos major, where the opening is greater than 4 cm and/or with the liver inside the cord.³ Unlike gastroschisis, exomphalos has a membrane covering the abdominal contents, and is more likely to be part of a syndrome, or have associated anomalies.² Approximately half of infants have associated anomalies, including Trisomy 13 and

18, syndromes such as Beckwith-Wiedemann and Pentalogy of Cantrell, cardiac anomalies, pulmonary hypoplasia, VACTERL anomalies, and nervous system abnormalities such as holoprosencephaly and anencephaly.^{1,2,3}

Baby Girl S did not require resuscitation at delivery and the sac was intact. She was transferred to a tertiary paediatric hospital for surgical management. Her neonatal course was uneventful except for three moderate hypoglycaemic episodes. She had imaging, a cardiology review, and a genetics review. Her microarray and karyotype were normal, and she was believed to be non-syndromic with no other associated anomalies. She did not meet criteria for Beckwith-Wiedemann syndrome, despite the episodes of hypoglycaemia. Surgical management of the exomphalos involved a silastic pouch to allow gradual reduction of the defect.

This is the first documented case of digital dysplasia with exomphalos.

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P462 OUT OF HOUR BLOOD TRANSFUSIONS IN NICU AND CAN IT BE PREVENTED?

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Introduction Overnight blood transfusion carry increased risk of transfusion complication due to availability of less staff to monitor the patient and there is likely to be fewer medical and laboratory staff available to respond to the complication. As per hospital protocol non urgent red blood transfusions should be done during working hours so that there is less work load on night duty doctor, nurses and lab personnel. Other reason to order transfusion during working hours so that out of hours charges should be avoidable which is 150 Euros, as not always blood packs supply is available in the hospital. The aim of the audit to know why red blood cell transfusion top-ups were ordered out of hours and to see how can it can be avoided, thereby saving cost.

Methods Data was collected retrospectively from July 2017 till September 2017. The total of 77 transfusions took place on 26 patients as some patient had multiple transfusions. The collected data was entered directly into audit tool on excel sheet. The questionnaire includes the following questions: gestation, date of birth, weight at delivery, reason for transfusion, general status, haemoglobin level at the time of transfusion, the time of FBC taken and resulted, in working hours or out of hours, the time when blood transfusion ordered and collected, in working hours or out of hours, day of life at transfusion. The charts of patients were collected and reviewed. The guidelines used for this audit was the Neonatal administration and transfusion specific blood/blood components 2016 issued by Rotunda Hospital