growth measurement and growth chart plotting requires improvement.

**P468 ADMISSION TEMPERATURE OF OUTBORN NEWLY BORN INFANTS FOLLOWING NEONATAL TRANSPORT: A LITERATURE REVIEW**

1,2Katie Cunningham*, PF Colm, 1,2O Donnell, 1,2Lisa K McCarthy. 1National Maternity Hospital, Holles Street, Dublin, Ireland; 2School of Medicine, University College Dublin, Dublin, Ireland

10.1136/archdischild-2019-epa.804

**Background** Infants born at hospitals without neonatal intensive care (NICU) facilities that are transferred to a NICU after birth are referred to as outborn. Ideally all outborn infants are transferred by dedicated neonatal transport services. Abnormal temperature in newborn infants is associated with increased morbidity and mortality. It is an important function of transport teams to maintain normal body temperature (36.5°C–37.5°C) during transport. The aim of this review was to assess the prevalence of abnormal admission temperature in outborn infants following neonatal transport.

**Methods** We searched PubMed (NCBI) and Web of Science from inception to April 2018 using the following search terms: (newborn OR neonate OR ‘new born’ OR ‘premature infant’ OR ‘preterm infant’) AND (temperature OR hypothermia) NOT (‘therapeutic hypothermia’ OR ‘passive hypothermia’ OR ‘hyperthermia, induced’) AND (‘interhospital transport’ OR ‘inter-facility transport’ OR ‘inter-facility transport’ OR ‘neonatal transport’). We planned to include randomised trials, case-control studies, prospective and retrospective cohort studies and case series. We excluded studies of infants undergoing therapeutic hypothermia and articles published in a language other than English.

**Results** The initial search identified 66 articles. Twenty articles met inclusion criteria. A further 9 were identified from reference lists. Studies spanned a 45-year period (1973–2018). Definitions of hypo- and hyperthermia varied considerably, as did patient inclusion criteria with combinations of preterm and term infants, and infants with or without congenital anomalies. Specialised transport services featured in 16 (55%) studies, with a reported incidence of hypothermia ranging from 0.2%–70%. There was significant correlation between birth weight and admission temperature, and gestation and admission temperature, such that incidence of hypothermia on admission increased with decreasing weight and gestation.

The reported incidence of hyperthermia ranged from 0%–19%. Death was more commonly seen in infants who were hypothermic on admission, with moderate hypothermia (32°C–36°C) identified as an independent risk factor for death. Mortality rates appeared to improve when transfers were performed by neonatal transport teams.

**Conclusion** Maintaining normal body temperature in outborn newly born infants during neonatal transport continues to pose challenges for neonatal transport teams. Risk factors for hypothermia and associated adverse outcomes include prematurity, very low birth weight and transfer by non-specialised transport teams. This is especially so in developing countries without established transport services. Hyperthermia also occurs, but is less frequently reported. Using standardised definitions, further study examining temperature in neonatal transport is required.

**P469 OUTCOMES OF BABIES WITH BIRTH WEIGHT UNDER 500 GRAMS IN A NEONATAL INTENSIVE CARE UNIT**


10.1136/archdischild-2019-epa.805

**Background** Determining the limits of viability for resuscitating a baby is important to avoid un-necessary interventions. Establishing these boundaries is an ethical dilemma that has been under constant debate. There is greater clarity and guidance on gestational age for limits of viability as compared to weight criteria.

**Aims** To evaluate the in-hospital mortality and morbidity in babies born under 500 grams.

**Methods** Retrospective data was collected from Badger database over a 9 year period from April 2009 to March 2018 looking at the mortality and morbidity in babies with birth weight under 500 grams in a neonatal intensive care unit.

**Results** There were 28 babies in the study cohort. The mean gestational age was 25 weeks (range 22+6–28+4) with 46% survival. There were 12 males and 16 females, with higher mortality in males (75% versus 38% in females). 3 babies had oesophageal perforation with nasogastric tube which was managed conservatively. In the survivors 8 babies had necrotising enterocolitis and none required surgery. There were 2 surviving babies with grade 2 or above intraventricular haemorrhage and 2 babies required laser therapy for retinopathy of prematurity. 2 of the surviving babies (15%) were discharged home on oxygen. The average hospital stay for the surviving infants was 111 days. Of the babies who died, 4 had necrotising enterocolitis and 8 babies with grade 2 or above intraventricular haemorrhage.

**Conclusion** Despite advances in neonatal practice, our single center data shows that the outcome of babies born with a birth weight of under 500 grams remains very poor. The mortality was significantly higher in the male babies. The management of these babies is challenging with multiple co-morbidities requiring significant neonatal resources.

**P470 SPONTANEOUS INTESTINAL PERFORATION IN AN EXTREMELY LOW BIRTH WEIGHT INFANT: A CASE REPORT**

1Ayşe Pervanlar, 2Ayça Sözen, 1Tuğba Erenler Ercan*, 1David Terence Thomas. 1Maltepe University Faculty of Medicine, İstanbul, Turkey; 2Aİdağmadeni State Hospital, Yozgat, Turkey

10.1136/archdischild-2019-epa.806

Spontaneous intestinal perforation (SIP) usually occurs in the first 10 days of life primarily in preterm infants with very low birth weight (VLBW) and extremely low birth weight (ELBW). The risk is 2–3% and 5% in VLBW infants and ELBW infants, respectively.

Herein, we present a case of a 410 g female infant born at 25 weeks of gestational age who developed SIP on the 7th postnatal day. The patient was born by emergent cesarean delivery after the diagnosis of chorioamnionitis in the mother. She was intubated in the delivery room due to insufficient respiratory effort and surfactant was administered. The infant was admitted to the neonatal intensive care unit (NICU) and she was mechanically ventilated in SIMV mode. Her
Hirschsprung’s disease is a congenital intestinal paralysis due to absence of ganglion cells in enteric plexuses. We aim to describe the specificities of the neonatal form.

**Patients and methods** It is a retrospective study of 17 cases of Hirschsprung’s disease hospitalized in our unit between 2006 and 2018. Diagnosis was based on radiological and/or pathological signs.

**Results** A male predominance was noted. Two newborns were premature. Two newborns had a congenital heart disease. One of them had Trisomy 21. Another newborn had hypothyroidism. An emission delay of méconium (average of 46 hours) was noted in all cases. The disease was revealed by a lower digestive occlusion in 7 cases, an acute enterocolitis in 2 cases and a bowel perforation in one case. The contrast enema practiced in 15 cases, was pathognomonic in 13 cases. Rectal biopsy performed in 6 cases, confirmed histological diagnosis in all cases. Surgical treatment was performed in 9 cases with a median time between symptoms and surgery of 19 days. It was a colo-anal lowering in 7 cases, a resection of the right colon with double colostomy in one case and a right transverse colostomy in four cases. Outcome was favorable in 12 cases. Four newborns died consecutively to severe congenital heart disease in one case and severe sepsis in other cases.

**Conclusion** Hirschsprung’s disease is the most common cause of digestive occlusion in the newborn. The main complications in the neonatal form are acute enterocolitis and intestinal perforation.

**IMPETIGO IN PEDIATRIC POPULATION: A RETROSPECTIVE 6-YEAR REVIEW**

Joana Carvalho*, Sofia Aroso, Georgeta Oliveira. Hospital Pedro Hispano, Matosinhos, Portugal

**Background** Impetigo is the most common skin infection in pediatric age and has the highest incidence increase relative to other skin infections observed in children. The reported incidences in the literature are between 1.65–2.8%, being evident a seasonal variation with peak of incidence during summer and autumn. The aim of this study is to characterize hospitalizations for this pathology in a pediatric population covered by a level II hospital.

**Methods** Observational cohort study on impetigo hospitalizations over a period of 6 years between 2012 and 2017.