Abstract 1808 Table 1 CRP results

Group	n =	CRP	Result	t-test
PA v. NO-PA	82 vs. 22	#1	0.5 +1.2 vs. 0.4+0.4	p = 0.33
PA v. NO-PA	78 vs. 14	#2	1.0+1.3 vs. 0.4+0.3	p<0.01
PA v. NO-PA	61 vs. 6	#3	1.1+1.7 vs. 0.2+0.0	p<0.01

Conclusions CRP significantly increased in PA v. NO-PA supporting prior reports. We theorize inflammation is caused by peroxidation of polyunsaturated fatty acids in PA. A clinical trial is needed that studies cytologic and biochemical findings in tracheal aspirates after PA therapy and this will alleviate safety concerns.

1809 REDUCED DURATION OF CPAP IN PRETERM BABIES RECEIVING KANGAROO CARE WITHIN AN HOUR OF BIRTH - RANDOMIZED TRIAL

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Background and Aims Kangaroo Mother Care (KMC) is conventionally initiated in a baby who is otherwise stable but may still be on intravenous fluids, tube feeding and/or oxygen. We hypothesized that initiating KMC earlier will reduce the requirement for oxygen and the duration of respiratory support if Continuous Positive Airway Pressure (CPAP) was started along with Kangaroo care immediately after delivery in premature babies with respiratory distress.
Methods Prospective randomized controlled trial in a total of 16 preterm neonates with respiratory distress syndrome who were assigned to CPAP (Fischer Paykel Bubble **CPAP** generator with short bi-nasal prongs) with or without KMC within 1 hour of starting CPAP. Primary outcome was requirement of oxygen and mechanical ventilation. Secondary outcome was early initiation of feed, apnoeic episodes and number of days for achieving maximum feed.
Results 13 babies were randomised into intervention group and 12 in control group. The mean weight was 1.51kg (SD=0.47) and gestational age range of 26–32 weeks. Babies took 34.08 hrs to wean off in CPAP with KMC as compared to 38.67 hrs in those who received only CPAP. On weaning from CPAP there was no oxygen requirement and no apnoeic episodes in both groups. Average days to reach maximum feeding were two days with no differences between groups. Intolerance of feed was a problem in the non-intervention group.
Conclusion KMC is feasible in babies on CPAP irrespective of weight and prematurity. It reduced the number of hours on CPAP and reduced intolerance of feeds.

1810 VALUE OF PORTABLE TRANSTHORAC ULTRASOUND TO AID ENDOTRACHEAL PLACEMENT IN EXTREMELY LOW BIRTH WEIGHT INFANTS IN THE DELIVERY ROOM

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Background and Aims Correct endotracheal tube (ETT) position for extremely low birth weight (ELBW) neonates during initial resuscitation is critical. We aimed to, 1. Assess the feasibility and diagnostic utility of portable transthoracic ultrasound (PTU) to assess symmetry of diaphragmatic movement as a measure of correct ETT, 2. Assess PTU as a recordable accurate tool to document ETT position prior to surfactant administration to improve the 'golden hour management'.
Methods Single centre prospective study involving ELBW neonates < 1000 gm requiring intubation post-delivery. Two recordings per infant were done - one in delivery room and second when the infant reaches NICU. Accuracy of PTU (Micromaxx®) was compared with clinical assessments, colorimetric CO_2 detection and Chest X-ray ETT position. Single operator conduced examinations who was not part of the resuscitation team. Hospital Research and Ethics committee approval was obtained.
Results Seventeen ELBW infants had PTU in labour delivery room (n=17) yielding 34 recordings. For 5 out of 17 (29.4%) infants significant improvement of ETT position could be offered by the use of PTU which otherwise was not detected. It is feasible to measure and record diaphragmatic excursion bilaterally during the labour ward resuscitation environment. The diagnostic accuracy of PTU for correct ETT was greater than that by traditional clinical methods and colorimetric CO_2 detection. Inter-operator consistency and value of hand-held device (VScan®) is being evaluated.
Conclusion PTU is a valuable adjunct tool to record symmetry of diaphragmatic movement as a measure of correct ETT placement in labour ward for ELBW infants.

1811 HIGH-FLOW NASAL CANNULAE FOR RESPIRATORY SUPPORT OF PRETERM INFANTS: A REVIEW OF THE EVIDENCE

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Background High-flow nasal cannulae (HFNC) are gaining in popularity as a form of non-invasive respiratory support for preterm infants in neonatal intensive care units around the world. They are proposed as an alternative to nasal continuous positive airway pressure (NCPAP) for treating respiratory distress in a variety of clinical situations, including post-extubation support, primary therapy from birth, and to 'wean' from NCPAP.
Objectives To present and discuss the available evidence for the use of HFNC in various roles in the preterm population.
Methods We performed an internet-based literature search for relevant, original research articles (both randomised and not) on the use of HFNC in preterm infants.
Results 18 studies were included in the review. Distending pressure generated by HFNC in preterm infants increases with increasing flow rate and decreasing infant size, and may vary according to the amount of leak around the prongs. HFNC may be as effective as NCPAP at improving respiratory parameters such as tidal volume and work of breathing in preterm infants, but perhaps only at flow rates >2 Litres per minute. Based on available published evidence, the efficacy and safety of HFNC in preterm infants remain to be determined.
Conclusions There is increasing evidence from clinical trials to support the use of HFNC treatment of preterm infants with respiratory failure, however uncertainty remains about efficacy, safety and optimal flow rates. Until the results of randomised trials in progress are known, widespread use of HFNC to treat preterm infants cannot be recommended.

1812 OUTCOME OF CHILDHOOD SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) WITH LUPUS NEPHRITIS (LN)

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A total of 46 patients with SLE-LN were studied (91% females; mean age 13.0 years; mean follow-up duration 5.9 years). Initial renal biopsy showed that out of 46 patients, 2 (4.3%) had Class I, 14 (30.4%) had Class II, 8 (17.4%) had Class III, 20 (43.3%) had Class IV and 2 (4.3%) had Class V lupus nephritis. Based on the renal histopathology and clinical presentation, 23 (50%) patients received intermittent intravenous cyclophosphamide bolus with prednisone and Azathioprine (AZT) or Mycophenolate Mofetil (MMF). The remaining 23 (50%) patients were treated with corticosteroids alone or in combination with AZT or MMF.

Follow up renal biopsies were performed on 21 patients, 4 patients showed no change in histology, 8 patients showed histological improvement of lupus nephropathy, 9 patients showed progression of lupus nephropathy and 7 of these who progressed, were started on intermittent IV CYC bolus.

The clinical follow up revealed that out of 46 patients, 21.7% patients went into complete remission, 58.6% patients remained under control with immunosuppressant medications, 10.8% patients had clinically active disease with normal renal function and 10.8% patients had adverse outcome. The adverse outcome included one patient developed chronic renal insufficiency, three (3) progressed to end stage renal diseases and one died. Five-year kidney survival was 93.5% and patient survival was 97.8%.

Although IV CYC treatment has improved the mortality and morbidity in lupus nephritis but severe adverse effect makes it less than optimal for long term therapy.

1813 SERVICE PROVISION FOR CHILDREN WITH JUVENILE IDIOPATHIC ARTHRITIS (JIA) IN THE EAST OF ENGLAND (EOE); A COMPARION WITH NATIONAL CENTRES

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Introduction The EoE has no regional centre or clinical network for paediatric rheumatology. JIA has a prevalence of 1:100 (2), which suggests an estimated 1,200 cases managed in the 17 hospitals of the EoE. What sort of service do these children get, compared with agreed standards, and that provided by national and 'grid training' tertiary centres?

Aim To assess the service provision for children with JIA in the EoE against recommended standards of care as set out by ARMA/BSPAR 2010(1), and compare our results to national data.

Methods A questionnaire was sent to the Paediatric Rheumatology leads of the 17 hospitals in the EoE, focused on the service provision for paediatric rheumatology patients, against BSPAR/ARMA standards. Follow-up phone calls were made where necessary to ensure accuracy. Data from 15 National centres, including all 8 UK grid training centres were used for comparison (3).

Results 16 of 17 hospitals responded in the East of England.

Table 1. Shows the percentage of hospitals achieving each of the audited ARMA/BSPAR standards in EoE, compared with national centres, and grid training tertiary centres data alone. In summary, in grid tertiary centres 17 of 21 standards audited are achieved to a good standard (>85%), whereas in the EoE only 3.

Abstract 1813 Table 1

Standard	EOE (n=16)	National centres (n=15)	Grid Training (n=8)
New patient appointment ≥45 min	0.0	26.7	62.5
Follow up appointment ≥20 min	31.3	73.3	75
Paed rheum Nurse specialist	37.5	80.0	100
Paediatric Physiotherapist	87.5	86.7	100
Paediatric Occupational therapist	68.8	53.3	87.5
Access to Psychologist	56.3	80.0	87.5
Access to Ophthalmologist	100.0	100.0	100
Telephone helpline	43.8	73.3	100
Paediatric Anaesthetic list	50.0	73.3	100
Entonox available	37.5	73.3	100
Home Methotrexate training	56.3	66.7	87.5
Access to MTX in <4/52	100.0	93.3	87.5
Prescribe biologics	50.0	100.0	100
Recruit to Biologics registry	50.0	73.3	100
Have audited biologic use	25.0	46.7	75
Part of Clinical network	6.3	80.0	87.5
Recruit to research	25.0	60.0	87.5
Involved in undergraduate teaching	75.0	73.3	87.5
Child friendly clinic setting	81.3	93.3	100
Adolescent clinic	18.8	53.3	75
Referral to a specific adult rheumatologist	75.0	93.3	87.5

Conclusion The EoE hospitals fall seriously short in providing trained, specialist care for the estimated 1,200 children with JIA, suggesting serious inequality of access. Many standards are unachievable without commissioned resource. Our challenge is to improve provision within existing funding.

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1814 PSYCHOPATHOLOGICAL PROFILE AND HEALTH RELATED QUALITY OF LIFE IN NARCOLEPSY WITH CATAPLEXY ACROSS CHILDHOOD AND ADOLESCENCE: A CASE-CONTROL STUDY

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Objectives The purpose of our study was to describe the behavioral aspects and quality of life of childhood narcolepsy with cataplexy (NC).

Methods We performed a case-control study based on self-administered questionnaires in 30 NC hypocretin-deficient patients, 39 epilepsy patients, and 39 healthy controls matched for sex and age.

Results Our population of children and adolescents with NC showed an increase in internalizing problems in line with previous reports, typically represented by withdrawal and depression symptoms, and somatic complaints. The two patients groups share higher scores than controls for anxiety disorders, attention, social and oppositional-defiant problems. Psychopathological profile in NC were found to be positively correlated with early NC onset,