Abstracts

**G205(P)** STOOL SHORT CHAIN FATTY ACID CONCENTRATIONS IN A COHORT OF PRETERM VERY LOW BIRTH WEIGHT INFANTS WITH AND WITHOUT NERCOTISING ENTEROCOLITIS

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**Introduction** Diagnostic markers of necrotising enterocolitis (NEC) remain evasive. Stool short chain fatty acids (sSCFAs) are a product of bacterial fermentation of undigested carbohydrate and protein noted to alter in animal models of NEC. According to the Lawrence Hypothesis, they may be causative of NEC. We sought to correlate changes in sSCFAs over the first month of life in a cohort of preterm, very low birth weight infants with and without NEC.

**Methods** 56 sequentially recruited infants <32 weeks and <1.5Kg birth weight within week 1 of life. Stool samples taken once weekly for the first 4 weeks, analysed by gas chromatography-mass spectrometry (mcg/g wet weight). 11 individual acids were measured: acetate, lactate, isobutyrate, butyrate, isocaproate, caproate, isovalerate, valerate, octanoate, heptanoate and lactate. NEC was diagnosed by consultant, external collaborator and radiologist, using Bell’s Criteria.

**Results** N = 56 infants (83% recruitment). 20 developed 2Bell’s 2a. 8 required surgery (5 ileostomy). Further clinical/demographical information can be found in abstract BEAT82431. There were no correlations between gestation, feed, NEC and sSCFAs. No significant differences were observed in weekly total. 60 interquartile ranges were noted (Week 1: 20.9 ± 26; Week 2: 15.8 ± 19.1; Week 3: 13.2 ± 20.8; Week 4: 12 ± 22.9). Acetate and lactate dominated each sample, regardless of gestation, feed or NEC (p < 0.05). Subgroup analysis revealed significant differences in stage 2a and 3b NEC. Stage 2a showed higher concentrations of propionate in week 4 than week 3 (0.74 ± 6.45 Vs 0.15 ± 0.17, p = 0.05 MWW), and lower valerate in week 4 than 2 (0.00476 ± 0.012 Vs 0.0129 ± 0.028, p = 0.02 MWW). Stage 3b isobutyrate and heptanoate concentrations were significantly lower in week 4 than 3 (F: 0.007 ± 0.026 Vs 0.053 ± 0.09, p = 0.03; H: 0.011 ± 0.013Vs 0.023 ± 0.045, p = 0.03).

**Conclusion** Despite a wide variation in clinical status, the levels of sSCFAs remained remarkably consistent. Small yet significant differences in minor sSCFAs were seen in subgroup analysis in those with stage 2a and 3b NEC. Reasons for the high incidence of NEC require further investigation.

**REFERENCE**


**Young Persons Special Interest Group/Child Public Health Interest Group**

**G207** IS THERE A LINK BETWEEN ADHD AND SOCIAL DEPRIVATION?

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**Aim** Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder that affects approximately 4–6% of school-aged children. Research into the aetiology of ADHD has focussed on genetic and biological factors, with much less information on environmental and social aspects. There is a general perception that...
ADHD is linked to deprivation, but there are not enough studies in literature to prove or disprove this assumption. The aim of this study was to investigate the relationship between social deprivation and ADHD.

**Method** We included all patients diagnosed with ADHD by the community paediatric department (only those on medications). Postcodes of these patients were used to produce deprivation scores, which included overall deprivation and sub-scores for income, social and housing factors. Indices of Deprivation 2010 are available for 32,482 small geographical areas (Lower Super Output Areas, LS0As) in England, ranked from 1 (most deprived) to 32,482 (least deprived). These are further divided into fifths to produce English deprivation quintiles. Each postcode was then allocated to a quintile based on their deprivation score, where quintile 1 represents the most deprived.

**Results** A total of 144 patients diagnosed with ADHD were being treated with medication. The male to female ratio was 4.5:1 (M: F). The deprivation scores were calculated and it showed that 64 patients (44.4%) were in the most deprived quintile (M: F). The deprivation scores were calculated and it showed that being treated with medication. There was no significant difference between these items for adolescents (x = -0.09 (0.32, 0.13)) and x = 0.24 (0.0, 0.48) respectively. Among young adults, pain control was less important than understanding doctors (x = -0.38 (-0.61, -0.14)) and equally important to asking questions (x = -0.22 (-0.48, 0.05)).

**Conclusion** Healthcare priorities differ significantly between childhood and early adolescence. However, being listened to was rated the most important priority at all ages.

**G208 DISTINCT HEALTHCARE PRIORITIES IN EARLY ADOLESCENCE**

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Alcohol and Drug use in Young People is a current national topic of great curiosity which occasionally, junior doctors manage with less interest during busy A&E shifts and pressing admission beds. A taboo subject infrequently discussed in the Paediatric/Adolescent patient history, health professional competence in assessing risk may also be variable, but could be improved by a strong presence of multi-departmental teaching, publicity of accessible intranet management guidance and on-site service information-specific patient and parent leaflets.

A retrospective analysis of attendance data for 9–17 year-olds to a busy District General Hospital Accident and Emergency Department during a peak festive and school holiday season was conducted. Young persons presenting with potential substance misuse risk factors were identified from diagnosis codes and filtered for specific substance misuse concerns. Highly suspected cases were then audited for management and discharge outcome at point of departure from the department.

A total of 334 young persons between the age of 9–17 years-old to our A&E Department between December 2011-January 2012. Forty (12%) had diagnosis coding for alcohol intoxication, alcohol withdrawal, deliberate drug overdose, head injury, alleged assault, faint, road traffic accident injuries undermined, psychiatric problem, hyperventilation, collapse and injury to face. Of these, 9 (22.5%) were young persons between 15–17 years-old and identified as high risk for substance misuse. Only 1 case was referred to the Adult medical team, and was admitted, but none of the remaining patients were referred to a Paediatric team and were discharged home or had absconded. Only 1 patient had a documented use of a “Substance Misuse Assessment Tool”, and none had Psychiatric or CAMHS input nor were referred to a Young Person-specific Substance Misuse service.

Health professionals who regularly manage young people in A&E, including A&E nursing staff need essential training in assessing Young People for Substance Misuse. Young Person-specific Substance Misuse clinical guidelines would be useful to increase case management confidence for Paediatricians, junior A&E doctors and Adult Physicians. A valuable resource to the NHS, referral to Young Person-specific services in Substance Misuse should be considered in these guidelines. Multi-departmental, multi-disciplinary agreement is imperative for successful implementation.

**G209 MANAGING SUBSTANCE MISUSE IN YOUNG PEOPLE – WHAT WORKS?**

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