Results The total number of respondents was 57, with 65% of questionnaires (n=38) completed. Responses came from 17 different hospitals and 18 different graduation countries, 52% (n=30) non EU. 28% (n=13) worked at SHO level and the remainder as registrars. 57% (n=33) were eligible for training schemes. 55% (n=32) did not have a supervisor or named trainer. 86% had the opportunity to avail of internal CPD points and 83% for external, with 83% able to complete an audit every year. Only 34% (n=28) were given an opportunity to undertake research each year, 68% are planning to stay in Ireland long-term. Open ended answers indicated that doctors don't like being excluded from training and it causes them to either switch to GP or leave Ireland altogether to complete their paediatric training.

Conclusion The majority of doctors who are not on a BST/HST scheme have the opportunity to perform an audit yearly and to get the required internal/external CPD points. Access to a named trainer/mentor was patchy and those eligible for training schemes have a more positive response and tend to have a much higher preference to stay in Ireland long-term than non-eligible doctors.

With EWTD pressures we may need to consider more sustainable ways of recruiting and retaining this vital workforce.

P262 ORGANISATIONAL AND INDIVIDUAL TRAINEE LEARNING FROM INCIDENTS AND ADVERSE EVENTS

Natalie Bee, Anne Dokubo*, Sarah Berwick, Sonia Joseph. *Royal Hospital for Sick Children, Edinburgh, UK*

10.1136/archdischild-2019-epa.612

Background Trainee surveys and feedback to trainee representatives suggest that few trainees have gained feedback on systems outcomes from Datix (adverse event reporting forms) or Significant Event Analyses.

Thus creating a barrier to systems learning, personal reflection and empowerment that trainees can influence and improve the system in their healthcare setting.

Aim To develop a learning adaptive system that utilises current infrastructures and innovation, where required; in order to improve trainee learning and feedback from DATIX, significant event analysis and paediatric emergency team calls.

Methods Learning outcomes from anonymised DATIX reports and completed Significant Event Analysis Reviews were studied and presented quarterly at the paediatric trainee regional teaching with a key focus on non-technical skills, systems changes and limiting risk.

Paediatric emergency team calls are infrequent in paediatrics and therefore these are presented less frequently on a 6 monthly basis in conjunction with the resuscitation officer.

Results Through working closely with management and senior nursing staff it has been possible to increase trainee feedback whilst encompassing the RCPCH Quality Improvement Program Learning Outcomes.

A survey of the eleven trainees attending the most recent feedback session unanimously agreed/strongly agreed that these sessions have been very useful for their training and development in patient safety and management within healthcare. All trainees agreed that this was useful learning within the regional teaching programme which ensures attendance.

Conclusions At times, trainees have described feeling like passengers or passive recipients of 'the system' they work in. Our

small initiative is the first step in challenging the current status quo and changing the narrative around trainee engagement within the NHS. It was low cost but had a positive impact on perception. Key next stages are to embed this feedback and training for other groups of staff and to build an infrastructure linked to clinical management teams that enables true organisational learning.

P263 INVESTIGATION OF THE FIRST AFEBRILE SEIZURE IN THE PAEDIATRIC ED: A SYSTEMATIC REVIEW

¹Haaris Aziz Shiwani, ¹Eoin MacMeanmain, ¹Evan Hurley-O'Dwyer, ¹Grace Rothwell-Kelly, ¹Nicholas Arrotta, ¹Louise Sweeney, ²Danyal Memon*, ³Shaheer Aziz, ¹Mohammad Danish Yusuf, ¹Hadeer Ameen, ⁴Eleanor Molloy. *¹School of Medicine, Trinity College Dublin, Dublin, Ireland; ²Royal Victoria Hospital, Belfast, UK; ³Jessenius Faculty of Medicine, Martin, Slovakia; ⁴Department of Paediatrics, School of Medicine, Trinity College Dublin, Dublin, Ireland*

10.1136/archdischild-2019-epa.613

Background There is currently no consensus on investigations required in the paediatric emergency department following a first afebrile seizure. This systematic review aims to compare investigations commonly used and to evaluate their effectiveness and diagnostic value.

Methods In this systematic review keywords such as 'afebrile', 'seizure', 'paediatric' and 'emergency department' were searched for in numerous databases (SCOPUS, MEDLINE, ProQuest, EMBASE, CINAHL, Cochrane and Grey Literature). The resulting titles and abstracts were manually reviewed to exclude irrelevant articles. Finally, the studies that met our inclusion and exclusion criteria were selected to undergo further analysis.

Results A total of eleven articles of the initial 9946 were analysed. Five of these evaluated blood tests (n=303) including full blood count, sodium, potassium, calcium, glucose and leucocytes with no consistent findings. Seven studies evaluated CT or MRI (n=1208). Cumulatively, abnormal results were present in 12.3% of these neuroimaging studies. EEG was also performed in three of the seven studies that performed neuroimaging (n=420) with abnormalities in 37.1% of these.

Discussion In patients presenting to the paediatric emergency department with a first afebrile seizure, thorough history and examination are essential. In unison with the American Academy of Neurology's guidelines, EEG proves to be the most valuable investigation to perform. Neuroimaging may be warranted in some cases to exclude underlying CNS pathology or if structural abnormalities are suspected. Laboratory studies are a necessary adjunct but have limited diagnostic value.

P264 IMPACT OF HOMELESSNESS ON CHILDREN PRESENTING TO A TERTIARY EMERGENCY DEPARTMENT

¹Ann-Marie Hayes*, ²Brigitta Joyce, ³Roisin McNamara, ⁴Ike Okafor. *¹Temple St Children's University Hospital, Dublin, Ireland; ²Temple Street Children's University Hospital, Dublin, Ireland; ³Temple Street Children's University Hospital, Dublin, Ireland; ⁴Temple Street Children's University Hospital, Dublin Ireland, Ireland*

10.1136/archdischild-2019-epa.614

Introduction Of 53,000 children (aged 0 – 16 years) seen in the Emergency Department (ED) of Temple Street Children's University Hospital (TSCUH), a tertiary Paediatric hospital in

Dublin Ireland, 842 children were discharged with no fixed address, typically into emergency accommodation in 2018. This compares with 651 children in 2017, a 29% increase.¹ Children born into homelessness are more likely to have low birth weights and are at greater risk of death.² The aim of this study was to compare a random cohort of children presenting to the ED and compare differences between children living in homelessness and those at risk of homelessness to those living in stable accommodation across a variety of parameters.

Methods A self-administered parental questionnaire was handed to parents checking in to the ED in TSCUH over a 2-week period. An information sheet was also given to parents to explain the purpose of the research. Results were analysed using Microsoft excel.

Results 120 (n=120) questionnaires were filled out by a random selection of parents over the initial study period. Age range was 1 month to 15 years. Number of General Practice (GP) attendances ranged between 0 and 6 in past 6 months, ED ranged between 0 and 12.

50% (n=60) owned their own homes. 96% (n=115) were fully vaccinated. 89% (n=106) thought their child had a nutritionally complete diet. However 24% (n=29) thought their living situation did not enable the parent to adequately prepare/cook meals for their child.

18% (n=22) lived in homelessness/emergency accommodation or with family. In this group 27% (n=6) vs 19% (n=17) had fast-food/ready-meals twice or more per week. Parents thought their accommodation had a negative effect on their child's health in 19% (n=4) vs 6% (n=6) in this group. Making and maintaining friends was thought to be affected by accommodation in 20% (n=4) vs 7% (n=7). The effect on ability to exercise/play of living situation was 36% (n=8) vs 12% (n=12).

Conclusion The above data clearly demonstrates parental perspectives on the impact of homelessness on children. This compares the perspectives of parents living in different types of accommodation and demonstrates the detrimental effects homelessness can have on children's health and well-being.

P265

THE RELIABILITY OF POINT OF CARE KETONE MEASUREMENT IN THE PAEDIATRIC HYPOGLYCAEMIA SETTING

John Coveney*, Sinead McGlacken Byrne, Nuala Murphy. *Children's University Hospital, Temple St., Dublin, Ireland*

10.1136/archdischild-2019-epa.615

Introduction Point of care capillary ketone (beta-hydroxybutyrate) measurement is often used in the management of paediatric dysglycaemia. The accuracy of point of care ketone (POCK) measurement has not been evaluated in the setting of paediatric hypoglycaemia. This study aimed to assess the accuracy of POCK measurement compared to gold-standard laboratory plasma ketone (PK) measurement in a population of infants and children presenting to a paediatric emergency department.

Methods This retrospective study was conducted between January-December 2017 in the Emergency Department (ED) at Children's University Hospital (CUH), Temple Street, Dublin, Ireland. The ED recorded 54,222 attendances during the study

period and all hypoglycaemia screens performed in the study period were reviewed.

PK values were extracted from laboratory records. POCK results were retrieved from patient's electronic emergency department medical records. Where data was incomplete (either POCK or PK measurement were not recorded), results were excluded from the analysis. Results were also excluded where greater than thirty minutes had elapsed between POCK and PK measurement. The agreement between the two methods of ketone measurement was analysed using a Bland-Altman plot. The difference between mean POCK and PK were analysed using a paired t-test.

Results A total of 34 hypoglycaemia screens were performed in ED during the study period. Of these, 15 screens were excluded (two because of incomplete data and 13 because of a time interval of greater than thirty minutes between POCK and PK measurement). 19 screens were included in the analysis. No significant difference was seen between mean PK (3.39 ± 1.66 mmol/L) and mean POCK (4.28 ± 1.62), with a mean difference of -0.30 ± 0.54 mmol/L (95% CI, -0.364 to -0.243; $p=0.032$). No significant proportional bias was seen between POCK and PK levels on Band-Altman plot.

Discussion This study provides evidence for the use of POCK as a reliable surrogate for PK in the setting of hypoglycaemia in paediatric patients. Accurate POCK measurement is very useful in the diagnosis and management of paediatric hypoglycaemia. In the paediatric ED, children presenting with hypoglycaemia often do so during episodes of intercurrent illness where dehydration is common, and phlebotomy is challenging. Furthermore, when faced with a small child with hypoglycaemia, timely correction of hypoglycaemia is an urgent priority. While not a substitute for formal diagnostic tests, POCK measurements are quick and easy to obtain, can direct appropriate investigation and allow sample prioritisation where sample volume is limited.

P266

B-LINES SCORE ON LUNGULTRASOUND AS A DIRECT MEASURE OF RESPIRATORY DYSFUNCTION IN PICU PATIENTS WITH SEVERE POLYTRAUMA

Kateryna Dmytriieva, Oleksandr Katilov*, Dmytro Dmytriiev, Kostyantyn Dmytriiev. *Vinnitsa National Medical University, Vinnitsa, Ukraine*

10.1136/archdischild-2019-epa.616

Purpose Fluid overload is frequently found in critically ill pediatric patients with severe polytrauma (SP) and is associated with adverse outcomes. Lungultrasonography (LU) and bioimpedance spectroscopy (BIS) are potentially useful tools for the noninvasive volume assessment. We evaluated the utility of these measures, alone or in combination, in estimating the $\text{PaO}_2/\text{FiO}_2$ ratio in critical pediatric patients with SP.

Methods In a prospective pilot observational study we included 23 patients who presented on admission or developed at any time during intensive care unit stay SP. Patients were studied at baseline and after 48 h with LU, BIS and arterial blood gas.

Results In the univariable analysis, the $\text{PaO}_2/\text{FiO}_2$ ratio was negatively correlated with the B-lines score, and this