

care for children presenting with anaphylaxis. We aimed to audit our local management against national standards.

Method A retrospective audit was conducted including all patients admitted with Anaphylaxis between Feb and August 2014 with an aim to evaluate our practice against national standards. Total of 10 patients were identified who were referred via A&E department as anaphylaxis.

Result Majority of patients were aged above 5 years. More than half of these children had associated food allergies. 77% of our patients presented with mild allergic reaction and facial swelling was the commonest presenting symptom. IM adrenaline was given in 44% of patients. However, none of these patients have any life-threatening airway and/or breathing and/or circulation problems. These patients did not receive nebulised bronchodilator or adrenaline. All our patients were observed for 6–8 h.

77% of patients were prescribed adrenaline auto-injector on discharge however; none of these had documentation of training being given for auto-injector. 100% of patients who were prescribed adrenaline auto injector had follow up arranged before discharge.

Conclusion Lack of formal structure to the management of children who presented with allergic reaction or anaphylaxis was identified. Children who were managed as anaphylaxis did not meet criteria. Hence, strong need was felt to establish local guidelines for managing allergic reactions according to severity of reaction as well as clear definition for anaphylaxis. We introduced guidelines locally as an aide-memoir to facilitate consistency of care as per National standards.

It was also recommended to include common paediatric emergencies as part of induction programme for both paediatric and A&E staff.

We aim to re audit in six months.

G99(P) RESUSCITATING RESUS

C Edmondson, M James, S Bangalore, B Williams. *Department of Paediatrics, Northwick Park Hospital, London, UK*

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Aims Critically sick children need to receive appropriate resuscitation as swiftly as possible. The Resuscitation Council state 'Staff (should) have immediate access to appropriate resuscitation equipment and drugs' with a 'reliable system of equipment checks and replacement'. Clinical incident reporting and weekly simulation training identified latent environmental errors in the paediatric resuscitation bay in the emergency department of busy district general hospital. Our aim was to identify reasons for this and areas for improvement.

Methods This was an observational study of time taken for trainees to find emergency equipment. Two lists were devised of simple airway and intravenous access and fluid bolus equipment. We timed one trainee finding specific equipment in our current resuscitation bay, identifying improvement areas using trainee and observer feedback.

After a multi-disciplinary departmental meeting to consolidate opinion, an action plan was devised. We then redesigned the bay and retimed a trainee finding the same equipment.

The changes involved creating three uniform circulation trolleys of paediatric cannulation and fluid bolus equipment. Labels were placed below each piece of equipment and photographic checklists created. The same principles were used for the airway trolley.

Results

	Trainee 1 (Pre Changes)	Trainee 2 (Post changes)
Airway test	2 mins 34 s	1 min 49 s
Circulation test	6 min 31 s (incomplete)	1 min 7 s

Prior to the changes, Trainee 1 took a protracted amount of time to find a paediatric non-rebreath mask and during the circulation speed test, could only find half a culture kit after searching multiple trolleys and used the last bag of 10% dextrose in the paediatric bay. After our changes, Trainee 2 found all airway adjuncts in the airway trolley and only required one grab trolley to successfully collate all circulation equipment with a decrease in time.

Conclusions Although two different trainees were used, both were similar grades with a similar amount exposure to the resuscitation bay. We showed with no money or extra resources you can ensure a safer environment for patients by ensuring uniformity and clear labelling. Staff reported finding the area easier to navigate, more intuitive and clearer to restock.

G100(P) "PRESCRIBING THE REMEDY: CO-LOCATED OUT-OF-HOURS GP – WHAT WOULD THIS ACTUALLY MEAN FOR A PAEDIATRIC EMERGENCY DEPARTMENT?"

S Foster, C Bisset. *Emergency Department, Yorkhill, Royal Hospital for Sick Children, Glasgow, UK*

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Aims Currently the challenges faced by urgent and emergency services overwhelm the capacity of the system. The publicly perceived lack of accessible and effective alternatives to the emergency department is evident. Co-location of an out of hours GP (OOH-GP) facility enables patients to be appropriately streamed to primary care services following a triage assessment.

The College of Emergency Medicine sentinel sites project identified that 15% of ED attendances are 'inappropriate', with young children the largest sub-group. We aimed to explore this further.

We examined the demographics of patients presenting to a tertiary Paediatric Emergency Department (PED) and assessed the ability of the PED triage nurse in identifying appropriate patients for re-direction to OOH-GP services.

The study aimed to assess the potential impact a GP re-direct policy (RP) would have on the PED and patient safety.

Methods Patient records were reviewed for all triage category 4 and 5 (T4 and T5) patients presenting to the PED in June (1st–14th) and September (8th–21st). Demographic data was obtained and reviewed. Cases were assessed for eligibility against a current OOH-GP RP being utilised in a local mixed ED.

Additionally, during the second 2-week period in September the ED triage nurse (TN) provided their subjective opinion, based solely on their triage assessment, on whether the patient was appropriate for GP redirect.

Results 1,556 T4 and T5 cases present to the PED – over 30% fulfilled the OOH-GP RP criteria. This increased to 50% in under 1s.

70% of all T4 and T5 cases were self-referrals with 34% eligible for OOH-GP redirect. GP/OOH-GP referrals made up 17% cases but 30% of these also fulfilled the RP to OOH-GP services.

Using the RP, 3.8% of all patients would be 'inappropriately' redirected but if decision to re-direct were based only on TN assessment this reduced to 3.6% with a 58% reduction in T4 and 5 patients being seen 'unnecessarily' in the PED.

Conclusions Over 30% of T4 and 5 patients presenting to the ED would be appropriate for re-direction to primary care services – 12% of all attendances. This would be considerably higher if a more inclusive RP was created to account for trivial and non-urgent presentations to ED. TN assessment safely and accurately identifies patients requiring PED specific care.

G101(P) TIME FOR BETTER NORMAL RANGES? THE IMPACT OF DISCONTINUITIES IN NORMAL RANGES FOR HEART AND RESPIRATORY RATE IN PAEDIATRIC A&E

¹AJ McArdle, ¹PA Stilwell, ²H Kwong, ³M Blair. ¹Department of Paediatrics, Northwick Park Hospital, London, UK; ²Faculty of Medicine, Imperial College, London, UK; ³Department of Paediatrics, Imperial College, London, UK

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Aims Clinical assessment in A&E is heavily influenced by physiological parameters. However, paediatric normal ranges have large discontinuities and are based on poor evidence. Evidence-based centile charts (Fleming *et al*, 2010) demonstrate striking disagreements with widely used ranges.

We studied the change in proportion of children with high triage observations by age, and investigated whether discontinuities at age transitions are associated with discrete changes in management.

Methods We obtained details of 14,831 children attending our paediatric A&E in 2013 (excluding psychosocial and trauma) and extracted missing triage observations from scanned records. We determined whether CRP was measured for each patient.

Though our department uses PEWS normal ranges (transitions at age 1, 5 and 12) we used the more widespread APLS ranges for classification. High triage observations were determined by APLS, centile charts (90th centile) and derived normal ranges. For APLS, steps in proportions were determined with discontinuous linear regression.

Separately, we used spline regression models to test for the presence of steps at age 1, 5 and 12 in length of stay, probability of admission and CRP measurement, with subgroup analysis of children <8y with triage category "fever".

For children presenting with wheeze, we compared the proportions receiving burst therapy or intravenous treatment prior to and after the first, fifth and twelfth birthdays.

Results The proportion of high triage observations by APLS showed significant steps at age 1, 2, 5 and 12. 16% of APLS classifications mismatched classification by centile chart. With derived age-specific normal ranges, this fell to 2%.

We found no evidence of discrete changes in length of stay, probability of admission or measurement of CRP at the age boundaries. Similarly, in the febrile children and wheeze subsets we found no steps.

Conclusions The APLS normal ranges create large steps in the proportion of children with high observations at age transitions. However, we found no evidence of effects on management in this large dataset, nor in subgroups where observations contribute strongly to management.

Nonetheless, given the better performance of newer ranges, we encourage their further trial.

G102(P) THE CHARACTERISTICS OF DRUG AND ALCOHOL-RELATED PRESENTATIONS TO THE EMERGENCY DEPARTMENT AMONGST ADOLESCENTS

SS Patwardhan, F Norris, ED Edwards. Department of Paediatrics, Morriston Hospital, ABMU Health Board, Swansea, UK

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Introduction Concerns have been raised about the increasing presentation of children and young people (CYP) to the Emergency Departments (EDs) having taken recreational drugs or alcohol.

Aims The aims of this study are to estimate the proportion of drug and alcohol-related presentations to a large ED and to identify associated patient and presentation characteristics.

Methods A retrospective analysis of patients aged 12–18 years attending a large ED from January 2012–December 2012 was carried out. Characteristics of all presentations related to alcohol and recreational drug use were recorded.

Results 167 patients were included in the study. 35% of patients were under 16 years of age, over 50% were female and over half of the presentations were at night or weekends. 51% presented with an altered level of consciousness, other presentations included respiratory or circulatory compromise, agitation, vomiting and injuries. Alcohol was the commonest substance taken seen in over three quarters of presentations, 38% had taken illegal drugs and 18.5% admitted to taking both drug and alcohol. 78% presented to the ED via an ambulance. Investigations were performed in approximately half of the patients and included CT (0.5%), ECG (23%), blood tests (22%) and urine toxicology (4.3%). More than two-thirds did not receive any treatment but 16% of those attending the ED were admitted, mainly because of the effects of alcohol. 49% of admitted patients were under 16 years of age.

Conclusion The number and presentations of alcohol and drug related attendances present a risk to CYP and is a burden to the ED and paediatric inpatient services. Effective intervention and preventative strategies are needed to reduce drug and alcohol related behaviour and co-morbidity.

G103(P) ANALYSIS OF CONJUNCTIVITIS MANAGEMENT IN PAEDIATRIC EMERGENCY DEPARTMENT

P McCrossan, S Deiratany, I Okafor, R McNamara. Emergency Department, Children's University Hospital, Temple Street, Dublin, Ireland

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Aims The aim of this study is to demonstrate an evidence based clinical guideline for the management of conjunctivitis and to illustrate the performance of a paediatric emergency department in its management of presentations of conjunctivitis.

Methods An evidenced based clinical guideline was developed. This guideline was then used as a set standard by which to assess the performance of the emergency department at CUH in its management of conjunctivitis. Data was collected retrospectively. All patients who attended CUH (children's university hospital) diagnosed with conjunctivitis, between 01/06/14–31/08/14 were used for analysis. The emergency department notes for these patients were examined and details of their presentation and subsequent management was noted. These details were collated and compared with the set standard outlined by the new clinical guideline.