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

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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 mangement.

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

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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

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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.

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