

receiving chelation therapy and are on regular transfusion therapy since last 2 years.

**Results** 51 Patients of beta thalassemia major were required for total sample size. It was further enhanced and rounded off to 75 patients, assuming 10% attrition/drop out/lost to follow up, equally divided into 3 groups. History, clinical examination and baseline investigations (FBC, renal function tests, and liver function tests) were done. Serum ferritin and baseline investigations were repeated at 3 months, 6 months and 1 year. Patients were clinically monitored for nausea, vomiting, abdominal pain, skin rashes, walking difficulty, hearing difficulty and vision impairment.

	Deferiprone Group	Deferasirox Group	Combination Group
Mean S. Ferritin reduction	1597.4±245.098 ng/ml	1503.72±332.36 ng/ml	1768.12 ±340.644 ng/ml
Raised Urea	4% of patient	8% of patient	4% of patient
Raised Creatinine	12%	20%	8%
Raised ALT	8%	40%	12%
Raised AST	8%	28%	20%
Neutropenia	12%	4%	4%
Agranulocytosis	4%	None	None
Thrombocytopenia	8%	4%	8%
Nausea/Vomiting/abdominal pain	None	4%	4%
Skin Rashes	None	4%	None
Arthropathy/Arthritis	8%	None	None
Jaundice/Difficulty in hearing/ Vision impairment	None	None	None

**Conclusions** Both deferiprone and deferasirox are highly effective in reducing serum ferritin, either single or in combination. Deferiprone and deferasirox combination is more effective in reducing serum ferritin than deferiprone alone or deferasirox alone. Both drugs either single or in combination are safe and well tolerated. Thalassemia patients on deferiprone chelation therapy should be monitored with absolute neutrophil count (ANC) and platelet count at regular interval. Those on deferasirox chelation therapy should be monitored with urea, creatinine, ALT, AST at regular interval.

## Young People's Health Special Interest Group

### 894 MANAGED KAOS: MEDICAL AND SOCIAL COMPLEXITY OF ADOLESCENT INPATIENTS AT AN INNER-CITY TEACHING HOSPITAL, A TWO-YEAR EXPERIENCE

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**Background** Adolescence (10–19 years) and young adulthood (20–24 years) are often seen as the healthiest times of life, yet 22% of 16–24 year olds report living with a chronic condition, 45% of these conditions involve their mental

health. Adolescents in hospital are an under-researched cohort, they may be located on different wards across the hospital under paediatric and adult teams and are often invisible as a group.

To address this, in 2018 we created KAOS, an Adolescent Outreach Service where a youth worker team visits adolescent inpatients prospectively, supported by a clinical team, providing risk assessment, support, information and advocacy.

**Objectives** To review the two-year experience of KAOS in a large inner-city teaching hospital and regional referral centre.

**Methods** We collected cross-sectional data at the time of contact with KAOS (n=540 patients, 47% female). Stata was used to test correlation, with a Pearson rank coefficient, between borough Index of Multiple Deprivation (IMD) and number who had mental health or safeguarding need.

**Results** 540 inpatients (11–26 years) were seen by KAOS from April 2018–April 2020. 43% had a chronic physical or mental health condition, 63% had medical complexity, denoted by being under two or more clinical teams. Areas of adolescents' need identified included: 29% mental health, 12% safeguarding, 12% education or employment, 10% sexual health, 4% substance use. 43% came from two boroughs neighbouring the hospital. The borough IMD had a moderate positive association with the number who were inpatients ( $r = 0.31$ ), the number who had safeguarding ( $r = 0.38$ ) or mental health need ( $r = 0.36$ ).

**Conclusions** In-hospital adolescents are medically complex and more socially vulnerable than their out-of-hospital peers. Clinicians may underestimate this and we advocate for an adolescent outreach team to proactively identify and address these needs.

## British Paediatric Respiratory Society

### 895 ASSOCIATION BETWEEN ELECTRONIC CIGARETTE USE IN CHILDREN AND ADOLESCENTS AND COUGHING – A SYSTEMATIC REVIEW

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**Background** The use of electronic cigarettes (e-cigarettes) among adolescents is increasing worldwide. E-cigarettes are marketed as a safe alternative to other tobacco products with the aim of aiding smokers to quit and preventing non smokers from starting. However, there are concerns that e-cigarette use in adolescence may be a gateway to smoking later in life. Not much is known about the safety profile of e-cigarettes, particularly in children and adolescents. E-cigarettes have been linked to acute respiratory conditions resulting in hospitalisation but less is known about chronic effects and whether e-cigarettes can cause every day respiratory symptoms, similar to how coughing is seen with other tobacco products in adults and adolescents.

**Objectives** The aim of this systematic review is to evaluate whether e-cigarette use in children and adolescents can result in increased rates of coughing compared to non-users.

**Methods** Studies were identified through systematic searches of Excerpta Medica Database, Medline, Cumulative Index