clinic outcomes, information capture and results follow-up, dictation and letter writing. This was followed by an interactive 'choose your own adventure' section covering the art of outpatient practice, including the hidden agenda, shared decision making, Maslow's hierarchy of needs, the gift exchange, and managing uncertainty. A separate session on case-based examples of common presentations such as abdominal pain and headache, including the evidence base around investigation and management and applying the aforementioned principles.

Participants scanned a QR code before and after each session to rate their knowledge and confidence pre and post, and give feedback on the sessions.

Results Half of participants (n=22) said they had not had adequate time to attend outpatients. Their mean confidence in dealing with common outpatient conditions prior to sessions was 6.4/10. Articulated concerns included '*not knowing how to proceed with a case if help isn't immediately available*', '*not knowing how to follow up*'.

Post session, participants' mean confidence was 8.9 (39.1% increase). The mean score for usefulness of sessions was 10/10. Participants stated an appetite to receive more outpatient training including '*more video demonstrations, how to start outpatient consultations, how to finish, to learn communication in outpatient settings*'.

Participants fed back that the sessions 'Helped me realise there is no set style and you have to find a way of your own', 'It has given me tips on how to get to the real reason for the patient coming to the doctor'.

Conclusions Trainees' confidence in the outpatient setting can be increased with the use of a training programme delivered within the departmental teaching rota dedicated to the art and practice of outpatients with case-based illustrative examples. This session will be run for each subsequent cohort of trainees.

Child Protection Special Interest Group

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CHILD SEXUAL ASSAULT FORENSIC ASSESSMENTS – AN IMPROVEMENT PROJECT

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Background The forensic assessment of children with alleged child sexual assault (CSA) is largely carried out by the child protection units (CPUs) of tertiary hospitals in Australia on a 24/7 basis. The doctors on these rosters are a mix of community, general and child protection paediatricians. The case numbers are low and they are often referred out of hours and at the weekends. These assessments are time-critical, have huge medical, emotional and legal ramifications for the family and, as such, can be anxiety-provoking for the clinician. At Sydney Children's Hospital (SCH), we decided to address this problem by doing a Quality Improvement (QI) project.

Objectives To ensure 100% of doctors on the on call CSA roster were confident they could carry out CSA forensic assessments according to the New South Wales (NSW) forensic guidelines by February 2021.

Methods This project was registered and approved by the Clinical Governance Unit (CGU) of SCH network and followed standard QI methodology. Initially the problem was identified, a SMART aim agreed upon and the stakeholders consulted. There was a wide consultation process looking at

previous projects assessing a similar problem. A driver diagram was produced with primary drivers of patient and clinician factors, resources and equipment required and the NSW forensic guidelines for CSA. Various problems were identified such as incorrect labelling, wrong samples being taken, not acquiring the correct consent and what to do in certain common scenarios such as a child refusing examination.

One solution was to produce a CSA simulation programme for paediatricians which would address all the primary and secondary drivers. CSA was likened to paediatric resuscitation in that it often occurs after-hours, is rare, time-critical and there is only one opportunity to get it right. We therefore partnered with the simulation department at the hospital.

Results A one day simulation package was written and produced in conjunction with the simulation team at SCH. The pilot forensic CSA workshop was delivered to a group of paediatricians (n=6) currently on the on call roster. The simulation material comprised of a communication station, forensic swabs and toxicology, colposcopy and sexually transmitted diseases screening. Various educational modalities were used such as an instructional video, simulation of pelvic models with hand-made silicon hymens in different states of injury and role play. There was an evaluation before and after using the Likert scale. Pre course evaluation demonstrated 5/6 (80%) of paediatricians 'strongly disagreed' or 'disagreed' that they were confident in the CSA forensic examination process. Post course evaluation demonstrated 6/6 (100%) of paediatricians 'agreed' or 'strongly agreed' that they were confident with the examination.

Conclusions The infrequent yet critical nature of a CSA forensic examination requires the clinicians delivering the service to have the correct skills and training and be able to maintain them. The QI process identified a solution of a simulation package that was created and delivered by the clinicians from SCH. The pilot workshop has been well received and pre and post evaluation of the workshop demonstrated a 100% increase in the confidence of the doctors.

Paediatric Special Interest Group: British Society of Haematology

893

EFFICACY AND SAFETY OF DEFERIPRONE AND DEFERASIROX EITHER SINGLE OR COMBINATION IN BETA THALASSEMIA MAJOR PATIENTS ON REGULAR TRANSFUSIONS

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Background Iron chelation therapy has a very important role in the management of beta thalassemia major patients, who are on regular transfusion therapy. The objective of the study was to compare the efficacy and safety of deferiprone and deferasirox either single or in combination in reducing serum ferritin levels and effects on complete blood count, renal function tests & liver function tests in thalassemia major patients.

Methods This was a hospital based prospective observational study in India. The participants were thalassemia patients of age group 2–18 years with serum ferritin levels >1000 ng/ml,

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 as 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