around this time adds significant complexity. Sheffield has a seamless adolescent rheumatology service spanning both paediatric and adult hospitals, aiming to provide developmentally appropriate healthcare (DAH). To exemplify the benefits of this approach, we present two adolescents with the rare combination of large vessel vasculitis and inflammatory bowel disease. Case A was diagnosed in the Children's hospital and B in adult services, within 1 month of each other. Within the seamless service we were able to coordinate a patient-centred approach both for complex medicines management and ongoing clinical care.

A: 17 year-old male with complex inflammatory bowel disease since age 2. Treated with oral steroids with poor response to multiple DMARDs, biologics and elemental nutrition. Health professionals doubted good adherence and he needed extensive input. Vedolizumab was started in 2019 with improvement of gut symptoms but subsequent investigation of neck pain revealed stenotic large vessel vasculitis (LVV) and a diagnosis of Takayasu arteritis was made.

B: 17 year-old male with ulcerative colitis, diagnosed aged 14. Treated with infliximab and azathioprine when transferred to adult gastroenterology services. Atypical symptoms developed in 2019 and chest CT/PET-CT confirmed LVV (Takayasu arteritis).

LVV is a rare, life-threatening condition. Well-established team working enabled sharing of paediatric and adult rheumatology and gastroenterology experience. This enabled rational, tailored treatment plans to be devised through shared professional expertise – A has stopped vedolizumab and started tocilizumab, B has started adalimumab and both started methotrexate.

LVV needs lifetime monitoring. Planning for that monitoring (imaging, serology, biopsychosocial care) in adult services is therefore an important part of initial management. A and B are at different developmental stages. Our service enables DAH with A remaining in paediatrics, but with care planned to facilitate transition and ongoing management in adult services, B continues in adult services with the benefit of paediatric experience in managing Takayasu arteritis.

'Adolescent responsive services' are key in developmentally appropriate healthcare. The Sheffield Seamless Adolescent Rheumatology service is an example of this in practice.

G537(P) VITAMIN D PREPARATIONS: WHAT'S IN THE BOTTLE?

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10.1136/archdischild-2020-rcpch.455

Aims The UK incidence of vitamin D prescribing in children has increased by 26-fold in recent years. Public Health England recommends that children over 1 year take a daily vitamin D supplement. But the availability of over 200 different vitamin D products can be confusing for parents and clinicians. Our study aimed to assess the usage of licensed and unlicensed vitamin D only (VDO) preparations across primary care in England, and to compare measured and labelled

vitamin D content of VDO preparations marketed in England.

Methods

- Analysis of the vitamin D content of randomly selected VDO preparations using reversed-phase high performance liquid chromatography.
- Retrospective trend analysis of prescription reimbursement data for VDO prescriptions from 2008 to 2018.

Results Licensed and unlicensed VDO preparations were available in a wide range of dose strengths from 400 to 50,000 IU. The number of licensed VDO preparations increased from 4 to 32 between 2008 and 2018, along with an increase in the proportion of VDO prescriptions fulfilled by licensed preparations. However, prescriptions of unlicensed preparations remained high and accounted for 42% of the prescription items in 2018. The 11 unlicensed preparations analysed had vitamin D concentrations ranging from $41.2 \pm 10.6\%$ to $165.3 \pm 17.8\%$ of the declared content, with only one meeting the acceptable criteria of 90–125%. The 2 licensed preparations met the required standards. There was no association between the preparation dose strength and the magnitude of percentage difference between measured and labelled contents ($r=0.41$, $p=0.17$). Unlicensed liquid preparations in dropper bottles showed the greatest inter-sample variability suggesting there may be a lack of uniformity in drop volume delivered which could lead to dose variability.

Conclusion Despite the increasing availability of licensed preparations with assured quality, use of unlicensed preparations to fulfil VDO prescriptions has continued in primary care in England. Unlicensed VDO preparations marketed showed wide variations between measured and declared vitamin D contents. Younger children who are more vulnerable to harm are thus exposed to unnecessary risks of under- and over-supplementation.

G538(P) YOUTH VIOLENCE: HOW CAN WE INTERVENE?

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10.1136/archdischild-2020-rcpch.456

Introduction Interpersonal violence involving sharp instruments or firearms continues to rise in the UK. Recent evidence indicates an association between social deprivation and violence against youths, emphasising the importance of addressing psychosocial issues early in adolescence through appropriate assessment and delivery of psychosocial care. The HEEADSSS assessment is a valuable tool in helping clinicians identify areas of psychosocial concern. This study aims to identify the epidemiology of such assaults in London presenting to a local trauma centre, assess whether residence in a high-depravity area increases the risk of violent injury, and determine whether further psychosocial steps can be taken to reduce risk of reoccurrence in these individuals.

Methods Data from the emergency department of a major trauma centre in West London was retrospectively reviewed in those <25 years presenting in 2018 with injuries arising from assault with weapon. Gender, age, home postcode, data from

previous admissions and psychosocial assessments or referrals made were collected. Home postcodes were matched to local authority districts and mean index of multiple deprivation decile was calculated for that area, with 1 being the most deprived.

Results Two hundred and thirty-seven cases of violent injury were included; 94.5% of cases were male and the mean age was 19.4 years. The local authority district in which the highest number of victims resided had a mean index of multiple deprivation score of 3.7. Of all cases, only two patients received a full HEEADSSS assessment. 63.3% of individuals received a form of psychosocial referral, and 15.9% of these referrals were to third sector organisations. 8% of victims had been previously stabbed. Of those that had presented to the same major trauma centre in the past due to a stabbing, none held a recorded HEEADSSS assessment and 25% received no form of psychosocial referral nor intervention.

Conclusion There continues to exist a prevalence of youth violence predominantly against young males. HEEADSSS assessment methods can be optimised to improve yield and identify adolescents at higher risk of sustaining injury. Screening must be followed up with timely and appropriate innovative interventions, suited to individual social circumstances, to prevent reoccurrence of violent incidents.

Footnote Home, Education/Employment, Eating, Activities, Drugs, Sexuality, Suicidal ideation and Safety from injury and violence(HEEADSSS)

G539(P) ARE WE REQUESTING TOO MANY STOOL CULTURES IN PAEDIATRICS? AN EXPERIENCE FROM PRIMARY AND SECONDARY CARE

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10.1136/archdischild-2020-rcpch.457

Aims Finding the causative organism does not usually change the management of acute infective gastroenteritis, hence investigations such as stool culture should only be performed in selective cases. We intended to find if General Practitioners and Paediatricians were requesting stool cultures appropriately as recommended by the NICE guidelines for the diagnosis and management of diarrhoea and vomiting caused by gastroenteritis in children under 5. The guidelines recommend the performance or consideration of performance of stool microbiological investigations in specific cases, for instance in the presence of blood and/or mucous in stool.

Methods Data was collected retrospectively from children under 5 years of age who had stool cultures performed over a period of 6 months (May 2018 to October 2018) in their local hospital or GP practice. The list of patients was provided by the laboratory and the information about the clinical indications and results was collected via the Information Technology system shared between primary and secondary care. The information about management was obtained from GP surgeries and hospital records.

Results A total of 334 stool samples (GP practices=260 and Hospital=74) were sent for culture. The requests were inappropriate for the majority of patients with an overall of 58%

(62% in community vs. 45% in hospital). Bacterial growths were observed in 7 samples (3 salmonella and 4 campylobacter). From all the appropriate requests (139), 4.3% were positive for bacterial growth and 0.7% were treated with antibiotic therapy. From the inappropriately requested samples (195), 0.5% were positive for bacterial growth with no patient receiving antibiotic treatment.

Conclusion A significant number of stool culture requests by primary and secondary care did not follow the NICE recommendations. Inappropriate requests were more prevalent in primary than secondary care. There is a scope to investigate the reason for this difference. The probability of diagnosing a bacterial growth in a stool culture was significantly increased by approximately 8 times where recommendations were followed. Requesting investigations appropriately would also decrease unnecessary workload and reduce the burden on NHS finances.

G540(P) ADOLESCENT BREAST LUMPS: DEVELOPMENT OF A ONE STOP PATHWAY

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10.1136/archdischild-2020-rcpch.458

Introduction All post pubertal females presenting with breast lumps were previously sent to the paediatric oncology clinic via the 2 week wait pathway. They would be seen in clinic, examined and when a lump was confirmed an out patient ultrasound was then requested (on a separate day, usually a few weeks later). The young person would then re-attend the oncology clinic to get the results and management plan before finally being discharged. The whole process could take up to 6 weeks. Gp surgeries would usually advise families incorrectly that a scan would take place on the same day. When this then didn't happen this would lead to additional anxiety on top of the fear that their young person could have cancer (even though that was never the case).

Aims To streamline the process so that it resembled the adult one stop process (minus the biopsy) thereby alleviating fears and worries quickly and minimizing hospital visits.

Method An average 35 post pubertal females were referred in annually with breast lumps to the paediatric oncology clinic. Two female pediatricians with an interest in oncology met with adult breast surgeon and breast radiologist to agree a one stop pathway. One radiology slot identified at the start of the adult clinic that could be utilized by adolescent if lump identified in new patient clinic slot.

Results One stop pathway set up with patient information leaflet (Adolescent focused highlighting benign nature of these type of lumps) sent to families prior to appointment setting out process and likely outcome. Well evaluated by adolescents and families. No loss of income to trust

Conclusions An efficient pathway that reduces time to diagnosis and management plan thereby alleviating anxiety and reducing time out from school/off work (parents). Historically GP's assumed that scans would happen on the same day and so incorrectly advised patients. By matching the adult process this is avoided. Could similar one stop pathways be used for other adolescent conditions and transition pathways as they are in adults?