March 2019. Inclusion criteria were original research studies identifying barriers and/or facilitators of medicines adherence in children (aged 0–18 years) and included all countries and languages. Exclusion criteria included review articles, editorials, conference papers, reports and studies in adults only. As a reliability measure, 5% of titles and abstracts were assessed independently by a second researcher. Quality assessment was performed on all included studies using the STROBE checklist for observational studies and Cochrane collaboration tools for randomised controlled studies and was checked by a second researcher.

Results Of 9,360 papers identified by the search, only 172 articles met the inclusion criteria. Most studies were conducted in the US (76), with 11 in the UK, six in Canada and the remaining 79 studies in various countries. Diseases studied included: HIV/AIDS (60), asthma (25), kidney or liver diseases and transplants (18), psychiatric disorders (12), inflammatory bowel disease (10), epilepsy (9) and others (38). Various tools were used to identify barriers and facilitators to medicines adherence. These included 131 studies which used individually designed questionnaires, 32 studies used validated questionnaires and the remaining 9 studies used patients' medical data. Forgetfulness and fear of side effects were the most common reported barriers to medicines adherence. Others reported barriers to adherence included family conflict, weak patient-provider relationships, stigma and discrimination, drug regimen complexity and lack of support from families. Factors reported to facilitate high rates of adherence included the linking of medicine taking with daily life routines, using reminders to avoid forgetfulness, a higher level of caregivers and parental education and good communication between healthcare professionals, patients and parents.

Conclusion The main findings of this systematic review show that children faced many and varied barriers to medicines adherence with different diseases. Using reminders to avoid forgetfulness and good communication between healthcare professionals, patients and parents were the most common facilitators. To achieve optimal adherence, healthcare providers need to be aware of these barriers and to consider the most appropriate facilitators to encourage patients to take their medicines as prescribed.

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P05

AN AUDIT OF PROTON PUMP INHIBITOR PRESCRIBING, IN ADHERENCE WITH THE TRUST'S GUIDANCE, IN GASTRO-OESOPHAGEAL REFLUX DISEASE

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Aim The effectiveness of proton pump inhibitors (PPIs) have been demonstrated. Nevertheless, the choice of PPI that should be used is less absolute. The clinical effectiveness, availability of the formulation, co-morbidities, route of administration and lowest acquisition cost are all considerations that

should be accounted for when determining the appropriate therapy. Current Trust guidance recommends lansoprazole capsules and oral dispersible tablets as the first line PPI, unless other indications preclude its use. Other UK hospitals have audited PPI prescribing and their findings highlight that adherence upon deployment was poor.^{1 2} This audit aims to assess if written outpatient prescriptions are adhering to the guidelines.

Method This study was conducted prospectively in the outpatient pharmacy, between February and March 2019. The defined data collection period was 5 weeks, which included a 1-week pilot study. The accumulation of data involved reviewing all outpatient prescriptions, whereby PPIs were prescribed, noting if the Trust's guidance on PPI prescribing was being adhered to. Data was collected via a structured pro forma to assess the percentage compliance against the three predetermined standards:

Standard 1 - Is the PPI prescribed appropriate?

Standard 2 - Is there a documented indication for the prescribed PPI?

Standard 3 - Is the dose appropriate for the patient?

Results There were a total of 84 prescriptions received from 13 different specialties. The age range of patients was 1 month to 16 years with a mean ($\pm$ median) age of 7.66 ± 7 years. The overall compliance with the Trust's guidelines for standards 1, 2 and 3 were 76%, 88% and 100% respectively. The infant and toddler age group (28 days – 23 months) showed the least compliance in standard 1, the choice of appropriate PPI (63%). The most common indication was gastro oesophageal reflux disease. Paediatric Gastroenterology received the greatest number of prescriptions over the data collection period. 12% of prescriptions did not have a documented indication and the most common PPI prescribed in the outpatient pharmacy was lansoprazole, which accounted for 64 (77%) of the prescriptions.

Conclusion The findings in this study are synonymous to that of other audits conducted in UK hospitals, where compliance with PPI guidelines were explored. Possible factors that could be attributed to the low levels of adherence are problems with implementation, lack of enforcement of the guidelines, patient/guardian preferences and presence of enteral feeding tubes. Clinicians should monitor their prescribing and where applicable, switch patients who are currently on omeprazole suspension, to lansoprazole oral dispersible tablets/capsules. This could lead to significant monetary savings for the Trust.

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P06

IMPROVING RENAL FUNCTION MONITORING DURING CHEMOTHERAPY- A ROLE FOR CYSTATIN C?

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Aim Renal toxicity causes major morbidity following chemotherapy- abnormal iGFRs may be detected in up to 73.7% of patients.¹ Creatinine is universally used as a biomarker to track fluctuating function and to calculate surrogate glomerular filtration rate (GFR) in the form of estimating