of normal (ULN) with normal serum bilirubin should prompt repeat LFTs within 8 weeks.[1] ALT/AST greater than five times ULN, or greater than three times ULN with high bilirubin warrants treatment being interrupted.[1–3]

Results 31 patients were reviewed. 30 patients (97%) had baseline LFTs. 10 patients (32%) had LFTs at 3 months. Of the 21 patients who did not, 15 of those had their first set of LFTs taken too early at 1 or 2 months and 6 were taken late at 4,5 or 6 months. Zero patients had four sets of LFT results taken at the correct 3-monthly intervals in the first year. 4 patients (13%) had at least one set of abnormal LFTs. 50% of abnormal results were acted upon in accordance with guidelines.

Conclusion The results showed that, other than baseline monitoring, current practice is not in accordance with guidelines both in relation to frequency of LFT monitoring and appropriate action being taken on the finding of abnormal results. Further study is required to investigate the reasons for poor outcomes and how compliance with the guidelines can be improved. Encouragingly, the rate of liver impairment as an adverse drug reaction was low. Trial data should be reviewed to assess the significance of waiting until month 3 to start LFT monitoring (i.e. when do deranged LFTs typically first manifest?) and therefore whether early testing is problematic (in patients with no history of liver impairment). Guideline development should be an area of focus to put measures in place to improve guideline compliance. However, with MDT agreement, consideration should be given to adapting local practice to deviate from national guidance to better fit real-world practice.

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P29 CREATING A DIGITAL PATIENT HELPLINE FOR MEDICINES INFORMATION AT A SPECIALIST PAEDIATRIC HOSPITAL

Devansh Khanderia*, Nikki Acton, Caroline Dalton. *Great Ormond Street Hospital*

10.1136/archdischild-2023-NPPG.28

Aim To improve the patient facing aspect of a Medicines Information (MI) service by setting up a patient helpline that meets the needs and expectations of patients and carers at the Trust. The MI team identified a patient helpline as a potential area for improved visibility and growth within the service.[1] To align with other clinical workstreams within the Trust, the MI team decided to develop a virtual helpline within an existing patient facing app, a digital platform used by families to communicate securely with their clinical teams.

Method The MI team and the Trust ICT team worked together to create a contact box within the existing 'Medication' page on the app, through which patients can ask clinical questions about their medicines. All in-app messages arrive directly to an inbox within the EPMA system, ensuring patient confidentiality remains intact.

To limit enquiries unrelated to MI (requests for repeat prescriptions or supply of medication) and to give users an expected turnaround time for answers to enquiries, a brief description of the MI service was added to the Medication homepage. For all urgent enquiries and clinical emergencies, app users are signposted to a more appropriate service via an automatic response. Baseline data (number of enquiries) from patients or carers were retrospectively collated over an 18 month period prior to the intervention using MiDatabank software. Throughout the first 4 weeks of the service launch, all enquiries received via the app were recorded using Microsoft Excel. Relevant clinical enquiries were also inputted into MiDatabank following standard MI practice. The overall number of enquiries received during this time and the percentage answered on time were also recorded as part of standard MI Key Performance Indicators (KPIs).

Preliminary Results The MI team received 78 enquiries from patients or carers in the 18 months prior to the app service launch, 72 of these enquiries were relevant to MI (approximately 4 per calendar month). During the first 4 weeks, 82 enquiries were received via the app alone. Of these, 13 enquiries were relevant to MI with 69 enquiries relating to supply. Full analysis of key themes and trends is ongoing.

Conclusion The data have clearly demonstrated an increase in direct contact from patients and carers to the MI service; within 1 month there has been a 4-fold increase in enquiries compared to baseline data. The main limitation of the data used as a comparison is that it has only been collected over the first month of launch. To mitigate this the MI team will continue to collect data through 'snapshot' audits at months; 3, 6, 9 and 12. This will help identify whether the MI team are making a sustained impact to patient care through a digital patient helpline.

Given the significant increase in workload for the MI team, the data may be used to support additional staffing within the team.

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P30 PHARMACIST LED ALLERGY CLINIC: IMPROVING PAEDIATRIC PATIENT CARE

Shaista Ahmad. *North Middlesex Hospital NHS Trust*

10.1136/archdischild-2023-NPPG.29

Problem Due to the increase in prevalence and burden of allergic disease, the demand for specialist hospital allergy services is significant,[1] and has given rise to the two main problems. Firstly, increased long waiting times for new and follow-up appointments and secondly patient safety being compromised.[2]

Aim By December 2019, to firstly reduce the outpatient clinic waiting time by 60% for those patients referred to pharmacist clinic for an eczema review after the initiation of topical immunomodulatory therapy. Secondly to complete 100% of medication reviews within 4 weeks for those patients referred to pharmacist clinic on multiple drug regimens with non-adherence issues.

Strategy for change Pharmacist to run one paediatric allergy clinic every two weeks. Plan 1: Eczema review after the

initiation of topical calcineurin inhibitors.[3] Plan 2: Medication reviews for those patients on multiple drug regimens with non-adherence issues. The aims and rational of project were discussed with the lead paediatric allergy consultant and wider paediatric allergy team. The referral criteria were established. The pharmacist clinic ran alongside the MDT clinics.

Measurement of improvement For Objective 1: Reduce the outpatient clinic waiting time by 60% for those patients referred to pharmacist led clinic for an eczema review after the initiation of topical immunomodulatory therapy. To achieve this objective, four PDSA cycles were carried out, there was a reduction in the waiting time with each subsequent cycle. Over the six-month period, 26 eczema reviews were carried out in total, the changes made in PDSA cycles 1 to 4 were implemented for the subsequent reviews, data collected for these patients showed a reduction of 64% in waiting time for eczema reviews after the initiation of TCI's

For Objective 2: To complete 100% of medication reviews within 4 weeks for those patients referred to pharmacist clinic on multiple drug regimens with non-adherence issues. To achieve this objective, three PDSA cycles were carried out, there was a reduction in the waiting time with each subsequent cycle. Over the six-month period, 19 medication reviews were carried out in total, the changes made in PDSA cycles 1 to 3 were implemented for the subsequent medication reviews, data collected for these patients showed that the four-week target was achieved.

Conclusions The introduction of a paediatric pharmacist clinic was received positively by the paediatric allergy MDT and the paediatric allergy patients seen (excellent results from patient satisfaction survey). It has contributed to improving patient care, by improving patient safety and reducing waiting times. The outpatient clinic waiting time was reduced by 64% for eczema review after the initiation of topical immunomodulatory therapy for those patients that were referred to the pharmacist clinic and 100% of medication reviews were carried out within 4 weeks of referral. The clinics had significant cost saving implications through deprescribing and consultant clinic time. Due to the significant success of this project, pharmacist led allergy clinics have been implemented on weekly basis and the pharmacist manages own patient case load.

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P31 ORAL PROPRANOLOL LIQUID: A SNAPSHOT SURVEY OF CONCENTRATIONS IN USE

[1]Andrew Wignell*, [2]Jennifer Duncan, [2]Andrea Gill, [3]Helen Cooper, [4]Nigel Gooding, [5]Stephen Tomlin. *[1]Nottingham Children's Hospital; [2]Alder Hey Children's NHS Foundation Trust; [3]Evelina London Children's Hospital; [4]Cambridge University Hospitals NHS Foundation Trust; [5]Great Ormond Street Hospital*

10.1136/archdischild-2023-NPPG.30

Aim For several drugs available as licensed liquids, multiple concentrations exist. Four different propranolol concentrations are available: 1 mg/mL, 2 mg/mL, 8 mg/mL and 10 mg/mL.[1] Existence of multiple concentrations increases the chance of dosing errors. The Neonatal and Paediatric Pharmacists Group (NPPG) and the Royal College of Paediatrics and Child Health (RCPCH) recommend standard concentrations for some unlicensed liquid medicines[2], but no such recommendation exists for drugs available as licensed products. The British National Formulary for Children (BNFC) advocates that propranolol 1 mg/mL be used to manage infantile haemangioma, but no recommendation is made for other indications.[1] This study aimed to characterise the use of the various propranolol liquid concentrations and determine how closely the recommendation to use 1 mg/mL for haemangioma is followed.

Method A Survey Monkey® questionnaire was created and distributed to NPPG members by email, remaining open for two weeks. Respondents were asked whether the recommendation to use 1 mg/mL for haemangioma is followed in their centres. Where this recommendation was not followed, respondents indicated the alternative concentration used. Use of alternative concentrations for other indications was also probed, plus the rationale for the use of more than one concentration. Centre name was requested to identify duplicate responses, with the plan to subsequently present the data in an anonymised form. Ethical approval was not required.

Results 64 responses were received. Three centres provided duplicate responses; in two of these cases the answers given matched, but in one the answers conflicted. Where the duplicates matched, data was included in the analysis only once for each centre. Where the response conflicted, it was excluded from analysis. Responses from 60 centres were analysed: 57 from the United Kingdom (UK) and 3 from elsewhere. 31 (52%) of centres use 1 mg/mL for treatment of infantile haemangioma, reflecting BNFC recommendations. For those not following the recommendation, 9 used only a 2 mg/mL concentration and 17 used only 10 mg/mL. Two centres used different concentrations according to the dose prescribed; none reported using 8 mg/mL and one non-UK centre reported use of 20 mg/mL. 26 (43%) centres reported using more than one concentration of propranolol liquid. One cited reason included trying to follow both the BNFC recommendation to use 1 mg/mL for haemangioma whilst also trying to meet regional cardiac centre requests to use 10 mg/mL. Deviating from the recommended 1 mg/mL for haemangioma due to patients being unable to tolerate large dose volumes was raised, as was excipient load in some 1 mg/mL products. Respondents expressed a desire to standardise to a single concentration, though the recommendation to use 1 mg/mL for haemangioma was highlighted as a barrier. Treatment of both adults and children within individual institutions was also considered a complicating factor.

Conclusions The recommendation to use 1 mg/mL when treating haemangioma is not followed in just under 50% of centres. Over 40% of centres reported having more than one concentration of propranolol in use. There is a desire to adopt a single standardised concentration for all indications, although there are a number of potential barriers. Further work is needed to establish the best approach for standardisation.

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