REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest Corporate sponsored research or other substantive relationships: I supervise a PhD student who is part funded by a supplier of a commercial electronic prescribing system.

5PSQ-094 HOW CAN PATIENT HELD INFORMATION ABOUT MEDICATION IMPROVE PATIENT SAFETY?

[1]S Garfield*, [2]D Furniss, [1]F Husson, [3]B Jubraj, [4]J Norton, [1]M Etkind, [1]M Willams, [1]O Della, [5]H Lakhdari, [1,5]BD Franklin. *[1]Imperial College Healthcare NHS Trust, Centre for Medication Safety and Service Quality, London, UK; [2]University College London, Interaction Centre, London, UK; [3]Kings College London, Institute of Pharmaceutical Science, London, UK; [4]Imperial Patient Safety Translational Research Centre, Medical School, London, UK; [5]University College London, School of Pharmacy, London, UK*

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Background and importance Studies suggest that in the hospital setting, prescribing errors are most common at admission, largely due to challenges of medication reconciliation. Problems are also common following transfer from hospital into the community and when attending outpatient appointments. Many patients who take medications use patient held information about medication (PHIMed) to improve transfer of medication related information across care settings. However, it is not known how PHIMed is used in practice and the extent to which PHIMed tools available meet the needs of patients and healthcare professionals. Discussion with patients and carers highlighted this as a priority for research.

Aim and objectives To identify how PHIMed is used in practice, barriers and facilitators to its use, and its role in supporting medication safety.

Material and methods We used a mixed methods design comprising two focus groups with patients and carers, 16 semi-structured interviews with healthcare professionals, 60 semi-structured interviews with PHIMed users, a quantitative features analysis of PHIMed solutions available in the UK and usability testing of four PHIMed tools. Participants were identified and recruited in Greater London in 2018, using advertisements on social media, our professional networks and face to face recruitment in outpatient clinics. Findings were triangulated using thematic analysis using distributed cognition for teamwork (DiCoT) models as sensitising concepts. NHS ethics approval was obtained.

Results We found that PHIMed was viewed positively by patients and carers using it and healthcare professionals. We identified a wide range of mechanisms through PHIMed improved medication safety, such as identification of potential drug interactions. However, a key barrier to use was lack of awareness by patients and carers that healthcare information systems are often fragmented, which meant that they had not identified a need for PHIMed. Different PHIMed tools met different needs, with no 'one size fits all' solution. No tools currently meet the core needs of all users.

Conclusion and relevance Healthcare professionals should raise awareness among patients and carers of the potential safety benefits of carrying and using PHIMed, encourage its use during consultations and be able to signpost to some of the tools and features available. PHIMed tool developers should modify their tools in order to meet all core user requirements.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

5PSQ-095 ANALYSIS OF THE TOXICITIES ASSOCIATED WITH TYROSINE KINASE INHIBITORS IN PATIENTS WITH CHRONIC MYELOID LEUKAEMIA

[1]G Garreta*, [1]A Manzaneque, [2]P Velez, [1]M Giralt, [1]G Castells, [1]P Arcenillas, [1]N Meca, [1]C Sebastian, [1]J Nicolas. *[1]HU Mutua De Terrassa, Pharmacy, Terrassa, Spain; [2]HU Mutua De Terrassa, Haematology, Terrassa, Spain*

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Background and importance Pharmacological toxicity management of tyrosine kinase inhibitor (TKI) use is important in the setting of chronic use in chronic myeloid leukaemia (CML) patients.

Aim and objectives The aim of this study was to describe TKI toxicity in patients diagnosed with CML.

Material and methods This was a retrospective study of patients with CML treated in our hospital with TKIs from June 2010 to July 2019. We collected data on TKIs prescribed, treatment line, toxicities (haematological (TH)/non-haematological (NHT)) according to CTCAE V.5 and time of occurrence, demographic data, Charlson index, Sokal index, concomitant medication, molecular response and dose modifications/discontinuations.

Results A total of 37 patients (19/37 women, median age 59 years (33–89)) were included. The median Charlson index was 2 (0–8). The Sokal index at diagnosis (23/37) was: low (14), medium (6) and high (3). Patients had a median of 4 (0–12) drug prescriptions.

At the time of data analysis, the pattern of TKI prescriptions was: imatinib (23/37), dasatinib (4/37) and nilotinib (3/37) as firstline treatment; and imatinib (4/37), dasatinib (12/37), nilotinib (4/37), bosutinib (2/37) and ponatinib (1/37) as second or subsequent lines of treatment. When the data were collected, 18 patients achieved a deep molecular response (12/37 imatinib and 3/37 nilotinib).

Abstract 5PSQ-095 Table 1

		Imatinib	Dasatinib	Nilotinib
Anaemia	G1/G2	6	4	0
	G3	2	1	0
Thrombocytopenia	G1/G2	4	1	1
	G3	0	1	0
Neutropenia	G1/G2	0	2	0
	G3	0	1	0

Abstract 5PSQ-095 Table 2

		Imatinib	Dasatinib	Nilotinib	Bosutinib	Ponatinib
Diarrhoea	G1/G2	10	3	1	1	1
	G3	1	1	0	0	0
Oedema		9	5	0	0	0
Pleural effusion		0	4	0	0	0
Fatigue		10	6	0	2	1
Musculoskeletal pain		6	0	2	0	0
Fever		12	5	2	1	0
Hypertension		1	0	0	0	0
Cephalea		4	0	0	0	0
Nausea/vomiting		13	2	0	2	0

Median toxicity/patient was 3 (1–13), appearing in an average time of 18 months (28 days–8 years) and 10 months (8 days–7 years) for TH (23/122) and NHT (99/122), respectively. Dose was reduced because of toxicity in 7/37 patients and was discontinued in 14/37.

Conclusion and relevance The analysis has allowed the implementation of a specific proactive follow-up for each drug, which means early recognition and management of the toxicities associated with TKIs to optimise treatment efficacy and safety, as well as patient quality of life.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

5PSQ-096 HAZARD VULNERABILITY ANALYSIS TO EVALUATE THE RISK OF DRUG SHORTAGES ACCORDING TO THERAPEUTIC CLASS

[1]R Giammona*, [2]E Di Martino, [2]D Leonardi Vinci, [3]A Provenzani, [3]P Polidori. *[1]Università Degli Studi Di Messina, Scienze Chimiche-Biologiche-Farmaceutiche Ed Ambientali, Messina, Italy; [2]Università Degli Studi Di Palermo, Stebicef, Palermo, Italy; [3]Irccs Ismett, Clinical Pharmacy, Palermo, Italy*

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Background and importance Drug shortages are a critical challenge for the public health system, as highlighted by EAHP's position paper. They have a negative impact on quality and efficiency of patient care.

Aim and objectives The aim of our study was the application of a revised hazard vulnerability analysis (HVA) to assess which therapeutic classes of drugs are at greatest risk of shortages.

Material and methods In September 2019, we analysed the drugs present in our hospital therapeutic formulary and checked which ones were included in the Italian Medicines Agency shortages list: 43 drugs were found.

For each drug, we assigned a score using a revised HVA which consists of three macro areas: probability that the shortages will occur, magnitude factors which increase the risk of shortage and mitigation factors which reduce it. For probability, a score from 0 to 2 was assigned based on previous shortages.

Magnitude factors were relevance of active substance, budget impact and percentage of patients treated. Mitigation factors were therapeutic alternative, stock availability and import of the drug. For each of these items a score from 0 to 3 was assigned. For magnitude factors, an increasing score was assigned as severity grew. In contrast, for mitigation factors, an increasing score was assigned in relation to mitigation reduction. The value of the risk was calculated by multiplying the percentage of probability (p) and the percentage of severity (S). According to the score obtained, three classes of risk of shortages were assigned: low (<30%), medium (30–60%) and high (>60%).

Results Of the 43 deficient drugs, 32/43 (74.4%) were at low risk of shortages while 11/43 (25.6%) were at medium risk. No drug was found to be at high risk of shortages (>60%): 2/11 were cardiovascular myocardiotrophs (fructose sodium diphosphate); 3/11 were antiviral drugs (foscarnet, didanosine); 1/11 was an opioid analgesic (morphine); 2/11 were antimicrobial drugs (oxacillin sodium salt and piperacillin/tazobactam); 1/11 was a pneumococcal vaccine; 1/11 was a benzodiazepine anxiolytic (lorazepam); and 1/11 was an anthelmintic (albendazole).

Conclusion and relevance Analysis of shortages is essential to prevent the discontinuation of important therapies, such as those involving antiviral and antimicrobial use, and implement appropriate mitigation actions.

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No conflict of interest.

5PSQ-097 POTENTIALLY HARMFUL EXCIPIENTS IN NEONATAL AND PAEDIATRIC PATIENTS

M Hijazi Vega*, I Cavada-Carranza, N Hernán-Moreno, R Martín-De-Diego, N Ibañez-Heras, T Molina-García. *Hospital Universitario De Getafe Madrid, Pharmacy, Getafe, Spain*

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Background and importance Excipients are essential to improve the quality, stability, bioavailability and patient acceptability of medicines. Most pharmaceutical excipients are recognised as safe. However, there are potentially harmful excipients for vulnerable group of patients, such as children younger than 4 years of age.

Aim and objectives We aimed to assess exposure to potentially harmful excipients for children younger than 4 years and determine if the amount exceeds the acceptable daily intake (ADI) in these patients.

Material and methods A retrospective descriptive study was conducted in neonates and children younger than 4 years of age who received oral medicines during a period of 1 year. According to the literature, propylparaben, propylene glycol, sodium benzoate, sorbitol, ethanol and sulphites were considered as potentially harmful excipients (PHE) for paediatric and neonatal patients. The estimated ADI of each excipient was also established from the literature. The different oral drugs and the total dose received was collected. The information about the amount of studied excipients was not available in the data sheet, so it was necessary for it to be provided by the pharmaceuticals laboratories. Pharmaceutical composition, vaccines and enteral diets were excluded.

Results A total of 609 patients who received 98 different drugs were included. We found that 28.6% (28) of drugs contained at least one excipient studied and 26% of patients were exposed to PHE. We observed that 9 drugs included had sorbitol, 8 had propylparaben, 7 sodium benzoate, 7 propylene glycol, 4 ethanol and 1 had sulphites.

The ADI was exceeded in 26 cases of the 158 patients that had been exposed to PHE. According to these results, the ADI of sodium benzoate was exceeded in 34.6% of patients, sorbitol in 34.6%, sulphites in 11.5%, ethanol in 11.5% and propylene glycol in 7.6%. Propylparaben ADI was not exceeded in any case.

The ADI was exceeded in six drugs of the total products analysed: calcium phosphate solution, potassium bicarbonate tablets, rifampicin suspension, domperidone suspension, clonazepam and diazepam solution.

Conclusion and relevance The percentage of patients who exceeded the ADI of the PHE was low, although the ADI should not be exceeded in any case. Quantitative information about excipients should be available to health professionals in order to take into account excipient issues when selecting medicines for this vulnerable group.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.