

scored CR technical feasibility (no, hardly, easily, very easily—feasible). ‘Very relevant’ and ‘easily feasible’ CR were retained if average criticality score was ‘high’ when applicable for different specialties (assessed by numerous experts) or ‘extreme’ when applicable for a specific specialty (assessed by only one expert).

**Results** Fifty-six CR potentially relevant for children were selected from the literature and divided into five risk classes: drug contraindicated (34%), medication and abnormal laboratory value (27%), drug–drug interaction (19%), inadequate administration mode (11%) and prescription omission (9%). Twenty-four CR were retained after expert assessment, 8 (33.3%) concerned both groups, 14 (58.3%) were specific for group A and 2 (8.3%) for group B. The three most critical CR involved prescribing potassium and hyperkalaemia, glucose-lowering drugs and hypoglycaemia, and vancomycin not adjusted to renal function. Development in CDSS was assessed as ‘very easily’ feasible for 5 CR (21%) including 3 CR (12.5%) concerning both groups.

**Conclusion and relevance** We identified 24 CR in five risk classes that could be monitored using our CDSS. Assessment based on expert opinion according to risk (criticality), clinical practice (relevance) and technical consideration (feasibility) allowed CR prioritisation to be developed. One-fifth of CR would be immediately implementable with some likely to cover the entire paediatric department since they are common to both groups. A pilot study using these CR will assess the workload associated with this new practice.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

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**Conflict of interest** No conflict of interest

4CPS-194

#### CLINICAL IMPACT OF A PHARMACIST-LED DISCHARGE MEDICATION REVIEW SERVICE: AN ANALYSIS OF PREVALENCE AND ACCEPTANCE OF INTERVENTIONS

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10.1136/ejhp-2022-eahp.195

**Background and importance** Hospital discharge is linked to an increase in the risk of drug-related problems (DRPs). If these are not recognised and solved, they could be carried over to primary care, with the risk of insufficient follow-up resulting in potential harm to the patient.

**Aim and objectives** To evaluate a pharmacist-led discharge medication review service by analysing identified DRPs and the acceptance rate of suggested pharmacists’ interventions (PIs) in addition to assessing the clinical significance of these findings.

**Material and methods** A two-phased mixed method study: (1) retrospective descriptive analyses of the number and type of identified DRPs and recommended interventions based on a validated classification system<sup>1</sup>; (2) independent expert panel rating (2 physicians, 1 clinical pharmacist, 1 registered nurse) of the potential clinical impact of a cross section of PIs using the validated rating system CLEO<sub>de</sub>.<sup>2</sup> The overall agreement was determined by the Kendall coefficient of concordance.

**Results** A total of 291 identified DRPs in 205 patients were analysed: the most common included ‘drug interaction’ (34%; n = 99), ‘error in medication process’ (8.2%; n = 24) and ‘duplication’ (8.2%; n = 24). The interventions most frequently suggested were ‘optimisation of administration/route’ (19.6%; n = 57), ‘therapy stopped’ (16.2%; n = 47) and ‘dose adjustment’ (15.8%; n = 46). Physicians accepted 69% (n = 74) of the pharmacists’ recommendations. 64% (n = 38) of the interventions presented to the panel were considered to have a clinical impact. Overall agreement between raters for the clinical impact of PIs was substantial (Kendall  $\tau$  0.734;  $p < 0.001$ ).

**Conclusion and relevance** The expert panel’s independent assessment showed that the pharmacist-led discharge service is clinically beneficial for patients. The prevalence of analysed DRPs and the physicians’ high acceptance rate highlight the valuable role of pharmacists in improving patient safety at the time of discharge.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

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**Conflict of interest** No conflict of interest

4CPS-195

#### MEDICATION-RELATED READMISSIONS: DOCUMENTATION AND COMMUNICATION TO THE NEXT HEALTHCARE PROVIDERS AND PATIENTS

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10.1136/ejhp-2022-eahp.196

**Background and importance** Of all readmissions, 21% are medication-related readmissions (MRRs). However, it is unknown whether MRRs are recognised and communicated in the care continuum.

**Aim and objectives** To assess the proportion of preventable and non-preventable readmissions that contain documentation on the contribution of medication in the patient records (which are then regarded as recognised MRRs).

**Material and methods** In a previous study, a multidisciplinary team of physicians and pharmacists assessed the medication-relatedness and preventability of unplanned readmissions from seven departments (the gold standard). In the current cross-sectional observational study, patient records were evaluated. A MRR was regarded as documented – and therefore recognised by healthcare providers – when the causal medication(s) was mentioned in patient records (in duplo, using notes from physicians, nurses, pharmacy teams and discharge letters). A MRR was regarded as communicated when documentation was found for the next healthcare providers, patients and/or caregivers. The primary outcome was the proportion of readmissions that contained documentation on the causal medication(s). Secondary outcomes were the differences between the documentation of preventable and non-preventable MRRs and differences in the length of stay (LOS) between documented and undocumented MRRs. Lastly, the proportion of communicated MRRs was assessed. Descriptive data-analysis was used.

**Results** Of 181 included MRRs, 72 (40%) were deemed preventable by the multidisciplinary team. For 159 of 181 MRRs (88%), documentation on the causal medication(s) was present. The causal medication was documented more often for non-

preventable readmissions compared to preventable readmissions (95% vs 78%;  $p=0.002$ ). The LOS was longer for readmissions where the causal medication was undocumented (median 8 days vs 5 days;  $p=0.062$ ). Of 159 documented MRRs, 137 (86%) were communicated to the general practitioner, 4 (3%) to the community pharmacy and 93 (59%) to patients and/or caregivers.

**Conclusion and relevance** This study shows that for 88% of MRRs the causal medication was documented in the patient records. The causal medication was lacking more often for preventable MRRs. These results imply that MRRs are not always recognised, which could impact patients' wellness as an increased LOS was found for unrecognised MRRs. Communication of MRRs to the next healthcare providers and patients needs improvement.

## REFERENCES AND/OR ACKNOWLEDGEMENTS

**Conflict of interest** No conflict of interest

### 4CPS-196 ABSTRACT WITHDRAWN

### 4CPS-197 EVALUATION OF ADHERENCE TO CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE PROTEIN MODULATOR DRUGS

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10.1136/ejhp-pharm-2022-eahp.198

**background and importance** In patients with cystic fibrosis (CF), long-term adherence to various treatments is considered low (46%–70%). Cystic fibrosis transmembrane conductance regulator (CFTR) modulators have recently been licensed. Low adherence to these treatments may decrease efficacy.

**Aim and objectives** To assess adherence to CFTR modulators and determine if there are differences because of length of treatment.

**Material and methods** Retrospective observational study of CF patients under treatment with a CFTR modulator (tezacaftor/ivacaftor; elexacaftor/tezacaftor/ivacaftor; lumacaftor/ivacaftor) dispensed at the outpatient unit of the Children's Hospital Pharmacy Service, between January 2020 and April 2021. Demographic variables (age and sex), prescription and dispensing dates, and amount dispensed were obtained from the electronic prescription records. Adherence was calculated using the medication possession ratio (MPR).  $MPR \geq 80\%$  was considered adequate adherence. Continuous variables were expressed as mean (SD) or median (Q1–Q3), and categorical variables as absolute and relative frequency. A non-parametric test of comparison of proportions was used to assess the relationship between adherence and length of treatment (less or greater than 12 months). Statistical analysis was performed with Stata version 13.

**Results** Eighty-two patients (36 women, 43.9%), 67 (81.7%) of whom were adults with a median of 31.2 years (Q1–Q3 = 26.1–39.0) and 15 (18.3%) were children or adolescents with a median of 11.6 years (Q1–Q3 = 7.6–15.6). Treatments dispensed were: tezacaftor/ivacaftor + ivacaftor (61 patients; 74.4%), elexacaftor/tezacaftor/ivacaftor + ivacaftor (13 patients; 15.9%) and lumacaftor/ivacaftor (8 patients; 9.8%). At the time of analysis, 55 patients (67.1%) had been in treatment for less than 12 months and 27 (32.9%) more than 12 months. The mean MPR was 102.7% (SD 11.5%). Eighty-one patients (98.7%) had adequate adherence. The mean MPR in the group lasting less than 12 months was 104.8% (SD