Abstract 4CPS-370 Table 1

Type of PI	Second period (n (%))	First period (n (%))
Dose adjustment according to renal function	141 (8.3)	8 (0.5)
Recommendations about drug–drug or drug–food interactions	91 (5.4)	1 (0.06)
Monitoring of analytic parameters susceptible to being altered by the drug	17 (1)	0

Conclusion and relevance The number of PI made in the two periods was similar but the CDSS tool allowed pharmacists to detect certain types of DRP that use of the CPOE alone did not allow. Moreover, the use of this tool optimised the pharmacist's medical prescription review time and facilitated the PI registration task. To increase the usefulness of the CDSS it is necessary to increase the number of relevant alerts introduced in this application.

REFERENCES AND/OR ACKNOWLEDGEMENTS

None.

Conflict of interest No conflict of interest

4CPS-371 USABILITY EVALUATION OF A PERSONALISED HEALTH RECORD FOR DETECTING MEDICATION DISCREPANCIES

¹D Van Der Nat*, ¹M Taks, ²VJB Huisjes, ²BPH Pouls, ²BJF Van Den Bermt, ¹H Van Onzenoort. ¹Amphia Hospital, Department of Clinical Pharmacy, Breda, the Netherlands; ²St Maartenskliniek, Department of Pharmacy, Nijmegen, the Netherlands

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Background and importance An online personalised health record (PHR) is a valid tool to reduce medication discrepancies (MDs), defined as unexplained differences among medication regimens. The success of a PHR depends on the usability and patient's experienced utility of the PHR.

Aim and objectives The aim of this study was to explore the usability and utility of an online PHR for the identification of MDs, and to describe the association between the usability and patient, setting and medication related factors.

Material and methods Patients with an outpatient visit to the rheumatology department or a planned admission to the cardiology, neurology, internal medicine or pulmonary department received an invitation from an online PHR to update their medication file two weeks before their appointment. The medication file was derived from the Nationwide Medication Record System (NMRS), a digital nationwide network which exchanges medication dispensing data from all pharmacies in the Netherlands. About 1 month after the appointment, PHR users received a system usability scale (SUS) and utility questionnaire. An SUS score < 68 was classified as unacceptable usability. Descriptive analyses were performed to analyse the effect of the patient, setting and medication related factors on the SUS score.

Results The acceptance rate of the PHR ranged from 49% to 63%. 255 (34%) of the 752 invited PHR users completed the questionnaire. The median SUS score of the patients admitted to cardiology, rheumatology and other departments was 60 (IQR 10–98), 65 (IQR 28–100) and 65 (IQR 38–100),

respectively. These SUS scores indicated unacceptable usability (SUS < 68) of the PHR. Younger patients (< 54 years old) and patients with more experience with digital devices had acceptable usability of the PHR (median SUS of 69 (IQR 35–100) and 69 (IQR 43–100), respectively). When the PHR was compared with medication reconciliation (the gold standard to identify MDs), almost half of the patients preferred the PHR to medication reconciliation.

Conclusion and relevance Our results highlight that the usability and utility of a valid PHR was unacceptable. To achieve adoption and use of the PHR by more patients, the PHR should be improved and meet the patient's needs.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-372 PHARMACEUTICAL INTERVENTIONS IN HOSPITALISED PATIENTS DURING THE FIRST WAVE OF THE SARS-COV-2 PANDEMIC

¹A Murgadella Sancho*, ¹B Gracia García, ¹A Puebla Villaseca, ¹L Losa Lopez, ²J Loureiro Amigo, ¹E Hidalgo Albert, ¹N San Juan Martínez. ¹Hospital Moisès Broggi, Pharmacy, Sant Joan Despi Barcelona, Spain; ²Hospital Moisès Broggi, Internal Medicine, Sant Joan Despi Barcelona, Spain

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Background and importance The activity of pharmacy services increased during the first wave of the SARS-Cov-2 pandemic. An example of this was the activity carried out during the validation of inpatient treatments.

Aim and objectives To evaluate pharmaceutical interventions carried out in a second level hospital during the pandemic and compare them with those in the same period of the previous year.

Material and methods This was a retrospective study. All pharmaceutical interventions between March and May 2020 (pandemic period: P) and those between March and May 2019 (pre-pandemic period: pre-P) were reviewed. Data collected were: number of interventions, hospital stay, intervention rate (number of interventions × 1000 hospital stays), therapeutic group involved and type of intervention. Data analysis: Stata V.15.1. The χ^2 Mantel-Haenszel test was used to compare intervention rates and the χ^2 Pearson to compare proportions.

Results The number of interventions was 690 versus 115, and the number of hospital stays was 27 415 versus 27 062 for the P and pre-P periods, respectively. The intervention rate (P vs pre-P) was 25.2 × 1000 stays versus 4.2 × 1000 stays (χ^2 Mantel-Haenszel, $p < 0.0001$). Therapeutic groups involved (P vs pre-P, respectively) were: P01-antiparasitics/hydroxychloroquine (40% vs 0%), J01-antibiotics and J05-antivirals (17% vs 19%), N05-antipsychotics (7% vs 6%), B01-anticoagulants antiaggregants (6% vs 15%), N02 analgesics (5% vs 21%) and other groups (25% vs 39%). Statistically significant differences were found between both distributions (χ^2 Pearson, $p < 0.001$).

Type of interventions (P vs pre-P, respectively): drug interaction monitoring (40% vs 11%), stop treatment (26% vs 17%), dosage change (26% vs 60%) and other interventions (8% vs 12%). Both distributions (P and pre-P) were compared, and there were statistically significant differences between them (χ^2 Pearson, $p < 0.001$).

Conclusion and relevance During the first wave of the SARS-CoV-2 pandemic, activity related to the validation of inpatients treatments increased significantly in our centre. The acceptance rate of interventions was not collected but it should be considered for future studies. The therapeutic groups involved in the pharmaceutical interventions differed between the P and pre-P periods. In the P period, those related to antiparasitic drugs (which includes hydroxychloroquine) increased significantly. Types of interventions were also different between both periods. In the P period, the interventions related to drug interactions and excessive durations of treatments were the most frequent. Both types were interventions related to the safety of treatments during the pandemic.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-373 PHARMACEUTICAL CARE IN HOSPITALISATION UNITS: ANALYSIS OF INTERVENTIONS

C Redondo Galán*, MD Rivas Rodríguez, D González Vaquero, M Ferris Villanueva, JF Rangel Mayoral. *University Hospital Complex of Badajoz, Hospital Pharmacy, Badajoz, Spain*

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Background and importance The roles of hospital pharmacists have been expanded from dispensing to patient care. Establishing interprofessional collaboration between pharmacists and other specialists significantly improves the quality of patient care.

Aim and objectives To analyse pharmaceutical interventions (PIs) carried out in a preliminary phase of a pharmaceutical care programme targeting hospitalised patients.

Material and methods A retrospective descriptive study of PIs was carried out in a tertiary referral hospital (529 beds) over a 1 year period, from January to December 2019. The pharmaceutical care programme was conducted by five pharmacists involving 14 hospitalisation units. Data were obtained from the electronic medical record. Variables included were: number of patients susceptible of monitoring, number of PIs, PIs per patient, type of PI, PIs per hospitalisation unit and acceptance rate. PIs included resolution of issues raised by specialists and proactive recommendations and were performed in the electronic prescription programme (Farmatools). The PIs were registered and classified into eight groups: pharmacokinetic monitoring, dose adjustment in renal failures, clinically relevant interaction, medical reconciliation error, prescribing error, information to prescriber, adverse drug reaction and other.

Results 1102 PIs were performed in 868 patients during the study period (1.3 PI per patient): 19.7% (216) were related to pharmacokinetic monitoring, 19.1% (210) to dose adjustment in renal failure, 14.1% (155) to clinically relevant interactions (categories D and X of Lexicomp), 11.2% (123) to medical reconciliation errors, 10.4% (115) to prescribing errors, 10.3% (114) to information to prescribers, 7.6% (84) to adverse drug reactions and 7.7% (85) other. Regarding PIs per hospitalisation unit: 12.4% were related to pneumology, 11.9% to internal medicine, 9.2% to neurology, 9.1% to general surgery, 8.4% to urology, 8% to traumatology, 7.7% to digestive, 7.3% to vascular surgery, 7% to cardiology, 5.4% to

neurosurgery, 5.1% to oncology, 4% to heart surgery, 3% to psychiatry and 1.5% to intensive care unit. The acceptance rate was 78.6% (866).

Conclusion and relevance The acceptance rate was high, which indicated considerable concern by the majority of hospitalisation units. The clinical pharmacist's integration into hospitalisation units improved the quality of patient care, especially through pharmacokinetic monitoring and dose adjustment in renal failure.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-374 A SCREENING MODEL TO IDENTIFY ELDERLY POLYPHARMACY PATIENTS THAT MAY BENEFIT FROM PHARMACIST LED MEDICATION REVIEW DURING HOSPITAL ADMISSION

TRH Andersen*, MP Von Hallas, LM Weisbjerg, L Petersen. *Region Zealand Hospital Pharmacy, Clinical Pharmacy, Roskilde, Denmark*

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Background and importance The National Health Authority calls for initiatives ensuring that relevant elderly polypharmacy patients receive medication reviews during hospital admission to reduce the risk of adverse events. Potentially inappropriate medications (PIMs) are one of the most frequent causes of adverse events in older people. Pharmacist led systematic medication reviews are time consuming, and while hospital length of stay has progressively reduced to an average of a few days, the effort has to be aimed at PIM interventions that are best suited to being carried out by a hospital physician.

Aim and objectives The purpose of the study was to develop a screening model to identify patients who may benefit from a pharmacist led medication review in hospital.

Material and methods A screening model was developed using PIMs described in the international literature and the workflow of pharmaconomists and clinical pharmacists in local hospitals. The screening model was applied to all elderly polypharmacy patients admitted to bed wards having pharmaconomist medicine management in five hospitals. Patients fitting the model were identified by pharmaconomists and referred to a pharmacist led medication review. The pharmacist led medication review was performed centrally with the aim of reducing the number of drugs, number of PIMs and complexity of the medication regimen. The primary outcome was the number of PIMs at discharge compared with the number of PIMs at admission to hospital.

Results The screening tool in the model comprised 10 medication focus points and demonstrated a specificity of 78% and sensitivity of 80% in detecting the relevant patients when applied to a cohort of elderly polypharmacy patients. From April to June 2018, 17 631 patients were screened using the tool. The pharmaconomists referred 396 patients to the pharmacists (average age 78 years, 52% women). Of these, 229 received a pharmacist led medication review (average of 2.78 interventions/patient). For the 115 patients with a possible follow-up, the average number of PIMs/patient was significantly reduced ($p<0.001$) from 2.02 PIMs at admission to 1.57 PIMs at the end of hospital admission.

Conclusion and relevance The screening model developed detected relevant elderly polypharmacy patients for a