pharmacist led medication review during hospital admission. The model was easily implemented, low resource and resulted in a significantly reduced number of potentially inappropriate medications.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-375 EXCESSIVE POLYPHARMACY AND OTHER DETERMINANTS FOR UNPLANNED HOSPITAL ADMISSIONS

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10.1136/ejhpharm-2021-eahpconf.207

Background and importance Unwanted polypharmacy has been associated with avoidable harm (eg, unplanned hospital admissions (UHAs)), especially in older adults. Clinical pharmacy interventions have been developed to reduce UHAs. Yet it remains unclear which population derives the largest benefit of such interventions.
Aim and objectives The aim of this study was to identify determinants for UHAs in community dwelling adults.
Material and methods A retrospective study was performed, using data from a linked database consisting of the Integrated Computerised Network and the InterMutualistic Agency database. Patients aged 40 years or older with data available for the years 2013–2015 were included. Patients who died or were admitted to a nursing home were excluded. An index date was defined as the last general practitioner (GP) contact in 2014. The preceding 12 months were used to collect the determinants. For the occurrence of a UHA, a period of 12 months after the index date was used. To select determinants for inclusion in the multivariable model (table 1), a univariate logistic regression model was fitted on each predictor with the outcome UHA as the response. Systolic blood pressure, alanine aminotransferase and potassium were non-significant at the level of 0.2 and hence were excluded from the multivariable model.
Results 40 411 patients were included in the project and 2126 (5.26%) patients had at least one UHA. Mean age was 58.3 (±12.3) years. Results of the multivariable logistic regression model are summarised in table 1.
Conclusion and relevance The model identified seven determinants as associated with UHA: excessive polypharmacy, male gender, number of comorbidities, older age, low haemoglobin level and prior hospital and GP visits.

Abstract 4CPS-375 Table 1 Multivariable logistic regression model

Variable	Adjusted odds ratio	p value
Male	1.151	0.0273
Age	1.031	<0.0001
Body mass index	1.001	0.8989
Haemoglobin (women <12 g/dl, men <13 g/dl)	1.331	0.0192
Creatinine	1.040	0.6839
Aspartate aminotransferase (women >93 U/l, men >111 U/L)	2.243	0.0965
No of previous emergency department visits	1.547	<0.0001
No of previous hospital admissions	1.298	<0.0001
No of previous unplanned hospital admissions	2.452	<0.0001
No of previous general practitioners contacts	1.017	0.0098
Polypharmacy (5–9 drugs)	0.999	0.9887
Excessive polypharmacy (>9)	1.365	0.0062
No of chronic comorbidities	1.045	0.0003

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-376 ANTIRETROVIRAL THERAPY OPTIMISATION STRATEGIES IN PATIENTS INFECTED WITH HUMAN IMMUNODEFICIENCY VIRUS: A DECISIVE TASK FOR HOSPITAL PHARMACISTS

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10.1136/ejhpharm-2021-eahpconf.208

Background and importance Antiretroviral therapy (ART) for human immunodeficiency virus (HIV) cause a significant economic impact on health systems worldwide. Guidelines and treatments are constantly renewing, and for this reason it is crucial to optimise these therapies.
Aim and objectives To identify and propose patients who could benefit from ART simplification, from dolutegravir/abacavir/lamivudine (DTG/ABC/3TC) to dual therapy dolutegravir/lamivudine (DTG/3TC), and to analyse the economic impact of simplifying the regimen.
Material and methods A prospective study was conducted in a second level hospital in March 2020. All HIV patients with active ART (>6 months) with DTG/ABC/3TC were included. Patients who were candidates for simplification had to meet the following criteria: treatment with DTG/ABC/3TC for at least 6 months, absence of failure prior to another ART, undetectable plasma viral load (VL) for at least 6 months (undetectable being <50 copies/mL) and optimal adherence. Adherence was indirectly calculated by scoring the days that treatment was collected on time; 95% score or more was considered optimal. Adverse effects (AE) related to ART therapy were also recorded and taken into account, but they were not an indispensable requirement for simplification. Candidates were proposed to their doctor. The annual economic impact was evaluated by analysing laboratory sales prices in Spain and the number of patients who had a simplified ART.
Results 64 patients were included, 52(83%) were men, with a mean age of 48 (27–77) years. 38 (59%) patients had at least one prior ART and 10 (26%) of these patients failed on previous ART and consequently were excluded for simplification. Of the total number of patients receiving DTG/ABC/3TC, 50 (78%) presented undetectable VL, 44 (69%) had optimal adherence and 27 (42%) had some type of mild AE: 10 (37%) patients presented with neurological symptoms, 10 (37%) with dyslipidaemia and 7 (26%) with gastrointestinal upset. 31 (48%) patients met the criteria for simplification to DTG/3TC and 27 (87%) treatments were changed. This gave a saving of 49 288€ per year.

Conclusion and relevance The hospital pharmacist's role is fundamental in ensuring the correct use of these therapies and identifying patients whose ART could be improved. The impact of simplifying ART not only contributes to economic sustainability but could also reduce possible AEs from the treatment. In this case, dyslipidaemia was a common AE. Removing abacavir from the therapeutic regimen could reduce the cardiovascular risk.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-377 APPROPRIATENESS OF NUTRITIONAL SUPPORT FOR PATIENTS WITH INVASIVE MECHANICAL VENTILATION WITH COVID-19 DISEASE REQUIRING INTENSIVE CARE

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10.1136/ejhpharm-2021-eahpconf.209

Background and importance Nutritional management in the intensive care unit (ICU) of patients with COVID-19 can influence their recovery. Several guides about nutritional support have appeared in the past few months

Aim and objectives To assess the appropriateness of nutritional management for COVID-19 patients in the ICU requiring invasive mechanical ventilation (IMV) through compliance with the recommendations of the Spanish Society for Intensive Care (SEMICYUC), the European Society for Clinical Nutrition and Metabolism (ESPEN) and the American Society for Parenteral and Enteral Nutrition (ASPEN).

Material and methods An observational retrospective study was conducted between 2 March and 13 May 2020. Patient data were taken from the clinical records. Demographic variables were age and sex; clinical variables were days until the start of artificial nutrition (AN), duration and type of enteral (EN) or parenteral nutrition (PN), body mass index (BMI), calorie intake/kg/day, protein/kg/day on the first and fifth days, increase in markers of hepatic cholestasis when duration of NP was >14 days, length of ICU stay and death.

Results 41 patients were included, 75.6%(n=31) men, and average age was 59.6±12,2 years. Median time to start of AN was 1 (0–6) day. 34.1% (n=14) of patients were obese, of whom 21% (n=3) were morbidly obese (average BMI 44.86±6.4). Average total kcal/kg/day and protein/kg/day on the first and fifth days of nutrition were 21.9±7.5 kcal/kg/day and 1.35±0.6 g protein/kg/day and 23.5±9.8 kcal/kg/day and 1.9±3.2 g protein/kg/day, respectively. Only 17% (n=7) started AN with EN, which was hypercaloric/hyperproteic (n=3) and normocaloric/normoproteic (n=4). At any time during hospital stay, 97.5% of patients had PN with a median of 14.5 (2–52) days. 20 people had PN >14 days. Alkaline phosphatase remained increased for 11 of them with a median of 13 (3–38) days. Direct bilirubin was elevated in all patients. 34 patients died and 26 remained on PN until the day they died.

Conclusion and relevance During the first day, AN accomplished the recommendations (20 kcal/kg/day and 1.2–1.3 g protein/kg/day). On the fifth day, total kilocalories did not achieve the recommended values (25 kcal/kg/day), although protein/kg/day was higher than the guidelines (1.5 kcal/kg/day). The reason might be the increasing protein request of these patients. High doses of muscle relaxants could prevent proper functionality of digestive tube and low use of EN. It may be important to discuss the suitability of maintenance of AN for patients with a short life expectancy.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-378 ORAL THERAPY ADHERENCE AND SATISFACTION IN PATIENTS WITH MULTIPLE MYELOMA

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10.1136/ejhpharm-2021-eahpconf.210

Background and importance The transition to oral therapies in patients with multiple myeloma (MM) offers potential benefits to patients, however they must self-manage their medications and adherence can become an issue. It has been shown that patient satisfaction with medication has a strong positive correlation with adherence in chronic diseases. To date, there is no standard method of measuring adherence.

Aim and objectives The aim of this study was to estimate the adherence rate of oral antimyeloma therapies using two indirect methods and to identify risk factors for medication non-adherence. A secondary aim was to explore patients' and caregivers' perceptions of their medications.

Material and methods We carried out a cross sectional, observational, prospective, multicentre survey based on a self-reported questionnaire. All consecutive MM patients, with at least 3 months of oral therapy prescriptions were included. The structured and validated 6 item Girerd Scale and the medication possession ratio (MPR) were used for measuring medication adherence, and the SATMED-Q questionnaire was used for measuring patient satisfaction with the medication. An analysis of risk factors for non-adherence to oral therapy was performed using univariate analysis. Patients' and caregivers' opinions about their medications were assessed with a score from 0 (no importance) to 10 (highest importance).

Results 101 of 116 analysed patients participated in the survey, giving a response rate of 87%. The prevalence of adherence to oral antimyeloma therapy was estimated at 51.5% using the questionnaire, corresponding to a high level of adherence (ie, score=6). According to the MPR, adherence was evaluated at 96%, which was also considered high (ie, MPR ≥0.80). With both methods combined, adherence was estimated at 50.5%. One risk factor for non-adherence to oral antimyeloma therapy was identified: Eastern Cooperative Oncology Group Performance Status (ECOG-PS) >2 (p value=0.007). One predictive factor for good adherence to oral antimyeloma therapy was also identified: high satisfaction with treatment (p=0.01). No statistically significant difference was observed between patients and caregivers' perceptions of their medications.

Conclusion and relevance Determining risk factors that influence adherence could be helpful to better identify patients at