days from 314 in 2013 to 252 in 2018 was measured. The main decreases were observed for amphotericin B (ratio=0.3), voriconazole (ratio=0.50) and caspofungin (ratio=0.59). The most important increases have been shown for: flucytosine (ratio=10.25), micafungin (ratio=2.73) and fluconazole (ratio=1.22). Fluctuation in consumption is linked to several factors: drug shortages, evolution in recommendations and patient profiles. French drug market supplies break of oxacillin/penicillin M increases first- and second-generation cephalosporin prescriptions. A local guideline for transplant patients recently replaces fluconazole by mycafungin in antifungal prophylaxis.

Conclusion Both the overall numbers of antibiotics and antifungals DDD/1000 beds-days decrease over the 5 year study period. A multidisplinary analysis comprehends the consumption evolution in our paediatric ICU. It should be monitored on a continuous basis by pharmacists in healthcare settings.

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https://ejhp.bmj.com/content/24/Suppl_1/A30.2

https://ejhp.bmj.com/content/22/3/132

No conflict of interest.

4CPS-225 THE ROLE OF CLINICAL PHARMACISTS MONITORING REGARDING THE EFFECTIVENESS AND TOLERANCE OF EXPENSIVE DRUGS PRESCRIBED OFF-LABEL

C Guillot*, L Gutermann, L Djoudi, I Lopez, R Batista, O Conort. *Cochin Hospital, Clinical Pharmacy, Paris, France*

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Background Since 2015 in our French hospital, prescribers must fill out a justifying form (JF) for each off-label initiation of expensive treatments. The medical and financial follow-up is carried out by clinical pharmacists regarding chronic diseases. Furthermore, the patient must be informed about the off-label use of his treatment, and the JF must be included in the patient's file.

Purpose In this context, a retrospective study was performed over 2 years to ensure the justified maintenance of off-label treatments in terms of effectiveness, tolerance and cost.

Material and methods The off-label JF includes references to publications, clinical argument, criteria of effectiveness and tolerance. For each chronic indication, the tracability of the JF, and the evaluation of effectiveness and tolerance were researched in the computerised patient file (Orbis). The 2016 and 2017 dispensing data and treatment costs were extracted from Phedra software.

Results Seventy-seven patients were involved with 63 JF found (82%). Ninety-three per cent of the files were archived at the pharmacy, but none were found in Orbis. Only 17.5% of the JF were fully completed. The most filled item was the clinical argument (86%) and the least filled item was the date of the multidisciplinary consultation meeting (43%). Sixty-three patients had a chronic condition. The most prescribed treatments were Tocilizumab, Adalimumab, Infliximab and intravenous immunoglobulin, mostly in the internal medicine and rheumatology departments. Horton and Behçet diseases, hypogammaglobulinaemia, sarcoidosis and undifferenciated inflammatory arthritis were the most common indications. Effectiveness data were evaluated for 52 patients: 77% of effectiveness (including four healings), 19% of interruptions for ineffectiveness and 4% for adverse effects. A subcutaneous relay was observed in seven cases. The hospital cost was estimated at € 7 35 000 (including Canakinumab € 191,000).

Conclusion Off-label initiations are mostly justified. The reformulation of some items of the JF and its computerisation in Orbis are necessary in improving traceability. Clinical effectiveness is found in more than two-thirds of chronic off-label prescriptions. Horton and Behçet's diseases have recently obtained their label, strengthening the validity of these prescriptions. The clinical pharmacist monitoring of treatment effectiveness and safety permits a quick discontinuation in expensive and inefficient treatment.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-226 ADHERENCE TO TREATMENT IN OLDER ADULTS ADMITTED TO AN ACUTE GERIATRIC UNIT AND ASSOCIATED FACTORS

[1]M Gutiérrez-Valencia*, [2]M Castresana-Elizondo, [3]MP Monforte-Gasque, [1]E Lacalle-Fabo, [4]J Alonso-Renedo, [4]N Martínez-Velilla. *[1]Complejo Hospitalario de Navarra, Pharmacy Department, Pamplona, Spain; [2]Hospital Reina Sofía, Pharmacy Department, Tudela, Spain; [3]Hospital San Juan de Dios, Pharmacy Department, Zaragoza, Spain; [4]Complejo Hospitalario de Navarra, Geriatric Department, Pamplona, Spain*

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Background Treatment adherence is a very important issue in ensuring the correct effectiveness of treatments, and it is often compromised in older patients. To assess and improve patients' treatment adherence is an important role of clinical pharmacists, and knowing which factors are usually associated with a lack of adherence could help to enhance this task.

Purpose To estimate the prevalence of a lack of treatment adherence in older adults admitted to an acute geriatric unit, and to assess associated factors.

Material and methods Cross-sectional observational study of over 75 years' old patients consecutively admitted to an acute geriatric unit in a third-level hospital. A clinical pharmacist performed a semi-structured clinical interview with the patients and their families, including the 4-items Morisky–Green test. Socio-demographic and clinical characteristics of included participants were registered from medical records and patient interview. Multivariate logistic regression was used to identify predictors of a lack of adherence. The following factors were included in the analysis: age, sex, polypharmacy (≥5 chronic medications), comorbidities (age-adjusted Charlson Comorbidity Index), functional and cognitive impairment (Barthel Index and degree of impairment: none, mild, moderate, severe), dependence for taking medications, use of weekly pillbox, multi-compartment compliance aid (MCA), visual and hearing deficiency, and changes in treatment in the past 3 months.

Results Two-hundred and fifty patients were included, 150 were females (60.0%) and mean age was 87.6 years (SD 4.6). An important lack of adherence was detected in 55 patients (22.0%, 95% CI: 16.83 to 27.17). Forty-eight patients (19.2%) used a weekly pillbox to organise their medications and 32 (12.8%) used a MCA; 52 (20.8%) changed their medications recently; 168 (67.2%) were dependent for taking their medications; 39 (15.6%) had visual deficiency; and 71 (28.4%) hearing deficiency. Only two

factors were (inversely) associated with a lack of adherence: female sex (OR 0.50, 95% CI: 0.255 to 0.974) and dependence for taking medications (OR 0.26, 95% CI: 0.109 to 0.630).

Conclusion Between older adults admitted to an acute geriatric unit, males and patients that can handle their own medications are more likely to present worse adherence to their medications. Hospital pharmacists in this setting should pay special attention to this population to focus their interventions, addressing the lack of adherence in very old adults.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-227 EVALUATION OF ADHERENCE TO INHALED MEDICATIONS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE

D Hachemi*, N Bagur, M Knight, C Roux, H Richard, F Dubois. *Pharmacie Caremeau, Gard, Nimes 30029, France*

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Background Chronic obstructive pulmonary disease (COPD) treatment consists mainly of inhaled medications. The evolution of this illness is linked with good compliance.

Purpose The aim of the study was to assess patients' compliance and their ability to use the inhaled medical devices.

Material and methods A prospective, observational, monocentric study was conducted in a university hospital for 2 months. Included patients were treated by inhaled devices for a COPD. A compliance survey (Girerd's questionnaire[1]) was proposed to them during their hospitalisation. Patients were classified in three groups: fully observant (score equal to 6); poorly observant (score equal to 4 or 5); and non-observant (score inferior to 3). The evaluation of their ability to use the inhaled medical devices is realised, based on national health insurance recommendations. These recommendations stand on the three common steps to inhaled treatment intake: expiration, drug inspiration and holding breath for 10 s. Patients were divided into groups according to the number of accomplished steps. The mean number of steps was collected.

Results Forty-five patients were included in the study. The mean age was 73 years' old and, on average, each patient has two inhaled medical devices. Out of these 45 patients, 16% were considered fully observant, 40% poorly observant and 44% non-observant. The mean compliance score was 3.5 out of 6. Aptitude testing showed that 13%, 16% and 53% of patients, respectively, accomplished 3, 2 and 1 step out of 3, whereas 18% of them respected none. The mean number of steps during inhaled treatment intake was 1.2 out of 3.

Conclusion This study stresses a limitation in compliance in COPD patients with inhaled treatments. Indeed, we can observe a high level of non-observant patients and a majority of them not respecting the necessary steps for the good use of inhalators. This misuse is also confirmed by a limited mean number of accomplished steps during inhalation. These results may suggest that a clinical pharmacist's intervention towards COPD patients using inhaled medication could improve their adherence.

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4CPS-228 AN EVALUATION OF A PHARMACIST-MANAGED PAEDIATRIC TOXICOLOGY CONSULTATION SERVICE

A Higazy*, O Alsoukhni, S Aly. *Hamad Medical Corporation, Pharmacy, Doha, Qatar*

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Background Cases of intoxication are commonly seen at paediatric emergency centres. The knowledge of emergency medicine clinical pharmacists in toxicological emergencies is highly valuable. A pharmacist-managed toxicology consultation service has been implemented at our paediatric emergency centre. There has been no previous evaluation of this service.

Purpose To assess the appropriateness of a treatment and monitoring plan. This evaluation also aimed at characterising the epidemiology of the consultations and identify areas for improvement.

Material and methods A list of all patients who presented to the paediatric emergency centre with drug ingestion in 2016 was obtained. Subsequently, a standardised data extraction tool was used to extract the following information from patients' electronic health records: demographics, decontamination, investigations, supportive therapy, antidote, and patient disposition or discharge plans. Then, management was compared with the standard management illustrated in lexi-tox and micromedex, which were the references followed at our hospital, and judged for appropriateness accordingly. Data was analysed using descriptive statistics.

Results Seventy-six patients were identified. Forty-eight were males and median age was 3 (2–4) years. Three patients presented with intentional drug ingestion, while the rest were considered accidental. A pharmacist was consulted for 83% of the cases. Household agents were the most common agents of toxicity accounting for 29% of the cases followed by vitamins (17%) and paracetamol (9%). Decontamination was indicated in 18 (23.6%) patients, of which 13 had undergone decontamination appropriately. The administration of activated charcoal was the method of decontamination used for all patients. One patient received activated charcoal, although not indicated. Required investigations were ordered for all except one patient who needed follow-up after a few days. On the other hand, unnecessary investigations were done for nine patients. Antidote was given in three cases, one of them was not indicated. Supportive measures were required and provided for two patients only. Six patients were monitored at the hospital, although not required and one patient was discharged immediately despite needing observation.

Conclusion The majority of paediatric toxicology cases were 4 years or younger, mainly being accidental rather than intentional ingestion. Based on this evaluation, there appears to be increased use of unnecessary investigations and under-utilisation of decontamination.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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