record and who will perform the necessary changes in the treatment was discussed with the physician, before the medical appointment. Finally, the pharmacist explained and provided a complete updated medication list to the patient, with all the instructions needed.

When discrepancies were found, they are classified as: discrepant dosage, drug omission and/or wrong drug. DRP were classified as wrong dose, wrong frequency, therapeutic duplicity, interaction, lack of adherence, wrong/missed high risk drug and wrong/missed low risk drug. The discrepancies and problems detected were registered in an Excel file.

Results Throughout the study period, 162 MR reports were made, 111 directed to cardiology and 51 to internal medicine. A median of two discrepancies per patient were detected (minimum 0 and maximum 14). Regarding DRP, an average of one problem per patient was found: 62% wrong/missed low risk drug, followed by therapeutic duplicity (12%), wrong dose (10%; mostly involving diuretics and statins), wrong/missed high risk drugs (8%), lack of adherence (3%), incorrect frequency (3%) and interaction (2%).

Conclusion and relevance The clinical pharmacist plays a key role in the HFDH, performing the MR process and identifying, resolving and preventing DRP. This study showed the importance of working near the HF patient, as a member of the multidisciplinary team.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-230 ANTIARRHYTHMIC THERAPY EVALUATION IN A HOSPITAL SETTING

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Background and importance Within the hospital setting, arrhythmias prolong hospitalisations, worsen the patient's clinical status and can increase the mortality rate. It is often difficult to choose between the available antiarrhythmic therapies. Currently in our facilities, there are no antiarrhythmic or subsequent anticoagulation drug selection protocols.

Aim and objectives The aim of the study was to characterise admitted patients that had in-hospital arrhythmias and analyse their antiarrhythmic therapy, anticoagulation needs and drug interactions to evaluate the appropriate use of these drugs according to international guidelines and help to establish evidence based pharmacotherapeutic guidelines.

Material and methods A retrospective observational study of hospitalised patients over a 2 year period was conducted. Information was obtained from the hospital's inpatient management systems, and IBM SPSS software was used for data processing.

Results In this study, 270 patients were analysed, most in the 70-year-old age group, with a prolonged hospital stay. In cases of atrial fibrillation, it was found that some loading doses were omitted, or the oral route was used when amiodarone administration was required. In 51% of patients, arrhythmia was stabilised in the outpatient setting; in the remaining 39%, arrhythmia was stabilised during hospitalisation without requiring in-home medication.

As shown in figure 1, most of these patients received optimal antiarrhythmic therapy. When evaluating the need for anticoagulation in patients who had atrial fibrillation based only on the CHA₂DS₂-VASc score, only 18.5% received optimal treatment. Among the studied population, more than 300 drug interactions were found and related to QTc prolongation that needed to be monitored.

Conclusion and relevance Antiarrhythmic prescription was adequate in most cases. Amiodarone was the most prescribed antiarrhythmic and presented multiple drug interactions. In the studied population, the anticoagulant selection was not optimal based on the evaluation of CHA₂DS₂-VASc2. It is necessary to improve anticoagulation therapy in

Arrhythmia	Evaluation		Dosing		Does not apply
	Optimal	Non Optimal	Optimal	Non Optimal	
Atrial Fibrillation	170 (95.5)	8 (5.5)	150 (84.3)	18 (10.1)	10
Ventricular Fibrillation	2 (100)	0	2 (100)	0	0
Atrial Flutter	0	3 (100)	0	0	3
Supraventricular Tachycardia	0	15 (100)	0	0	15 (100)
Ventricular Tachycardia	34 (100)	0	34 (100)	0	0
AV Block	1 (100)	0	1 (100)	0	0
Bradycardia	35 (94.4)	2 (5.4)	32 (86.5)	3 (8.1)	2 (5.4)

Abstract 4CPS-230 Figure 1 Antiarrhythmic drug therapy evaluation according to international guidelines

patients with arrhythmias. There is room for improvement, and the clinical pharmacist could collaborate in optimisation, improving the final results, and avoiding complications and drug related adverse effects. Creating a drug dispensing protocol in addition to a comprehensive clinical evaluation for antiarrhythmic therapy, taking all the risk factors, drug interactions and each patient's particular needs into consideration, is essential.

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4CPS-231 REAL WORLD DATA OF MONOCLONAL ANTIBODIES FOR THE TREATMENT OF HYPERLIPIDAEMIA: ANALYSIS 3 YEARS AFTER INTRODUCTION IN CLINICAL PRACTICE

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Background and importance Hyperlipidaemia is the main risk factor for the early manifestations of atherosclerosis and related complications. In recent years, new monoclonal antibodies have become available in clinical practice (evolocumab and alirocumab), termed PCSK9 inhibitors (PCSK9i). Web based monitoring register was used to monitor the access to therapy.

Aim and objectives The objectives of the study were to determine the direct healthcare costs in the 3 year period 2017–2019, as well as the incidence of adverse events reported by clinicians related to PCSK9i therapy at the regional level.

Material and methods A retrospective study was conducted. Real data (prescription, dispensed units) were derived from informatics administrative databases. Expenditure incurred for the purchase of pharmacological therapies was instead calculated considering the ex factory price net of the SSN discounts. Adverse reactions (ADRs) were extrapolated from the National Pharmacovigilance Network (RNF) and evaluated using Naranjo's algorithm.

Results In 2017, the first year PCSK9i became available, 96 patients were treated (78.5% evolocumab; 21.5% alirocumab) for a total of 587 units dispensed, and expenses were 141 396.34€. In the period under study, there was a growing trend in units dispensed. In 2018, an increase of +429% was seen compared with 2017, probably due to the conclusion of some clinical trials. Evolocumab was preferred to alirocumab (delta 2018–2019=+163.70%). In particular, one of the five local health authorities appeared to have dispensed 46.81% of the total units. Only three ADRs occurred in regional patients. Patients (men:women=2:1), with a mean age of 64.33±15.27 years, had been in treatment for 45 days. 75% of ADRs were attributable to evolocumab. Naranjo's algorithm revealed that 25% of ADRs related to evolocumab were classified as possible and 75% as likely (distributed equally between the two active ingredients).

Conclusion and relevance Although the analysis showed an increase in the use of evolocumab, the incidence of use

remained too low compared with potential patients eligible for treatment (n=637).¹ The clinical pharmacist, because of his knowledge and skills, is able to take up the challenge that the new paradigm of real world data is posing and generating 'real data for real tests'.

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4CPS-232 USE OF DUPILUMAB IN THE TREATMENT OF ATOPIC DERMATITIS IN REAL CLINICAL PRACTICE

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Background and importance Atopic dermatitis (AD) is one of the most common cutaneous inflammatory diseases. Intense itching and rash can significantly compromise the patient's quality of life. Treatment of AD was based on topical/systemic non-specific anti-inflammatories drugs, immunosuppressants or phototherapy. In 2016, the Italian marketing authority (AIFA) approved dupilumab for severe AD treatment. This monoclonal antibody inhibits the signal transduction of interleukin 4 and interleukin 13, implicated in the inflammatory cascade of the pathology.

Aim and objectives The purpose of this work was to describe dupilumab's use in real clinical practice and to compare its effectiveness with the marketing authorisation trials.

Material and methods The efficacy and safety of dupilumab were evaluated over 52 weeks in a randomised, double blind, placebo controlled clinical trial (LIBERTY_AD_CHRONOS). Disease index for patients enrolled in our structure (January 2019 to June 2020) was recorded in an anonymous database built by matching administrative data and the AIFA monitoring register. The χ^2 test was used to show a statistically significant difference between the clinical trial and real life.

Results 166 patients were enrolled during the observed period: median age 43 years (range 25–58), 58% men. At baseline: EASI median value was 28 (range 25–32), NRS was 8 (range 8–9) and DLQI was 21 (range 15–25). After 52 weeks, 60 patients were reassessed. EASI median value was 4 (range 2–7.8), NRS was 2 (range 1–3) and DLQI was 3 (range 2–5). The average percentage reduction in EASI was –81.2% (SD 21.3%), NRS –69.9% (27.0%) and DLQI –15.9% (7.5%). A reduction of 75% in EASI value was recorded for 47 patients (78%).

Conclusion and relevance In our structure, 47 (78%) patients had at least a 75% reduction in EASI compared with 58 (65%) in the LIBERTY_AD_CHRONOS study. The average percentage reduction in EASI in our structure was –81.2 ±21.3 compared with –78.4±4.4 in the trial. Although the efficacy data seemed to be different, the χ^2 test showed that there was no statistically significant difference between the trial data and our data ($P>0.05$). Full compliance with the eligibility criteria, also guaranteed by AIFA's monitoring database, confirmed the efficacy of dupilumab in the real world setting with therapy outcomes similar to the marketing authorisation trial.