HSA prescriptions, duration of treatment, previous serum albumin, previous infection, HSA indication and level of evidence of the indications.

The classification was based on the scale established by the American Society of Apheresis, which categorises four groups according to the degree of evidence:

- High priority (grade I): paracentesis induced circulatory dysfunction (PICD) after large volume paracentesis (>5 L); hepatorenal syndrome, renal failure after spontaneous bacterial peritonitis (SBP) and plasmapheresis.
- Reasonable evidence, but with available alternatives (grade II): resuscitation in critically ill patients with septic shock when crystalloids are insufficient.
- Weak evidence (grade III): hypervolaemic hyponatraemia in decompensated cirrhosis, awaiting liver transplantation, non-SBP bacterial infections in cirrhotic patients, prevention of PICD <5 L.
- Treatment not recommended (grade IV): other indications.

Results The study included 142 patients, 41% women, mean age 66 ± 11 years. The main admission diagnoses were: decompensated cirrhosis (32%), septic shock (31%), haemorrhagic shock (5%) and respiratory infection (4%). They received a total of 223 batches of HSA. The median duration of prescription was 3 days (IQR 2–4). The mean basal plasma albumin was 2.5 ± 0.5 mg/dL. 48% had a previous active infection. The major indications of HSA were: anasarca and hypoalbuminaemia (32%), prevention of PICD >5 L (17%), resuscitation in shock septic (13%) and protein malnutrition (9%). 26% of the indications had grade I evidence, 13% grade II, 9% grade III and 53% grade IV.

Conclusion and relevance There is an important use for HSA in hospitals with a low level of evidence. It is necessary to train prescribing doctors to optimise the use of HSA in hospital.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-228 VERNAKALANT VERSUS FLECAINIDE FOR CONVERSION OF RECENT ONSET ATRIAL FIBRILLATION IN PATIENTS ATTENDING THE EMERGENCY DEPARTMENT

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Background and importance Flecainide is commonly used for conversion of recent onset (<48 hours) atrial fibrillation (AF) in haemodynamically stable patients attending the emergency department (ED). Vernakalant is a relatively new antiarrhythmic drug that showed efficacy and safety compared with placebo and amiodarone in clinical trials but few data are available regarding its effectiveness compared with oral flecainide.

Aim and objectives To evaluate successful cardioversion in patients treated with vernakalant or oral flecainide with recent onset AF attending the ED.

Material and methods A single centre, non-randomised, retrospective study was conducted in patients diagnosed with recent

onset AF in the ED. Vernakalant was approved by the Pharmacy and Therapeutics Committee in June 2018. The flecainide group included patients who attended the ED from January to June 2018 and the vernakalant group from July 2018 to October 2020. Patients received intravenous vernakalant (3 mg/kg followed by 2 mg/kg if necessary) or oral flecainide (200–300 mg). Sociodemographic and clinical variables were obtained from electronic health records. The primary endpoint was percentage of patients that achieved sinus rhythm in the ED. Secondary outcomes were conversion time to sinus rhythm, length of stay in the ED and percentage of patients that maintained sinus rhythm after 3 months of cardioversion.

Results 63 patients were included in the study; 20 received vernakalant and 43 flecainide. Median age was 59 years (IQR 53–66) and 63% were men. Baseline characteristics were similar in both groups. Cardioversion was successful in 80% of patients treated with vernakalant and in 64.3% treated with flecainide ($p=0.21$). Conversion time was 13 min in the vernakalant group versus 489 min in the flecainide group ($p<0.001$). Patients treated with vernakalant were discharged earlier from the ED compared with those treated with flecainide (9 vs 20 hours, respectively; $p=0.0061$). The percentage of patients who maintained sinus rhythm after 3 months was 92% in both groups ($p=0.97$). One patient in each group experienced a mild adverse event (itching at the injection site with vernakalant and temporary hypotension with flecainide).

Conclusion and relevance Vernakalant achieved a higher cardioversion rate than oral flecainide in recent onset AF patients. Conversion was significantly faster and was associated with shorter hospital stay. However, long term effectiveness was similar between both drugs, as well as the safety profile.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-229 ANALYSIS OF CLINICAL PHARMACIST INTERVENTIONS IN THE HEART FAILURE DAY HOSPITAL

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Background and importance Heart failure (HF) affects 15% of the population between 70 and 80 years. It causes 3–5% of hospitalisations, 50% of which could be avoided. Hence a multidisciplinary HF day hospital (HFDH) was recently created in our centre where the clinical pharmacist performs the medication reconciliation (MR) process and identifies, resolves and prevents drug related problems (DRP).

Aim and objectives To analyse the interventions carried out by the clinical pharmacist in the HFDH for the first 6 months.

Material and methods Every day the clinical pharmacist performs the MR process for one patient, checking the patient's clinical records, blood tests and all prescriptions from the different specialists and primary doctor. After that, the pharmacist interviews the patient to confirm all the medication they are taking and how they are taking it. We identified medication discrepancies and DRPs, and made a medication list with the problems detected and our recommendations. A reconciliation report was added into the patient's electronic medical

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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.

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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