consumption in terms of packages, DDD×1000ab/day and spending using an electronic worksheet.

Results The number of treated patients (10 535) decreased by 33.35% from January 2017 to December 2018. Implementation of the new distribution modality of off-label LMWH led to a decrease in the number of packs supplied by the traditional distributor (−68.80%) compared with a marked increase (+428%) in those supplied by private pharmacies on behalf of the LHA. Patients who received prescriptions for heparins off-label tripled in 2018 compared with 2017; the DDD×1000ab/day decreased by 67.50% for traditional distributors and increased by >500% for private pharmacies. This led to an important reduction in costs for the NHS, with a decrease in the cost of LMWH of 72.63% in our territory.

Conclusion and relevance The significant increase in off-label LMWH prescriptions carried out following the preparation of a therapeutic plan made it possible to strengthen the monitoring of prescriptions as the indication for which the drug was suggested must be highlighted by reporting specific codes on the prescriptions. The renegotiation of the prices of drugs provided by private pharmacies on behalf of the LHA is part of a pharmaceutical governance plan that results in a reduction of costs in favour of the patient's health, as demonstrated by our study.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

5PSQ-008 RESISTANCE TO SODIUM HEPARIN TREATMENT OR TREATMENT FAILURE TO THE EQUIVALENT ANALOGUE?

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Background and importance The most frequent cause of heparin resistance is lack of antithrombin (AT). However, there are non-AT mediated heparin resistance cases in the literature but they are less prevalent.

Aim and objectives The aim of the study was to investigate if we had managed the onset of non-AT mediated heparin resistance or a treatment failure to an equivalent analogue during cardiac surgery.

Material and methods A 53-year-old, non-smoker, hypertensive Caucasian man was studied. In December 2013, a heart murmur and mitral regurgitation was found. In July 2014, correction of mitral valve disease by surgery was indicated but surgery was postponed for personal reasons. On 2 May 2019, valvuloplasty was performed and a heparin bolus of 25 000 IU was administrated (Pharepa). Activated clotting time (ACT) was 120 which was not adequate for establishment of extracorporeal circulation.

Antithrombin III and an additional dose of heparin were administered but the ACT value was the same. The procedure was delayed due to further investigation.

On 8 May 2019, haematology counselling was requested. AT levels were within the limits (114%) and factor VIII was at the upper limits (142%). A test dose of heparin Epsoclar was recommended to assess the biological response because of suspected heparin resistance.

Results On 4 June 2019, tests were performed with increasing doses of Epsoclar which showed an appropriate dose–response correlation. On 10 July 2019, after a new Epsoclar dose–response test, valvuloplasty surgery was performed. Systemic heparinisation was carried out with Epsoclar and the anticoagulant action was assessed. Once the correct ACT was obtained, the extracorporeal circulation was implanted with subsequent intervention.

Conclusion and relevance This clinical case showed a lack of therapeutic effect after administration of Pharepa heparin. The results of the dose–response study showed an adequate correlation with exclusion of non-AT mediated heparin resistance. Tests conducted on administered heparin analogues showed that heparinisation failure occurred with Pharepa while verification tests included the use of Epsoclar, also used during the second surgery. Of the 38 adverse drug reaction reports included in the National Pharmacovigilance Network for Pharepa, 16.7% refer to a lack of therapeutic effect of the medicine. All adverse drug reactions were severe and two led to patient death. The case report highlights how differences in response between synthesis analogues can exist and underlines the importance of proceeding with further investigation in cases of diagnostic doubt.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

5PSQ-009 EVALUATION OF DIRECT ORAL ANTICOAGULANT USE IN PATIENTS ADMITTED FOR UPPER GASTROINTESTINAL AND INTRACRANIAL HAEMORRHAGES IN THE EMERGENCY SERVICE

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Background and importance Upper gastrointestinal haemorrhage (UGIH) and intracranial haemorrhage (ICH) cause emergency service (ES) admissions. Glucocorticoids (GC), non-steroidal anti-inflammatory drugs (NSAID), selective serotonin reuptake inhibitors (SSRI), serotonin and norepinephrine recruitment inhibitors and platelet antiaggregants (PAA) increase the risk of UGIH and ICH when taken concomitantly with direct oral anticoagulants (DOACs). Patient age and other comorbidities (gastric lesions, liver disease, coagulopathies and hypertension) also enhance bleeding probability. In addition, some haemorrhages can be caused by a misuse of anticoagulant drugs.

Aim and objectives To describe the prevalence of DOAC use in admissions for UGIH and ICH in the ES. To assess dosing and indication appropriateness of DOACs and to analyse the presence of risk factors such as concomitant drugs and comorbidities.

Material and methods A Retrospective, descriptive, observational study was conducted in a university hospital. We included 14 281 patients admitted to the ES during 2018 and selected those with a diagnosis of UGIH and ICH. Data collected from patient healthcare records were age, sex, diagnosis,

DOACs, renal function, drugs associated with bleeding and comorbidities.

Results

Abstract 5PSQ-009 Table 1

	Haemorrhagic event	
	UGIH	ICH
Cases (n (%))	108 (70.1)	46 (29.9)
Age (years) (mean (range))	67.2 (25–104)	74 (42–100)
Women (n (%))	34 (31.5)	18 (39.1)
Under acenocumarol therapy (n (%))	10 (6.5)	9 (5.8)
Under DOAC therapy (n (%))	4 (2.6)	3 (1.9)
Apixaban	1	2
Dabigatran	1	0
Edoxaban	2	0
Rivaroxaban	0	1
Incorrect DOAC posology	1	0
Appropriate indication	4	3
NSAID	0	0
GC	0	0
SSRI	1	0
PAA	1	1
Total risk drugs	2	1
Gastric lesions	4	0
Liver disease	0	0
Coagulopathy	0	0
Hypertension	4	3
Total risk comorbidities	8	3

Conclusion and relevance The population showed a prevalence for UGIH and ICH of 1% from ES admissions, and 4.5% of these were associated with DOAC use. Only in one case was the posology inappropriate and in all patients the indication was suitable. It was observed that comorbidities may affect bleeding risk more than drugs although we should not underestimate the importance of concomitant drugs.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

5PSQ-010 BENEFITS PROVIDED BY RECOMBINANT LONG HALF-LIFE COAGULATION FACTORS IN PATIENTS WITH SEVERE HAEMOPHILIA 'A' IN PROPHYLAXIS

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Background and importance New recombinant long half-life factors VIII (RLHF) have been added to the therapeutic arsenal with the aim of improving the treatment of patients with severe haemophilia A as prophylaxis. After 2 years of treatment, we want to analyse if it has resulted in a real improvement.

Aim and objectives To determine the decrease in the number of infusions, consumption of international units (IU) of factor and how this has influenced spending. We also determined if the change has meant an improvement in adherence to treatment.

Material and methods This was an observational prospective study in a hospital with a reference unit for congenital coagulopathies that included all patients who began treatment with RLHF and had been on treatment for at least 3 months: rurioctocog (Adynovi), lonoctocog (Afstyla) and efmoroctocog (Elocta). Treatment with RLHF was compared with conventional factor VIII (CF) that was administered before the change, during the whole period with RLFH and the whole last period (CF). Adherence, number of infusions, IU consumed and cost/month were compared. Adherence was calculated considering the number of IU dispensed at the pharmacy and the number of IU prescribed. Changes >10% were considered relevant. Adherence values >100% were treated as 100%. Microsoft Office Access and Excel were used for the recording of variables and statistical analysis.

Results Thirty-five patients were included, all men, with a median age of 19 (ICR 12–28) years; all patients had previously received recombinant factor VIII except for two patients who had received plasmatic factor. We found that 31% of patients improved their adherence by more than 10% by switching to RLHF: 14% of patients reduced their adherences by >10% and 55% of patients maintained their adherence. Patients with <90% adherence with the previous treatment was 37% and with RLHF was 22%. Median monthly infusions were 12 and a median of 2 monthly infusions was reduced by switching to RLHF. The median number of IU saved per patient/month was 7000 (ICR (−8000); 1000) IU. This resulted in a median savings per patient/month of 3182 (ICR (−3.654); (−5))€ .

Conclusion and relevance RLHF is a discrete advance in haemophilia therapy and it decreased the number of infusions/month with a small improvement in adherence. Less IU was consumed/month, and this was a cost saving.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

5PSQ-011 COMPLICATIONS OF DRUG CONTAINING PARENTERAL NUTRITION: A COHORT STUDY

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Background and importance Parenteral nutrition (PN) is an intravenous formulation composed of a wide variety of nutrients. Adding drugs to PN have certain advantages although associated drawbacks have been described, such as the risk of instability and incompatibility with macro or micronutrients.

Aim and objectives To evaluate if the addition of certain drugs to PN was associated with a higher incidence of PN complications.

Material and methods This retrospective observational cohort study included hospitalised patients treated with personalised PN from July 2018 to July 2019. Paediatric patients and those who received PN for >3 days were excluded. Variables collected: age, sex, cause of hospitalisation, PN administration route, presence of drugs in PN, duration of PN treatment and PN complications. PN were classified as drug containing PN if somatostatin, ranitidine, insulin or metoclopramide were added.