Background and importance Stroke prevention in atrial fibrillation (AF) is a major indication for oral anticoagulants. Appropriate use of anticoagulants reduces the relative risk of stroke by approximately 66%. Despite an abundance of evidence for this treatment, up to 40% of AF patients do not receive anticoagulant therapy. Decision support systems have shown promise in increasing guideline adherence to reduce therapeutic omissions.

Aim and objectives We aimed to develop and validate a screening tool to identify untreated AF inpatients.

Material and methods A computerised screening tool was developed integrating the following data from the patient's electronic health record (EHR): demographic, laboratory and medication data, ECG reports and allocation to specific care programmes. A decision process was applied, which consisted of (1) determining whether AF was present, (2) calculating the CHA_2DS_2-VASc score and (3) determining whether anticoagulant treatment was present during hospitalisation and/or in the pre-admission therapy. Subsequently, based on these three steps, a priority score was assigned to the patient, from 0 (no risk) to 5 (highest level of risk).

A validation study was done to assess the accuracy of this approach. Criterion and tool validity were ascertained by determining specificity and sensitivity, compared with a manual check of the EHR. Consistency regarding the priority score was determined by estimating Cohen's kappa (κ).

Results For the validation, 800 inpatients were included. The specificity and sensitivity of the tool for identification of patients with AF were 87.6% and 95.1%, respectively. Overall specificity and sensitivity for identification of AF patients with a CHA_2DS_2-VASc score ≥ 2 was 72.7% and 97.7%, respectively. Specificity and sensitivity to determine the presence of anticoagulants was 97% and 87%, respectively. There was good agreement between the priority score obtained by the pharmacist after EHR review and the one generated by the screening tool (κ unweighted 0.74; κ equal weighted 0.66).

Conclusion and relevance This screening tool to identify untreated AF inpatients was found to be reliable and valid with a high sensitivity. To further improve specificity, future investigations might focus on better digital structuring of patient data. Our future goal is to implement the AF screening tool in clinical practice to improve the use of preventative therapy and reduce the significant burden of stroke.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-226 EFFECTIVENESS OF CARBOXYMALTOSE IRON IN PREOPERATIVE ANAEMIA TREATMENT

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Background and importance The administration of carboxymaltose intravenous iron (CII) contributes significantly to the correction of perioperative anaemia and reduction of red blood cell transfusion (RBCT). RCBT is associated with an increased risk of prolonged hospitalisation and mortality, so is recommended to use alternatives to RBCT to improve clinical outcomes and patient safety.

Aim and objectives To evaluate the effectiveness of CII for surgical patients in a third level hospital and to describe the transfusional requirements of patients after the surgical procedure.

Material and methods This was an observational, retrospective, single centre study including surgical patients who received CII between January 2017 and December 2018. Variables collected from the electronic clinical charts were: sex, age, CII dose, baseline and perioperative haemoglobin (HB), and time between CII administration and the surgical procedure. Exclusion criteria were: patients not undergoing surgery, administration CII after surgery and no preoperative or baseline HB data.

The main variable used to evaluate effectiveness was the percentage of patients with an increase in HB in the preoperative stage compared with baseline HB >1 g/dL, and the difference and number of transfusions after the surgical procedure. Data were expressed as mean±SD, and the analysis test used was the χ^2 test.

Results 70 patients were included, 48 women (68.6%), with a mean age of 58.3±15.0 years. The mean CII dose was 1274.3±352.5 mg. Mean baseline and preoperative HB were 9.8±1.2 and 11.0±1.4 g/dL, respectively. The time between administration of CII and surgery was 37.7±41.2 days. 78.6% (n=55) had an increase in HB in the preoperative stage compared with baseline HB, and 50.0% (n=35) of patients had an increase in HB >1 g/dL. 35.7% (n=25) of patients were transfused: patients who reached HB in the perioperative stage compared with baseline HB >1 g/dL were transfused less frequently than patients who did not reach this difference (72.0% vs 28.0%) (p=0.006)

Conclusion and relevance CII was clinically effective due to an increase in HB in most patients. In addition, CII administration reduced RCBT for the included patients. However, a comparative study with a cohort of surgical patients without CII administration is needed.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-227 HUMAN SERUM ALBUMIN: ANALYSIS OF USE

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Background and importance Human serum albumin (HSA) is widely used in clinical practice, although many indications are still being debated.

Aim and objectives To analyse the clinical indications for HSA and the level of evidence for them.

Material and methods This was an observational, retrospective, multidisciplinary study. Inclusion criteria were: patients >18 years admitted, patients treated in a specialised outpatient clinic or emergency department, in a secondary hospital, who had received at least one dose of HSA during 2019. Variables studied were: demographics, admission diagnosis, number of