(T1: 95.3% vs 77.8%, $p < 0.05$; T2: 98.4% vs 91.3%, $p < 0.05$). The QI 'documented body weight' showed similar findings (T1: 82.1% vs 62.5%, $p < 0.05$; T2: 80.2% vs 66.3%, $p < 0.05$). The survey (32% response rate) showed that the feedback report had an appropriate format and length (median scores 3/5), although only 33% of the stewards had disseminated the results to colleagues.

Conclusion and relevance Awareness of electrolyte disorders increased among physicians, but the direct impact of our feedback remains unclear. Other QIs showed little room for improvement and need re-evaluation. Overall results suggested a persistent need for training on intravenous fluids, especially on surgery wards, and feedback should include tailored communication with staff.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

5PSQ-134 ANALYSIS OF FACTORS RELATED TO THE CLINICAL COURSE OF COVID-19 INFECTION IN PATIENTS WITH HYPERTENSION

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Background and importance Identification of the angiotensin converting enzyme (ACE2) as a target of the SARS-CoV-2 virus raises questions about a possible change in the clinical course of this infection associated with inhibitors of the renin-angiotensin-aldosterone system (RAAS). Furthermore, high blood pressure is considered a risk factor for COVID-19.

Aim and objectives To characterise the clinical course in hypertensive patients admitted for COVID-19 and to determine if treatment with RAAS inhibitors, age and additional comorbidities may be related to mortality and development of acute respiratory distress syndrome (ARDS).

Material and methods A single centre, observational, retrospective study was conducted. Inclusion criteria were: diagnosis of hypertension, hospital admission for COVID-19 between 1 March and 24 March 2020. Demographic, clinical and analytical variables were recorded. Clinical course was evaluated by: development of bilateral pneumonia, ARDS, length of stay and mortality. End of follow-up was 10 October 2020. To evaluate the possible influence of factors on evolution, binary logistic regression was performed using the STATA-IC14 programme. Quantitative dependent variables were transformed into dichotomous variables. Statistical significance was defined as $p < 0.05$.

Results 571 patients were analysed, with a median age of 76 years (IQR 66–83) and 59.2% were men. Of these, 69.7% were receiving treatment with RAAS inhibitors, 7.2% smoked and 80.0% had additional comorbidities. At hospital admission, 27.3% presented with hypoxaemia ($\text{SatO}_2 < 90\%$), 64.3% lymphopenia ($< 1000/\text{mm}^3$), 18.8% C reactive protein $> 20 \text{ mg/dL}$ and 11.7% D-dimer $> 1200 \text{ ng/mL}$. During the hospital stay, 91.9% of patients required oxygen therapy, 76.4% developed bilateral pneumonia, 91.9% required oxygen therapy, 47.5% developed ARDS and 33.6% died. Median hospital stay was 15 days (IQR 9–24). Use of RAAS inhibitors was not

linked to changes in mortality or development of ARDS ($p > 0.05$).

Risk factors associated with mortality were: additional cardiovascular diseases ($\text{OR} = 2.10$; $p = 0.000$) and older age ($\text{OR} = 1.05$; $p = 0.000$). Regarding ARDS, we found an association with obesity ($\text{OR} = 1.77$; $p = 0.013$), diabetes mellitus ($\text{OR} = 1.84$; $p = 0.001$) and age ($\text{OR} = 1.02$; $p = 0.010$). Hospital stay > 14 days was significantly longer in advanced age ($\text{OR} = 1.02$; $p = 0.022$) and if chronic kidney disease was present ($\text{OR} = 1.73$, $p = 0.043$).

Conclusion and relevance Antihypertensive treatment with RAAS inhibitors did not seem to be linked to the risk of worse evolution of COVID-19. Advanced age and additional cardiovascular disease appeared to be associated with higher mortality in hypertensive patients.

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Conflict of interest No conflict of interest

5PSQ-135 ADEQUACY OF HYPOLIPEMIANT TREATMENT IN PRIMARY HEALTHCARE

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Background and importance Based on the criteria lipid lowering efficacy, safety, experience of use and cost, the statins simvastatin, pravastatin and $\geq 40 \text{ mg}$ atorvastatin, and gemfibrozil fibrates, are prioritised in our territory.

Aim and objectives To optimise lipid lowering treatment in primary healthcare (PH) patients.

Material and methods A prospective study (June to July 2020) was carried out in a PH centre, with data obtained from the ECAP computerised medical record. Patients on lipid lowering treatment not considered firstline were included. Data were collected for demographic variables (age and sex), patient adherence and therapeutic effectiveness, drugs involved and interventions (proposal, acceptance and implementation). The prescription was validated by the pharmacist and the interventions were proposed to the physician.

Results 300 patients were included, aged 68 (11.4) years (157 (52.3%) men), assigned to eight physicians. 44 (14.7%) patients were not adherent, and the therapeutic objective was not reached in 62 (20.7%) patients. 296 (86.5%) interventions were suggested on 342 active principles: change in therapeutic equivalent, 29.4%; intensify the dosage, 27.3%; interrupt the drug, 24.7%; reassess the indication, 9.8%; change the active principle, 7.1%; and reduce the dosage, 1.7%. Interventions involved: atorvastatin, 38.7%; rosuvastatin, 17.7%; fenofibrate, 16.3%; ezetimibe, 15.9%; pitavastatin, 9.2%; lovastatin, 1.1%; and fluvastatin, 1.1%. The final drugs were: atorvastatin, 54.3%; simvastatin, 34.7%; gemfibrozil, 7.5%; and pravastatin, 3.5%. Physicians accepted 289 (97.6%) interventions. At the 2–3 month follow-up, the implementation carried out lowered the percentage of drugs not considered firstline from 27.49% to 22.07% (19.71% reduction).

Conclusion and relevance The prescription of hypolipemiant drugs was not in accordance with the recommended standards, possibly due to ignorance of institutional

recommendations, magnification in the perception of adverse effects of classic treatments and therapeutic inertia. Review of the prescriptions by the specialist pharmacist was an added value in optimising the treatment of these patients by means of a multidisciplinary team. It will be interesting to analyse the results at the 1 year follow-up when all patients should have received a visit: the changes implemented, control of the lipid profile after the intervention as well as the savings in drug costs.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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5PSQ-136 DISPROPORTIONALITY ANALYSIS OF THE SKIN TOXICITY OF INGENOL MEBUTATE USING THE FDA ADVERSE EVENT REPORTING SYSTEM DATABASE

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Background and importance Ingenol mebutate was granted a marketing authorisation from European Medicines Agency (EMA) to treat actinic keratosis. On 30 April 2020, due to an increased risk in provoking skin cancer in treated patients compared with imiquimod, the EMA withdrawn it after a safety data review. The final results of the 3 year safety study (NCT01926496) in 484 patients showed that, among skin malignancies, squamous cell carcinoma (SCC) had a higher incidence with ingenol mebutate gel compared with imiquimod (3.3% versus 0.4% of patients).

Aim and objectives This study aimed to evaluate the safety issue (signal) of increased occurrence of skin malignancy (eg, SCC of the skin) during therapy with ingenol mebutate by mining of the FDA Adverse Event Reporting System (FAERS) database.

Material and methods By querying the FAERS database, we searched for cases of SCC associated with ingenol mebutate using the following MedDRA preferred terms (PTs) 'squamous cell carcinoma of skin', 'skin squamous cell carcinoma metastatic' and 'skin squamous cell carcinoma recurrent'. With a contingency table, we computed the PRR to evaluate the strength of association between SCC and ingenol mebutate.

Results We found the following co-occurrence data: ingenol mebutate/SCC (DE)=90 reports, ingenol mebutate/other ADR (De)=5128, other drugs/SCC (dE)=2882 and other drugs/other ADR (de)=13 899 084 from 2012 to 2020. The two by two contingency table showed a value for PRR of 44.4105 (95% CI 33.332 to 59.1711, $p < 0.001$). Assessment of SCC reports revealed that all ADR were serious and resulted in different outcomes: 80% other outcomes, 11.11% life threatening, 6.6% hospitalised and 2.2% disabled. Patients affected were aged 65–85 years (56.6%), 18–64 years (23.3%), >85 years (7.7%) and not specified (12.2%); 75.6% were men and 23.3% women.

Conclusion and relevance Disproportionality analysis showed that the ingenol mebutate–SCC pair was reported more often than expected. Based on this statistical association, our data confirmed the safety signal evaluated by the EMA that led to the withdrawal of ingenol mebutate from the

EU market. In addition, it raises the question of why the FDA has not revoked the marketing authorisation of the drug in the USA.

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Conflict of interest No conflict of interest

5PSQ-137 ADEQUACY OF DIAGNOSIS AND TREATMENT OF PHARYNGOTONSILLITIS

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Background and importance Acute pharyngotonsillitis is the most prevalent infectious disease in primary healthcare, with inadequate prescription of antibiotics without diagnostic evidence through the application of the Centor criteria and the rapid antigen detection test for group A β -haemolytic *Streptococcus*.

Aim and objectives To evaluate in our territory the degree of adequacy of: (1) the diagnostic procedures for pharyngotonsillitis and (2) antibiotic treatment.

Material and methods A retrospective observational study was conducted in patients diagnosed with pharyngotonsillitis during 2019 in 20 primary healthcare centres. Demographic variables (age and sex), Centor criteria, rapid antigen test and antibiotic prescriptions were collected.

Results 5283 patients were included, aged 9 (6–13) years, and 2759 (52.2%) were women. Of 1062 (20.1%) adult patients, 234 (22%) did not have a record of the Centor score, and 420 (39.5%) with a Centor score ≥ 2 did not undergo an antigen test. Antibiotic treatment was given to 76 (7.2%) patients without registration of the Centor score or test, to 53 (5%) with a Centor score < 2 and no test, and to 49 (4.6%) with a negative test. In contrast, 4 (0.4%) patients with a Centor score of ≥ 2 and a positive test did not receive an antibiotic. Of 4221 (79.9%) paediatric patients, 295 (7%) did not have a record of the Centor score, and 1492 (28.2%) with a Centor score ≥ 2 did not undergo a test. Antibiotic treatment was given to 97 (2.3%) patients without registration of the Centor score or test, to 53 (1.3%) with a Centor score of < 2 and no test, and to 213 (5.1%) with a negative test. In contrast, 84 (2%) patients with a Centor score of ≥ 2 and a positive test did not receive an antibiotic.

Conclusion and relevance The pharyngotonsillitis diagnostic workup (application of the Centor criteria and rapid antigen test) was far from optimal, especially in the adult population. Accordingly, there was a moderately inappropriate prescription of antibiotics, although less in the paediatric population. Optimising the use of antibiotics in pharyngotonsillitis treatment requires maintenance of the dissemination of recommendations and advice.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest