generated more oscillation in plasma levels. For qualitative variables, absolute and relative frequencies were obtained, and for quantitative variables, the median (IQR) were used. For hypothesis contrast, Fisher's exact test or the Mann-Whitney U test was performed according to the type of variable.

Results 45 patients were included, 23 received voriconazole and 22 isavuconazole. Median age was 62 years (56–67) for those receiving voriconazole versus 63 years (54–68) for those receiving isavuconazole ($p=0.91$). 34.8% ($n=8$) of patients treated with voriconazole achieved concentrations of tacrolimus >20 ng/mL (toxic concentration) within 10 days from the start of the combination compared with 14.3% ($n=3$) of patients treated with isavuconazole ($p=0.1685$). The median standard deviation of plasma concentrations was 3.76 ng/mL (2.89–4.5) with voriconazole versus 3.17 ng/mL (1.4–5) with isavuconazole ($p=0.272$). The proportion of patients who temporarily discontinued tacrolimus treatment due to high level concentrations and associated toxicity was 18.2% ($n=4$) with isavuconazole versus 34.8% ($n=8$) with voriconazole ($p=0.318$).

Regarding tolerance to treatment, 28.57% of patients treated with isavuconazole had side effects associated with azole, compared with 82.6% of those treated with voriconazole ($p<0.005$). Treatment had to be suspended due to these side effects in 47.82% ($n=11$) of patients treated with voriconazole and in no patient treated with isavuconazole ($p<0.005$).

Conclusion and relevance Treatment with isavuconazole resulted in fewer tacrolimus poisonings, although the difference was not statistically significant. In addition, treatment with isavuconazole was found to be safer, had fewer side effects and did not require antifungal discontinuation.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

5PSQ-143 DRUG RESISTANT TUBERCULOSIS IN A HIGH COMPLEXITY SPECIALISED UNIT: EPIDEMIOLOGY, TREATMENT AND MAIN ADVERSE REACTIONS

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Background and importance Inadequate therapeutic regimens and lack of adherence due to adverse effects of antituberculosis drugs have made resistance to these drugs a major public health problem. A better understanding of these issues may lead to better outcomes.

Aim and objectives To describe the population with drug resistant tuberculosis, the most used treatments, their adverse drug reactions (ADR) and their efficacy.

Material and methods A descriptive, observational, retrospective study was carried out. All patients cared for in our hospital that finished their treatments for drug resistant *Mycobacterium tuberculosis* between 2015 and 2019 were included.

Results 13 patients were analysed (62% men, mean age 43 (SD 14.8) years). Patients came from the following places: 46% Eastern Europe, 38% Latin America, 8% Western Europe and 8% Asia. Nine patients were diagnosed with multidrug resistant tuberculosis, 2 with polyresistant tuberculosis and 2 with extensive drug resistant tuberculosis. The therapies

included 6–9 different antituberculosis drugs. The most commonly used were linezolid and moxifloxacin (13/13), followed by amikacin and clofazimine (12/13). Other prescribed drugs were cycloserine (10/13), prothionamide (10/13), pyrazinamide (5/13), ethambutol (5/13), isoniazid (3/13), bedaquiline (2/13), meropenem/clavulanate (2/13), streptomycin (1/13), rifampicin (1/13) and rifabutin (1/13).

All patients had some ADR. The most frequent ADR were neurological (10), gastrointestinal (9), ototoxicity (5) and hepatitis (4). Cycloserine caused ADR (psychological, dizziness) in 70% of patients; amikacin (ototoxicity), ethambutol (cutaneous, neurological) and pyrazinamide (hyperuricaemia, arthralgia) in 40%; clofazimine (cutaneous, gastrointestinal), linezolid (neurological, aplasia) and prothionamide (gastrointestinal, hormonal) in 30%; moxifloxacin (fasciitis, nausea) in 8%. All patients reached seroconversion after 1.9 (SD 0.77) months from the beginning of treatment.

Conclusion and relevance Most of the patients diagnosed with drug resistant tuberculosis came from Eastern Europe and Latin America. Moxifloxacin and linezolid were the most used drugs. Cycloserine was the most toxic treatment. Despite the high frequency of ADR reported, all treatments were effective.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

5PSQ-144 PHARMACOTHERAPY OPTIMISATION IN PATIENTS OVER 50 YEARS OF AGE WITH HIV INFECTION: FIRST STEPS

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Background and importance HIV infection causes premature aging. As a result, there is an increase in comorbidities and therapeutic burden in these patients earlier than in the rest of the population.

Aim and objectives To evaluate the prevalence of pluripathology, polypharmacy and pharmacotherapeutic complexity in HIV patients aged over 50 years and to determine the need for optimisation of non-antiretroviral therapy.

Material and methods A cross sectional observational study was conducted (November 2019 – September 2020) in HIV patients aged over 50 years. Electronic prescription programme and clinical history were used to collect the following data: sex, age, comorbidities, antiretroviral therapy (ART) and concomitant medication. Pluripathology was defined as three or more comorbidities, and polypharmacy as six or more prescribed drugs. Pharmacotherapy complexity was determined by calculating: anticholinergic burden and the drugs involved, using the anticholinergic burden calculator programme; and relevant interactions between non-ART/ART medication (potential interaction/not coadminister), using the University of Liverpool and Lexicomp databases. Pharmaceutical interventions (PI) were performed based on criteria for optimisation of non-antiretroviral therapy from a guide for pharmacological deprescription in HIV patients, published by the Spanish AIDS Study Group (GESIDA).

Results 71 patients (69% men) with mean age of 55.1 (50–65) years were evaluated. 34 patients (47.9%) had pluripathology and 39 (54.9%) had polypharmacy, with a mean of 9.3 (6–26) drugs/patient. 37 drugs with anticholinergic burden were identified in 20 (28.2%) patients, and 10 of them (50%) had more than one anticholinergic burden drug. The most common drugs involved were chlorpromazine (15.2%), clorazepate (12.1%), paroxetine (12.1%), alprazolam (12.1%) and trazodone (9.1%).

A total of 67 interactions (16 non-ART medication/51 ART medication) were detected in 34 patients (47.9%) with a mean of 2 (1–6) interactions/patient. 49 (73.1%) were considered potential interactions and 18 (26.9%) were not coadministered. 73 PI were performed in 40 patients (56.3%) with a mean of 1.8 (1–5) PI/patient. The main drug classes that were candidates for deprescription were: anxiolytics/sedatives (20.5%), antiulcers (13.7%), antipsychotics (9.6%), antidepressants (8.2%) and antidiabetics (8.2%).

Conclusion and relevance About half of the patients had pluripathology and polypharmacy. Pharmacotherapeutic complexity was mainly due to the number of interactions. Considering the high number of drugs identified as candidates for optimisation, more coordinated intervention would be needed to improve pharmacotherapeutic prescriptions in the HIV population.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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5PSQ-145 ANALYSIS OF THERAPEUTIC REGIMENS CONTAINING TENOFOVIR DISOPROXIL AND TENOFOVIR ALAFENAMIDE IN THE 4 YEAR PERIOD 2016–2019 IN A RESEARCH, HOSPITALISATION AND HEALTHCARE INSTITUTE

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Background and importance Tenofovir disoproxil (TDF) is a nucleotide reverse transcriptase inhibitor (NRTTI) used for the treatment of HIV-1 infections in combination with other antiretrovirals. In 2016, the main TDF therapeutic regimens in our centre were: emtricitabine (FTC)/TDF/rilpivirine (RVP), FTC/TDF/elvitegravir (EVG)+cobicistat (COBI), FTC/TDF/efavirenz (EFV) and FTC/TDF in combination with other drugs. Starting from the same year, these formulations were marketed (except for FTC/TDF/EFV), containing tenofovir alafenamide (TAF) instead of TDF. TAF is a chemical precursor of TDF which has demonstrated high antiviral efficacy comparable with TDF but at a lower dosage and with fewer side effects (kidney and bone diseases). Furthermore, in 2018 and 2019, additional formulations containing the TAF were produced even though there was no corresponding formulation for TDF.

Aim and objectives The purpose of the study was to analyse the variation in therapeutic regimens from the marketing of TAF formulations in the 2016–2019 4 year period.

Material and methods Patient dispensations were analysed, extracting data from the information system. The focus was on prescriptive trends with TDF based TAF based formulations.

Results At the beginning of 2016, 4526 out of 6405 (70.66%) patients were treated with TDF, as follows: 1127 with FCT/TDF/EFV (24.90%), 1207 with FTC/TDF/RVP (26.68%), 457 with FTC/TDF/EVG+COBI (10.09%) and 1735 with FTC/TDF in combination with other antiretrovirals (38.33%). In 2017, TDF therapies were 3599 (55.69%) and TAF therapies 1175 (18.18%) of 6463. In 2018, TDF based regimens were 2542 (38.99%) and TAF based regimens 2268 (34.79%) of 6518. At the end of 2019, 2184 out of 6571 patients (33.23%) were treated with TDF and those with TAF were 2679 (40.77%). In comparison with the starting point, in 2019 TDF based therapies included: 648 with FCT/TDF/EFV (29.67%), 767 with FTC/TDF/RVP (35.12%), 0 with FTC/TDF/EVG+COBI and 769 with FTC/TDF in combination with other antiretrovirals (35.21%). TAF based therapies included: 708 with FTC/TAF/RVP (26.43%), 136 with FTC/TAF/EVG+COBI (5.08%), 592 with FTC/TAF/bictegravir (BIC) (22, 10%), 690 with FTC/TAF/DRV+COBI (25.75%) and 553 with FTC/TAF in combination with other drugs (20.64%).

Conclusion and relevance Analysis of prescriptions in 2016–2019 showed a decrease in TDF based therapies in favour of TAF based prescriptive regimens. Although TDF formulations remained a valid therapeutic opportunity, TAF formulations, with minor kidney and bone side effects, are an even more relevant alternative for physicians.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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5PSQ-146 'REAL LIFE' EFFECTIVENESS AND SAFETY ASSESSMENT OF FOSCARNET

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Background and importance Cytomegalovirus (CMV) infection is an important cause of mortality, especially in haematological patients. Foscarnet has been used to treat ganciclovir resistant CMV infections. Only a few studies assessing safety and effectiveness of foscarnet have been reported so far.

Aim and objectives To evaluate the effectiveness and safety of foscarnet in the treatment of CMV infection in a third level hospital.

Material and methods A retrospective observational study was conducted in patients who received foscarnet as treatment for CMV viraemia from January 2018 to April 2020. Variables collected were: age, sex, pathology, time of treatment, pattern, basal (start of foscarnet) and final (when foscarnet was suspended) viral load (VL), basal and nadir glomerular filtrate (GF) and metabolic toxicity (basal and nadir serum electrolytes). The results were obtained from the electronic history and prescription software (Farmatools).

Results 39 patients, 22 men, were included, and mean age was 55.8±14.9 years (26–82). 71.8% were haematological patients, of whom 41.0% had received bone marrow transplantation. Mean time in treatment was 11±6.6 days (1–27). The dosage pattern was 90 mg/kg/12 hours in 69.2%. 23.0% started treatment as prophylaxis with undetectable VL. In the