

maximum]. Statistical analyses (Paired t-test, McNemar's Chi-squared test) were performed with R software.

**Results** 56 cancer patients (28 women, 28 men, mean age: 70 years) were included: 34 outpatients receiving an antitumor treatment and 22 outpatients before their antitumor treatment initiation (mainly chemotherapy (27) and immunotherapy (15)). Their number of medications was 6[0–15]; 15/56 used complementary medicines. They were treated with apixaban (77%) or rivaroxaban (23%) for venous thromboembolism (69%) or atrial fibrillation (27%). 36 patients (64%) were concerned by drug-related problems: side-effects (2/36), under-dosing (2/36), and DDI (32/36), that frequently lead to DOAC monitoring (58%). Of note, 37/56 patients knew no DDI with their DOACs (aspirin...). MPR was 102[40–162]% and Girerd score was 1.2[0–6]. Adherence was optimal (MPR >80% and GIRERD score of 0–1) for 36/56 patients (64%). 24 patients have reported 0.7[0–4] clinical signs typical of overdosing. The second interview was assessed in 18/56 patients (31 excluded patients). There was no statistical difference between the two interviews in patient adherence ( $p>0.05$ ), knowledge about DDI or signs of DOACs over- or under-dosing ( $p>0.05$ ).

**Conclusion and Relevance** Adherence to DOACs seemed optimal in our single-centre cancer patients' cohort. Pharmaceutical consultations may help to optimise DOACs use with DDI detection in 56% cancer patients and clinical toxicities management. Unfortunately, pharmacist interviews didn't improve patient knowledge about DOACs. A 'cancer and thrombosis' therapeutic education program could be evaluated.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

**Conflict of Interest** No conflict of interest.

4CPS-126

#### ADHERENCE, PERSISTENCE, AND SWITCHING MEDICATION IN PATIENTS WITH MULTIPLE SCLEROSIS INITIATING ORAL DISEASE MODIFYING THERAPIES: A RETROSPECTIVE REAL-WORLD STUDY

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**Background and Importance** Therapeutic efficacy of disease modifying therapies (DMTs) for multiple sclerosis (MS) is often hindered by poor persistence and adherence, impacted by patient-perceived efficacy concerns, adverse effects and forgetfulness. Real-world studies have shown that nonpersistence and nonadherence to DMTs can lead to negative clinical outcomes, including higher rates of relapse and disease progression.

**Aim and Objectives** This study measured persistence, adherence, and time to switching to other therapy among patients with MS initiating teriflunomide or dimethyl fumarate treatment.

**Material and Methods** This retrospective study used data from patients with MS newly initiated oral DMTs teriflunomide, dimethyl fumarate within the qualifying time period (January 1, 2019 through December 31, 2019). Patient demographics were collected for each patient and included age, sex, and treatment history. Patients were followed from the start of the initial treatment until December 2021. Persistence was defined as the duration a patient continued their medication. Kaplan-Meier curves assessed persistence. Adherence was measured using medication possession ratio (MPR); patients with

MPR>80% were considered adherent. Switching was measured by comparing number of patients switching and mean time to switch to other therapies.

**Results** The baseline characteristics of the 201 patients included in this study were collected. The majority of patients were on dimethyl fumarate (72,6%;  $n = 146$ ), followed by teriflunomide (27,3%;  $n = 55$ ). The majority of patients were female (75,1%). Teriflunomide and dimethyl fumarate patients had a high persistence rates, 74,5% and 68,4%, respectively, after 12 months. The proportion of patients adherent (MPR>80%) to teriflunomide and dimethyl fumarate were 90% and 72%, respectively. Patients newly initiated on dimethyl fumarate had the highest rate of switching to other therapy (32,1%;  $n = 47$ ), followed by patients on teriflunomide (21,8%;  $n = 12$ ). The mean time to switching ranged from 277 days for teriflunomide to 342 days for dimethyl fumarate.

**Conclusion and Relevance** This real-world claims data study demonstrates that patients with MS newly initiated on teriflunomide and dimethyl fumarate had high persistence and adherence at 12 months.

Given the importance of treatment persistence, adherence, and time to switching on clinical outcomes for patients with MS, our findings can be used to inform treatment decision-making by healthcare providers.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

**Conflict of Interest** No conflict of interest.

4CPS-127

#### PERSISTENCE OF BIOLOGICAL DISEASE-MODIFYING DRUGS AND PHOSPHODIESTERASE-4- INHIBITORS IN PATIENTS WITH PSORIATIC ARTHRITIS

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**Background and Importance** Persistence provides information on treatment effectiveness, durability, and tolerance in real-world patient populations. Little is known about the persistence of treatments used in Psoriatic Arthritis (PsA).

**Aim and Objectives** This work compares the persistence of biological disease-modifying drugs (bDMARDs) and phosphodiesterase-4-inhibitors (PD-4-Is) in PsA patients and investigate the reasons for treatment discontinuation.

**Material and Methods** Longitudinal, retrospective, and observational study. It included PsA patients who initiated bDMARDs (anti-TNF, anti-IL12/23, anti-IL17 and anti-IL23) and PD-4-Is treatment between January 2014 and June 2022, with follow-up until December 2023.

Persistence is the period from initiation to discontinuation. Persistence was also calculated as a dichotomous variable at 6 months from the treatment initiation. The permissible gap (threshold of a period without treatment) was 60 days.

The variables analysed include age, gender, treatment line, treatment start and end dates, reasons for discontinuation, treatment-naïve and adherence (medication possession ratio >90%).

Persistence after six months was compared using the  $\chi^2$  test. Kaplan-Meier survival analysis was performed, and differences were evaluated using the log-rank test. Adjusted risk of

discontinuation was assessed with Cox Proportional Hazard models. Statistical analysis was conducted with SPSS®V27.0.

**Results** 206 patients were included, 47.6% were men. The mean age±SD was 53.2±11.6 years. A total of 354 treatment lines were recorded (37.3% anti-TNF; 25.2% PD-4-Is; 20.3% anti-IL17; 9.0% anti-IL12/23; 8.2% anti-IL23).

Overall treatment persistence rate at 6 months was 86.4% (96.8% anti-IL12/23; 95.2% anti-IL23; 91.2% anti-TNF; 83.8% anti-IL17; 75.9% PD-4-Is).

Mean overall persistence duration was 1542 days (CI 95% 1376–1707). According to Cox regression, the mean persistence was 1626 (CI 95% 1436–1815) days for bDMARDs and 1086 days (CI95% 863–1310) for PD-4-Is. Men were more persistent [HR 1.41 (CI95% 1.04–1.93),  $p<0.05$ ]. bDMARDs were more persistent [HR 1.11 (CI95% 1.02–1.21)  $p<0.05$ ].

13.6% (n=46) PsA patients treated with bDMARDs or PD-4-Is discontinued treatment before 6 months. The reasons were: 55.5% lack of effectiveness (37.5% anti-TNF; 37.5% anti-IL17; 20.8% PD-4-Is; 4.2% anti-IL12/23); 39.5% adverse effects associated with PD-4-Is and 5.0% unknown reason.

**Conclusion and Relevance** Patients with greater treatment persistence are those treated with bDMARDs and are predominantly male. Lack of effectiveness were the main reason for early discontinuation of treatment. All patients who discontinued treatment for adverse effects were treated with PD-4-Is.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

**Conflict of Interest** No conflict of interest.

#### 4CPS-128 POTENTIAL DRUG-DRUG INTERACTIONS IN HYPERTENSIVE PATIENTS

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**Background and Importance** Hypertension is among the most frequently diagnosed chronic medical condition in adults. Treatment of hypertension requires one or more drugs (usually thiazide, angiotensin converting enzyme inhibitor (ACEI), angiotensin-II-receptor blocker (ARB), calcium channel blocker (CCB) and/or beta-blockers). Potential drug-drug interactions (pDDIs) are highly prevalent in hypertensive patients receiving multidrug therapy. Knowledge about pDDIs may help physicians minimise adverse effects by careful choice of drugs.

**Aim and Objectives** To analyse pDDIs among hypertensive patients and evaluate the mechanism and severity of potential outcomes of such interactions.

**Material and Methods** We conducted a cross-sectional study during a two months period, which included 350 patients with hypertension, treated in university hospita, who had  $\geq 2$  medications prescribed. Approval was granted by the Ethics Committee of the hospital. Medication prescriptions were analysed for clinically relevant pDDIs using Lexi-Interact database (Lexi-Comp, Inc, Hudson, Ohio. Statistical analysis was performed using the software PASW Statistics (PASW Inc., Chicago, IL, USA) version 22 and Microsoft Excel® 2010. An expert group, consisting of two clinical pharmacists and two hospital pharmacists, assessed the benefits and risks of each prescribed drug by using the Medication Appropriateness

Index. Discontinuation or substitution with another drug with less interacting potential was suggested.

**Results** A total of 350 patients were included in this study, with average age 77 (36–98) years and 6.1 (2.5) medications. The majority of patients (86.0%) had at least one clinically significant pDDI, average was 3.78 (range 1–25). Suggestions for treatment change aimed mainly at eliminating drug duplications, reducing the use of thiazide diuretics, sulfonyleureas, alpha-lipoic acid and pentoxifylline and increasing the use of calcium-channel blockers, when appropriate. pDDIs would have decreased to 2.10,  $p<0.001$ , yet male gender,  $\geq 6$  medications, cardiovascular diseases, diabetes, benign prostatic hyperplasia, would be predictive of  $\geq 2$  pDDIs. The main potential adverse outcomes of pDDIs were hypotension, renal failure, hypoglycemia, bradycardia and lactic acidosis.

**Conclusion and Relevance** Careful choice of drugs can reduce, but not eliminate pDDIs in hypertensive patients. Close monitoring for hypotension, renal failure, hypoglycemia, bradycardia and lactic acidosis is necessary.

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**Conflict of Interest** No conflict of interest.

#### 4CPS-129 EVALUATION OF THE BENEFIT OF CAROB FLOUR ON NINTEDANIB DIARRHOEA IN THE TREATMENT OF DIFFUSE INTERSTITIAL LUNG DISEASE

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**Background and Importance** Nintedanib is a tyrosine kinase inhibitor drug indicated for idiopathic pulmonary fibrosis and other chronic progressive phenotype fibrosis. However, it is difficult to maintain the full dose due to its most frequent adverse effect: diarrhoea.

Because of the complexity of these patients, multidisciplinary care between nursing and pharmacy is performed. Before starting treatment, oral intake of carob flour is indicated to prevent and treat diarrhoea.

Carob is a plant with medicinal use in gastrointestinal disorders as it has anti-inflammatory, anti-diarrhoeal and anti-ulcer properties. We recommend, according to bibliography, the intake of 20 grams once or twice a day.

**Aim and Objectives** To evaluate the benefit of daily intake of carob flour on diarrhoea caused by the antifibrotic drug nintedanib in a tertiary level hospital.

**Material and Methods** All patients dispensed nintedanib from March 2022 to July 2023 were included. Information regarding nintedanib initiation date, duration of treatment, indication, dosing at cut-off and co-medications was collected from medical history. Carob flour intakes and incidence of diarrhoea were registered by nursing and pharmacy on follow-up.

**Results** Forty-seven patients were included, highlighting two groups:

**Patients who took carob flour** 48.9% (n=23), of whom 20 did not have diarrhoea. The other three patients had diarrhoea,