## 4CPS-073 ANALYSIS OF THE REASONS FOR CHANGING TREATMENT IN PATIENTS WITH MULTIPLE SCLEROSIS

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10.1136/ejhpharm-2024-eahp.177

**Background and Importance** Treatment for multiple sclerosis (MS) has changed in the last few years. The introduction of new therapies has led to improved tolerance and new options in the progression of disease.

**Aim and Objectives** To evaluate the reasons for changing treatment in patients diagnosed with MS and its economic impact.

**Material and Methods** Descriptive, retrospective and observational study of patients with MS, who changed treatment during 2022.

The variables collected from the clinical history were: age, sex, type of MS, EDSS scale, previous and new treatment and reason for the change. The economic impact associated with treatment changes was also evaluated.

**Results** During 2022 there was a 12% change in treatments (n=63/535 patients, 67 changes).

68% (n=43) were women with a mean age of 45 years. At the moment of change, mean EDSS was 2.9 (0.0–7.0) and 86% (n=54) had a diagnosis of relapsing-remitting MS and 14% (n=9) of secondary progressive multiple sclerosis (SPMS).

Treatment changes were due to: 46% (n=31) adverse events (AEs), 46% (n=31) progression, 5% (n=3) AEs/progression and 3% (n=2) pregnancy desire.

The AEs were: 50% injection site disorders and/or flu-like symptoms (100% IM/SC drugs), 17% gastrointestinal disorders ± flushing or uncontrolled blood pressure (100% oral drugs), 15% infusion-related reactions, 12% lymphopenia and 3% hepatotoxicity and increased anti-JC titre. 100% SC/IM treatments switched to oral drugs and 100% natalizumab$_{IV}$ was changed to natalizumab$_{sc}$.

Changes for progression (n=34) were: 74% highly effective drugs (12 ocrelizumab, 7 cladribine and 6 natalizumab), 21% progression to SPMS (5 siponimod and 2 rituximab), and 5% dimethyl fumarate.

**Previous treatments were** 19% dimethyl fumarate, 16% teriflunomide, 15% natalizumab$_{IV}$, 9% glatiramer, 9% fingolimod, 7% interferon beta-1a$_{IM}$, 7% peginterferon$_{SC}$, 6% interferon beta-1b$_{SC}$, 4% interferon beta-1a$_{SC}$, 3% rituximab, 1% siponimod and cladribine.

**New treatments were** 19% ocrelizumab, 18% teriflunomide, 15% cladribine, 10% dimethyl fumarate, 9% natalizumab$_{SC}$, 7% natalizumab$_{IV}$, 7% siponimod, 6% rituximab, 3% glatiramer, 1% ozanimod, ponesimod and diroximel fumarate.

The mean monthly cost before the changes was 833€ and 1,543€ with the new treatments.

**Conclusion and Relevance** The introduction of new therapies has led to having more therapeutic alternatives and they are well tolerated in those patients with AEs or progressive MS, but the economic impact is higher.

### REFERENCES AND/OR ACKNOWLEDGEMENTS

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

## 4CPS-074 DRUG CLASSES COMMONLY RELATED TO MEDICATION ERRORS AT TRANSITION OF CARE

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10.1136/ejhpharm-2024-eahp.178

**Background and Importance** Transitions of care, such as from hospital to community settings, are often associated with changes in medication regimens, and patients are therefore at risk of drug-related problems (DRPs).[1] Medication reconciliation by clinical pharmacists aims to reduce DRPs and thus improve patient safety.

**Aim and Objectives** We aimed to identify drug classes most susceptible to DRPs and to quantify the proportion of DRPs originating from transition of care (admission or discharge). This could support clinical pharmacists in more targeted medication reconciliation.

**Material and Methods** Medication reconciliation was performed by clinical pharmacists in a regional hospital for patients discharged from internal medicine, surgical, orthopaedic, and gynaecological wards. For each identified DRP, the involved drug class (ATC code) and its origin (transition of care, or other origin, such as prior to or during hospitalisation) were systematically documented. For this descriptive observational study, we analysed data over 3.5 years to calculate the frequency of DRPs of specific drug classes and their origins.

**Results** Between January 2019 and June 2023, a total of 25,298 medication reconciliations were performed, DRPs were documented for 3,401 discharges with a prevalence of 13.4%. The five drug classes most often related to DRPs were cardiovascular agents with 836 records (18.2%), gastrointestinal tract drugs with 751 records (16.3%), analgesics with 615 records (13.4%), antithrombotic drugs with 470 records (10.2%), and anti-infectives with 390 records (8.5%). Other drug classes accounted for fewer DRPs.

78.8% of DRPs involving cardiovascular agents originated from a transition of care, along with 56.7% for anti-infectives, 52.3% for antithrombotic agents, 51.9% for gastrointestinal tract drugs and, 49.3% for analgesics.

**Conclusion and Relevance** We identified a set of drug classes commonly related to DRPs. Furthermore, we observed that most of the DRPs originated from a transition of care. This study emphasises the importance of medication reconciliation during transitions of care and identifies which drug classes should be focused on.

### REFERENCES AND/OR ACKNOWLEDGEMENTS

1. Fatema A Alqenae, *et al*. Prevalence and nature of medication errors and medication-related harm following discharge from hospital to community settings: a systematic review. *Drug Safety*. 2020;**43**:517–537.

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