

**Objectives:** Lenalidomide, a molecular-targeted agent that binds to cereblon, is active in multiple myeloma (MM), the second most common haematological malignancy. Continuous exposure is associated with efficacy; however, the impact of adherence to lenalidomide oral maintenance therapy on quality of life is unclear. We assessed the available literature to assess the relationship between adherence and patient-reported outcomes (PROs) in lenalidomide-treated MM patients. **Methods:** We conducted a systematic literature search for articles published before 31Mar2023 assessing treatment compliance in patients with MM treated with lenalidomide using the PubMed and Embase databases. Data were assessed descriptively to determine the feasibility of a meta-analysis. **Results:** 321 articles were screened; 7 articles comprising 1,261 patients were eligible: 3 prospective real-world studies, 2 retrospective analyses, and 2 prospective clinical trials. Many studies included patients using lenalidomide in combination, most often with dexamethasone or ixazomib. Medication possession ratio (MPR) was most often used to quantify adherence. Where reported, adherence was quite high, with a median MPR 73–89.5% (n=2). In studies that used an MPR good-adherence cut-off of  $\geq 80\%$ , 3–38% of patients failed to meet this measure (n=3). However, lenalidomide therapy duration was not accounted for when interpreting MPR. The most common PROs assessed were SATMED-Q<sup>®</sup>, QLQ-C30, and QLQ-MY20. There was no clear association found by studies that tested correlations between adherence and PROs (n=4). One study found high treatment satisfaction was associated with good adherence. Pre-existing depression, adverse events, and less support from others were found to be associated with poor adherence (n=3). **Conclusions:** A relevant proportion of MM patients treated with lenalidomide had an MPR of  $< 80\%$ ; however, a definite conclusion was not drawn as the assessment of any relationship by means of a meta-analysis is confounded by variability in patient population, prescribing, and outcome measures used to assess both adherence and PROs.

## P26 DRUG UTILIZATION, ADHERENCE, AND PERSISTENCE IN PARKINSON'S DISEASE PATIENTS IN A REAL-WORLD SETTING IN QUEBEC, CANADA

Baribeau V,<sup>1</sup> Mohammed S,<sup>2</sup> Awan A,<sup>2</sup> Parison D,<sup>2</sup> Lachaine J<sup>1</sup>

<sup>1</sup>PeriPharm Inc, Montreal, QC, Canada, <sup>2</sup>AbbVie, Montreal, QC, Canada

**Objectives:** Parkinson's Disease (PD) is a progressive neurodegenerative disease that affects the control of movement, with a variety of symptoms such as rigidity and tremor. There is no cure for PD and the goal of treatment is to relieve symptoms. The objective of this project was to analyze drug utilization, adherence and persistence in a real-world setting, of patients with a diagnosis of PD in Quebec, Canada. **Methods:** Using data from the Régie de l'Assurance Maladie du Québec (RAMQ) database for the period from January 2010 to December 2018, a sample of PD patients was selected. Patients had to have at least one diagnosis code for PD (ICD-9 code 332.0 or ICD-10 code G20.x) and received a PD medication (levodopa, dopamine agonist, catechol-o-methyl transferase inhibitor, monoamine-oxidase-B inhibitor and/or anticholinergic drug) at least once. Treatment utilization was measured during the follow-up (the end of the RAMQ coverage). Adherence to PD treatments was estimated by calculating the medication possession ratio (MPR) that corresponds to the total number of days' supply of medication dispensed divided by the duration of treatment. Persistence rates were measured using a Kaplan-Meier analysis. **Results:** A total of 1,212 patients were analyzed. The average age was 74.3 years and 56.8% were male. The drug most often used was levodopa/carbidopa (89.8%), followed by pramipexole (17.2%), and rasagiline (14.5%). A higher proportion of patients had only used 1 treatment (49.8%). Average adherences were high for all classes of treatment (MPR $\geq 85\%$ ) and were consistent over time, i.e. from 3 months to 24 months of treatment. The discontinuation rates at 24 months for dopamine agonists, catechol-o-methyl transferase inhibitors, monoamine-oxidase-B inhibitors, and anticholinergic drugs were approximately 50% (47.6% to 49.5%), but the levodopa class discontinuation rate was lower (20.4%). **Conclusions:** While on treatment, patients were adherent. However, there were high rates of discontinuation.

## P27 HOW UNTRUTHFULNESS IN SELF-REPORTED MEDICATION ADHERENCE INFLUENCES TREATMENT PREFERENCES: A DISCRETE CHOICE EXPERIMENT

Oedingen C,<sup>1</sup> van Gestel R,<sup>2</sup> Huls S,<sup>1</sup> de Bekker-Grob E,<sup>1</sup> Veldwijk J<sup>1</sup>

<sup>1</sup>Erasmus School of Health Policy & Management, Erasmus University Rotterdam, Rotterdam, South-Holland, Netherlands, <sup>2</sup>Erasmus School of Economics, Erasmus University Rotterdam, Rotterdam, South-Holland, Netherlands

**Objectives:** Although self-reported questionnaires are commonly used to measure medication adherence, self-reported adherence may be influenced by socially desirable answers resulting in untruthful reporting. Such untruthful reporting can have serious consequences for reporting on treatment (cost)effectiveness. This study investigated how to induce truthful self-reported adherence and how this can explain heterogeneity in treatment preferences. **Methods:** A survey measuring self-reported medication adherence was administered immediately after a discrete choice experiment regarding preferences for Multiple Sclerosis (MS) treatments. Data was collected among MS patients in the Netherlands, France and the United Kingdom. Half of the sample was randomized to receive choice-matching which was used to induce truthful responses towards questions on adherence. Choice-matching (financially) incentivizes respondents depending on individuals' predictions about

others' responses in the same sample, and the choice predictions of others with the same adherence score. Descriptive statistics and mixed logit models with interaction effects were conducted to determine the influence of choice-matching on self-reported adherence and to assess whether truthful adherence explains preference heterogeneity. **Results:** The sample comprised 758 MS-patients (mean age 40.8 years, 67% female). On average, respondents reported a higher adherence if they only received the adherence questions compared to respondents also receiving choice-matching (always adherent: 46.6% vs. 39.3%). The mixed logit model showed statistically significant interaction effects between the self-reported adherence and preferences for treatment modality. Only in the choice-matching group, higher adherence resulted in lower utility scores for implants compared to injections or pills (p=0.01). **Conclusions:** Choice-matching encouraged respondents to report their true medication adherence. Linking truthful adherence to preferences allows for a better understanding of preference heterogeneity, better (cost)effectiveness assessments of treatments and can help patients and physicians with making a shared treatment decision that fits the patients' true preferences.

## P28 MEDICATION NON-ADHERENCE IN PATIENTS WITH VARYING LEVELS OF DEPRESSION SYMPTOMS MEASURED USING THE MEDICATION ADHERENCE REASONS SCALE

Unni E,<sup>1</sup> Sternbach N,<sup>2</sup> Costantino H,<sup>3</sup> Gupta S<sup>3</sup>

<sup>1</sup>Touro College of Pharmacy, New York, NY, USA, <sup>2</sup>Cerner Enviza, Malvern, MO, USA, <sup>3</sup>Cerner Enviza, an Oracle Company, Kansas City, MO, USA

**Objectives:** Depression affects approximately 280 million people worldwide. Literature reports that the overall non-adherence to antidepressants immediately after the start of treatment was 13 to 55.7% and by six months was 52%. However, what is missing in the literature is the extent of non-adherence among individuals based on their level of depression. PHQ-9 score has been used to determine the level of depression as none to minimal, mild, moderate, moderately severe, and severe. **Methods:** Data was used from the 5EU 2022 National Health and Wellness Study (NHWS), a self-administered, annual, internet-based cross-sectional survey of adults in France, Germany, UK, Italy and Spain. Non-adherence was measured using the Medication Adherence Reasons Scale (MAR-Scale) which includes 19 reasons for non-adherence and one global item. NHWS participants who self-reported taking daily prescription medication(s) to treat depression responded to the MAR-Scale. Frequencies were used to identify the reasons for non-adherence. **Results:** Of the 4008 respondents (64.22% female; 48.42 mean age), 42.64% were non-adherent. Based on their level of depression, patients with moderate-severe depression were significantly more non-adherent than those with minimal or mild depression. Based on the 19 reasons, 72.27% of the none to minimal depression were adherent, but it decreased to 50.95% for those with severe depression. For all levels of depression, the major reasons were concerns about long term effects and potential side effects from the medicine, forgetfulness, and skipping the medicine to see if it is still needed. Those non-adherent with moderately severe depression missed the medicine an average of 3.04 days/week. **Conclusions:** With ~50% of the patients with moderate-severe depression not taking medicines as prescribed due to concerns about the medicine, providers, payers, and pharmaceutical companies should develop educational interventions to improve adherence.

## Impact of Regulatory Affairs on Access

### P29 CONDITIONAL MARKETING AUTHORIZATION - BECOMING INCREASINGLY MORE COMMON BUT INCREASINGLY LESS RELEVANT

Macaulay R,<sup>1</sup> Bear M<sup>2</sup>

<sup>1</sup>PRECISIONadvisors, Edinburgh, UK, <sup>2</sup>Precision Advisors, London, LON, UK

**Objectives:** The European Medicines Agency (EMA) can grant a Conditional Marketing Authorization (CMA) for medicines that treat severe diseases based on less comprehensive clinical data than usual, pending the collection of more comprehensive data post-authorization. This research evaluates how the number of CMAs have evolved over time and their conversion to successful reimbursement. **Methods:** All publicly-available EMA CMAs were identified (01-JAN-2006–31-DEC-2022), alongside any corresponding NICE evaluation over the past 5 years (01-JAN-2018–29-JUN-2023) and key information was extracted. **Results:** 81 EMA CMAs were identified, representing 6.0% of all EMA medicine authorizations (range: 0.9% [2009]–14.1% [2021]). There is a clear trend towards these becoming more common over time: CMAs represented over 10% of all EMA approvals every year since 2019, but was under 10% in every year before 2009. However, only a proportion of these have been converted to successful NICE reimbursement recommendations over the past 5 years, with 14% recommended, 14% optimized, 18% recommended through CDF, 9% not recommended, 9% terminated/discontinued, 18% ongoing, and 18% N/A (primarily COVID vaccines). This trend also appears to be substantially more negative over time, with 68% of NICE appraisals being 'Recommended'/'Optimized'/'CDF' prior to 2021 but the corresponding figure has fallen to 23% from 2021 onwards. **Conclusions:** EMA CMAs are becoming an increasingly common route to market for new medicines, representing over 10% of new EMA approvals since 2019. We have shown that only a proportion of medicines translated this expedited marketing authorization into successful reimbursement outcomes in the UK, and this trend is becoming