RESULTS: Patients (n=660, 100% completion rate) completed the survey. All attributes were significant predictors of choice except sleepiness. Respondents were significantly more likely to choose a treatment that provided a 10% reduction in seizure frequency (Odds Ratio [OR]=1.75, 95% CI 1.68-1.82) or avoided weight gain (3lb) (OR=0.751, 95% CI=0.731-0.772). Respondents were willing to pay an additional £39 and £20 per month for AEDs with those attributes. Furthermore, respondents who become unresponsive during a seizure placed higher levels of preference on an AED that would reduce seizure frequency. Respondents who reported higher levels of adherence to their AEDs (MMAS-8) reported better quality of life (QoL) (QOLIE-31-P and EQ-5D-5L). **CONCLUSIONS:** Seizure reduction is the most important AED attribute to epilepsy patients, but lack of weight gain is also valued. Higher adherence to AEDs appears to be linked with improved QoL.

PND37
PATIENT PREFERENCES FOR ATTRIBUTES OF DISEASE MODIFYING THERAPIES: RESULTS OF A CHOICE BASED CONJOINT ANALYSIS

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OBJECTIVES: Disease modifying therapies (DMTs) decrease relapses in patients with multiple sclerosis (MS). Due to their wide variety of risk/benefit attributes, patients must weigh their preferences when choosing DMTs. We determine patient preferences for DMTs risk/benefit attributes. **METHODS:** Our choice-based conjoint (CBC) survey developed using Sawtooth software was given in-person, to 300 consenting adults with relapsing remitting MS at University of California, San Francisco's MS clinic. Each patient answered 16 choice tasks. They chose one of two choices with 3-4 different levels of 6 risk and benefit attributes of hypothetical DMTs. Benefits included delayed progression, reduced relapses, and symptom improvement. Risks were mild side effects (SEs), serious SEs, and administration route and frequency. Analysis used mixed-effects logistic regression. **RESULTS:** Patients were 76% female; 75% with mild, 18% moderate, and 7% severe disease. All 6 attributes significantly impacted patient preference. Of the benefits, the preferences were highest for preventing progression 10 vs 2 years (odds ratio [OR]=2.27, p<0.001) and for substantial vs no improvement in symptoms (OR=3.67, p<0.001). Patients may be willing to accept a 0.05-0.1% risk of serious SEs leading to death (OR=0.57-0.66; p<0.001) to gain a moderate to substantial benefit from their therapy. A 1% risk of serious SE compared to no risk (OR=0.22, p<0.001) resulted in very low preference, but had a comparable magnitude in preference to a substantial improvement in symptoms vs no improvement (OR=1.60, p<0.001). Compared to daily subcutaneous administration, patients preferred daily oral administration (OR=2.15, p<0.001), then monthly intravenous (OR=1.54, p<0.001), and then intramuscular weekly (OR=1.19, p<0.01). **CONCLUSIONS:** Patients are willing to make risk/benefit tradeoffs in medication selection. Patient prefer treatments that delay progression or improve symptoms to those that prevent relapses (the primary outcomes of many clinical trials). Oral and monthly administration is preferred.

PND38
INSOMNIA - AS COMORBIDITY OF INCONTINENCE AND OVERACTIVE BLADDER - IMPACTS HEALTH STATUS, EVERYDAY FUNCTIONING AND WORK DISABILTY

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OBJECTIVES: Insomnia - defined as a difficulty in initiating or maintaining sleep – is known to accompany chronic diseases as comorbidity. Nevertheless, the impact of insomnia - as a comorbidity of overactive bladder and incontinence-on overall burden of illness is unclear. The objective of our study was thus to analyze the impact of insomnia as comorbidity of urological diseases on burden of illness of over a five year period. **METHODS:** In 2007, two representative adult samples of the Kantar Health European Healthcare Panel in Germany and UK were surveyed (n=72.605) and self-reports about insomnia, overactive bladder and incontinence were collected. In 2012, a subsample of 4.008 individuals was re-contacted and participants completed a general health, functional status and work disability questionnaire. **RESULTS:** In 2007, 3.2% of the initial representative sample reported overactive bladder, and 6.9% incontinence. A total of 38.9% of the individuals with one or both of these problems also suffered from insomnia. Five years later, in 2012, 26.1% of the entire group of individuals with one or both of the urological diseases indicated very good or excellent health, 45.9% experienced functional limitations and 28.1% suffered from work disability. In the subgroup of individuals with urological diseases in combination with insomnia, the percentage of individuals with very good/excellent health dropped to 15.2%, functional limitations increased to 61%, and 41.7% persons were disabled at their workplace. **CONCLUSIONS:** As these results demonstrate, insomnia is an important comorbidity of urological diseases and intensifies related burden of illness and reduces work related performance. Insomnia should be considered for inclusion into appropriate treatment strategies for urological diseases.

PND39
A SYSTEMATIC REVIEW OF QUALITY OF LIFE AND CAREGIVER BURDEN IN PARKINSON'S DISEASE

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OBJECTIVES: To review disease- and condition-specific QoL instruments and their psychometric properties in Parkinson's disease (PD), treatment options, and caregiver burden (CB). **METHODS:** A systematic literature search was conducted among peer-reviewed journals from January 2008 to December 2012 on quality of life (QoL) of PD patients or patients undergoing drug therapy in electronic databases such as Pubmed, PsycINFO, CINAHL, and Cochrane. A full review was conducted on articles that met the inclusion criteria. The search was limited to English language, full text availability, humans, and within five years; however, no time-frame was stipulated for CB. Meta-analyses, systematic reviews, or studies conducted exclusively outside the United States were excluded. For studies assessing CB, instruments not validated in PD population were excluded. **RESULTS:** The review identified seven disease-specific and two generic instruments assessing QoL in PD, 13 instruments recommended by the Movement Disorder Society in assessing QoL in patients undergoing drug therapy, and 12 instruments that assessed CB. A description of the domains, scaling, and psychometric properties of the instruments were included. Instruments ranged from comprehensive scales assessing all aspects of PD to recently developed instruments designed to assess a specific component of PD such as "wearing off" periods or freezing of gait. In PD patients undergoing drug therapy, four studies were identified that assessed patients in early PD and two studies focused on levodopa-induced motor fluctuations. Common domains assessed by the CB instruments were clinical, socio-demographic, emotional, and functional factors. Overall, Unified Parkinson's Disease Rating Scale and Zarit Caregiver Burden Inventory were the most widely used instruments. **CONCLUSIONS:** Multiple factors contribute to the QoL in PD patients and their caregivers including disease severity, unpredictable disease progression, and adverse effects of treatment. This review highlights the instruments and their properties in PD and serves as a useful resource for researchers and clinicians.

PND40
QUALITY OF LIFE SCORES ASSOCIATED WITH INSOMNIA AND USE OF HYPNOTIC MEDICATIONS

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OBJECTIVES: Using data from the Medical Expenditure Panel Survey (MEPS), we assessed quality-of-life (QoL) scores associated with insomnia and hypnotic use. **METHODS:** Dependent variables were the mental component summary (MCS) and physical component summary (PCS) scores from the 12-item Short-Form Health Survey (SF-12). These summary scores are standardized to 1998 population norms (mean = 50; SD = 10). Multivariate regression analyses were used to compare cohorts while controlling for demographic and clinical characteristics. **RESULTS:** Of 104,274 adults in MEPS from 2005 through 2009, about 1.4% (n = 1,401) had a diagnosis of insomnia. Among those with a diagnosis, 45.6% (n = 639) used a prescription hypnotic. The mean PCS scores were 9.2 points lower for subjects with insomnia than without insomnia (PCS: 40.6 ± SE0.5; PCS: 49.8 ± SE0.1, p < 0.001), while the mean MCS scores were 6.9 points lower between the two groups (MCS: 44.1 ± SE0.1, MCS = 51.0 + SE0.1; p < 0.001). After controlling for demographic and clinical characteristics, the difference remained significant (PCS: 5.1 points lower; MCS: 6.2 points lower; p<0.001). There was no difference in mean scores for insomnia patients who used hypnotics (n = 639; PCS: 40.6 ± SE0.8; MCS: 44.3 ± SE0.6) compared to those not using hypnotics (n = 762; PCS: 40.6 ± SE0.7, MCS: 43.9 ± SE0.5). **CONCLUSIONS:** Although patients with a diagnosis for insomnia had significantly lower physical and psychological QoL summary scores compared to those without this diagnosis, differences were not seen for those with a diagnosis and a prescription hypnotic compared to those with a diagnosis and no prescription hypnotic. Regression was used to control for differences in cohorts, but selection bias may still be a concern. Using a 'before and after therapy' design, with patients serving as their own controls is an important next step.

PND41
CAREGIVER BURDEN IN MULTIPLE SCLEROSIS: A STRUCTURED REVIEW OF THE INSTRUMENTS

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OBJECTIVES: Multiple sclerosis (MS) burdens not only the patients but also their caregivers. Caregivers have been described as "hidden patients" and they often experience social, psychological, emotional, and economic hardships. The study goal is to provide a comprehensive review of the instruments along with their psychometric properties that measure caregiver burden in MS. **METHODS:** A systematic literature search was conducted among peer-reviewed journals from 2002-2012 in the databases PubMed, Cochrane Review, PsycINFO, and Medline to identify instruments that measured caregiver burden in MS. In addition, the review also evaluated the instrument's psychometric properties such as reliability and validity. Clinical and review studies were excluded from the review. **RESULTS:** A total of nine caregiver burden instruments were identified that were utilized in MS population. The instruments varied widely with respect to items and domains, administration, scaling and scoring. The number of items and domains in the instruments ranged from 1-7 and 9-29, respectively. All the instruments displayed adequate psychometric properties. The Zarit Burden Interview scale has been extensively used to measure caregiver burden in MS in numerous countries. The scale measures the domains of health, psychology, finance and social, and adequately gauges the possible facets that MS caregivers typically experience. The scale is reliable and valid with an internal consistency ranging between 0.70 and 0.93, test re-test reliability of 0.71, and an intra-class correlation of 0.89. **CONCLUSIONS:** The importance of measuring caregiver burden in MS has been recognized and researched in several countries. Interestingly, there is a dearth of studies conducted in the United States. Caregiver burden in MS should be assessed due to the multi-dimensional threat it imposes on caregivers. The assessment of caregiver burden can assist