

## Abstracts

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by age, i.e., children and adolescents (Group A: 5–19) and adults (Group B: 20+) and compared against an age matched control group (Group C) (n = 10,2 million). Hospital admissions, outpatient clinic visits, total nursing days, average length of stay (ALOS), total hospital and specialist costs were analysed. Data for the Control group (C) were based on 2001. Data are presented as a three-year average or otherwise specified. **RESULTS:** The average number of hospital admissions and total nursing days were; 434(A), 455(B), and 3159(A), 3691(B) respectively. ALOS (days) were 7.3(A) and 5.3(C). In total there were 8696(A), 2680(B) outpatient clinic visits. Age matched controls for category (A) had 88,134 days. Males (MPH group) account for 78% of the total hospital admissions and 86% of outpatient clinic visits. Sixty percent of the outpatient visits in MPH category (A) occurred in age group 10–14, but 26% in age-matched controls. Total hospital costs were 2800 M€ (A), 2840 M€ (B) and 47,640 M€ (C) respectively. Specialist costs involved were 0.743 M€ (A), 0.344 M€ (B) and 7750 M€ for 5–19 years (C). For the MPH group 21% and 28% of these costs were attributed to patients aged 5–19 years. Nearly 80% of the specialist and hospital costs were dedicated to males. Average per patient hospital costs were 258€(A) and 176€(C). **CONCLUSIONS:** The data presented here show that ADHD patients have a substantial health care consumption and related health care costs.

PMH17

**COST-UTILITY ANALYSIS OF MEDICAL CO-PRESCRIPTION OF HEROIN COMPARED WITH METHADONE MAINTENANCE TREATMENT FOR CHRONIC, TREATMENT RESISTANT HEROIN ADDICTS**

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**OBJECTIVES:** To determine the cost utility of medical co-prescription of heroin compared with methadone maintenance treatment for chronic, treatment resistant heroin addicts. **METHODS:** In a Dutch multicenter study, 430 patients were randomly assigned to a 1-year maintenance treatment with methadone (maximum 150mg per day) or with methadone in combination with inhalable or injectable heroin (maximum 1000 mg per day). Psychosocial treatment was offered throughout. The primary outcome measures were the one-year costs from a societal perspective and the number of quality adjusted life years (QALYs) based on responses to the EQ-5D at baseline and at various times during the treatment period. The incremental costs per QALY ratio was calculated along with its 95% bootstrapped confidence interval. **RESULTS:** Co-prescription of heroin generated 0.058 (95% CI: 0.017–0.100) more QALYs on average than treatment with methadone alone. Mean cost differences between coprescribed heroin treatment and standard methadone treatment resulted from the maintenance programme itself (17,634€ vs. 1412€ euro), law enforcement (8756 v 12,885 euro), damage to victims (9617€ vs. 34,991€), and travel (600€ vs. 146€). The mean total net costs resulting from co-prescribed heroin treatment amounted to minus 12,793 (95% CI: –1049 to –25,169)€. The incremental cost per QALY was minus 220,569 (95% CI: –12,252 to –873,193)€. The cost acceptability of co-prescription of heroin was more than 98.5% for willingness to pay values up to 50,000€ per additional QALY. The probability of heroin co-prescription being cost-effective for patients who were illegally inactive at baseline was below 42%. The results were robust for the exclusion of the initial implementation costs of heroin treatment. **CONCLUSIONS:** Co-prescription of heroin is cost-

effective compared with treatment with methadone alone, even in disregard of the intangible costs of victims of crime.

PMH18

**ASSESSING THE TOTAL COST OF CARE FOR CEREBRAL PALSY PATIENTS WHO USE BOTULINUM TOXIN TYPE A: AN APPROACH TO CONTROLLING BIAS IN CASE CONTROL STUDIES**

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**OBJECTIVES:** The total cost of care (TC) for children with cerebral palsy (CP) who use botulinum toxin type A (BTX-A) was compared to the TC for CP children not using BTX-A. **METHODS:** A nested case control design compared BTX-A users and non-users in the South Carolina Medicaid program from 1995 through 2001. Patients with at least one CP diagnosis between 1996 and 1999 who were age 18 or younger were included. They were followed for one year prior to study enrollment, and 24 months after enrollment. A 1:6 match of BTX-A users to CP patients (non-BTX-A users) was performed using propensity scores from a logistic regression model predicting BTX-A use with demographics, CP severity, analgesia use, inpatient hospitalizations, Chronic Disease Score, CP comorbidities, and pre-period TC. Cases and controls were compared using logistic regression on post-period data to estimate the same model predicting BTX-A use. **RESULTS:** BTX-A users (n = 58) were identified and matched to 348 randomly selected non-users. After matching, the cases and controls were not statistically different on any of the model variables used in the matching procedure. Estimation of the final model revealed that only CP severity was significantly related to BTX-A use (diplegia p = 0.0107, hemiplegia p < 0.0001, and quadraplegia p < 0.001). The Hazard Ratio for these variables revealed the likelihood of BTX-A use relative to the lowest CP severity level (diplegia HR = 5.91, hemiplegia HR = 23.88, and quadraplegia HR = 10.22). While BTX-A is most frequently used in more severe patients, a statistically significant difference in total cost of care was not found (p = 0.528). **CONCLUSIONS:** While a greater percentage of CP children treated with BTX-A had more severe diagnoses, their TC was not different from CP children not using BTX-A after controlling for prior-period conditions using propensity scores.

PMH30

**COST-EFFECTIVENESS ANALYSIS IN THE AUSTRALIAN SETTING OF RISPERIDONE LONG-ACTING INJECTION FOR THE TREATMENT OF PATIENTS WITH SCHIZOPHRENIA WHO ARE PARTIALLY ADHERENT TO THEIR MEDICATION**

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**OBJECTIVES:** To evaluate the cost-effectiveness of the first long-acting atypical anti-psychotic injection (risperidone long-acting injection), compared to a weighted comparator of oral risperidone, oral olanzapine and typical depot injections for the management of patients with schizophrenia, who are partially adherent to their medication in the specialized public psychiatry setting. The perspective of the analysis was the Australian health care system. **METHODS:** A 1-year decision analytic model was developed using probabilistic sensitivity analysis to explore uncertainty. The outcomes used in the cost-effectiveness analysis (CEA) were relapses avoided, deaths due to suicide averted and

quality adjusted life years (QALY) gained. Resource utilization focused on both cost of hospitalization and other community-care costs such as pharmaceuticals and outpatient consultations. Clinical trial data and other epidemiological literature were used to elicit the event probabilities in the decision analytic model. Utilities for each of the possible health states in the model were derived from the Australian general population using the Assessment Quality of Life (AQOL) utility instrument. **RESULTS:** Against the weighted comparator risperidone long-acting injection was dominant. Analysis versus oral risperidone and oral olanzapine also showed that risperidone long-acting injection was dominant. The incremental cost-effectiveness ratio (ICER) against typical depots produced a less favourable result due to the low acquisition cost of these agents. Probabilistic sensitivity analyses showed a 100% likelihood of an ICER of less than \$50,000 per QALY. **CONCLUSIONS:** Risperidone long-acting injection represents a cost-effective intervention for patients who are partially adherent to their medication. The model indicates that introduction of risperidone long-acting injection in Australia will result in significant clinical and economic benefits to the community as partial adherence to medication is a major reason for relapse of symptoms in patients with schizophrenia.

## MENTAL HEALTH

### MENTAL HEALTH—Quality of Life/Utility/Preference Studies

PMH19

#### THE PERCEIVED BENEFITS OF DOSING SCHEDULES FOR CHILDREN WITH ADHD

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**OBJECTIVES:** Parents of children with attention deficit hyperactivity disorder (ADHD) report problems with the need to take medication three times per day. These problems include storage and administration of a controlled substance at school and the stigmatising impact on the child. The present study was designed to estimate the utility gain associated with switching to a once per day sustained release (OROS) treatment. **METHODS:** Clinical data from OROS methylphenidate trials were used to define health states associated with monotherapy and combination therapy (addition of behavioural therapy). To determine the utility gain with once daily therapy, the monotherapy and combination therapy health states were further distinguished to specify frequency of dosing. Forty-two interviews with parents of children with ADHD were conducted where parents were asked to rate the health states using a visual analogue scale (VAS) and standard gamble (SG). **RESULTS:** The 1 per-day treatment was given a higher valuation with the VAS ratings being 66.3 (±6.6) for the sustained release formulation and 51.0 (±7.2) for the immediate release formulation. A difference was also observed in the SG ratings with 0.90 (±0.05) and 0.86 (±0.07) for the sustained release formulation and immediate release formulation, respectively. These results were confirmed by the valuations of the combination therapy health states. In general, the ratings for monotherapy were given a higher valuation than combination therapy. **CONCLUSIONS:** In this study, the health states assumed equal effectiveness between a once-daily and a three times daily preparation, in order to assess the utility difference resulting only from frequency of dosing. Participants showed a preference for ADHD treatments with once daily dosing.

PMH20

#### PATIENT-REPORTED OUTCOMES: DO THEY AGREE WITH OBJECTIVE CAREGIVER-REPORTED OUTCOMES FOR INDIVIDUALS WITH SCHIZOPHRENIA RESIDING IN THE COMMUNITY?

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**OBJECTIVES:** Compare patient- and caregiver-reported outcomes on 25 objective questions contained within the 51-item Schizophrenia Outcomes Assessment Project (SOAP-51) quality of life survey. **METHODS:** In total, 1500 community-residing individuals with schizophrenia in five states (Massachusetts, South Carolina, Wisconsin, Arizona, Washington) completed SOAP-51 survey at baseline and weeks 4, 5, and 12. Previously, factor analysis indicated SOAP-51 had eight factors (satisfaction, self concept, work/role, mental health, interpersonal, medication effects, activities of daily living, and physical function) with Cronbach alphas ranging from 0.728–0.937 and test/retest intraclass correlations >0.70 for all but one factor. An expert panel identified 25 SOAP items that could be objectively measured. This 25-item subset was given to each patient's primary caregiver concurrent with each patient's SOAP-51 administration. Caregivers were asked to answer each item in two ways: 1) What is your objective response?, and 2) What do you think is the patient's response? Three correlation sets were performed for week four responses: a) caregiver's objective responses compared to caregiver's estimation of patient's responses (Correlation A), b) caregiver's objective response compared to patient's responses (Correlation B); and caregiver's estimation of patient's responses compared to patient's responses (Correlation C). **RESULTS:** Strongest correlations occurred in Correlation A [factor scores for caregiver's objective responses compared to caregiver's estimation of patient's responses (0.534–0.862)]; lowest for Correlation B [caregiver's objective response compared to patient's responses (–0.292–0.367)]; and intermediate for Correlation C [caregiver's estimation of patient's responses compared to patient's responses (–0.353–0.564)]. Physical function factor correlations were the strongest in Correlation A (0.862), but the lowest in Correlation B (–0.292) and C (–0.353). **CONCLUSIONS:** Caregiver objective assessments of individuals with schizophrenia can vary markedly from patient-reported outcomes, but asking caregivers to view the world through the eyes of the patient closes this gap. Asking caregivers to assume a patient's perspective may improve patient-caregiver communications.

PMH21

#### IS HEALTH-RELATED QUALITY OF LIFE EVALUATION DIFFERENT BETWEEN CLINICAL TRIALS AND OBSERVATIONAL STUDIES IN MAJOR DEPRESSIVE DISORDER?

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**OBJECTIVES:** Patient-reported outcomes such as health-related quality of life (HRQL) are a frequent endpoint used in studies of Major Depressive Disorder (MDD), but little is known if results of these scales conducted during randomized clinical trials (RCT's) accurately reflect patients' perceptions of the "real world". **METHODS:** An observational study and a randomized double blind clinical trial with similar design, inclusion and exclusion criteria and schedule of visits were used. These two eight-week studies evaluated primary care MDD patients according to the DSM-IV. Patients were asked to fill in the EuroQoL and the Quality of Life in Depression Scale (QLDS) at baseline and eight weeks later, while physicians rated the severity of