Health Insurance database, 2009; costs of care in community and in institution (French National Assembly on AD management, report 2005). Results were reported in EUR 2009. Health-related utilities were obtained from preceding published economic evaluations in AD (Getts et al 2001). Costs and QALYs were discounted at an annual discount rate of 3%. Deterministic and probabilistic sensitivity analyses were carried out to test the robustness of model assumptions.

RESULTS: Over the seven-year time horizon, patients treated with ChEI monotherapy spent on average 41.6 months before institutionalization. Overall costs were €72,469 (health care system perspective) or €89,735 (societal perspective). QALYs were estimated at 2.36. Memantine as adjunct therapy to ChEI was associated with a longer time to nursing home of 8.9 months, QALYs gains of 0.19 and a cost saving of €5900 (health care system perspective) or €6200 (societal perspective), i.e. a dominant treatment. No significant improvement was observed with the addition of darifenacin (CONCLUSIONS: This economic evaluation suggest that, from both a health care system and a societal perspective, memantine as adjunct therapy to ChEI is a cost-effective strategy in the management of AD patients compared with ChEI monotherapy.

**PND18 48-HOUR INFUSION OF METHYLPRERISOLONONE IS A COST-EFFECTIVE INTERVENTION FOR TRAUMATIC SPINAL CORD INJURY** Schmitz KL1, Rosenzweig OD, How J, Ceyte PC University of Toronto, Toronto, ON, Canada

OBJECTIVES: Methylprednisolone sodium succinate (MP) is an acute therapeutic option for traumatic spinal cord injury (SCI), a pivotal multicentre randomized control trial showed substantial improvements in functional outcomes associated with an extended dose regimen of MP for 48 hours (48h-MP) versus a limited dose regimen of MP for 24 hours (24h-MP), resulting in clinical ambiguity between 48h-MP and 24h-MP. Concerning the health care burden imposed by this devastating form of neurotrauma, an economic assessment comparing the benefits either intervention has never been reported. We performed a cost-effectiveness analysis (CEA) of 48h-MP compared with 24h-MP to determine their impact on direct health care costs for this patient population. METHODS: A decision tree model, incorporating assumptions on complication frequencies reported by the Third National Acute Spinal Cord Injury Study and utility scores (QALYs) obtained from an Australian cohort, measured outcomes and effects at 6 and 12 months post-injury. Survival data, direct health care expenditures and complication costs associated with SCI and MP intervention were obtained from published epidemiological and survey data. CEA was performed from the health care payer’s perspective, discounted at a rate of 4% annually with a lifetime horizon. Distinctions of the incremental cost-effectiveness ratios between the interventions were determined by Monte Carlo simulation. The model was validated with sensitivity analyses by varying costs and outcome comparators. RESULTS: As a result, 48h-MP dominates 24h-MP, providing higher QALYs at lower costs. The lower costs associated with 48h-MP intervention was $35,703 per patient lifecycle. Earlier motor improvement maintained at 1-year post-QALYs at lower costs. The lower costs associated with 48h-MP intervention was compared with ChEI monotherapy. CONCLUSIONS: This economic evaluation suggest that, from both a health care system and a societal perspective, memantine as adjunct therapy to ChEI is a cost-effective strategy in the management of AD patients compared with ChEI monotherapy.

**PND19 A LONG-TERM COST-EFFECTIVENESS MAROKO MODEL COMPARING DISEASE MODIFYING TREATMENTS IN PATIENTS WITH RELAPSING MULTIPLE SCLEROSIS IN GERMANY** Plisenia-Fraedt C1, Puztki N2, Ebeberg D3, Limmroth V4, Katafura Z5, Patel SN6
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OBJECTIVES: To conduct a German economic evaluation of natalizumab compared to other disease modifying drugs (DMD) in relapsing-remitting Multiple Sclerosis (MS) from a societal perspective. METHODS: A Markov model was designed to compare costs and outcomes of Natalizumab (Nb), other DMD (interferon-beta, glatiramer acetate) and best supportive care (BSC). The expanded disability status scale (EDSS) and the line of treatment were used to define the distinctive Markov States. Transition probabilities for progression, treatment switches and withdrawals were derived from clinical studies and literature. German real-life treatment data of MS-patients under DMD were collected retrospectively (N=554) and used to validate assumptions and conduct sensitivity analyses. Cost data and quality of life estimates were taken from national Acute Spinal Cord Injury Study and utility scores (QALYs) obtained from an Australian cohort, measured outcomes and effects at 6 and 12 months post-injury. Survival data, direct health care expenditures and complication costs associated with SCI and MP intervention were obtained from published epidemiological and survey data. CEA was performed from the health care payer’s perspective, discounted at a rate of 4% annually with a lifetime horizon. Distinctions of the incremental cost-effectiveness ratios between the interventions were determined by Monte Carlo simulation. The model was validated with sensitivity analyses by varying costs and outcome comparators. RESULTS: As a result, 48h-MP dominates 24h-MP, providing higher QALYs at lower costs. The lower costs associated with 48h-MP intervention was $35,703 per patient lifecycle. Earlier motor improvement maintained at 1-year post-QALYs at lower costs. The lower costs associated with 48h-MP intervention was compared with ChEI monotherapy. CONCLUSIONS: This economic evaluation suggest that, from both a health care system and a societal perspective, memantine as adjunct therapy to ChEI is a cost-effective strategy in the management of AD patients compared with ChEI monotherapy.

**PND20 IS ROPINIROLE-PROLONGED RELEASE A COST-SAVING TREATMENT OPTION IN PARKINSON’S DISEASE?** Novak A1, Boonima M2
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OBJECTIVES: Parkinson’s Disease (PD) is both a chronic and progressive neurodegenerative disorder: a 24-hour prolonged release tablet (PR) of the dopamine agonist ropinirole was introduced next to three daily doses of ropinirole immediate release (IR), a randomized controlled trial (PREPARED) was conducted, comparing ropinirole-IR with ropinirole-PR. Ropinirole-PR significantly improved the off-time and this analysis assesses the costs-effectiveness of the ropinirole-PR in PD patients who are not currently adequately controlled on L-dopa compared to ropinirole-IR. METHODS: Markov health-state-transition model was used with health states combining off-time ≥25% and ≥25% per day, Hoehn & Yahr stages 2–5 and probable dyskinesias. Time horizons are 5 years and lifetime. Costs and effects were discounted by 4% and 5% respectively. Healthcare perspective was taken, covering direct costs related to medication, consults, nursing and patient care including informal care, based on an ongoing Dutch observational study in PD (IMPACT study). Clinical outcomes from the PREPARED-trial are extrapolated based on literature assumptions. Results are presented as incremental costs and QALYs gained. Both univariate and probabilistic sensitivity analyses (PSA) were performed. RESULTS: Ropinirole-PR was associated with lower L-dopa use, less off-time and less problematic dyskinesias. This resulted in incremental QALY gains of 0.125 and 0.336 over respectively 5 years and lifetime. The health care costs per H&Y-stage increased with disease severity and amounted €916, €1,492, €11,295 and €11,295 for stage 2 to 5 over 6 months. Treatment with ropinirole-PR was more costly than ropinirole-IR with a difference of €7,266 over 5 years and €7,773 over lifetime. Treatment with ropinirole-PR however reduced medical costs by €8,059 over 5 years and €69,532 over lifetime compared with ropinirole-IR. CONCLUSIONS: Patient-functioning and quality of life were improved with ropinirole-PR realizing cost-savings to the health care budget as compared to treatment with ropinirole-IR.

**PND21 COST-EFFECTIVENESS OF TRANSDERMAL PATCH (ROTIGOTINE) IN PATIENTS WITH PARKINSON DISEASE IN MEXICO** Abaroa A1, Bonita A2, Bierschwale I3
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BACKGROUND: Parkinson’s Disease (PD) is a central nervous system disorder of unknown origin. It causes degeneration of brain areas that produce dopamine. Oral dopaminergic therapies control the symptoms of the disease, but these require three or more times daily doses, so it is associated with poor compliance or adhesion, which affects the overall efficacy and costs in health. OBJECTIVES: To analyze the cost-effectiveness of rotigotine versus pramipexole in patients with PD in Mexico. METHODS: We conducted an economic evaluation. The alternatives to compare were rotigotine 4, 6, 8 and 12 mg administered once daily versus pramipexole 3 mg/d and another scenario versus pramipexole 4.5 mg/d. The perspective is the Mexican Social Security Institute. The model included the cost of drug acquisition and management of adverse events (AE) for a 22 weeks period. The measurement of efficacy was adherence or treatment to, as a direct comparison study of rotigotine versus pramipexole demonstrated non-inferiority between the two alternatives. RESULTS: The compliance rate for rotigotine was 81% vs. 61% pramipexole. The costs were $US748, $US920, $US1113 and $US1237, respectively, compared with $US670 and $US967 for pramipexole 3 and 4.5 mg/d. The cost per successfully treated patient was lower for rotigotine 4, 6 and 8 mg (US$923, US$136 and US$1374, respectively) than with pramipexole 4.5 mg/d (US$1585). Rotigotine 4, 6, 8 and 12 mg/d were found to be a highly cost-effective strategy compared with pramipexole 3 and 4.5 mg/d, according to WHO criteria. CONCLUSIONS: The results of this analysis suggest that the use of rotigotine in patients with PD, represents a highly cost-effective strategy or cost saving for the public health institutions in Mexico. Rotigotine is an innovative alternative for easy administration (transdermal).

**PND22 COST-EFFECTIVENESS ANALYSIS COMPARING BRIDION® (SUGAMMADEX) WITH NEOSTIGMIN AND SPONTANEOUS RECOVERY IN THE REVERSAL OF NEUROMUSCULAR BLOCKADE INDUCED BY ROCURONIUM/VECURONIUM** Ozdemir O1, Bahar M2, Ayap U3, Aysar F4, Gura M5
1Yonum Consultancy Co. Ltd, Istanbul, Turkey; 2Istanbul University Cerrahpasa Medical Faculty, Istanbul, Turkey; 3Hacettepe University Medical Faculty, Ankara, Turkey; 4Ege University Medical Faculty, Izmir, Turkey; 5Gazetec Training and Research Hospital, Istanbul, Turkey

OBJECTIVES: This study aimed to compare the cost-effectiveness (CE) of Bridion® (sugammadex) with neostigmin and spontaneous recovery (SR) approach in the reversal of neuromuscular blockade (NMB) induced by rocuronium/vecuronium, during anesthesia. METHODS: CE analysis (CEA) was performed by solving back the decision tree that included pathways starting with residual NMB and followed by hypoxia and pulmonary complications defined as “aspiration, atelectasis and/or pneumonia” in patients, in whom NMB was induced by rocuronium/vecuronium. Bridion was compared with neostigmin and SR approach. Primary analysis parameters that