PND26 PHARMACO-ECONOMIC STUDY OF BOTULINUM TOXIN TYPE A IN TREATMENT OF POST-STROKE SPASTICITY IN THE RUSSIAN FEDERATION:

Cost-effectiveness analysis

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OBJECTIVES: To assess the cost-effectiveness of abobotulinumtoxinA, onabotulinumtoxinA, incobotulinumtoxinA and local standard therapy (oral muscle relaxers) in patients with post-stroke spasticity in Russia from a 1-year period. Physical therapy was used in all therapy schemes. METHODS: A decision tree was used to simulate the effects of abobotulinumtoxinA, onabotulinumtoxinA, incobotulinumtoxinA and standard therapy. The data on drug efficacy (measured as decrease in normalized Ashworth scale (MAS) score) was obtained from available clinical trials [1-3]. The following costs were taken into account, the costs of BTA and other drugs, costs of inpatient and outpatient care in the Russian Federation, costs of adverse events, disability persistency, post-stroke spasticity cost of BTA and other drugs, costs of BTA and other drugs taken from the essential drug list and the database of drug prices. Medical care costs were estimated from the Standard of treatment of stroke consequences developed by Ministry of Health of the Russian Federation. Costs of adverse events were calculated based on Russian clinical guidelines and database of drug prices. Disability pensions were taken from Russian Pension Fund database. GDP loss was based on the GDP information from World Bank. Cost-effectiveness ratio (CER) of BTA and standard therapy was calculated and compared in four treatment schemes.

RESULTS: Therapy with abobotulinumtoxinA showed most prominent decrease of Modified Ashworth score equal to 1.67, as for onabotulinumtoxinA – 1.17, incobotulinumtoxinA – 0.87, standard therapy – 0.67. The calculated CER in USD per 1 spasticity decrease point according to MAS was lowest for abobotulinumtoxinA (3859.42 RUB/1135.6 $) in comparison with onabotulinumtoxinA (635631 RUB/18532 $), incobotulinumtoxinA (78750 RUB/2282 $) and standard therapy (873122 RUB/25461 $). CONCLUSIONS: The economic burden of PD rises with duration and severity of the disease, progressing disability progress. Treatment with abobotulinumtoxinA showed most prominent decrease of Modified Ashworth score equal to 1.67, as for onabotulinumtoxinA – 1.17, incobotulinumtoxinA – 0.87, standard therapy – 0.67. Cost-effectiveness ratio (CER) of BTA and standard therapy was calculated and compared in four treatment schemes.

PND27 COMPARISON OF DEEP BRAIN STIMULATION (DBS) AND CONTINUED SUBCUTANEOUS APOMORPHINE INFUSION (CSAI) IN PATIENTS WITH ADVANCED PARKINSON’S DISEASE

Walleser Autiero S., Ashworth scale (MAS) score) was obtained from available clinical trials [1-3]. The following costs were taken into account, the costs of BTA and other drugs, costs of inpatient and outpatient care in the Russian Federation, costs of adverse events, disability persistency, post-stroke spasticity cost of BTA and other drugs, costs of BTA and other drugs taken from the essential drug list and the database of drug prices. Medical care costs were estimated from the Standard of treatment of stroke consequences developed by Ministry of Health of the Russian Federation. Costs of adverse events were calculated based on Russian clinical guidelines and database of drug prices. Disability pensions were taken from Russian Pension Fund database. GDP loss was based on the GDP information from World Bank. Cost-effectiveness ratio (CER) of BTA and standard therapy was calculated and compared in four treatment schemes.

METHODS: A Markov model, previously used to model cost-effectiveness of DBS-BMT vs BMT alone (Eggington 2013), served to describe the medical and non-medical direct costs of PD in relapsing-remitting Multiple Sclerosis (RRMS) patients at EDSS ≤ 5.5 and EDSS > 5.5. Based on the previous research, the cost-effectiveness analysis covered: device acquisition, implantation, adverse event management, concomitant drug use, device replacements and follow-up. Cost data were taken from UK national tariffs, combined with device: drug costs and utilizations from previous economic evaluation studies. Cost data were updated to Spanish in 2012. RESULTS: 198 patients were included. Average age: 63±11 years, 50% male, mean PD duration of 8±6 years. Mild (HY-II) and moderate (HY-III) EDSS were determined by PD temporal evolution, increasing between year 1 and 4 within each stage, t2=27.43 to €42,255.00 and t1=653.27 to €1,675.35 HYIV. CONCLUSIONS: The economic burden of PD rises with duration and severity of the disease, progressing disability progress. The same was observed for relapse cost (EDSS ≤ 3.5: 20.113,99 €; 3,606.66 HYIV; 3,501.20 HYI and 3,477.32 HYI (95%CI: 475.13-1,298.11) HYI and 4,255.20 HYI and 4,177.32 HY (95%CI: 219.55-725.310) and t1=6,066.66 HYIV (95%CI: 937.97-6,319.35) compared to year 1, t2>15,630 to €6,542.27 HYIV (95%CI: -53,14-5,356.68). Direct medical costs ranged from €866.52 (95%CI: 475.13-1,298.11) HYI and t2=376.30 HYIV (95%CI: -53.12-805.73) in year 1 to t909.96 HYIV (95%CI: 942.43-1,327.49) and t2=768.49 HYIV (95%CI: 34.21-5,502.76) at year 4. Direct non-medical cost variation was determined by PD temporal evolution, increasing between year 1 and 4 within each stage, t2=27.43 to €42,255.00 and t1=653.27 to €1,675.35 HYIV. CONCLUSIONS: The economic burden of PD rises with duration and severity of the disease, progressing disability progress.

PND30 DOES CURRENT RUSSIAN FINANCING MODEL FOR MULTIPLE SCLEROSIS COVERS FOR ESTIMATED NEEDS?

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OBJECTIVES: To describe the medical and non-medical direct costs of PD in relapsing-remitting Multiple Sclerosis (RRMS) patients at EDSS ≤ 5.5 and EDSS > 5.5. Based on the previous research, the cost-effectiveness analysis covered: device acquisition, implantation, adverse event management, concomitant drug use, device replacements and follow-up. Cost data were taken from UK national tariffs, combined with device: drug costs and utilizations from previous economic evaluation studies. Cost data were updated to Spanish in 2012. RESULTS: 198 patients were included. Average age: 63±11 years, 50% male, mean PD duration of 8±6 years. Mild (HY-II) and moderate (HY-III) EDSS were determined by PD temporal evolution, increasing between year 1 and 4 within each stage, t2=27.43 to €42,255.00 and t1=653.27 to €1,675.35 HYIV. CONCLUSIONS: The economic burden of PD rises with duration and severity of the disease, progressing disability progress.

PND31 PHARMACOECONOMIC ASPECTS OF MULTIPLE SCLEROSIS TREATMENTS IN IRAN

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OBJECTIVES: To examine the health care utilization and costs of long-term care facility patients diagnosed with Parkinson’s disease (PD). METHODS: Patients diagnosed with PD (International Classification of Disease, 9th Edition, Clinical Modification (ICD-9-CM) diagnosis code 332) were identified using the Minimum Data Set (MDS) linked to 5% Medicare data from 01/01/2008 through 12/31/2010. The initial diagnosis date was designated as the index date. A comparison cohort was created for patients without a PD diagnosis, using 1:1 propensity score matching based on age, region, gender, index year and baseline Charlson Comorbidity Index score. The index date for the comparison group was randomly chosen to reduce selection bias. Patients in both cohorts were required to be at least 65 years old, have at least two consecutive quarterly assessments, have MDS data in the 6 months prior to the index date, and have continuous medical and pharmacy benefits 1 year before and after index date. Study outcomes, (health care costs and utilizations) were compared between the disease and comparator cohort using the MDS data. RESULTS: 986 patients were included in each group (diseased and comparator cohort), baseline characteristics were balanced. A higher percentage of patients with PD had inpatient admissions (35.09% vs. 30.32%, p=0.02), outpatient visits (93.91% vs. 89.45%, p=0.001) and durable medical equipment (DME) utilization (27.69% vs. 21.91%, p<0.01), compared to those without a PD diagnosis. The PD cohort also included significantly higher skilled nursing facility ($6,458 vs. $5,182, p<0.001), DME ($344 vs. $206, p=0.01) and pharmacy costs ($6,025 vs. $4,988, p<0.0001) compared to the comparison cohort. CONCLUSIONS: Study results suggest that patients diagnosed with PD incurred significantly higher costs and had higher resource utilization than those without a PD diagnosis.