contributed up to 2.4% of the total cost for meningococcal disease in Chile, in contrast to 1.7% and 1.3% of the total cost estimated in Colombia and Panama, respectively. **CONCLUSIONS:** Findings of this study underscore the importance of meningococcal disease in the region in terms of cost. Future research should focus on more detailed investigation of costs of meningococcal cases and outbreaks from the societal perspective.

PND3

HEALTHCARE COSTS ASSOCIATED WITH PATIENTS DIAGNOSED WITH RELAPSING REMITTING MULTIPLE SCLEROSIS

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OBJECTIVES: The objective of this study is to assess the health care costs associated with Disease Modifying Therapies (DMTs) for patients diagnosed with Relapsing Remitting Multiple Sclerosis (RRMS). **METHODS:** A large US administrative retrospective claims database was used to identify patients diagnosed with RRMS and were prescribed DMTs between January 2010 to December 2012 were included in the study. All patients were ≥ 18 years of age and continuously enrolled in the same health plan for at least a year. Descriptive statistics were performed on the data where appropriate. **RESULTS:** There were a total of 741,065 patients that met the study inclusion criteria. Patients on average were charged $4161.40 ± 2817.59 for their DMTs treatment during the study period. However, the allowed amount by the health plan was $3681.33 ± 1847.82 and the actual paid amount was $3580.63 ± 1859.14. On average, patient's deductible was $21.72 ± 228.50 and patient co-payment was $82.94 ± 285.47. For patients whose prescription was on their health plans formulary paid on average higher costs compared to patients who were not (paid amount $3595 vs $3370; allowed amount $3686 vs 3493). Even though most of the patients were females, but they had overall lower costs compared to males (amount allowed $3677 vs $3689; paid amount $3576 vs $3590; deductible $21 vs $23; co-payment $82 vs $84). Patients who received treatment in the Midwest region of the USA had a higher costs compared to east, south, and west regions (paid amount $3672 vs $3596 vs $3468 vs $3461). **CONCLUSIONS:** The mean cost of treatment with any DMTs for the treatment of RRMS patients is $4161. The drug formulary status did not play a role in determining overall healthcare costs. Females and patients from Midwest region generally had higher costs.

PND4

HEALTH CARE RESOURCE UTILIZATION ASSOCIATED WITH PEDIATRIC PATIENTS DIAGNOSED WITH RELAPSING REMITTING MULTIPLE SCLEROSIS

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OBJECTIVES: The objective of this study is to assess the health care resource utilization and costs associated with Disease Modifying Therapies (DMTs) for pediatric patients diagnosed with Relapsing Remitting Multiple Sclerosis (RRMS). **METHODS:** A large US administrative retrospective claims database was used to identify patients diagnosed with RRMS and were prescribed DMTs between January 2010 to December 2012 were included in the study. All patients were ≤ 17 years of age and continuously enrolled in the same health plan at least for a year. **RESULTS:** There were a total of 359 patients that met the study inclusion criteria and they were on the following DMTs: Gilenya (N=7 (1.9%)), Extavia (N=17 (4.7%)), Rebif (N=32 (8.9%)), Copaxone (N=117 (32.6%)), Avonex (N=108 (30.1%)), and Betaseron (N=78 (21.7%)). Patients on average were charged $3750.58 ± 1438.26 for their DMTs treatment during the study period. However, the allowed amount by the health plan was $3547.05 ± 1380.56 and the actual paid amount was $3355.10 ± 1510.97. On average, patient's deductible was $56.47 ± 401.03 and patient co-payment was $144.57 ± 371.65. For patients whose prescription was on their health plans formulary paid on average higher costs compared to patients who were not (paid amount $3406 vs $3223; allowed amount $3641 vs $3309). Even though most of the patients were females, but they had overall lower costs compared to males (amount allowed $3311 vs $3924; paid amount $3126 vs $3721; deductible $2.5 vs $155; co-payment $193 vs $66). Patients who received treatment in the east region of the USA had a higher costs compared to Midwest, south, and west regions (paid amount $3764 vs $3425 vs $3504 vs $3243). **CONCLUSIONS:** Costs were high for males and formulary status of the DMTs did not have an impact on the amount paid by the patients.

PND5

HEATLH CARE COSTS ASSOCIATED WITH PATIENTS DIAGNOSED WITH RELAPSING REMITTING MULTIPLE SCLEROSIS TAKING ONCE DAILY TERIFLUNOMIDE TABLETS IN THE UNITED STATES

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OBJECTIVES: The objective of this study is to assess the health care costs associated with Teriflunomide treatment for patients diagnosed with relapsing remitting multiple sclerosis (RRMS) in 2012 in the US **METHODS:** A large US administrative retrospective claims database was used to identify patients diagnosed with RRMS and were prescribed Terfilunomide between September 2012 to December 2012 were included in the study. All patients were ≥ 18 years of age and continuously enrolled in the same health plan for a year. Descriptive statistics and chi-square tests were performed on the data. **RESULTS:** There were a total of 157 patients that met the study inclusion criteria. Patients on average were charged $3816.90 ± 1702.83 for their treatment with Teriflunomide during the study period. However, the allowed amount by the health plan was $3635.28 ± 1314.56 and the actual paid amount was $3552.75 ± 1320.71. On average, patient's deductible was $12.81 ± 96.33 and patient co-payment was $84.66 ± 184.95. For patients whose prescription was on their health plans formulary were charged less but paid more on the deductible and co-payment compared to patients who were not (charged amount $3646 vs $3829; deductible $14 vs $11; co-payment $122 vs $63) on the formulary. Even though most of the patients were females, but they had overall lower costs compared to males (amount allowed $3475 vs $4057; paid amount $3391 vs $3980). Patients who received treatment in the southern region of the USA had a higher costs compared to east, Midwest, and west regions (paid amount $3720 vs $3592 vs $3673 vs $2613). **CONCLUSIONS:** The cost of Teriflunomide treatment for RRMS patients is higher and costing the health plan around $3552 per month. The cost of the drug treatment was higher in southern of the USA and males were paying more in general.

PND6

COST-UTILITY ANALYSIS OF NATALIZUMAB AS FIRST-LINE TREATMENT OF HIGHLY-ACTIVE RELAPSING-REMITTING MULTIPLE SCLEROSIS IN THE BRAZILIAN PUBLIC HEALTHCARE SYSTEM

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OBJECTIVES: To assess the cost-effectiveness of natalizumab (NAT) as first-line treatment of Highly-Active Relapsing-Remitting Multiple Sclerosis (HARRMS) versus pooled interferon-beta (IFN) and glatiramer acetate (GA) from the Brazilian Public Healthcare (SUS) perspective. Natalizumab is currently only reimbursed for RRMS patients that failed therapy with IFN and GA. Currently, no guidance exist for patients with HARRMS in Brazil. **METHODS:** A microsimulation model was developed with yearly cycles over a 20-year time horizon. Four different treatment sequences are included in the model: T1=NAT-IFN-GA, T2=NAT-GA-IFN, T3=IFN-GA-NAT and T4=GA-IFN-NAT, allowing treatment failures [i.e., >=1-point increase in the Expanded Disability Status Scale (EDSS)] to alternate therapies. Patients may experience EDSS progression, relapses, remain stable, discontinue treatment, or die. Natural history was parameterized from the 2005 UK MS Survey. Efficacy, utilities and safety/discontinuation data were derived from respective pivotal trials. HARRMS was defined as >2 disabling relapses in previous year and >1 gadolinium-enhancing lesions or a significant increase in T2 lesions. Direct costs were from government reimbursement lists (i.e., DATASUS, BPS, SIGTAP), discounted at 5% yearly, and reported in Brazilian currency (1BRL=0.35USD). Consequences were assessed in quality adjusted life years (QALY). Monte-Carlo first-order was used. **RESULTS:** Natalizumab as first-line for HARRMS (sequences T1 and T2) was considered cost-effective in comparison to sequences T3 and T4 (standard practice). Total costs (K=thousands) and QALYs for each treatment arm were: T4=BRL187K/5.43QALY, T3=BRL203K/5.41QALY, T2=BRL227K/7.02QALY and T1=BRL228K/7.01QALY. The incremental cost-effectiveness ratio (ICER) for T1 and T2 relative to the least costly sequence (T4) were BRL25,258/QALY and BRL26,324/QALY respectively, and considered acceptable assuming a threshold of 3x the national gross domestic product (GDP) per capita (~BRL70,000/QALY). **CONCLUSIONS:** Since patients with HARRMS experience higher relapse rates and faster disability progression than the general RRMS population, natalizumab as first-line option is cost-effective and brings additional benefits to Brazilian patients.

PND7

SOCIOECONOMIC IMPACT OF IMMUNOGLOBULIN REPLACEMENT THERAPY FOR PRIMARY IMMUNODEFICIENCY PATIENTS ON THE HEALTH PUBLIC SYSTEM IN BRAZIL: A SINGLE CENTER STUDY

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OBJECTIVES: Evaluate the costs and socioeconomic aspects of Immunoglobulin replacement therapy in patients with Primary Immunodeficiency (PID) treated at a Public health clinic in Brazil. **METHODS:** Transversal study with 42 patients who are being treated with intravenous immunoglobulin (IVIG) at the Division of Allergy Clinical Immunology and Rheumatology, Federal University Federal of São Paulo. Costs data were obtained from patient charts and Ministry of Health public reimbursement prices during the year of 2014. Socioeconomic data were obtained from a questionnaire answered by patients or their caregivers. A cost-minimization modeling was performed comparing intravenous and subcutaneous routes. **RESULTS:** Median patient age was 17 years old (6 months - 58 years) and 71% were male. Mean IVIG dose was 639 mg/kg (400-1000 mg) under a 4 weeks regimen. Seventy-one percent of patients used public transportation, with mean daily expenditure (MDE) of R$ 19 and median duration of locomotion (MDL) of 4h (2:00-9:30); 25% used their own vehicle, with MDE of R$ 39 (0-100.00) and MDL of 3:00h (0:45 to 4:45); 4% utilized an ambulance for transportation, with a MDL of 9:45h (5:00-14:30). Mean direct medical costs (drugs, infusion sets and health professional and administrative salaries) were R$ 2,298/patient/year for intravenous administration. Thirteen school/ workdays were lost per year in this group, with a mean impact of RS 796/year/patient. Total cost (mean) of IVIG replacement was R$ 34,169/patient/year while for subcutaneous route the cost calculated was R$ 32,245year (an R$ 1.833 difference). A 3 year cost minimization modeling comparing intravenous to subcutaneous route showed an average difference of R$ 1,128 per patient/year favoring the subcutaneous route. **CONCLUSIONS:** This is first study evaluating the cost of immunoglobulin replacement therapy in PID patients in Brazil. The cost-minimization analysis showed that the choice of subcutaneous route could bring benefits for the Public Health System.

PND8

AN ANALYSIS OF MEDICINE PROCUREMENT FOR ALZHEIMER'S DISEASE IN BRAZIL FROM FEDERAL PURCHASES

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OBJECTIVES: To describe the profile of medicines procurement for Alzheimer's disease (AD) in a Brazilian federal database. **METHODS:** This study investigated procurement of medicines for AD in the Sistema Integrado de Administração de Serviços Gerais (SIASG). A profile of purchases, expenditures and prices from 2008 to 2013 was drawn. The following medicines used for treatment of AD — donepezil, galantamine, rivastigmine and memantine — in several dosage forms were investigated, including those not present in the Brazilian guidelines (PCDT). The extracted