progression is $150,000–350,000 for each therapy but glatiramer acetate (66,517,796).
Probabilistic sensitivity analysis confirmed subcutaneous interferon beta-1a and inter-
feron beta-1b as the most cost-effective therapies (confidence intervals remained below
$45,000 per avoided relapse). Estimated budget impact of assuming 5%-annual inci-
dence of new MS cases was $232,609 in 2012. The relative
0 in 2008, to $30,000 and
a
23,396 per QALY gained and
a
related to seizure management and drug acquisition), a gain of 0.040 QALYs and 8.92
According to CEA, LCM
ST was associated with an incremental cost of
2009,

232,609 in 2012. The relative
0 in 2008,

a
in 2012. The relative
increase in the incremental epilepsy budget due to LCM is $0.08% in 2009, 0.46% in 2010, 1.31% in 2011, and 2.23% in 2012. CONCLUSIONS: It is a valuable option for
POS treatment because of its potential cost-effectiveness and low budget impact.

COST ANALYSIS OF ACTIVA RC® RECHARGEABLE NEUROESTIMULATOR FOR DEEP BRAIN ESTIMATION THERAPY (DBS)
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OBJECTIVES: Neurostimulators (NS) for DBS are replaced when the battery goes to
an end-of-life (EOL). Activa RC®, Medtronic’s new rechargeable NS, offers guaranteed
9 years longevity. The objective was to perform a cost analysis of Activa RC®, vs.
Kineta® (previous non-rechargeable NS), based on the number of EOL replacements needed. METHODS: The following costs were included (hospital perspective, 0, 2009): 1) devices and surgical procedure costs; 2) surgical procedure costs; 3) EOL NS’s replacement procedure cost: includes surgical pro-
cedure cost (excluding the acquisition costs of therapy components) and the NS cost. The
EOL depends on patient energy requirements (device-related) and on the NS: Kineta®, dystonia patients replacements every 2 years; Parkinson disease, every 3–4 years; essential tremor, every 4–5 years (expert opinion). Activa RC® vs. Kineta®. We excluded patients with MS diagnosis or treatment matched geographic region, insurance type, gender, and lack of comorbid conditions with a similar period of continuous enrollment. Use of
services was compared using chi-square tests, and 2008 adjusted costs were compared using the Wilcoxon rank-sum nonparametric tests. RESULTS: There were 1412 cases and
7,060 matched controls in the study. Sixty-six percent of the study population was female. MS patients were twice as likely to have emergency department (ED) visits (25.5% vs. 12.2%), 1.3 times as likely to have physician office visits (95.8% vs. 75.1%), and 2.4 times as likely to have used physical therapy (all p-values <0.001) versus services over the follow-up periods. MS patients also had higher costs related to these services ($380 vs. $164, $614 vs. $228, and $268 vs. $74, respectively; all p-values <0.001). Total costs for MS patients were significantly higher than for controls ($16,984 vs. $5,639; p < 0.001). CONCLUSIONS: Newly diagnosed MS patients presented a large burden on the healthcare system with additional 1st year cost of over $13,000. While MS treatment drugs are expensive, this represents only one-third of the additional cost of care within the 1st year.

IMPACT OF CHRONIC (CM) AND EPISODIC MIGRAINE (EM) ON WORK PRESENTEEISM IN 9 COUNTRIES
Varon S1, Burck CT1, Busa DC2, Kawata AK3, Dyne KA4, Blumenfeld A5, Lipson RB6
1Allergan Inc., Irvine, CA, USA, 2Caroline B. Hurk Inc., Laguna Beach, CA, USA, 3Sentience
Headache Center, Bronx, NY, USA, 4United BioSource Corporation, Bethesda, MD, USA, 5United BioSource Corporation, Montreal, QC, Canada, 6The Headache Center of Southern California, Del Mar, CA, USA, 7Albert Einstein College of Medicine, Bronx, NY, USA
OBJECTIVES: Migraine is prevalent, and headache-related disability can impact the
ability of migraineurs to work and perform daily activities. This study examined the
impact of CM compared to EM on work patterns and productivity across countries.
METHODS: Web-based survey data were collected from migraineurs in the US, Canada, Germany, UK, France, Italy, Spain, Australia, and Taiwan. According to
ICH-D2 criteria, presence of migraine (past 3-months headaches with pain, nausea, and photophobia/phonophobia) and ≥15 headache days/month indicated CM, and
<14 headache days/month indicated EM. Questions on absenteeism and presenteeism
were included over 1597 (US) 316.6% female, 5.5% CM, 90.2% EM. Patient respondents were 1.4 times more likely to report that they had missed any work/school due to headache (95% CI = 1.1, 1.8). CM reported missing a higher number of work/school days due to headache symptoms than EM (adjusted mean <E = 8.83 ± 0.59 vs. 4.83 ± 0.44, p < 0.001), as well as working more days

NEW ACTIVA PC® FAMILY: COST ANALYSIS OF THE NEW FEATURES FOR DEEP BRAIN STIMULATION THERAPY (DBS)
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OBJECTIVES: Activa®, Medtronic’s DBS, is an effective, safe and reversible therapy for Parkinson disease, essential tremor and dystonia. A cost analysis was performed to
estimate the economic benefits related to 2 features of Activa PC® family, new DBS
generation devices, and the net Budget impact (BI) for Spanish hospitals, compared to
Kineta®. METHODS: The 2 features: neurostimulator’s (NE) lower size and new
stretchable extensions; both can avoid some adverse events (AEs) associated with
Kineta®. A literature review and clinical studies were performed. Service charges
were considered for all AEs avoided and its savings. An AE incidence comparison was
made as a sensitivity analysis. RESULTS: 2 studies were selected. The 2 features could avoid 6 AEs, 2 related to NEs (hematoma in the NE implant site; infection/erosion); 4 with the extension (lead broke after a fall; extension fracture; skin ulceration in the connector; local dis-
comfort). In total, avoiding these AEs involved 516 saved/patient treated with Activa
PC® family (SA obtained similar data). Including Activa PC® instead of Kineta family in
Spanish Hospitals involved a net BI per patient of €1.781. CONCLUSIONS: The new
Activa PC family may avoid AEs related to the previous generation, Kineta, with a
decrease in the total cost per patient. The substitution of Kineta® for Activa PC®
family involves a small net budget impact per patient.

COST AND RESOURCE USE RELATED TO NEWLY DIAGNOSED MULTIPLE SCLEROSIS: REAL-WORLD DATA FROM A LARGE US CLAIMS DATABASE
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Utah College of Pharmacy, Salt Lake City, UT, USA, 3Rutgers University, Piscataway, NJ, USA, 4saro-aventi-us, Bridgewater, NJ, USA, 5Mount Sinai School of Medicine, New York, NY, USA
OBJECTIVES: To examine the economic burden of newly diagnosed multiple sclerosis (MS) on the US health care system using a large, managed care database.
METHODS: This was a retrospective cohort analysis of a large, US claims database. Cases were defined as having either an MS diagnosis (ICD-9-CM 340) on at least 2 claims or 1 prescription for MS treatment (glatiramer acetate, interferon betas, or natalizumab) between 2004 and 2006. The index date was the first qualifying diagnosis or prescrip-
tion. We excluded patients with an MS diagnosis or treatment before the 12 month pre-index period, or without continuous enrollment from 12 months pre- to 12 months post-index date. Each case had 5 controls without MS diagnoses or treatment matched geographic region, insurance type, gender, and
lack of comorbid conditions with a similar period of continuous enrollment. Use of
services was compared using chi-square tests, and 2008 adjusted costs were compared using the Wilcoxon rank-sum nonparametric tests. RESULTS: There were 1412 cases and
7,060 matched controls in the study. Sixty-six percent of the study population was female. MS patients were twice as likely to have emergency department (ED) visits (25.5% vs.
12.2%), 1.3 times as likely to have physician office visits (95.8% vs. 75.1%), and 2.4 times as likely to have used physical therapy (all p-values <0.001) versus services over the follow-up periods. MS patients also had higher costs related to these services ($380 vs. $164, $614 vs. $228, and $268 vs. $74, respectively; all p-values <0.001). Total costs for MS patients were significantly higher than for controls ($16,984 vs. $5,639; p < 0.001). CONCLUSIONS: Newly diagnosed MS patients presented a large burden on the healthcare system with addition 1st year cost of over $13,000. While MS treatment drugs are expensive, this represents only one-third of the additional cost of care within the 1st year.