ECONOMIC BURDEN OF CUSHING’S DISEASE: A POPULATION ANALYSIS OF DIRECT MEDICAL COSTS AND UTILIZATION

Sweeering R1, Wu NT1, Chen SP1, Puligudi P1, Biller BM1
1Massachusetts General Hospital, Boston, MA, USA, 2United BioSource Corporation, Lexington, MA, USA, 3Navitas Oncology, Florham Park, NJ, USA

OBJECTIVES: Cushing’s disease (CD), a rare pituitary disorder, is associated with significant morbidity and mortality, but the economic impact is unknown. This study assessed the annual healthcare costs and utilization of CD patients.

METHODS: Administrative claims from 2004 to 2008 of a large population with commercial or Medicare-supplemental insurance in the US were analyzed. CD patients were those with medical claims for Cushing’s syndrome (ICD-9-CM: 255.0) and either benign pituitary adenoma (227.3) or hypophyssectomy (07.6). Each CD patient was age- and gender-matched to four patients with non-functioning pituitary adenoma (NFPA) and ten population controls (PC). NFPA was identified as benign pituitary adenoma without Cushing’s syndrome, acromegaly (233.0) or hyperprolactinemia (235.3). Comorbid conditions and medications were abstracted direct healthcare costs reported between cohorts by calendar year. RESULTS: The study identified 877 CD patients (79% female; average age 43 years). Hypertension (43% [CD] vs. 24% [NFPA] vs. 0% [PC]) and steroid use were significantly more prevalent in CD patients compared to NFPA and PC. CD patients incurred significantly higher annual total healthcare costs compared to NFPA and PC ($19,959 vs. $6,993 vs. $3,492), ER visits ($3,230), outpatient visits ($5,475 vs. $4,425 vs. $712), hospitalizations ($1.45 vs. $1.38 vs. $1.33) and medication costs ($712 vs. $632 vs. $392). CD patients had more comorbidities than NFPA patients and PC, and incurred significantly higher annual healthcare costs.

PDB65 COSTS OF THE PHARMACEUTICAL PROGRAM TO TREAT T2DM PATIENTS FROM HIEPERDIA: GOVERNMENT HEALTH CARE PROGRAM FOR DIABETES AND HYPERGLYCEMIA UNDER THE BRAZILIAN PUBLIC HEALTH CARE SYSTEM

Nascimento V, Molo TG

OBJECTIVES: Diabetes is a chronic disease that requires continuous care to reduce the risk of long-term complications. In this sense it is important to maintain a good therapeutic regimen and maximum care for people with chronic diseases. In this study we analyzed the costs of the HIPERDIA program with medication provided by the government for a future cost-effectiveness research.

METHODS: HIPERDIA is a program with defined therapies; modern insulin monotherapy (MI Mono), Modern Insulin regimens (especially affecting insulin or insulin/OAD combinations). This can complement Koro et al's study (2004).

RESULTS: The cumulated undiscounted life years saved between 2000 and 2010 was estimated at 136.198.66 due to treatment with Novo Nordisk insulin in China. The cumulated undiscounted life years saved in the Chinese diabetic population between 2000 and 2010 due to sales of Novo Nordisk insulin. METHODS: The CORE-dia diabetes model was used to make projections of long-term survival rates for people with type 2 diabetes treated with defined therapies; modern insulin monotherapy (MI Mono). Modern Insulin combined with Oral Anti Diabetics (OAD), human insulin combined with OAD (H1 OAD) and human insulin monotherapy (HI Mono). In the human insulin scenarios, the base case cohort characteristics were based on the Chinese DiabCare data for 1998 (mean age 56.71 years, 51% male, duration of diabetes 6 years, HbA1c 7.21%). The modern insulin scenarios (introduced around 2005) are based on cohort characteristics observed in the Chinese PRESENT study (mean age 57.21 years, 51% male, duration of diabetes 6 years, HbA1c 7.93%). Treatment effects in the four interventions modelled, MI Mono, MI OAD, HI OAD and HI Mono relied on published sources (HbA1c, 1%−, 1.82%, −1.2% and 0.7% respectively). The annual size of the population treated was calculated using annual Novo Nordisk sales and average daily insulin dosage as observed in the DiabCare China study. This process was then repeated for each year from 2000 to 2010 making it possible to cumulate the number of life years saved. RESULTS: The undiscounted life expectancy for the 4 different baseline cohorts modelled in the CORE diabetes model was improved by 2.9, 2.7, 2.2, 1.7 for MI OAD, MI Mono, HI OAD, HI Mono respectively. CONCLUSIONS: The cumulated undiscounted life years saved between 2000 and 2010 was estimated at 136.198.66 due to treatment with Novo Nordisk insulin in China.