THE COST OF ZOSTER AND POST-HERPETIC NEURALGIA TREATMENT IN FRANCE


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OBJECTIVES: This study aimed at assessing the economic cost of the management of patients developing herpes zoster (HZ) and post-herpetic neuralgia (PHN) in France. This is of particular importance in the context of the marketing of the first vaccine of the management of patients developing herpes zoster (HZ) and PHN (Zostavax®).

METHODS: The study is a cross-sectional cost-of-illness evaluation, led in the perspective of the French sickness funds. Data on health resource utilization were derived from various private and public databases, the French DRG system for hospital care and DOREMA™ for doctors’ visits and drug prescriptions. Utilization data were valued according to tariffs from public health funds.

RESULTS: HZ life time incidence in France is estimated between 10 and 20% with a yearly incidence of approximately 200,000 cases. Ten to 20% of these patients will develop PHN. In 2005, there were 345,000 doctors’ visits related to a HZ or a PHN diagnosis, 86.4% of them being a GP’s visit. Patients with a HZ related diagnosis were significantly older than others (71.3 years vs. 64). 2,643 hospitalizations for a HZ related diagnosis were recorded, the average length of stay being around 7.5 days. The global annual cost of HZ and PHN were estimated between 40 and 50 millions Euros. The medication costs represented around 65% of it, mainly because of the intensive use of antiviral treatments. The primary care and specialists costs were 7.3 millions euros per year. Hospitalizations cost accounts for 8.6 millions euros.

CONCLUSION: This cost evaluation is in line with other foreign studies results. It is a conservative approach as we use a restrictive definition of hospitalization (HZ or PHN as main diagnose) and the fact that indirect costs were excluded from the calculation, as well as quality of life loss which is the most significant consequence for patients experiencing HZ and PHN.

PREDICTORS OF COSTS FOR SKIN AND SKIN STRUCTURE INFECTIONS DUE TO STAPHYLOCOCCUS AUREUS USING A MANAGED-CARE PERSPECTIVE

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OBJECTIVES: The incidence of skin and skin structure infections (SSIs) due to Staphylococcus aureus (SA) is increasing. There have been few published studies on the costs of outpatient treatment for SA-SSIs. METHODS: This retrospective analysis used a large managed-care database to assess the duration of SA-SSI episodes treated with selected antibiotics (vancomycin, oral linezolid, and daptomycin, termed “study antibiotics”). Patients were included if they had a SA-SSI between January 1, 2002 and December 31, 2005 based on ICD-9-CM codes. Treatment episodes began on the date of the first antibiotic and ended when the patient had fourteen consecutive days with no study antibiotic or SSI hospitalization. Costs, represented by health plan payments, were updated to 2005 US dollars. A generalized linear model (GLM) was used to assess predictors of costs.

RESULTS: A total of 1,997 patients met the cohort selection criteria. Mean (±SD) age was 46.3 (±12.6) and 55.9% of patients were male. Average episode length was 24 days, and 95% of patients received vancomycin or oral linezolid as their initial study antibiotic. Patients remained on study antibiotics for approximately 16 days, and only 5% of patients were switched to another study antibiotic. Mean (±SD) episode costs were $9,250 (±$20,357) [median, $3,327 IQR: $1,643 to $8,128], represented primarily by pharmacy and outpatient medical services. Based on the GLM, we found that treatment failure (i.e., study antibiotic switching or hospitalization), bacteremia, osteomyelitis, multiple complications, Charlson comorbidity score, treatment with daptomycin, and episode duration were all significant positive predictors of costs. Alternatively, treatment with oral linezolid, hospitalization prior to receiving a study antibiotic, and receipt of a non-study antibiotic before the treatment episode were significant negative predictors of costs. CONCLUSION: The costs of treating SA-SSIs are substantial and vary by type of antibiotic therapy, comorbidities, and failure rates.

MODELING THE LONG TERM CONSEQUENCES OF SUPPRESSING VIRAL REPLICATION IN CHRONIC HEPATITIS B: A COST-EFFECTIVENESS ANALYSIS OF ENTECAVIR IN SPAIN

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OBJECTIVES: Chronic hepatitis B (CHB) virus infection affects approximately 750,000 people in Spain and if untreated, will increase their risk of being within the 25-40% of infected individuals that die of cirrhosis or hepatocellular carcinoma. The objective of this study was therefore to evaluate the cost-effectiveness of long-term entecavir therapy of CHB in Spain.

METHODS: Multivariate-adjusted relative risks of disease progression to liver complications based on viral load categories were estimated from a large scale epidemiology study (R.E.V.E.A.L.-HBV) cohort with 42,115 person-years of follow-up, and applied to efficacy results from separate entecavir and adefovir clinical trials to project subsequent incidence rates of compensated cirrhosis (CC), decompensated cirrhosis (DC), and hepatocellular cancer (HCC). Official drug costs were used for available antiviral treatments (entecavir, lamivudine and adefovir). Direct medical costs of CHB complications, life expectancy and utility scores for different phases of CHB were derived from published studies. Viral resistance to drug treatment was also considered. The perspective was that of the Spanish National Health System.

RESULTS: Head-to-head clinical trials demonstrated entecavir to be superior to lamivudine for the proportion of subjects who achieved undetectable viral load in HBeAg-negative nucleoside-naïve patients, that translated to lower projected incidence of CHB complications in both the short (one year) and the long (ten years) term. The modeled costs and outcomes resulted in incremental cost per QALY gained with entecavir of €3,578 and €20,502, for 1 and 10 year time horizons respectively. Using the same approach and an indirect comparison of viral suppression efficacy from pivotal clinical trials of entecavir and adefovir, entecavir was the dominant treatment option with respect to adefovir in both lamivudine-resistant patients and HBeAg-positive naive patients.

CONCLUSION: Long term use of entecavir is a cost-effective alternative to lamivudine and adefovir for the management of different subgroups of CHB patients in Spain.