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

Loock J1, Le Pen C2, Baptiste C2, Bloch K1, Valentin E1, Bruxelle J1, Berrux G1, Gallais JL3, Sahl JP7

1 Aremis Consultants, Neuilly-sur-Seine, France, 2 University of Paris-Dauphine, Paris, France, 3 Sanofi Pasteur MSD, Lyon, France, 4 Tarnier Hospital, Paris, France, 5 CHU Angers, Angers, France, 6 Société Française de Médecine Générale, Paris, France, 7 CHU Grenoble, Grenoble, France

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 against 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 PHN diagnosis, 86.4% of them being a GP’s visit. Patients with a HZ related diagnoses 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. Hospitalization costs accounted 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

Martin JP1, Jackel J2, Carson RT1, Rothermel CD1, Menzin J2

1 Pfizer Inc, New York, NY, USA, 2 Boston Health Economics, Inc, Waltham, MA, USA

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.