COSTS OF QUANTIFERON TB-GOLD VERSUS TUBERCULIN SKIN TEST IN SPANISH HEALTH CARE WORKERS

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OBJECTIVES: Health care workers are a population at risk of Latent Tuberculosis Infection (LTI), which is usually detected by the initial skin test (TST). In vitro immunological tests such as QuantIFERON-TB Gold® (QFT-G) have been recently recommended for LTI screening in health care workers. We compared direct and indirect costs of two LTI screening strategies among health care workers in Spain: TST and QFT-G. We used a comparative cost study conducted from a societal perspective, using data on costs and results from a prospective observational study carried out in a Spanish public hospital, where the 2 screening alternatives were concurrently applied to a cohort of 134 health care workers. RESULTS: In a base-case analysis, the costs of the QFT-G test amounted €42.5 per screened health care worker and those of the TST €39.3. Both tests varied in their cost structure: in the case of TST, most of the total costs (70%) were indirect costs, basically time spent by the participants, whereas QFT-G was more expensive in terms of fungible material, which meant 50% of the total costs. The results are sensitive to the hourly wages of the participants and to the estimation of the time spent by them in the tests. CONCLUSIONS: This study cost showed that, in the conditions of Spanish health care system, the societal costs of the new QFT-G are comparable to those of the TST; however, this cost study showed that, in the conditions of Spanish health care system, the societal costs of the new QFT-G are comparable to those of the TST; however, the cost structure varies considerably. Therefore, these results could change if applied in other countries with different relation between salaries and prices.

PSEUDOMONAS AERUGINOSA RELATED BURDEN ON CYSTIC FIBROSIS PATIENTS: COMPARING HEALTH CARE COSTS AND RESOURCE UTILIZATION ACROSS AGE GROUPS

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OBJECTIVES: To determine if the average cost of medical care among cystic fibrosis (CF) patients with Pseudomonas aeruginosa (PA) infection is different across age groups.

METHODS: Data were derived from MarketScan claims database, which captures person-specific direct medical utilization, expenditures, and enrollment from approximately 150 payers. A retrospective cross-sectional study design was used. CF subjects with an initial claim for a PA infection were identified using international classification of diseases diagnosis codes of 277.0 and 482.1, respectively. Demographic information from administrative claims and health care utilization and costs from medical and pharmacy claims were extracted for 12 months pre and post initial PA claim. All resource use costs and were annualized and compared across 7 age groups with parametric (ANOVA) and Duncan’s post-hoc tests using SAS version 9.2. RESULTS: A total of 347 CF subjects with PA infection met the study criteria with mean±SD age 19.9±15.4 years and 47.8% females. A monotonic trend of increasing utilization and costs (in 2009 US$) occurred from age group 0–4 years to 15–19 years, with the 10–14 years group showing the highest average costs. CONCLUSIONS: Overall PA-related health care resource use and costs tended to vary across age groups. Future research needs to explore the underlying reasons for this trend.

LONG-TERM ECONOMIC AND CLINICAL BURDEN OF COMPLICATED INVASIVE MENINGOCOCCAL DISEASE: EVIDENCE FROM A UNITED STATES MANAGED CARE POPULATION

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OBJECTIVES: There is a paucity of data on the long-term (i.e., post-hospital discharge) economic and clinical burden of invasive meningococcal disease (IMD) and its related complications among IMD survivors. The objective of this study was to compare health care utilization and costs between IMD survivors with and without related complications. METHODS: We conducted a retrospective cohort analysis of the MarketScan US database (1997–2009). PATIENTS: Subjects with an initial admission for IMD (ICD-9-CM: 036.x) and continuous health plan enrollment for 1 year before and after the admission. RESULTS: The incidence of IMD (ICD-9-CM: 036.x) and continuous health plan enrollment for 1 year before and after the admission. CONCLUSIONS: Overall PA-related health care resource use and costs tended to vary across age groups. Future research needs to explore the underlying reasons for this trend.

THE ECONOMIC BURDEN OF SURGICAL SITE INFECTION USING THERAPEUTIC ANTIBIOTIC UTILIZATION MEASURE—COMPARISON BETWEEN TWO TIME PERIODS

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OBJECTIVES: Significant attention is being focused on reducing surgical site infections (SSI) in the US and numerous national initiatives have been put into place to achieve measurable reductions. The purpose of the study was to examine the economic impact of therapeutic antibiotic (TA) utilization as an indicator of postoperative SSI between two time periods. METHODS: Premier inpatient database was utilized for assessing length of stay (LOS) and costs. Two time periods identified, 2003–2008 (period 1) and 2009 (period 2) with 1,138,989 patients discharged in 2005–2008 and 2009–2008. The negative with non-SSI nosocomial infections were excluded. TA usage was determined by the antibiotic administration after day 4 of surgery. TA utilization rate: 0.61% in 2005–2008; 0.75% in 2009. Multivariate analysis used to assess the effects of using TA on LOS and total costs outcomes. RESULTS: Patients receiving TA had significantly higher LOS and costs for both time periods (P < 0.001). Average LOS for patients receiving TA was 12.2 and 12.6 for periods 1 and 2 respectively. Mean post-surgical LOS was 9.8 and 9.1 for periods 1 and 2. The main occupied costs were those of hospitalization, medication and when other medical treatment resources (e.g., hemodialysis, blood transfusion) were utilized, the costs tended to change over time. According to admission type, costs for ICU (ICU) cost: n = 24, KRW 8,337,825, MCIU: n = n = 51, KRW 6,914,280 were higher than those for general ward (n = 125), KRW 3,019,167. Analysis by baseline disease/condition revealed that the costs for complication (n = 8, KRW 10,070,472), H/AIDS (n = 2, KRW 25,426,018) were higher than others (cancer: n = 103, KRW 3,638,142, central catheterization: n = 101, KRW 5,554,510, surgery: n = 68, KRW 5,030,941). For costs of C.Abbins (n = 90) were KRW 3,878,166 and for non-C.Abbins (n = 110) were KRW 5,414,518. CONCLUSIONS: This study is significant in that it estimated cost-of-illness of candidemia by examining the health resources consumption and assessing the costs attributable to candidemia.