RESPIRATORY DISEASES/DISORDERS—Economic Outcomes

PRP-I

INPATIENT AND OBSERVATION UNIT COSTS FOR CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

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OBJECTIVE: COPD is a common chronic adult respiratory problem in Europe and North America. Recently, there has been an effort to prevent hospital admission by treating and monitoring exacerbations in outpatient Observation Units (OU). The objective of this study was to estimate the costs of hospitalization and of OU stays for COPD. METHODS: Data from the 1998 all age, all-payer Massachusetts hospital discharge and OU databases were analyzed. Cases were identified by principal ICD-9 diagnosis code and unique patient identifier. All accommodations, ancillaries and physician care were included in cost estimates, which were adjusted for medical inflation, cost-to-charge ratios, and reported in 2002 US$. Massachusetts’ costs were adjusted to national values. RESULTS: The analysis revealed 9,774 patients admitted to hospital and 1,084 to OU. In the Hospital Group, males = 41% and the mean age = 71 years. Age and gender mix for patients in the OU group was similar. The mean number of hospital admissions during year was 1.3 per patient (range: 1–14). The mean length of stay was 5.4 days per admission; 8% of patients had a one-day stay. The mean cost per hospitalization was $5,336, $1,745 for a 1-day stay. The mean time spent in OU was 28 hours. Emergent status was assigned to 54% and urgent status to 32% of OU patients. The mean cost per OU stay was $1,559 and the mean annual number of OU stays per COPD patient was 1.1 (range: 1–5). CONCLUSIONS: On average, OU stay costs are substantially less than for an inpatient stay. When clinically appropriate, a stay in the OU can provide a less costly alternative for those who otherwise would require hospitalization, even for just one day. The costs related to hospital and OU stays for COPD provide two key pieces to understanding the economic burden of COPD.

3329 STUDY TO EVALUATE HOSPITAL COSTS FOR ACUTE EXACERBATION IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN SPAIN (EPOC-COST STUDY)

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OBJECTIVES: To evaluate the associated costs (from a 3rd payer perspective) due to the treatment of hospitalized Chronically Obstructive Pulmonary Disease (COPD) exacerbation. METHODS: Retrospective review of 246 clinical episodes of exacerbation in 4 tertiary hospitals (from June-1999 to December-2001), a 5th hospital data are under evaluation. The cost of the stay (hospital cost) used was €228,12/day (DRG 88 of one of the participating centers). The cost of the Diagnostic Tests was taken from the 2002 scale of the Physicians Medical College of Barcelona. Cost of the medication used: the MSP according to the cheapest prices published in the 2002 Pharmaceutical Official Book. RESULTS: (In brackets means per patient or episode). Total Days of Hospitalization: 1,911 (7.77), Total Cost of Hospitalization or Hotel Cost: €435,937.32 (1,772.10), Total Cost of Diagnosis Tests: €23,284.93 (94.65), Total Cost of Oxygen-therapy and other treatments: €3,646.36 (14.82), Total Sum Cost of Hospital Pharmacological Treatment: €24,644.79 (100.18), Total Sum Cost of Continuing Therapy after discharge: €7,071.79 (28.75). The final Total Cost was €494,585.19, with an Average Cost per patient or episode of €2,010.51, and an Average Daily Cost per patient of €528.75. CONCLUSIONS: Total cost of COPD exacerbation is mainly determined by the hospital costs (88.1% of the final cost) and, secondarily, by the hospital pharmacological treatment cost (5.0%) and by the diagnosis tests cost (4.7%).

AN ANALYSIS OF THE LENGTH AND COSTS OF RESPIRATOR USE WITH OBSERVATIONAL DATA BASED ON MEDICAL RECORDS

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OBJECTIVES: This research documents an analysis of the impact of respirator use on medical expenses with observational data based on medical records from all over Japan. METHODS: The data set included records of medical procedures during a single month, but not for procedures and information extending over plural months. Accordingly, censoring was an important problem. To overcome this, samples were classified into four groups; complete, right censoring, left censoring and both censoring ones using length of respirator use and hospital stay. Then, the Gompertz model was applied to calculate the expected length of respirator use. For calculation of estimates, bootstrappings technique was used. Simultaneously, medical expenses for respirator use were also estimated. RESULTS: The estimated length of respirator use was from 10 to 104 days, with expected medical expenses per case of from 30,000 to 40,000 yen and the number of respirator usages on aggregate of 5510. CONCLUSIONS: This means the impact of respirator use on medical expenses of Japan is from 18 to 250 billion yen per year.