# Abstracts

from eight managed care organizations. Index claims were outpatient or emergency department visits in 1999-2001 by individuals aged 25-64 with a primary diagnosis of pneumonia, antibiotic prescription within three-days, chest x-ray on index date, continuous enrollment for 12-months prior, 30-days after index visit. Exclusion criteria: antibiotic prescription, pneumonia diagnosis, or hospitalization in prior 30-days; initial therapy with multiple antibiotics; in prior 12-months residence in a long-term care facility or diagnosis of lung cancer, secondary malignancy, HIV/AIDS, cystic fibrosis, immunodeficiency. We considered the following comorbid illnesses: chronic liver, renal or lung disease; cerebrovascular disease; cardiac disease; diabetes mellitus; malignancy. Follow-up claims were considered CAP-related if the primary diagnosis, using the Clinical Classifications Software, was pneumonia; septicemia; pleurisy, pneumothorax or pulmonary collapse; respiratory failure, insufficiency or arrest; other lower respiratory infection. RESULTS: In total, 5748 cases met criteria; 79.7% had no comorbidities, 16.8% had one comorbidity, and 3.5% had two or more comorbidities. Mean total charges were \$955.97: 48.2% inpatient, 25.2% outpatient, 13.4% outpatient testing and diagnostics, 7.5% antibiotic prescriptions, 5.8% emergency department, 13.9% presenting to the emergency department had initial mean charges of \$360.48 compared with mean initial charges for outpatients of \$167.89. In total, 50.0% utilized follow-up services with 3.0% requiring hospitalization. Mean total charges for those eventually hospitalized were \$16,436.23 compared with \$673.71 for the 13.1% of patients who failed initial treatment but were not hospitalized, and \$431.91 for the 78.0% of patients requiring no additional antibiotics. Number of comorbidities was strongly associated (p < 0.0001) with charges: \$888.19 for those without comorbidities vs. \$1734.37 for those with multiple comorbidities. CONCLUSION: Cost of outpatient CAP for non-elderly adults is large even for those without comorbid illness.

# PIN I 5

## IMPACT OF COMPLICATED SKIN AND SOFT TISSUE INFECTIONS ON INPATIENT COSTS FOR AN ACADEMIC MEDICAL CENTER

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**OBJECTIVES:** To determine the additional costs and lengths of stay (LOS) attributable to complicated skin and soft tissue infections (cSSI) for patients admitted to Thomas Jefferson University Hospital, an urban academic tertiary care hospital. METHODS: All patients admitted between January 1, 2003 and December 31, 2003 were identified using the hospital billing system. Patients with a potential cSSI were identified using the specific ICD-9 diagnosis codes. Costs of care and lengths of stay, based on the hospital's true cost accounting system, were compared by Diagnosis Related Group (DRG) between the cSSI population and the non-cSSI population. RESULTS: Of the 33,764 patient discharges in 2003, 1,883 (5.5%) included one of the cSSI diagnosis codes; these encompassed 225 DRGs. The mean cost for cSSI cases was \$20,965 higher than for non-cSSI cases, and mean LOS was ten days higher for cSSI cases. For surgical and medical DRGs, mean cost of cSSI added \$42,563 onto the cost for cases in surgical DRGs compared to an average increase of \$10,048 added to cost of medical DRGs. Differences in costs and LOS were observed in analyses by Major Disease Categories (MDCs) and individual DRGs as well. For MDCs, myeloproliferative disorders, multiple trauma, and diseases of the nervous system, costs were \$68,027, \$48,286, and \$27,496, higher for the cSSI

cases, respectively. This difference was also reflected in additional days of stay of 22, 11, and 14 days, respectively. For patients with cSSI, the three specific DRGs responsible for the maximum total health care dollars expended were bone marrow transplants, rehabilitation, and small and large bowel procedures. **CONCLUSIONS:** cSSIs significantly increase hospital resource consumption and costs. The difference in costs is especially pronounced for patients undergoing surgical procedures. Results suggest that measures taken to avoid or more effectively treat cSSIs could yield significant savings to hospitals.

PIN16

# COST-UTILITY OF CHRONIC HEPATITIS "C" TREATMENT WITH THYMOSIN ALPHA | IN MEXICO

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**OBJECTIVE:** To estimate cost-utility of the following alternatives in the treatment of chronic hepatitis C (CHC) in the Mexican Institute of Social Security (IMSS): peginterferon, peginterferon plus ribavirin, peginterferon plus ribavirin plus thymosin alpha-1 and finally, not using any drug. METHODS: In Mexico, more that one million persons are infected with CHC virus and 80% of them develop chronic infection that might lead to hepatic cirrhosis and other complications that affect quality of life and costs of health care institutions. Cost-utility analysis was carried out using institutional perspective and time horizon of 45 years, discount rate of 3% for both, costs and effectiveness. The base case was a 30-year-old man with CHC without hepatic cirrhosis or cancer and cost and effectiveness data were taken from literature, a Mexican expert panel and an on-going clinical trial, not yet reported. Effectiveness data are reported in QALYs and costs in 2004 USD. A decision tree using a Bayesian approach and a Markov model were developed. Sensitivity analysis was univariate, bivariate, threshold and probabilistic. Acceptability curves and health net benefits were estimated. **RESULTS:** Triple therapy (peginterferon plus ribavirin plus thymosin alpha-1) was dominant over the rest of alternatives costing \$1802 per QALY, while peginterferon plus ribavirin \$2275 per QALY and peginterferon only \$2927 per QALY. Not using any drug was the most costly alternative with \$4201 per QALY. Sensitivity analysis confirmed the strength of the base study. Triple therapy was not dominated in any comparative case. CON-CLUSIONS: Triple therapy had the best cost-utility ratio and not using any drug was the opposite, most expensive and with less utility than all the compared alternatives. Although triple therapy is initially very expensive, it provides the highest gains in the long run, both in the improvement of quality of life and in saving costs.

#### PIN17

### A COMPARISON OF METHODS TO ASSESS QUALITY OF LIFE IN ECONOMIC ANALYSES OF HEPATITIS C TREATMENTS Yeh WS, Skrepnek GH, Armstrong EP, Malone DC

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**OBJECTIVES:** This study investigated the effect of using different utilities for a cost-utility analysis comparing peginterferon alpha-2b plus ribavirin, interferon alpha-2b plus ribavirin, and no treatment for chronic hepatitis C from a U.S. payer's perspective. **METHODS:** A Markov model was developed to simulate the lifetime disease progression of hepatitis C virus (HCV) for a 45-year-old male. The analysis was conducted by stratifying HCV genotypes. Health-state utilities were obtained from previously published literature. Standard gamble patient-elicited utilities were used as the base case. Five other expert-estimated