lines. METHODS: Data from the National Ambulatory Medical Care Survey (NAMCS) 1997 was utilized. Patients with principal diagnosis of otitis media with age less than or equal to 12 years were analyzed using multiple linear and binomial logit regression models. Appropriate antibiotics are defined as those that are recommended by the guidelines. The average wholesale price of recommended antibiotics was compared with the inappropriate antibiotics prescribed. The dosage of antibiotics was confirmed by the IMS health and the advice of a practicing Otolaryngologist. Antibiotics cost was calculated by using the Red Book 1997 and 1998. The weighted average method was used to calculate the average wholesale price of the various quantity packages and dosage forms. This study utilized the methodology of relating a secondary database to an outside source (Red Book) to calculate the cost. RESULTS: The average cost of a course of appropriate antibiotic (penicillin and its derivatives) was found to be $8.07, compared to $69.56 for expensive antibiotics (difference = $61.49). Children less than four years of age were prescribed more expensive antibiotics (R² = 0.287). Pediatricians, and Otolaryngologists prescribed appropriate and less expensive antibiotics than other family physicians (R² = 0.144). There was no relationship between the physician’s specialty and patient’s age for inappropriate antibiotics prescribing (R² = 0.343). CONCLUSIONS: Adhering to the guidelines and prescribing of appropriate antibiotics appears to save cost. Inappropriate prescribing of antibiotics for otitis media should be addressed more explicitly in general practice.

**PEE6**

Cost-Effectiveness of Artificial Skin Substitute vs Allograft for Burn Patients

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INTRODUCTION: Healing after a burn injury requires a temporary wound cover until the skin epithelium heals. Traditional wound covering, human cadaver allograft (HCA), is expensive, and limited by availability. OBJECTIVE: To determine if artificial skin substitute (Transcyte) wound cover is cost-effective for temporary wound coverage in patients with major total body surface (TBSA) burns. METHODS: Incremental cost per quality adjusted life year (QALY) in 2000 US dollars is estimated assuming a base case adult patient who has 40% TBSA burn with no inhalation injury, complications, or facial burn followed for one year after HCA or Transcyte procedure. A societal perspective is used. Utilities were surveyed from burn-unit hospital employees. Other variables are taken from literature. RESULTS: Under the base case, Transcyte saves $3600 over HCA, and adds 0.04 QALYs. Quality of life was significantly greater in the Transcyte group (0.54, 95% CI = 0.48–0.59) vs. HCA group (0.65, 95% CI = 0.57–0.74, p = 0.04) while in the hospital, but not significantly different while recovering at home, after recovery, and at work. The incremental QALY of Transcyte minus HCA must be <−0.07 in order for the ICER to reach a threshold of $50,000. Sensitivity analysis shows that a 33% increase in Transcyte price will reach the threshold ICER of $50,000. In addition, this model is highly sensitive to utility at work; a 22% decrease of at-work utility with Transcyte will result in an ICER greater than $50,000. CONCLUSIONS: The results show that use of Transcyte as a temporary wound covering for 40% TBSA burns is a dominant strategy relative to standard HCA. Use of this artificial skin results in cost savings, due to faster healing and less operation room time. A gain in QALYs is seen with Transcyte, due to less scarring and pain during the healing process.

**PEE7**

A Cost Comparison Study of Common Practice and Best Practice Treatment for Primary Open-Angle Glaucoma in the United States

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OBJECTIVE: To compare the total, drug, and medical care costs of common practice and best practice management of primary open-angle glaucoma (POAG). METHODS: A Delphi panel of ophthalmologists specialized in glaucoma management was convened in order to delineate practice patterns representative of community physicians (common practice), and to characterize the ideal or optimal standards of care (best practice). A decision analytic approach was used to depict and economically quantify the clinical sequelae under each scenario for POAG patients initiated on medical therapy. Common and best practice decision trees were developed for prototypic agents of the most commonly used first-line classes of medications. Percentage likelihood of drug usage was determined based upon physician consensus whereas drug and surgical efficacy rates were determined based upon a composite of published data. Typical drug dosing regimens and number of medical visits, as determined by physician consensus, were used to estimate the cost of treatment. RESULTS: The total average annual cost of treatment per eye was estimated at $733.85 for common practice and $732.09 for best practice. Drug costs were estimated at $358.66 for common practice and $341.38 for best practice. Costs of medical care were estimated at $375.19 for common practice and $732.09 for best practice. Drug costs comprised a larger proportion of medical care costs in best practice as compared to common practice (17.84% vs. 14.29%). In comparing best practice decision analyses, non-selective beta-blockers were used less often whereas alpha-2 ago-
nists were used more often as first-line medical therapy. The probability of first-line success has been estimated at 71.2% for common practice and 72.3% for best practice. CONCLUSION: Despite higher surgical costs and improved outcomes associated with best practice management of POAG as compared with common practice, total, drug, and medical care costs of best practice were comparable to those of common practice.

**FOUR YEAR COST-EFFECTIVENESS OF INITIAL TRABECULECTOMY VERSUS CONVENTIONAL THERAPY IN PRIMARY OPEN-ANGLE GLAUCOMA (POAG)**
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OBJECTIVES: To determine the cost-effectiveness of the primary treatment of primary open-angle glaucoma (POAG) with trabeculectomy versus conventional therapy. METHODS: A four-year incremental cost/utility-adjusted life year (QALY) model (year 2000 US dollars) of POAG using a societal perspective; including direct and indirect costs with a 3% annual discount rate for the base case. In the Glasgow trial, patients newly diagnosed with POAG with an intraocular pressure of 26mmHg and/or with glaucomatous field defects were randomized to trabeculectomy or conventional therapy (up to three medications). In the trabeculectomy branch, patients would either be 1) controlled without extra medication, 2) controlled with extra medication or 3) die from natural causes. Annual chance nodes for the conventional were 1) controlled by medication, 2) surgery or 3) death from natural causes. QALYs were calculated assuming a decline in utility would accompany loss in visual field. A 65-year old patient with a 5% rate of decline in utility was used as the base case. Sensitivity analyses were performed on the rate of utility decline, cost of medications, trabeculectomy cost, and discount rate. RESULTS: For the base case, the cost of initial trabeculectomy was $8316 versus $6339 for conventional therapy. The incremental cost was $1977 and the incremental QALY was 0.08, with ICE ratio of $24,830/QALY. CONCLUSIONS: Initial trabeculectomy is cost-effective for POAG. The model was most sensitive to the rate of decline in utility (<2%) and robust to changes in the costs of medications and trabeculectomy. Limitations include the lack of long-term clinical and QALY data on glaucoma patients with different treatments. Currently the standard of practice in the US is to start with conventional therapy for patients with moderate or severe glaucoma. Our results indicate that trabeculectomy may be a cost-effective option for these patients.

**GASTROINTESTINAL DISORDERS**

**EFFECTS ON HEALTH CARE CONTACTS AND DAYS ABSENT FROM WORK WITH BUDENOSIDE CIR CAPSULES IN THE MAINTENANCE TREATMENT OF CROHN’S DISEASE IN A US SETTING**
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INTRODUCTION: Crohn’s disease (CD) is a debilitating chronic disease. It also has economic implications (both for patient and society). Reduced work (or school) attendance and continuous need for health care contacts are two important aspects. Data comparing the impact of different treatment approaches are scarce. OBJECTIVE: To assess health care utilisation and absence for work (or school) in a US setting of patients treated with budesonide CIR maintenance therapy compared to patients with no maintenance treatment (placebo). A societal perspective was adopted. METHODS: Data was collected in a double-blind randomised clinical trial comparing budesonide CIR 6 mg daily with placebo for a one year period. Patients, 55 in each group, had CD localised to the distal ileum and/or the ascending colon and were between the ages of 18 and 73 (mean 40.3 and 40.5 years). The collected data included physician visits, different minor procedures (e.g., radiographic, endoscopic), medications, hospitalisations and surgical procedures. Number of days of absence due to symptoms or treatment of the disease was also collected. All resource utilisation related to the design of the clinical trial was excluded in order not to overestimate real health care use and productivity losses. RESULTS: The budesonide CIR treatment group had 26.3% fewer physician visits (87.14 vs. 118.27 ns) and 27% fewer days absent from work or school (311.73 vs. 427.23 days ns). Numerical differences in other variables were smaller but in favour of budesonide CIR. CONCLUSION: Treatment with budesonide CIR capsules suggests benefits in terms of reduced health care resource utilisation and absence from work (school), that also could represent favourable cost implications in the delivery of health care.

**ALTERNATIVE MANAGEMENT STRATEGIES FOR DYSPEPSIA**
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OBJECTIVE: To compare the cost-effectiveness of alternative dyspepsia management strategies: (1) H. pylori testing; if seropositive, providing H. pylori eradication treatment using oral omeprazole, clarithromycin, and amoxicillin; (2) empiric antisecretory therapy using omeprazole. METHODS: Decision analytical models compared cost/QALY for alternative strategies in patients...