THE EFFECTS OF THE PART D DOUGNUT HOLE ON MEDICARE PATIENTS WHO REQUIRE HIGH-COST MEDICATIONS

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Objective: To examine the effects of the Medicare Part D doughnut hole on patients who require treatment with high-cost medications. METHODS: Using 2007 pharmacy claims from Medco Health Solutions, Inc., we used logistic regression analysis to examine the likelihood that patients' spending reached the doughnut hole ($2400) or catastrophic coverage ($5451), or total drug spending equivalents, for beneficiaries (enrolled for at least 6 months) with claims for cancer (N = 32,625), osteoporosis (N = 331,337), or rheumatoid arthritis (RA; N = 5,712) medications. A comparison group with other chronic conditions (N = 368,784) was matched to the study population by age, gender, geographic, chronic disease score, and low-income subsidy (LIS) eligibility. Exploratory variables included plan type, coverage gap exposure, disease type, and demographic characteristics. RESULTS: Compared to patients with other chronic conditions (55%), patients with cancer (79%), RA (92%), or osteoporosis (58%) had higher odds of reaching the doughnut hole compared to patients with other chronic conditions (Odds Ratios (OR) = 19.3, 32.1, and 2.1, respectively, p < 0.01 for all). A similar pattern of increased odds was observed for reaching catastrophic coverage (OR = 5.2, RA = 34.5, osteoporosis = 1.4, p < 0.01). Compared with standard prescription drug plan (PDP) enrollees, enhanced PDP enrollees were more (OR = 1.1, p < 0.01), Medicare Advantage enrollees were less (OR = 0.8, p < 0.01), and Retiree Drug Subsidy beneficiaries were as well (OR = 0.99, p = 0.88) to reach the doughnut hole. Relative to enrollees without a coverage gap, beneficiaries with one were less likely to reach $2400 in spending (OR = 0.87, p < 0.01); but were more likely to reach catastrophic coverage (OR = 3.6, p < 0.01). CONCLUSIONS: To plan for the affordability of drug plans, the welfare of patients in this study can and RA, and most beneficiaries with osteoporosis faced large out of pocket drug costs. For beneficiaries with these conditions, available prescription coverage may not provide adequate protection from severe financial strain.

RHEUMATOLOGIST INVOLVEMENT IN CARE OF PATIENTS WITH RHEUMATOID ARTHRITIS

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Objective: To determine physician specialties involved in rheumatoid arthritis (RA) diagnosis and follow-up. METHODS: A retrospective analysis was performed using PharMetrics® claims database. Patients newly diagnosed with RA (RA diagnosis claim in prior 12 months) were identified from April 1, 2005, to June 30, 2006, and were followed for 1 year. Patients were required to have at least one additional RA diagnosis claim during the follow-up period and had to be continuously eligible 12 months before and after initial diagnosis date. Outcomes of interest were a) specialty of diagnosing physician b) percentage of patients receiving follow-up care by a rheumatologist versus other specialties. RESULTS: Of newly diagnosed RA patients (N = 136,633), 34% were diagnosed by a rheumatologist, 13% by general family practitioners (GP), 13% by internal medicine (IM), and 30% by other specialties (11% were unknown). Of those diagnosed by a rheumatologist, 94% continued receiving rheumatologist care. Of those diagnosed by a GP, 57% continued to receive care from GP and 13% received care from other specialty; of those diagnosed by IM, 65% continued to receive care from IM and 8% received care from other specialties. Approximately 26% of those diagnosed by GP or IM received follow-up care from a rheumatologist. Irrespective of diagnosing physician specialty, the majority of patients (52%) were not followed up by a rheumatologist. CONCLUSIONS: This study demonstrates that the majority of RA patients are not diagnosed or followed by a rheumatologist. Future studies need to assess whether confirmation of RA diagnosis and follow-up by a rheumatologist, who has extensive training and experience in autoimmune disease, has an impact on patient outcomes.

PHARMACY REFILL PATTERNS FOR SUBCUTANEOUS ANTI-TUMOR NECROSIS FACTOR AGENTS USED IN THE TREATMENT OF RHEUMATOID ARTHRITIS IN A MANAGED CARE SETTING

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Objective: To examine pharmacy refill patterns of etanercept (ETA) and adalimumab (ADA) in the treatment of rheumatoid arthritis (RA) in a managed care population. METHODS: Medical and pharmacy claims (January 1, 2010-December 31, 2009) from a large managed care database were evaluated. Claims for all patients aged 18 years and over with the following criteria were included: new diagnosis codes for RA, no pharmacy or medical history of any biologic use for 6 months prior to anti-TNF agent index date, anti-TNF agent index date occurring on or after the first RA diagnosis date, and ≥65 persistence days. Patients were excluded if they had a diagnosis of ankylosing spondylitis, psoriatic arthritis, psoriasis, Crohn's disease, or ulcerative colitis at anytime. Refill patterns were examined by calculating the mean time (days) between each pharmacy refill using NDC codes (actual refill dates) compared to the mean days supplied on the claims (recommended refill dates). Results were reported for the first year following anti-TNF agent initiation. RESULTS: A total of 1219 RA patients newly starting an anti-TNF agent were included (ETA = 902, ADA = 317). ETA patients were slightly younger than ADA patients (ETA = 48.1 years, ADA = 49.2 years, p < 0.0001). There was no significant gender difference between the two groups (ETA = 77% female, ADA = 73% female, p = 0.29). Mean recommended refill days supplied were 32 days for ETA and ADA had a longer refill pattern compared to the recommended days supply, which may indicate noncompliance.

FIBROMYALGIA: RUSSIAN RHEUMATOLOGISTS’ DISEASE MANAGEMENT

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Objective: The aim is to describe Russian practicing rheumatologists’ disease management of fibromyalgia patients. METHODS: Questionnaire was sent to a random sample of Russian practitioners, who were answering the same questionnaire as that used by French practitioners in 2003. RESULTS: Seventy-seven of the practitioners claimed that they prescribed a medical treatment to their patients suffering from fibromyalgia: 40% prescribed antidepressants, 40% prescribed tricyclic antidepressants, 29% serotonergic anti-depressants, 30% hypnotics/sedatives, 8% homeopathic treatments and a little over 1% morphine derivatives. 67% claimed that they prescribed extra treatments for their patients suffering from fibromyalgia: 23% prescribed antacids, 20% prescribed tricyclic antidepressants, 17% serotonergic antidepresants, 24% hypnotics/sedatives, 9% homeopathic treatments and less than 1% morphine derivatives. 86.2% recommended or prescribed other treatments to their fibromyalgia patients, namely: 36% acupuncature, 56% physiotherapy, 14% hypnotherapy, 34% spa treatment, 3% osteopathy and 38% relaxation techniques. 91.8% of the doctors advised regular physical exercise such as swimming and walking (71.9% and 65.6% respectively), with cycling being the activity least often advised, by 12.9% of the doctors. CONCLUSIONS: Treatment for fibromyalgia must be multidisciplinary and multifactorial, its main objective being relieving the patient of their symptoms and allowing them to return to their professional and leisure activities – to which treatment of the condition by Russian practitioners is a testimony.
Abstracts

the ordered probit scale was conducted to evaluate the comparative efficacy of the biologicals based on the Psoriasis Area and Severity Index (PASI) responder endpoints. The absolute probability of PASI 50, 75 and 90 responses were estimated.

RESULTS: A total of 20 studies enrolling 10,108 psoriasis patients, including 1 head-to-head trial of guselkumab and ustekinumab, were identified and included in the analysis. Thirteen studies evaluated TNF-α inhibitors (adalimumab = 3, etanercept = 6, infliximab = 4), 5 studies evaluated T-cell modulators (efalizumab = 5), and 3 studies evaluated ustekinumab. Baseline patient characteristics were comparable across the trials. The estimated mean PASI 75 responses were as follows: infliximab (mean 89.5), CI 70–88%), ustekinumab 90 mg (74%; 68–80%), ustekinumab 45 mg (69%; 62–75%), adalimumab (58%; 49–68%), etanercept 50 mg biw (52%; 45–59%), etanercept 25 mg biw (39%; 30–48%), efalizumab (28%; 21–32%), and supportive care (19%; 13–25%). Patients were assumed to receive either etanercept or adalimumab and etanercept and etanercept for chronic plaque psoriasis. METHODS: A model was constructed to compare the drug acquisition costs for adalimumab and etanercept for chronic plaque psoriasis for a hypothetical primary care trust. The number of patients eligible for anti-TNF treatment was taken from published sources. Patients were assumed to receive either etanercept intermittently, mixed intermittent and continuous, continuous, or continuous adalimumab. Market research demonstrated that about 36% of patients are likely to receive continuous etanercept. Adalimumab, in contrast can not be used intermittently. Costs were estimated from a UK payer perspective. The horizon is three years. RESULTS: We estimated that the hypothetical PCT would cover 250,000 people, which is approximately the average size of a PCT in the UK. Of these 195,000 would be ≥ 18 years of age. thirty-five patients would meet the criteria for either adalimumab or etanercept. Providing that all patients would receive intermittent etanercept this would cost the NHS GBP 722,190, if 36% receive continuous etanercept and the rest intermittent etanercept it would cost GBP 816,453, whilst if all patients would receive continuous etanercept it would cost GBP 975,975. All patients receiving continuous adalimumab would cost GBP 1,001,000. CONCLUSIONS: Our model found potential for cost savings for PCTs from using etanercept instead of adalimumab, within the recommended patient groups for chronic plaque psoriasis. Savings will be increasingly important if the proportion of eligible patients who receive treatment increases from the current level.

A COST COMPARISON OF ADALIMUMAB AND ETANERCEPT FOR THE TREATMENT OF CHRONIC PLAQUE PSORIASIS IN THE UNITED KINGDOM

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OBJECTIVES: To assess the cost differences between adalimumab and etanercept for chronic plaque psoriasis. METHODS: A model was constructed to compare the drug acquisition costs for adalimumab and etanercept for chronic plaque psoriasis for a hypothetical primary care trust. The number of patients eligible for anti-TNF treatment was taken from published sources. Patients were assumed to receive either etanercept intermittently, mixed intermittent and continuous, continuous, or continuous adalimumab. Market research demonstrated that about 36% of patients are likely to receive continuous etanercept. Adalimumab, in contrast can not be used intermittently.

Using "Number Needed to Treat" to Help Conceptualize the Magnitude of Benefit and Risk of TNF-α Inhibitors for Patients with Severe Psoriasis

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OBJECTIVES: Risks and benefits of TNF-α inhibitors are often presented using statistical descriptions that are difficult to directly translate for patients into a clinically-meaningful context. The objective of this study was to illustrate the risks and benefits of TNF-α inhibitors in relation to risks that patients understand.

METHODS: We performed a number needed to treat analysis for psoriasis patients on TNFalpha inhibitors via a Medline and Embase search. We determined the number needed to benefit and the number needed to harm with TNF-alpha inhibitor treatment. We compared the risk of serious adverse events (SAE) from treatment with a TNF-alpha inhibitor to the risk of death from driving a car. The risk analyses were limited to tuberculosis, lymphoma, and demelinating disease. RESULTS: The numbers needed to benefit were 2.1 for etanercept, 1.4 for infliximab, and 1.6 for adalimumab. Depending on adverse event, the numbers needed to harm ranged from 380 to 360,000 treated patients per year. Screening prior to the initiation of TNF-alpha inhibitor therapy reduces risk of tuberculosis. Patients are about as likely to die in a car accident as have a serious adverse event from TNF-alpha inhibitor treatment. CONCLUSIONS: All 3 of the TNF-alpha antagonists have remarkable efficacy in patients with severe psoriasis. However, the side effect profile are relatively rare and comparable to risks patients take on a regular basis such as driving a car. For severe psoriasis, the benefits of TNF-alpha inhibitors may greatly outweigh the risks for many patients.

AN ECONOMIC ANALYSIS TO EVALUATE ANTI-GLAUCOMA PHARMACOTHERAPY


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OBJECTIVES: To compare the use of prostaglandin analogues namely, Bimatoprost, Travoprost and Latanoprost, in the treatment of glaucoma by conducting a cost effectiveness analysis considering medication related adverse event and patient persistence as indirect costs. METHODS: The study was conducted from a third-party payer's (Medicare) perspective with a time-frame of 12 months. Literature review was conducted to estimate medical-visit costs, average reduction in intra-ocular pressure (IOP) in mm Hg, medications related adverse event and patient-persistence to the pharmacotherapy. Average wholesale price (AWP) for the drug considered was used to perform the decision analysis. Incremental cost-effectiveness ratios (ICER) were calculated using intra-ocular-pressure reduction as efficacy estimate. Sensitivity analyses were conducted by changing the cost information by 25% to account for the variance in drug administration and IOP reduction rate of 5% was used to project the cost estimates to year 2008. RESULTS: The decision-analysis indicated Travoprost to be slightly inexpensive among the three prostaglandins (expected value $166.33), followed by Bimatoprost (expected value $187.3) and Latanoprost (expected value $262.29). Compared with Latanoprost, Travoprost and Bimatoprost provide a higher IOP reduction with ICER of (¥ 9.96) and (¥ 7.56) respectively. Results of sensitivity analyses were robust to the decision analysis performed.

CONCLUSIONS: Based on our analysis Travoprost and Bimatoprost was more cost-effective than Latanoprost. Health care decision-makers should consider the effect of adverse drug events and persistency profiles on the direct medical costs to prioritize the prostaglandin analogues for long-term treatment of glaucoma. Further, analyses using adherence data for specific patient groups can provide valuable information to decision makers.

A PHARMACOECONOMIC APPROACH OF THE USE OF INTRAVENOUS ANTIBIOTIC THERAPY FOR COMPLICATED SKIN AND SKIN-STRUCTURE INFECTIONS IN PUBLIC HEALTH CARE INSTITUTIONS IN MEXICO

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OBJECTIVES: To calculate the cost per clinical success (CS) in the antibiotic treatment for complicated skin and skin-structure infections (CSSI) in Mexican Social Security Institutions in Mexico. METHODS: The use of either i.v. Daptomycin (DAP), i.v. Vancomycin (VAN) or i.v. Linezolid (LIN) as first-line and second-line antibiotic therapy was compared in a cost-effectiveness study. Data was collected from a systematic review which included the most recent published articles measuring clinical improvement, length of stay at hospital services and adverse events due to the use of