SMOKING—Patient-Reported Outcomes

CONSUMER PERCEPTION OF SELF-AID MATERIALS IN OVER-THE-COUNTER NICOTINE PATCH

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OBJECTIVES: Over-the-counter (OTC) nicotine patch products contain self-aid materials as a surrogate for formal physician counseling. Little is known about whether consumers utilize these resources and what their perceptions are of these materials. We undertook a study to explore this issue. METHODS: Adult consumers (N = 153) of OTC nicotine patch from 30 retail pharmacies in San Diego County were recruited to complete a self-administered questionnaire two weeks after purchase. The questionnaire asked participants in an open-ended format whether they elected to use the enclosed CD-ROM, a self-aid tool, and the reasons behind their decision. Immersion/crystalization methods were used to extract major themes. Logistic regression was performed to explore factors associated with CD-ROM use. RESULTS: Of the 22% percent who used the CD-ROM, 26% stated that the material was helpful. Among the 78% who did not use the CD-ROM, most believed the material would not augment their knowledge or motivation for quitting. Other reasons for not viewing the CD-ROM included having no time or seen similar materials in the past, lost or cannot find the CD-ROM, and forgetting to use the material. Utilization of CD-ROM was more likely among individuals who live with multiple smokers, have poor self-rated health status, experience side-effects with the patch, and believe the patch is inexpensive. CONCLUSION: Although self-aid materials are included in each OTC nicotine patch package, few consumers utilize this resource. Even among those who did review the material, few found it helpful. The current material appears to have more application for those with multiple impeding factors to quitting.

URINARY/KIDNEY—Clinical Outcomes Studies

A RETROSPECTIVE COMPARATIVE ANALYSIS OF TREATMENT OUTCOMES OF ALPHA-BLOCKERS IN THE MANAGEMENT OF BENIGN PROSTATIC HYPERPLASIA WITHIN A MANAGED CARE POPULATION

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OBJECTIVES: Benign prostatic hyperplasia (BPH) is a highly prevalent condition, affecting more than 50% of men aged >60 years. Alpha1-adrenergic blockers (ABs) tamsulosin, alfuzosin, doxazosin, and terazosin are commonly used pharmacologic treatments for benign prostatic hyperplasia (BPH). However, there are limited data on intra-class comparisons of ABs with respect to treatment failure, particularly in the U.S. This study aimed to assess the rate of treatment failure with tamsulosin versus other ABs among patients with BPH in a U.S. setting. METHODS: A retrospective database analysis was performed using health care claims for patients with an ICD-9 diagnosis for BPH between 1Q2000 and 3Q2005. Only patients, aged >35 years, newly initiated with AB therapy were included; those with a history of prostate or urogenital disease were excluded. Treatment failure was defined as switching to another AB therapy or undergoing BPH-related surgery. Time-to-treatment failure was assessed using Kaplan-Meier survival analyses; Cox proportional hazard regression models were used to control for differences in baseline characteristics. Alfuzosin, introduced in 2004, was evaluated in an exploratory analysis with a shorter, 15-month follow-up period. RESULTS: At baseline, patients receiving tamsulosin (n = 10,340) were younger and more likely to see urologists than those receiving doxazosin (n = 3088) or terazosin (n = 2710) (p < 0.050 for all). Rates of treatment failure were lower for patients receiving tamsulosin compared to those receiving doxazosin and terazosin in the Kaplan-Meier analysis (p < 0.001 for both); multivariate Cox regression models confirmed these findings versus doxazosin (HR = 1.8, p < 0.001) and terazosin (HR = 2.1, p < 0.001). Compared to tamsulosin, patients receiving alfuzosin (n = 608) were also at greater risk of treatment failure (HR = 2.6, p < 0.001). CONCLUSION: Among the study population, initial treatment with tamsulosin resulted in reduced rate of treatment failure compared to doxazosin and terazosin. Definitive conclusions for alfuzosin require studies with longer follow-up periods.

OUTCOMES AND COSTS ASSOCIATED WITH IMMUNOSUPPRESSION COMPLIANCE

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OBJECTIVES: Estimates from transplant centers and clinical trials indicate approximately 30% of kidney transplant recipients are poorly compliant to their immunosuppressive (IS) regimen. This behavior may be the underlying cause of a large fraction of late acute rejection episodes and graft loss. Here we examine the survival and economic outcomes associated with varying degrees of compliance. METHODS: Compliance was defined as a medication possession ratio (MPR; % days with medication in a year according to pharmacy claim records submitted to Medicare) for 12,185 kidney recipients with at least 1 year of function, transplanted from 1998–2002 with data provided by the United States Renal Data System. Patient cohorts were defined by MPR quartiles (lowest <72%, median = 89%, highest >96%). Reported costs are average accumulated Medicare payments for IS, inpatient and outpatient medical care after the transplant procedure. RESULTS: As expected, first-year IS costs were lowest for the low quartile ($5.0 K vs. $9.4–12.4 K for the higher quartiles). 3-year graft survival, conditional on 1-year function was 89, 89, 91 and 93% with increasing MPR for the 4 quartiles (P by log rank <0.001). 20% (n = 1636) of patients remained in the two lower quartiles and 7% (n = 532) in the highest quartile for all three years of the study. Cost curves indicate that although 3-year IS costs were $16.1 K higher for patients persisting in the high quartile($32.0 vs $15.8 k), medical costs were $27.2 K less than the lower MPR cohort patients ($31.8 vs 58.9 K). Logistic regression propensity analysis comparing the two cohorts indicate patients under age 25 (relative risk = 1.60, 95% confidence interval 1.01–2.52, P = 0.05), and African Americans (1.74, 1.36–2.22, P < 0.001) were more likely in the low MPR cohort. CONCLUSION: Examination of Medicare claims indicates patients with persistent high IS compliance, incurred 15% lower overall 3-year costs ($11.1 K) compared to those persistently low. These results indicate excellent immunosuppression compliance should be encouraged.

RISK FACTORS ASSOCIATED WITH MEDICATION NONADHERENCE AMONG RENAL TRANSPLANT RECIPIENTS

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OBJECTIVES: To determine a profile of renal transplant recipients (RTRs) who are at highest risk for immunosuppressant therapy (IST) non-adherence. METHODS: Retrospective analysis was performed on follow-up non-adherence data routinely reported by transplant centers to the United Network for Organ Sharing in the United States Renal Data System. Those who received transplants on or after January 1, 1995, had at least 36 months of follow-up data, and did not receive a second renal transplant were included in the analyses. Random effects logit regression was used to estimate risk of non-adherence while controlling for age, race, education, donor type, primary insurance and IST including cyclosporine (CSA), tacrolimus (TAC), azathioprine (AZA), mycophenolate mofetil (MMF) and steroids. Association between IST non-adherence and graft failure was also examined. RESULTS: 33,997 individuals met the inclusion criteria. Mean age at time of transplant was 44 years (SD = 15). Sixty percent were male, 74% were Caucasian, 29% had college education, and 39% had living donor transplants. At time of transplant, 5% were on Medicaid and 44% were on Medicare. CSA, TAC, AZA, MMF and steroids were used by 61%, 34%, 13%, 72% and 97% of RTRs, respectively. About 5.5% of RTRs were reported as non-adherent and 3% had graft failure within 36 months post-transplant. Non-adherence risk increased with time and decreased with age (p < 0.001). RTRs who were male, non-Caucasian, not on Medicare, or used MMF or TAC had higher risk for non-adherence, with odds ratios (OR) of 1.4, 2.0, 1.6, 1.1, and 1.3 respectively (p < 0.05), while RTRs who used CSA, steroids or AZA had lower risk (OR = 0.8, 0.5 and 0.7 respectively, p < 0.001). Non-adherent RTRs had higher risk for graft failure (OR = 5.2, p < 0.001). CONCLUSION: Interventions aimed at improving adherence should target younger RTRs, male RTRs, non-Caucasian RTRs, and those not on Medicare to reduce risk of graft failure.

HAEMOGLOBIN FLUCTUATIONS IN HAEMODIALYSIS PATIENTS RECEIVING INTRAVENOUS EPOETIN ALFA OR INTRAVENOUS DARBEPOETIN ALFA
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OBJECTIVES: Haemoglobin cycling is common in haemodialysis patients receiving erythropoiesis-stimulating agents (ESAs). It is uncertain whether different ESAs are associated with greater fluctuations in haemoglobin. The purpose of this study was to compare the within-patient variability in haemoglobin levels in haemodialysis patients receiving intravenous epoetin alfa or intravenous darbepeotin alfa. METHODS: Data on haemodialysis patients were extracted from the Renal Anaemia Management (RAM) database from 2003 to 2004. The variance in haemoglobin was calculated for each patient with more than one haemoglobin observation. A mixed-model was fitted to the within-patient variances and weighting was based on the number of observations minus 1 for each patient. The model took into account the situation where patients had data on both agents and could therefore act as their own control. RESULTS: The mean within-patient variance in haemoglobin levels for pre-dialysis patients receiving darbepeotin alfa was 63% (95% CI: 1% to 163%) greater than that for patients receiving epoetin alfa (p = 0.045). The mean haemoglobin level for patients receiving darbepeotin alfa was 10.34 g/dL (95% CI: 9.94, 10.80) compared with 11.22 g/dL (95% CI: 10.95, 11.50) for patients receiving epoetin alfa (p = 0.001). For peritoneal dialysis patients, those administered darbepeotin alfa had similar within-patient variability in haemoglobin levels compared to those receiving epoetin alfa (darbepeotin 10% greater than epoetin alfa, 95% CI: –28% to 66%, p = 0.7). The mean haemoglobin level for patients receiving darbepeotin alfa was 11.49 g/dL (95% CI: 11.19, 11.78) compared with 11.16 g/dL (95% CI: 10.81, 11.50) for patients receiving epoetin alfa (p = 0.014). CONCLUSION: In spite of the small sample size, there was a significantly greater within-patient fluctuation in haemoglobin levels in pre-dialysis patients receiving darbepeotin alfa compared with epoetin alfa, while no difference was seen in peritoneal dialysis patients. The implications of haemoglobin fluctuations on patient outcomes and resource use require further study.

IMPACT OF AN INCREMENTAL INCREASE IN PERITONEAL DIALYSIS UTILIZATION ON HOSPITAL BUDGETS IN COLOMBIA: USE OF A BUDGET IMPACT MODEL
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OBJECTIVES: The objective of this study is to estimate the five-year impact on costs associated with hospitalization in patients under renal replacement therapy (RRT) when a shift in treatment modality from hemodialysis (HD) to peritoneal dialysis (PD) is assumed. METHODS: An Excel-based budget impact model (BIM) was developed to assess the impact of a shift in treatment modality share. Model inputs included dialysis modality shares,