Abstracts

A COST COMPARISON OF TOPICAL 5% FLUOROURACIL VS. CRYOSURGERY FOR THE TREATMENT OF ACTINIC KERATOSIS

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OBJECTIVE: To compare the annual costs of treatment incurred by a health plan for patients diagnosed with actinic keratosis (AK) and treated with fluorouracil or cryosurgery. METHODS: Pharmacy and medical claims from 2.7 million members of a managed care organization in California, Oklahoma, Oregon, Texas, and Washington, were examined. Adult patients newly treated for AK with either 5% fluorouracil cream or cryosurgery, between January 1 and December 31, 2001, were identified. Patients treated with cryosurgery were further stratified by number of lesions (i.e., 1, 2–14, >15). Disease-related health care costs (pharmacy and medical) for a 2-year follow-up period were evaluated. RESULTS: Of the 9279 identified patients, 498 (5.4%) were treated with fluorouracil and dermatologists prescribed this medication (48.4%) more often than other specialties. Among the 8781 patients treated with cryosurgery, 3004 (34.2%), 5130 (58.4%), and 647 (7.4%) were identified with 1, 2–14, and >15 lesions, respectively. Total disease-related health care costs during the follow-up period for the fluorouracil cohort averaged $509, compared to $296, $523, and $898 for the 1, 2–14, and >15 lesion cohorts, respectively. CONCLUSION: AK is a common pre-malignant lesion that can develop into squamous cell carcinoma. Numerous options are available for the treatment of AK, all of which have been shown to be equally efficacious. In this study, use of 5% fluorouracil cream for the treatment of multiple AK lesions was cost saving compared to cryosurgery. Similarly, because fluorouracil is known to treat sub-clinical lesions, additional savings may be realized for periods longer than two years.

THE ESTIMATE OF DIRECT MEDICAL COSTS ASSOCIATED WITH THE USE OF CONVENTIONAL SYSTEMIC AGENTS IN THE TREATMENT OF MODERATE TO SEVERE PSORIASIS

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The economic burden of psoriasis varies by disease severity. Moderate to severe psoriasis requires use of systemic treatment agents and is likely to be associated with higher medical costs. OBJECTIVE: To estimate health care utilization rates and per-patient costs for the treatment of moderate to severe psoriasis. METHODS: A database of health insurance claims from 58 US commercial health plans was used to obtain patient-level data. Patients, aged 18–64, included in the analysis had a diagnosis of psoriasis, and received >1 treatment cycle of at least one of the following systemic agents: psoralen plus ultraviolet A (PUVA), methotrexate (Mtx), cyclosporine, acitretin, etretinate, ultraviolet B (UVB), and systemic corticosteroids (Cs). Patients with <6 months of observation period and those with rheumatoid arthritis and other autoimmune diseases were excluded from the analysis. RESULTS: A total of 1780 patients met all eligibility criteria noted above (Group 1). Another 282 patients were newly diagnosed patients with no prior history of claims for psoriasis (New Starts; Group 2). The most frequently used systemic therapies by patients in Group 1, over a period of 1 year, were Cs (42%), UVB (37%), PUVA (26%), and Mtx (22%). Of patients in Group 2, 56%, 37%, 31%, and 18% received UVB, Cs, PUVA, and Mtx. In an analysis of annual per-patient costs for drugs, outpatient services, and inpatient services, results were comparable for Groups 1 and 2. In Group 1, mean (median) annual per-patient costs were $2932 ($2125), $179 ($63), and $0 ($0), respectively. CONCLUSIONS: Estimates of annual per-patient costs of treating moderate to severe psoriasis exceed those reported previously, and reflect a considerable direct medical burden.

FACTORS AFFECTING HEALTH CARE EXPENSES AMONG PATIENTS WITH DERMATOPHYTOSIS

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OBJECTIVE: To compare health care expenditures among patients with dermatophytosis with different predisposing, enabling and need factors as defined by Andersen-Laake Behavioral Model. METHODS: A cross-sectional analysis of the 1999 Medical Expenditure Panel Survey (MEPS) was conducted. Patients with dermatophytosis aged 18 years and above were included in the study. Health care expenditures included costs related to prescription medications, outpatient, emergency room and inpatient visits. Predisposing factors included age, gender, race, education, and marital status. Enabling factors included insurance type, employment status, family size and income. Need factors included comorbid conditions, perceived mental and health status. Analysis of covariance was used to compare the levels of different factors affecting health care expenditures adjusting for age. Sampling weights provided by MEPS were used to provide representative estimates. RESULTS: A total of 156 patients with dermatophytosis were identified (ICD-9-CM code = 110.x). These represented 1.8 million patients nationally. The average age of patients was 51 years. The majority of the respondents were female (52%); caucasian (87%) had private insurance (80%) and was married (62%). Health care expenditures for females was significantly higher than for males ($831 vs. $450) (p = 0.03). Patients in families with less than three members spent $232 more than those in families with three or more members (p = 0.04). Patients with some college education or higher had higher health care expenditures ($718) compared with those who had attended high school ($581) or elementary
grades ($272), however, the differences in expenditures were not statistically significant. No statistically significant differences were detected in the health care expenditures among categories of other variables but this may be due partly to the relatively small sample size. CONCLUSION: Gender and family size appeared to play a role on the magnitude of health care expenditures among dermatophytosis patients.

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MEDICATION AND HEALTH CARE SERVICE UTILIZATION RELATED TO DEPRESSIVE SYMPTOMS IN OLDER ADULTS WITH PSORIASIS
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OBJECTIVES: This study examined the relationship between depressive symptoms and medication adherence and health care costs in older adults (age ≥ 65 years) with psoriasis. METHODS: This was a prospective longitudinal cohort study over a 2-year post enrollment period in a population of older adults with psoriasis enrolled in a Medicare Health Maintenance Organization (HMO) in southeastern United States with prescription benefits. Upon enrollment, each enrollee was mailed a comprehensive health status assessment battery, which included the Center for Epidemiologic Studies Depression (CES-D) scale. Information on medication adherence (using medication possession ratio) and total health care utilization/costs following enrollment were retrieved from the Medicare HMO database. Sixty-three older adults with psoriasis using topical corticosteroids therapy and enrolled in the Medicare HMO for a 2 year continuous period were included in the final sample. RESULTS: Nearly one-fifths of the patient population had depressive symptoms. Patients with psoriasis who had depressive symptoms at the time of enrollment were less likely to be adherent to topical corticosteroid medication (Spearman rho = −0.29, p < 0.01) and less likely to utilize health care resources as evidenced by lower corticosteroid medication (Spearman rho < 0.01) and total health care utilization/costs following enrollment. CONCLUSIONS: This study indicates that the newly developed ChHD self-assessment concurred with physician’s diagnoses. Also, Skindex-29, a QoL instrument with 29 questions, was developed to identify patients with ChHD and to assess its severity, through patient self-administration. Sensitivity, specificity, and receiver operating characteristic (ROC) curve were used to evaluate how closely the ChHD diagnosis based on self-assessment concurred with physician’s diagnoses. Also, Skindex-29, a QoL instrument with 29 questions not previously validated in a ChHD population, was evaluated for internal consistency and construct validity for ChHD patients in this study. Forty patients (ChHD n = 20; other skin disorders n = 20), with a mean age of 46.6 ± 14.8 years and 30% males, were randomly selected from a dermatology clinic in Louisville, Kentucky for this pilot study. RESULTS: The performance of the clinical questionnaire matched the physicians’ diagnosis in identifying ChHD with a sensitivity of 95%, a specificity of 95%, and an area under the ROC curve of 0.83. The internal consistency of the Skindex-29 was higher than that reported previously in a general dermatology population, with a Cronbach alpha of 0.77 to 0.94 for 3 different (symptoms, emotions and functioning) domains. The construct validity of Skindex-29 was evaluated by examining the correlation between the overall score and physician’s assessment of ChHD severity. The Pearson rho was 0.55 (p = 0.07), slightly lower than that reported previously, but higher than that reported for other QoL instruments. CONCLUSIONS: This study indicates that the newly developed ChHD self-assessment