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Pharmacy costs of specialty medications for plaque psoriasis in the United States



To the Editor: The 2013 American Academy of Dermatology report on the national burden of skin disease estimated that \$15.6 billion was spent on prescription drugs and vaccines for skin disease, with specialty drugs (including biologic and newer oral agents for plaque psoriasis) accounting for 15% of that cost.¹ Drugs used in dermatology represent 3 of the 5 most expensive drugs in the United States by spending, with adalimumab, etanercept, and infliximab accounting for \$13.6 billion, \$7.4 billion, and \$5.3 billion in total expenditures across all indications, respectively.²

Despite this growing problem of rising costs of specialty medications, it is difficult to find accurate estimates of the costs of individual drugs. Currently, most estimates of the costs of specialty medications use average wholesale price and wholesale acquisition cost, which are benchmarks reported by manufacturers without significant standardized oversight. These measures do not account for discounts, rebates, and price reductions, all of which are commonplace in the pricing of prescription medications.

To remedy this problem, the US Centers for Medicare & Medicaid Services have developed nationwide surveys of invoice prices for prescription medications from retail community pharmacies to create a new metric, the National Average Drug Acquisition Cost. This new pricing benchmark is representative of the costs of medications to pharmacies and accounts for manufacturer-to-pharmacy price reductions, which are not

disclosed in manufacturer-reported measures. Therefore, this measure provides a more accurate representation of the actual costs of prescription medications.

NADAC data from the Medicaid Pharmacy Pricing database from November 28, 2013, to October 4, 2017, were analyzed for this study. Annual costs of specialty medications (biologic or small molecule therapies) were calculated on the basis of standard on-label approved dosing regimens for plaque psoriasis.

The first-year cost of specialty medications in 2017 for plaque psoriasis per Medicaid patient ranged from \$34,213.37 to \$91,404.58, whereas the annual cost of maintenance treatment ranged from \$34,401.88 to \$79,217.30 per patient (Table I). From 2013 to 2017, the cost of biologic and small molecule medications rose at an annual rate of 9% for ustekinumab, 16% for apremilast, 17% for etanercept, and 18% for adalimumab (Fig 1). Rates of increase in the cost of psoriasis medications were the same for treatment in the first year and maintenance treatment.

One limitation of NADAC is that it does not account for manufacturer-to-pharmacy benefits manager rebates and manufacturer-to-health plan discounts, yet these also contribute significantly to rising drug costs. Additionally, specialty pharmacies dispense a large portion of biologic medications and may negotiate medication pricing rates different from those of retail pharmacies but were not surveyed for NADAC. Health care spending in the United States is expected to rise 6% annually over the next 7 years, with increasing drug prices implicated as 1 of the primary reasons for this.³ Specialty drugs in particular contribute disproportionately to overall drug spending in the United States, and this cost is expected to continue increasing on account of increased adoption and rising costs of these drugs.⁴ Greater transparency in the pricing of prescription

Table I. Changes in the cost of the first year of treatment per patient for specialty medications for plaque psoriasis from November 28, 2013, to October 4, 2017

Drug	January 22, 2014	January 20, 2016	October 4, 2017	Average annual change	Annual rate of change
Adalimumab	\$30,056.40	\$41,116.07	\$52,552.91	\$6343.77	18%
Apremilast	—	\$27,806.13	\$34,213.37	\$4220.33	16%
Etanercept	\$40,186.62	\$59,668.81	\$70,339.64	\$8294.33	17%
Ustekinumab (45 mg)	\$33,459.82	\$40,879.91	\$45,507.84	\$3255.02	9%
Ustekinumab (90 mg)	\$64,755.99	\$81,137.70	\$91,404.58	\$6918.02	9%

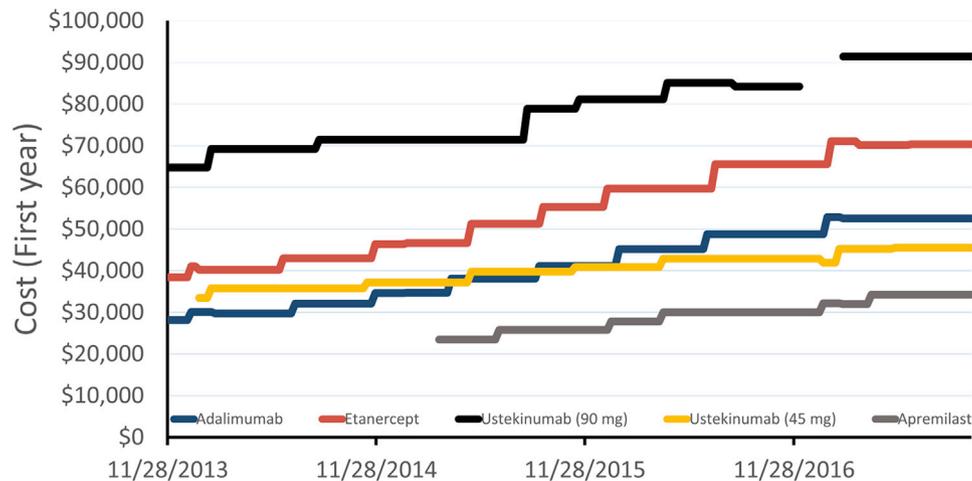


Fig 1. Trends in the costs of the first year of treatment per patient for specialty medications for plaque psoriasis from November 28, 2013, to October 4, 2017.

medications will be necessary to combat this growing problem and deliver cost-conscious and cost-effective care.

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Analysis of national skin cancer expenditures in the United States Medicare population, 2013



To the Editor: Approximately 3 million adults in the United States are treated annually for skin cancer, costing nearly \$8.1 billion per year.^{1,2} Nonmelanoma skin cancer and malignant melanoma (MM) are the fifth and ninth most costly dermatologic conditions, respectively.³ The few studies that have evaluated allocation of resources on skin cancer have underestimated total cost, as they included only payments to dermatologists. The goal of this study was to analyze 2013 Medicare skin cancer spending by diagnosis and procedure.

The 2013 Medicare Limited Data Set Standard Analytic File 5% Sample Physician Supplier was queried for all claims filed for *International Classification of Diseases, Ninth Revision, Clinical Modification* codes for MM, squamous cell carcinoma (SCC), basal cell carcinoma (BCC), other malignant neoplasms of the skin, carcinoma in situ of the skin (CIS), actinic keratosis (AK), and neoplasm of uncertain behavior of the skin. All payments