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Trends in Medicare claims and costs for field therapies by dermatologists

To the Editor: Actinic keratoses (AKs) are among the most prevalent dermatologic diagnoses in the United States.[1] Approximately 60% of the nearly 5 million annual visits for AKs are by Medicare beneficiaries.[1] Several options for AK field-directed therapies exist, each with variable efficacy, cost, and patient adherence rates.[2] With rising healthcare costs nationwide, it is imperative that clinicians and health systems be aware of financial trends for therapeutic choices. In this study, we evaluate trends in field therapy usage and costs in the Medicare population.

We evaluated dermatology claims between 2013 and 2020 using Medicare Public Use Files. The services database (Part B) was searched for photodynamic therapy (PDT) codes (96567; 96573; 96574),[3] while the drug database (Part D) was searched for generic topical field therapies[4] (fluorouracil, imiquimod, ingenol mebutate). When evaluating overall trends, average annual growth rate (AAGR) for 2013 to 2019 data was analyzed separately from 2020 data due to COVID-19 healthcare disruptions.

During the study period, the topical AK group consisted of 2.3 million claims and $367 million spent, while the PDT group included 758,259 claims and $83 million spent (Supplementary Table I, available via Mendeley at https://data.mendeley.com/datasets/c794gc8gpp/2). Between 2013 and 2019, claims for topical therapies grew from 208,132 to 328,914 (AAGR = 9.4%) while costs decreased from $52 million to $42 million (AAGR = −3.2%) (Fig 1). Most topical claims were for fluorouracil (80.1%), followed by imiquimod (18.8%) and ingenol mebutate (1.1%). Between 2013 and 2019, claims for PDT grew from 91,015 to 96,652 (AAGR = 1.2%) while costs increased from $9 million to $13 million (AAGR = 6.6%) (Fig 2). Average cost per claim for topical treatments steadily decreased over time while PDT increased since 2017 (Supplementary Fig 1, available via Mendeley at https://data.mendeley.com/datasets/c794gc8gpp/2). Notably, claims for PDT during 2019 to 2020 decreased more than topical therapy (−27.5% vs −7.3%), which may be related to disruptions of in-office services during the COVID-19 pandemic.

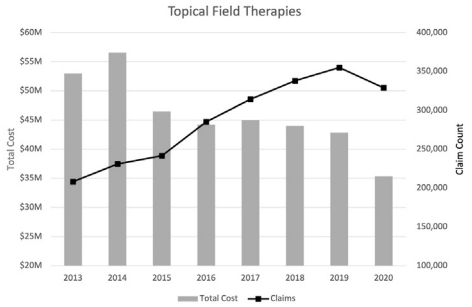

Fig 1. Trends in total costs and claims for topical field therapies between 2013 and 2020.

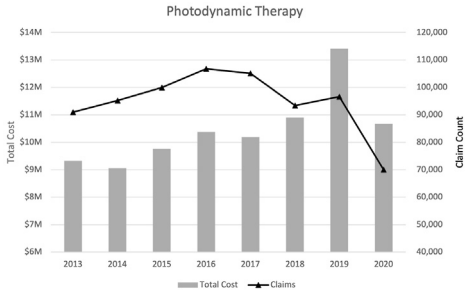

Fig 2. Trends in total costs and claims for photodynamic therapy between 2013 and 2020.

Medicare spending on PDT significantly increased over the timeframe of this study despite relatively constant yearly claims. The greatest growth in PDT spending occurred between 2017 and 2019, around the time two new Current Procedural Terminology codes were introduced specifying the complexity and level of service performed.[3] The slow growth in PDT adoption by dermatologists (Supplementary Table I) may be explained by the need for equipment, office space, and the burden of in-office visit for patients.[5] This limitation is reflected in the reported concentration of PDT to urban centers[5] and the precipitous drop-off in claims between 2019 and 2020 when COVID-19 impeded office visits. Conversely, claims for topical field therapy have steadily risen while Medicare costs have decreased, a trend likely attributed to the increase in manufacturers of generic topicals and related decrease in per-unit cost.[4]

According to published guidelines on the management of AKs from 2021, fluorouracil and imiquimod are strongly recommended, while PDT is conditionally recommended based on strength of available evidence.[2] Our study demonstrates that Medicare prescribing trends between 2013 and 2020 are congruent with these guidelines. While individual patient characteristics need to be taken into consideration, topical therapies offer a cheaper and more effective field therapy option for appropriately

selected patients. Limitations of this study include an inability to assess prescription strengths and indications, as well as costs associated with multiple concomitant therapies.

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Conflicts of interest

None disclosed.

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Examining occupational characteristics of patients with allergic contact dermatitis: A retrospective claims-based analysis

To the Editor: Occupational contact dermatitis is one of the most common causes of occupational disease in the United States with estimated costs approximating to 1 billion dollars annually due to loss of workdays, productivity, and chronic skin disease.[1] While frequently seen, there are few population-based studies on this topic.

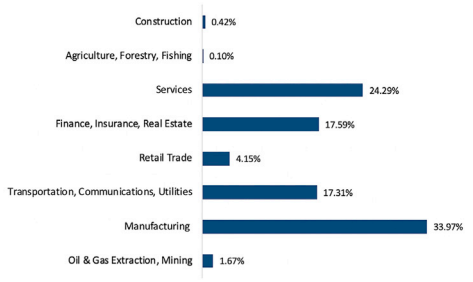

Fig 1. Occupations associated with allergic contact dermatitis claims in 2019. Occupational characteristics of all allergic contact dermatitis claims ($n = 99{,}323$ patients) reported in 2019 which included occupational information.

The Truven Health Analytics Marketscan database was queried using *International Classification of Diseases Tenth Revision* codes L23.0 to L23.9 to identify patients with allergic contact dermatitis (ACD) between January 1st, 2019 and December 31st, 2019 and demographics were collected, as well as the occupation under which the claim was placed. This study was deemed exempt by the Penn State Institutional Review Board.

A total of 168,390 patients were identified. 59.26% were female and 40.74% were male, with a mean age of diagnosis of 37.8 years (Supplementary Table I, available via Mendeley at https://data.mendeley.com/datasets/xhb57jfccy). This female predominance is consistent with previous literature; however the mean age is lower, likely reflecting the lack of included Medicare data.[2] The 18 to 34 age group represented the greatest number of claims for most allergens (23.22%) and the 65 and older group represented the least number of claims (0.13%). 41% of claims did not provide occupational information. These diagnoses were most commonly made by dermatology (31.06%) and family medicine (24.13%) (Supplemental Table II, available via Mendeley at https://data.mendeley.com/datasets/xhb57jfccy).

The top 4 occupations reported for all patient claims were manufacturing (33.97%), services (24.29%), finance/insurance/real estate (17%), and transportation/communications/utilities (17%) (Fig 1).

For each occupation, common allergens and patient demographics were examined (Table I). Overall, plants were the most common allergen identified. Manufacturing was the most common industry noted for the majority of allergens (7 out of 10 allergens). Services were commonly reported with the cosmetics and dyes allergens. The third most