9-1-2022

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Updating the relative risk of ultraviolet exposure and melanoma in fair skin types: A systematic review

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In 2005, a meta-analysis found that varying types of UV exposure contributed to an increased relative risk of melanoma. Recently, a 2021 review failed to establish a similar link in individuals with skin of color. Within the last 2 decades, no studies have comprehensively reviewed the risk of varying types of UV exposure on melanoma in fair skin. Thus, we performed a systematic review from 2002-2021 analyzing UV exposure and melanoma risk in Fitzpatrick type I-IV individuals. Out of 12,263 studies, 26 met inclusion criteria. A majority showed an association with UV index (6/9), left-sided laterality (1/1), sunburn history (11/13), and outdoor leisure activity (3/3). UV index studies were all ecological and presented primarily positive correlations. For sunburn history, studies encompassed 2309 melanomas, and significant odds ratios (OR) ranged from 1.69 (1.00-2.98) to 8.48 (4.35-16.54) with higher odds ratios for increasing numbers of sunburns. For outdoor leisure correlating with prior definitions of intermittent sun exposure, studies encompassed 514 melanomas, and ORs ranged from 2.70 (1.04-6.80) to 4.18 (1.83-9.93). A positive association was found in 2 (n = 2/6) studies for cumulative or annual sun exposure, 2 (n = 2/5) studies with occupational sun exposure, 2 (n = 2/4) studies with sun vacations, and 0 (n = 0/2) studies with latitude. This study highlights the significant relationships between specific types of UV exposure and melanoma at higher rates than previously summarized due to an emphasis on fair skin types. Critically, there remains high heterogeneity in how UV exposure is captured that may contribute to mixed results.

Commercial Disclosure: None identified.

35409

Utilization and trends of select FDA indicated cutaneous T-cell lymphoma prescriptions among Medicare Part D patients: 2013-2019

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Background: Cutaneous T-cell lymphoma (CTCL) is an indolent malignancy of T-cells with various cutaneous presentations. Limited data exist on national prescription patterns for select FDA indicated drugs such as mechlorethamine, bexarotene, vorinostat and romidepsin. The goal of this study was to assess these patterns.

Design: A retrospective analysis was conducted using the Medicare Part D Prescriber datasets from 2013-2019. Mechlorethamine, bexarotene, vorinostat and romidepsin data were extracted. Yearly claims per 100,000 beneficiaries, total drug costs, and total prescribers were recorded. Average annual growth rate (AAGR) was calculated and trend significance was determined through a linear regression model.

Summary: From 2013-2019, AAGR for claims per 100k beneficiaries increased for mechlorethamine (99%) and romidepsin (11.5%), but decreased for bexarotene (-1.3%) and vorinostat (-16.4%). However, no statistically significant increased or decreased trend was seen for total drug costs or total prescribers for any of the assessed CTCL drugs.

Conclusion: Mechlorethamine and romidepsin claims increased while bexarotene and vorinostat claims decreased over the years. Total costs and prescribers have remained stable with no significant trend for all examined drugs. Future studies are warranted to assess whether these drugs may lose preference over newer CTCL drugs such as brentuximab vedotin or mogamulizumab as more data becomes available.

Commercial Disclosure: None identified.

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Utilization and trends of dupilumab prescriptions among Medicare Part D patients: 2017-2019

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Background: Dupilumab is a monoclonal antibody antagonist of the interleukin 4 (IL-4) receptor alpha and was approved for the treatment of moderate-to-severe atopic dermatitis in 2017. Little data exist on the national prescribing patterns of dupilumab and the goal of this study was to assess these patterns.

Design: A retrospective analysis was conducted using the Medicare Part D Prescriber datasets from 2017-2019. Data from dupilumab prescriptions made by any type of healthcare provider were analyzed. Yearly claims per 100,000 beneficiaries, total drug costs, and total drug supply days were recorded. Average annual growth rate (AAGR) was calculated.

Summary: From 2017-2019, the number of dupilumab prescribers who made ≥11 claims to Medicare Part D enrollees increased by 416%. The majority of the prescribers were dermatologists, followed by advanced practice providers and allergists. The highest proportion of claims and beneficiaries receiving dupilumab each year were those >65 years of age and located in the South. AAGR increased for yearly claims per 100,000 beneficiaries (AAGR = 200%), total drug costs (AAGR = 216%), and total drug supply days (AAGR = 396%).

Conclusion: The prescribing trends of dupilumab continues to grow significantly across all providers in claims made per 100k beneficiaries, total drug costs, and total drug supply days. These findings demonstrate the increasing access to dupilumab, and as other indications receive approval, additional studies will be needed to assess whether this trajectory continues.

Commercial Disclosure: None identified.

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Utilization of a cutaneous lymphoma primer to improve resident education

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Background: Cutaneous lymphoma (CL) is a somewhat esoteric subject from the vantage point of the general dermatologist, however, rarity of a diagnosis is not an adequate reason to discount the benefit in learning more about this subject, particularly in residency. There is a lack of access to concise, relevantly organized educational materials pertaining to CL at the resident level. Furthermore, no data has been published regarding dermatology resident comfort level with diagnosis and treatment of CL. This study aims to improve resident understanding through the creation of a CL primer.

Methods: A pre-test evaluated resident comfort level in understanding normal lymph node (LN) architecture and staining and recognizing clinical and histologic features of CL using a 10-point Likert scale (1 being not at all comfortable, 10 being very comfortable). The pre-test was administered to eleven Saint Louis University dermatology residents, followed by dissemination of an online CL primer. After reviewing the primer, a post-test assessing the same parameters was distributed, and post-test results were compared with pre-test scores.

Results: Residents showed a significant improvement in their comfort level in understanding normal LN structure and CL, clinically and histologically after reviewing the CL primer. The mean comfort level score improved from 4.66 (95% CI [3.88-5.44]) to 7.69 (95% CI [7.43-7.95]), with a mean difference of 3.03 (95% CI [2.24 − 3.81]) ($P < .0001$).

Conclusion: Use of a CL primer improved resident understanding of normal LN architecture and staining patterns, and with recognition of clinical and histologic features of CL.

Commercial Disclosure: None identified.