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Intranasal butorphanol as a rescue therapy for the treatment of intractable pruritus

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Background: With limited FDA-approved therapies specifically targeting pruritus, there is a clinical need for rapid-acting agents that can disrupt the itch-scratch cycle for patients with intractable pruritus.

Objective: To investigate the efficacy of intranasal butorphanol (STADOL NS) as a rescue therapy in a series of 16 patients with chronic, refractory pruritus.

Methods: A retrospective review was performed for patients age 18+ who presented to the Johns Hopkins Department of Dermatology from June 2015 to July 2019 with a diagnosis of chronic pruritus, failure of at least 4 therapeutics, and a trial of butorphanol 10 mg/mL inhaler.

Limitations: Small sample size and open-label study design.

Results: Of the 16 patients reviewed, 11 (69%) reported improvement in symptoms after initiation of butorphanol, 4 (25%) were lost to follow-up and 1 (6%) reported no improvement. The mean itch NRS score dropped from 9.8 to 4.6 ($P < .0001$) following treatment. Mean Dermatology Life Quality Index score significantly improved from 20.2 to 10.8 ($P = .004$) and mean Beck's Depression Inventory score improved from 22.1 to 14.2 ($P = .005$). Three (19%) patients reported adverse effects from butorphanol, including insomnia and lightheadedness. The majority of patients reported no adverse events.

Conclusions: We report one of the largest case series demonstrating the success of intranasal butorphanol rescue therapy in treating intractable itch that is associated with dermatologic, systemic and neurologic etiologies. Improvement in itch symptoms had a positive impact on patient quality of life, underscoring the need for more therapies specifically targeting itch as a symptom.

Commercial disclosure: None identified.

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Comparative cost-effectiveness for tildrakizumab and other targeted therapies for the treatment of moderate to severe plaque psoriasis in the United States

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This cost-effectiveness analysis used a 10-year Markov model with 5 health states: 4 states based on PASI responses (PASI 0-49, 50-74, 75-89, and 90-100) and death. All patients received one of the targeted treatments upon entering the model. Patients who failed to achieve a PASI 75 response were considered non-responders and were withdrawn from the current therapy: 25% switched to non-targeted therapies (including topical therapy, phototherapy, and other systemic therapy), and 75% received a second-line targeted therapy (a mix of all targeted therapies examined). The probabilities of patients falling into each PASI response category were based on published literature. Total costs included drug acquisition and administration, laboratory tests, and clinical visits. Total cumulative months gained in which a patient achieved at least a PASI 75 response were estimated. Additional scenarios using different time horizon or including costs of managing adverse events were explored. Compared with non-targeted therapies, the incremental costs per month with PASI 75 were $3685, $4102, $4770, $5150, $5319, $5675, $5784, $5900, $5943, $6131, $6618, and $13,476 for brodalumab, infliximab, apremilast, tildrakizumab, risankizumab, secukinumab, guselkumab, ixekizumab, adalimumab, ustekinumab, etanercept, and certolizumab pegol, respectively. The ranking of tildrakizumab relative to the other targeted treatments remained the same across multiple scenarios. Tildrakizumab is among the most cost-effective first-line therapies for moderate to severe plaque psoriasis and is the most cost-effective therapy within the IL-23 inhibitor class.

Commercial disclosure: Study sponsored by Sun Pharmaceuticals.

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Real-world dermatology visit in moderate to severe plaque psoriasis patients treated with biologics or apremilast

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Adult PsO patients newly initiating APR or a biologic from 01/01/2015 to 08/31/2018 with ≥1 dermatology visit were included. Index date was at the first claim of APR/biologic. Eligible patients had no prior use of index medication, and had continuous medical and pharmacy benefit over the 12 months pre-index and 24-months post-index. The number of dermatology visits and average days between visits were examined over the 24 months post-index by each index medication, and by treatment patterns. 5820 patients were included: SEC, 217; ADA, 1892; UST, 769; ETA, 690; and APR, 2252. The average number of dermatology visits over the 24 months post-index was 6.5 (SEC, 7.5; ADA, 5.4; UST, 7.0; ETA, 5.1; and APR, 7.7) and the frequency decreased from 3.6 in year 1 to 2.9 in year 2. Median time between visits was 111.8 days (SEC, 117.4; ADA, 117.9; UST, 89.6; ETA, 116.2; and APR, 115.0). 18.5% of patients had a dermatology visit in <2-month intervals, 49.8% in every 2-5 months, and 31.7% in ≥5 months. APR patients visited more often (<every 2 months), and most UST patients visited every 2-5 months. Compared with patients who maintained same treatment, patients who discontinued or switched treatment had more dermatology visits (5.9 vs 6.9 vs 7.2 respectively) and shorter average days between visits (151.0 vs 120.8 vs 116.7 respectively). Many of the PsO patients who initiated a biologic or APR visited a dermatologist approximately every 3 months. Patients who discontinued or switched treatment had more visits than those stayed on the same treatment.

Commercial disclosure: The study was sponsored by Sun Pharmaceuticals.

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Antibiotic prophylaxis in dermatologic surgery: The data behind the recommendations

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Nearly all dermatologic surgeries fall under the Center for Disease Control Classification as class 1 or class 2, with infection rates involving 0%-5% and 5%-10% respectively. Dermatologists often prescribe peri-operative antibiotics prior to, or immediately after a surgical procedure when there is risk for surgical site infection, prosthetic joint infection, or infective endocarditis. These prescribing habits may be due to numerous guideline and review articles, without a concise reference to the data upon which those guidelines are advised. To minimize the number of unnecessary antibiotics prescribed, risk of further bacterial resistance, and adverse events from antibiotic use, we aim to clarify the data behind published guidelines and provide clear recommendations. In a systematic manner, using PRISMA Guidelines, a search was performed through Embase, Cochrane, and PubMed/Medline for all articles involving antibiotic prophylaxis and dermatologic wound infections. In total, 145 articles were found with 29 studies reporting primary data of infection rates involving dermatologic surgery performed by a dermatologist. Total infection rates, including the use of antibiotics within these studies ranged from 0.07% to 11%. The infection rates in groups without any prophylactic antibiotics ranged from 0.7% to 23% in studies over the past 30 years. Fourteen infection prophylaxis recommendation articles were located from 1985 to 2016. Concisely summarizing the history of infection rates in dermatologic surgery and clarifying instituted antibiotic prophylaxis guidelines will allow dermatologists to better understand how to responsibly prevent wound infection, joint infections, and endocarditis.

Commercial disclosure: None identified.