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**Impact of telehealth on duration of tetracycline prescription during COVID-19**

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The impact of the COVID-19 pandemic caused more dermatology providers than ever before to turn to telemedicine and virtual visits to safely arrange clinic appointments during lockdowns. Doxycycline and minocycline are two commonly used tetracycline antibiotics that are frequently prescribed by dermatologists for their effective anti-inflammatory properties and good safety profile. This study aimed to evaluate whether virtual visits during COVID-19 impacted duration of doxycycline prescription and determine whether provider type (physician assistant, resident, fellow, or staff attending) affected duration of doxycycline prescription. A retrospective cohort was designed using all documented pharmaceutical prescriptions of doxycycline in 2019 and 2020 prescribed by dermatology providers at the University of Iowa Hospitals. Preliminary results show an overall increase in telemedicine visits from 13.75%, in 2019 compared with 38.13% in 2020 ( $P < .0001$ ). Analysis also demonstrates that only 25.42% of total in-person dermatology visits resulted in a doxycycline prescription of less than 31 days vs. 47.49% of total virtual visits ( $P < .0001$ ). However, despite demonstrated increase in virtual visits in 2020, year did not seem to play a factor in the duration of antibiotic prescription with instances of duration being almost equal between 2019 and 2020 ( $P < .0001$ ). In this era of increasing telehealth, the demonstrated decrease in duration of doxycycline prescription in virtual visits is perhaps indicative of increased accessibility afforded by telemedicine. Future studies might explore factors related to provider decision-making in virtual visits compared with in-person visits and holds implications for how telemedicine may play an increasingly greater role in acne management.

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**Improvements in anxiety and depression among patients with moderate to severe plaque psoriasis treated with certolizumab pegol: Three-year results from 2 phase 3 trials (CIMPASI-1 and CIMPASI-2)**

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**Introduction:** We report 3-year Hospital Anxiety and Depression Scale (HADS) data in patients with moderate to severe plaque psoriasis treated with certolizumab pegol (CZP).

**Methods:** Data were pooled from the CIMPASI-1 (NCT02326298) and CIMPASI-2 (NCT02326272) phase 3 trials; full study designs reported previously. Patients were randomized to CZP 200 mg or 400 mg every 2 weeks (wks), or placebo; all received open-label CZP from Wk48. The HADS questionnaire comprises 2 scores: HADS-Anxiety and HADS-Depression. Scoring 15–21 indicates severe anxiety/depression, 11–14 moderate, 8–10 mild,  $\leq 7$  none. We report change from baseline (CfB) in HADS-Anxiety/HADS-Depression for CZP-randomized patients with HADS-Anxiety/HADS-Depression  $\geq 11$  at baseline, and the proportion who achieved HADS-Anxiety/HADS-Depression  $\leq 7$ , to Wk144. Missing data were imputed as last observation carried forward.

**Results:** At baseline, 48 of the 361 CZP-randomized patients scored HADS-Anxiety  $\geq 11$  (mean HADS-Anxiety: 13.1 [SD: 2.3]). At Wk48 and Wk144, mean CfB in HADS-Anxiety in these 48 patients was  $-3.6$  (SD: 4.4) and  $-4.1$  (SD: 4.1), respectively, and HADS-Anxiety  $\leq 7$  was achieved by 29.2% and 31.3%. At baseline, 35 CZP-randomized patients scored HADS-Depression  $\geq 11$  (mean HADS-Depression: 12.7 [SD: 2.3]). At Wk48 and Wk144, mean CfB in HADS-Depression in these 35 patients was  $-5.8$  (SD: 3.8) and  $-5.1$  (SD: 4.8), respectively, and HADS-Depression  $\leq 7$  was achieved by 55.9% and 47.1%.

**Conclusions:** CZP treatment was associated with improvement in HADS-Anxiety and HADS-Depression scores at Wk48 and Wk144 for patients with moderate to severe anxiety or depression at baseline. These analyses are limited by the small number of patients enrolled with moderate to severe anxiety or depression.

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**Incidence of severe and rare infections among adult patients with psoriasis in Denmark**

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Patients with psoriasis have a high risk for multiple comorbid conditions. However, few studies have examined the association between psoriasis and severe and rare infections. This nationwide population-based cohort study reports the incidence of severe and rare infections among Danish patients with psoriasis compared with the general population. Data was collected from the Danish National Patient Register on individuals  $\geq 18$  years between 1st January 1997–31st December 2018. Patients with psoriasis were matched 1:6 on age and sex with general population controls. Severe infections were defined as infections requiring treatment in a hospital setting and rare infections included human immunodeficiency virus, hepatitis B and C, and tuberculosis. Patients with severe psoriasis were identified by previous or active use of systemic or biologic treatment. A total of 94,450 patients were matched with 566,700 controls. The respective incidence rates (IR) per 100,000 person-years for patients with psoriasis and controls were: 3104.9 (95% CI 3066.6–3143.7) and 2381.1 (95% CI 2367.6–2394.6) for severe and rare infections; 3080.6 (95% CI 3042.5–3119.3) and 2364.4 (95% CI 2350.9–2377.9) for severe infections; and 42.9 (95% CI 38.9–47.4) and 31.8 (95% CI 30.34–33.31) for rare infections, respectively. Patients with severe psoriasis had even higher IRs of severe or rare infections (3847.7 [95% CI 3754.3–3943.4]) compared with all patients with psoriasis and controls. Clinicians should be aware of the increased risk of severe and rare infection in patients with severe psoriasis so investigation and treatment for psoriasis can be initiated early.

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**Inclusive dermatology: Creating a diverse visual atlas of skin conditions (with consideration of broader impacts on patient care and medical education)**

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The U.S. Census Bureau predicts that Hispanic, Black, and other minority groups will constitute more than half of the U.S. population by 2044. It is therefore problematic that only about 10% of images in dermatology textbooks illustrate dermatologic conditions in skin of color. This affects physician education and patient outcomes. A study several years ago found 47% of dermatologists and residents reported that their medical training on pathologies in Black skin was insufficient, and that there was a need for more training materials exhibiting Black skin. Black and Hispanic patients are also less likely to be diagnosed with skin cancer, but more likely to die from it than their white counterparts. There has been a call to expand the existing database of dermatology photographs to include more images of skin of color. We are therefore creating a freely accessible resource of different dermatologic conditions in all skin types and colors. Reviewing images in all skin types allows learners to better recognize lesions in diverse patients. We plan to illustrate a variety of skin colors, emphasizing that skin of color, which is often the term used for any non-white skin, encompasses multiple skin types that warrant their own attention and classification. We are retrospectively indexing images collected over the past several years in New Mexico, which has a large Hispanic and Native American population, and North Carolina, which has a large Black population. We hope the continuous expansion of this database will improve dermatology education and ultimately benefit patients.

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