



ACNE, ROSACEA, AND RELATED DISORDERS (INCLUDING HIDRADENITIS SUPPURATIVA)

## PREVALENCE OF DEPRESSION IN PATIENTS BEING MANAGED FOR ACNE: ANALYSIS OF A LARGE MIDWESTERN U.S. DERMATOLOGY POPULATION FROM THE RADAR (RESEARCH ON ADVERSE DRUG EVENTS AND REPORTS) PROGRAM

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**Background:** There is inconsistent reporting about the risk for depression in patients being managed for acne.

**Objective:** The aim of this study was to explore the real-world relationship between patients with dermatologist-managed acne and subsequent diagnosis for depression.

**Materials and Methods:** From the Northwestern Medicine Enterprise Data Warehouse, a medical record database (>6 million patients), data were extracted for adults (18-65 years; Jan 2001 - Dec 2017), who had a diagnosis for acne. The non-acne dermatology population served as a control group. Outcome of interest was a diagnosis for depression (ICD-9/10 codes:296.2, 296.3, 311; F32, F33) at least 1 month after acne diagnosis. Data for sex, race, age at acne diagnosis, and selected comorbid chronic skin disorders (CSDs: psoriasis, atopic dermatitis, alopecia areata), as well as cancer, were also collected. Crude and adjusted (for age, sex, race, cancer, isotretinoin exposure and CSDs) Odds Ratios (OR) with 95% Confidence Intervals (CI) were calculated by using logistic regression analysis.

**Results:** Of 38,258 patients with acne, 1,830 (4.78%) had a diagnosis for depression compared to 5,894 with depression (4.96%) of 118,849 in the control group (dermatologist-managed patients with no-acne). Adjusted OR yielded a significantly decreased frequency of depression with acne (OR 0.84, 95% CI 0.79-0.89) compared to the control. Median time for onset of depression after acne diagnosis was 27 months (IQR=11-52), while onset of depression for non-acne controls was 43 months (IQR=16-83).

**Conclusions:** The acne population had a significantly lower prevalence of depression than the non-acne population, even after adjusting for age, sex, isotretinoin exposure,

