

## **Association of Pharyngitis With Oral Antibiotic Use for the Treatment of Acne: A Cross-sectional and Prospective Cohort Study.**

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### **OBJECTIVE:**

To prospectively evaluate the association between antibiotics used to treat acne and pharyngitis.

### **DESIGN:**

Cross-sectional and 9-month prospective cohort.

### **SETTING:**

Urban university setting.

### **PARTICIPANTS:**

University students. Intervention Participants were asked to fill out a survey form, were swabbed for culture, and had a visual examination for acne. Main Outcome Measure Report of pharyngitis.

### **RESULTS:**

In the cross-sectional study, 10 of the 15 students receiving oral antibiotics for acne reported an episode of pharyngitis in the previous 30 days, whereas 47 of the 130 students not receiving oral antibiotics, but who had acne, reported an episode of pharyngitis in the prior month. The unadjusted odds ratio (OR) (95% CI) associating current oral antibiotic use in acne patients with a self-reported episode of pharyngitis was 3.53 (95% CI, 1.14-10.95). In the cohort study, there were 358 female and 218 male participants; 36 (6.2%) received oral antibiotics for acne during the study, and 96 (16.6%) received topical antibiotics for acne. Using mixed model logistic regression, the OR was 4.34 (95% CI, 1.51-12.47) associating oral antibiotic use with pharyngitis. Less than 1% of participants were colonized by group A streptococcus, which was not associated with pharyngitis.

### **CONCLUSIONS:**

Our studies show that the odds of reporting pharyngitis is more than 3 times baseline in patients receiving oral antibiotics for acne vs those who are not receiving oral antibiotics. The true clinical importance of these findings needs to be evaluated further by prospective studies, but this finding is not associated with group A streptococcus.

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