

Does Pre-Operative Doxycycline Reduce *Propionibacterium Acnes* in Shoulder  
Arthroplasty?  
NCT03115177  
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### Sample size Determination:

The primary outcome variable was culture positive results. An *a priori* power analysis was conducted, with standard deviation culled from previous studies. The mean rate of *P.acnes* culture positivity was 28% with a standard deviation of 18.8%. For an 80% chance of detecting a 50% difference between groups, 28 patients per group, or 56 patients total, was needed.

### Statistical Analysis

Descriptive statistics were calculated with mean and standard deviation for continuous variables and frequency with percentages for categorical variables. Data were found to be normally distributed by Kolmogorov-Smirnov testing. Groups were compared using two sample t-tests for continuous variables and Fisher exact tests for categorical variables. Significance was defined as  $p < 0.05$ .