

**Title:** Discontinuation of Tumor Necrosis Factor Inhibitors in United States Veterans with Psoriasis and Psoriatic Arthritis

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**Abstract:**

Tumor necrosis factor inhibitors (TNFi) are first-line agents for the treatment of moderate to severe psoriasis (PsO) and psoriatic arthritis (PsA). However, current research describing TNFi discontinuation rates is inconsistent and incomplete. We examined PsO/PsA characteristics associated with discontinuation and response to TNFi, reasons for TNFi discontinuation, and discontinuation rates for specific TNFi. United States veterans enrolled in the Program to Understand the Longterm Outcomes in Spondyloarthritis (PULSAR) who were diagnosed with PsO/PsA and had been treated with a TNFi were included in the study. Secondary failure was defined as a loss of efficacy after at least 6 months of treatment. The study included 320 individuals, 92.5% male and with mean age 55.4 years. Subjects completed a total of 927 TNFi courses, and 83.8% of the cohort remained on at least one TNFi course at one year after treatment initiation. Tumor necrosis factor inhibitor course order (HR 1.100,  $p < 0.001$ ) was significantly correlated with increased discontinuation. Infliximab had a lower discontinuation rate than adalimumab (HR 2.678,  $p < 0.001$ ), etanercept (HR 2.667,  $p < 0.001$ ), golimumab (HR 2.405,  $p = 0.001$ ), and certolizumab (HR 3.097,  $p < 0.001$ ). Secondary failure (32.7%) was the most frequent reason for TNFi discontinuation.