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A **new study** conducted in an ethnically diverse and predominantly **low income population found that only one-fifth of rheumatoid arthritis** (RA) patients had an overall adherence rate to prescribed oral medications at 80% or greater. Findings published today in *Arthritis & Rheumatism*, a journal of the American College of Rheumatology (ACR), indicate that less than two thirds of medication regimens for non-biologic disease modifying anti-rheumatic drugs (DMARDs) were correctly followed by RA patients.

According to ACR estimates, more than one million U.S. adults experience inflammation, pain, tenderness and swelling of the joints caused by RA. While there have been advances in RA treatments—biologic therapies such as the tumor necrosis factor (TNF) inhibitors adalimumab

(Humira®), etanercept (Enbrel®), and infliximab (Remicade®)—oral DMARDS, namely methotrexate, remain the gold standard for treating those with RA. In fact, previous research has shown that biologics are more effective when taken with methotrexate, but patients must follow the prescribed medicine regimens to realize the full benefits.

For the present study, Drs. Christian Waimann, Maria Suarez-Almazor and colleagues from The University of Texas MD Anderson Cancer Center, in Houston enrolled 107 RA patients in a two-year study that

electronically monitored their intake of oral RA medications. Measures of DMARD adherence were:

- Doses taken as prescribed: Percentage of days or weeks for methotrexate or prednisone in which the patient took the correct

dose as prescribed

- Underdosing: Percentage of days or weeks in which the patient took fewer doses than prescribed
- Overdosing:

Percentage of days or weeks that the patient took more doses than prescribed

Of those who

participated, 87% were female with a mean disease activity of 8 years. The RA patient group was ethnically diverse with 65% Hispanic, 19%

African-American and 16% Caucasian. Educational status was low with 45% not completing high school and 67% having incomes less than

$20,000.

RA patients who took their medications as prescribed were considered

adherent—64% for DMARD therapy and 70% for prednisone. Only 21% of participants adhered to their DMARD therapy and 41% correctly

took prednisone at least 80% of the time. Patients who took their medications as prescribed showed significantly lower disease activity scores (DAS28 at

3.3) throughout the study period compared to those who were less adherent (DAS28 at 4.1). Increases in radiological damage score were also higher in

RA patients who were non-adherent.

Researchers report that adherence to oral

DMARDs and steroid therapy in RA patients with RA was low, ranging from 58% to 71%, but patients who had better mental health status and

were not widowed or separated were more likely to adhere to their medication regimen. “Our study is the first to measure drug adherence in RA

patients over the long-term, and emphasizes the importance of following the prescribed regimen to manage their disease," concludes Dr.

Suarez-Almazor. “Physicians should work with patients to understand their reasons for non-adherence and discuss the importance of taking medications

as prescribed to control RA symptoms and prevent disease progression.”