Background and Importance Janus Kinase inhibitors (JAKi) are the most innovative drug class for Rheumatoid Arthritis (RA). To date, limited real-world data are available about treatment persistence and discontinuation reasons of tofacitinib and baricitinib.

Aim and Objectives This study aims to evaluate treatment persistence and discontinuation reasons of tofacitinib and baricitinib in a real-world setting of RA patients.

Material and Methods A retrospective study (2017/01–2022/09), including all RA patients from a tertiary hospital under treatment with tofacitinib or baricitinib. Persistence was examined through Kaplan-Meier survival analysis and drug retention rates. Survival times were compared statistically using Log-rank test and Cox model. Discontinuation reasons were classified into ineffectiveness, adverse events (AE), and others. Data were collected from hospital claim records. Statistical analyses were performed utilising DATAtab® software.

Results We included 152 cases from 117 RA patients (86% women, 63 ± 13 years old) under treatment with tofacitinib (n=62; 40.8%) and baricitinib (n=90; 59.2%).

Median treatment persistence for baricitinib was significantly greater than for tofacitinib (Graph 1; HR=0.60 [95% CI =0.40–0.90]; p =0.012), with no significant differences between mean treatment persistences (Graph 1; p =0.494).

After 12 months of treatment, tofacitinib showed lower drug retention (n=25; 40.3%) compared to baricitinib (n=54; 60.0%).

For this study, a high percentage of tofacitinib patients (80.6%) had to discontinue the treatment because of ineffectiveness (46.0%), AE (52.0%), or others (2.0%). The discontinuation reasons (percentages) in baricitinib patients who had to withdraw the treatment (52.2%) were: ineffectiveness (48.8%), AE (48.8%), and others (2.4%).

Conclusion and Relevance Our study concludes that tofacitinib showed lower median treatment persistence, lower drug retentions, and higher proportion of AE compared to baricitinib.