BACKGROUND AND IMPORTANCE
First generation Janus kinase inhibitors (JAKi), tofacitinib and baricitinib, are approved in adults with moderately to severely active rheumatoid arthritis (RA) who have not responded or tolerated previous treatment lines. Real clinical data about persistence and therapeutic adherence to these treatments is scarce.

AIM AND OBJECTIVES
To assess and compare first generation JAKi persistence in clinical practice.
To compare whether therapeutic adherence to tofacitinib and baricitinib influences treatment persistence.

MATERIALS AND METHODS
This is a retrospective study which included all RA patients treated with tofacitinib and/or baricitinib between 2017/10 and 2021/05 in a tertiary hospital. Demographic, clinical and pharmacological data were collected from electronic medical and pharmacy claim records.

Kaplan-Meier survival analyses and log rank test were performed to calculate and compare treatment persistence. We assessed drug adherence with the Medication Possession Ratio (MPR). Effect of therapeutic adherence on treatment persistence was evaluated with a linear regression model. Statistical analyses were performed using Stata 15* software.

RESULTS
We included 136 cases (61 were treated with tofacitinib [44.9%] and 75 with baricitinib [55.1%]) corresponding to 105 RA patients. They were mostly women (86.7%) with a mean age (± SD) of 63 (± 13) years.

At treatment initiation, patients had a mean DAS28-ESR (± SD) of 5.1 ± 1.2.
Study patients had previously received a median (range) of 3 (0-8) biologic agents for RA.

During the study period, 40 (29.4%) and 38 (27.9%) patients treated with tofacitinib and baricitinib, respectively, discontinued the treatment.

Mean treatment persistence was 363 days (95CI%=2-1,282) in the tofacitinib group and 406 days (95CI%=8-1,300) in the baricitinib group. There were no statistically differences in treatment survival (HR=1.01 [95CI%=0.59-1.71]; p=0.97).

Mean MPR was 91.0% in both groups. There was no correlation between therapeutic adherence and persistence (p=0.21).

CONCLUSION AND RELEVANCE
Our results show no significant differences in treatment persistence and adherence between tofacitinib and baricitinib patients. In our cohort, medication adherence was high and did not influence treatment persistence.