

medication. A small proportion of individuals switched shortly to SB4 and then later to other medication. 5.7% of former etanercept users switched to other medication at the time of Switch date. For details, see Figure 1.

Many patients switched back and forth several times, also using other medication at short time intervals. The method of distribution (pen versus injection) was associated with higher odds for being switched. Patients using etanercept pen were more likely to switch to biosimilar etanercept after BE (Figure 2).

For patients who switched to SB4 the 18 months cumulative incidence of drug survival was 72%; 95%CI [65-79]%. At 2 years follow-up the drug survival in switchers will be matched with historic drug survival rate of etanercept estimated using data from NorPD.

Conclusion: The Norwegian Prescription Database is a useful tool that enables to monitor use, changes and trends in use of selected drugs. A longer follow-up is warranted in order to describe drug survival after switch from etanercept to biosimilar etanercept. However, close collaboration between pharmacists, clinicians and statisticians is warranted.

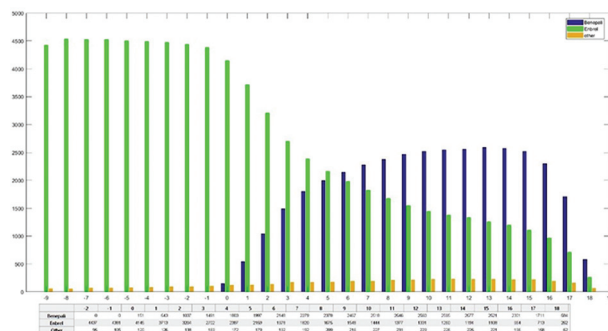


Figure 1

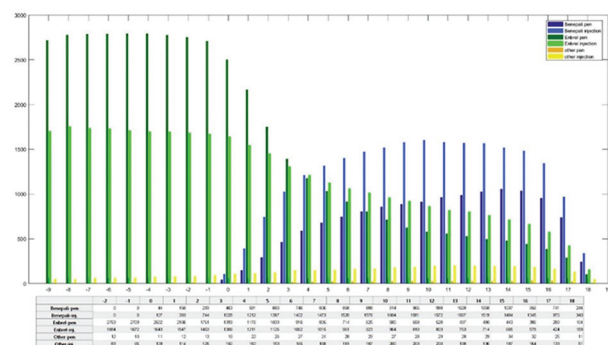


Figure 2

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OP0312

VARIABILITY IN BIOLOGIC PRESCRIPTION PATTERNS FOR RHEUMATOID ARTHRITIS PATIENTS IN THE AMERICAN COLLEGE OF RHEUMATOLOGY INFORMATICS SYSTEM FOR EFFECTIVENESS (RISE) REGISTRY

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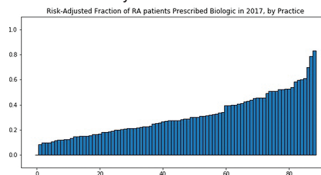
Background: Biologics account for a substantial portion of drug spending in rheumatoid arthritis (RA). Variability in the U.S. in biologic prescribing patterns (and therefore variability in cost of care), and factors that correlate with that variability, remain largely undefined.

Objectives: We used data from the RISE registry to perform a cross-sectional analysis among U.S. rheumatologists of prescription patterns for biologic DMARDs and tofacitinib and their relationship to RA disease activity.

Methods: RISE is a U.S. registry that passively collects data on all patients seen by participating practices, thereby reducing selection bias present in single-insurer claims databases. As of December 2017, RISE held validated data from 1,257 providers in 236 practices, representing an estimated 25% of the U.S. clinical rheumatology workforce. We identified patients with available demographic and disease activity information who were assigned ≥ 2 codes for RA ≥ 30 days apart between January and December 2017. Practices with < 20 RA patients (15/104 practices providing all necessary data) were excluded. We tallied the proportion of patients in each practice prescribed a TNF inhibitor, abatacept, rituximab, tocilizumab, or tofacitinib at least once during 2017. Patients prescribed > 1 of these drugs were assigned to the first drug prescribed and therefore counted only once. We used a hierarchical linear model to predict the probability of receiving a prescription for a biologic based on the patient's most recent disease activity score (moderate or high disease activity vs. low disease activity or remission) and age from 2016, accounting for clustering by practice.

Results: We analyzed 53,850 patients from 104 practices. Overall, 29% of patients were prescribed a biologic DMARD or tofacitinib in 2017. TNF inhibitors were most commonly prescribed, followed by abatacept (4.5% of patients), tofacitinib (4.2%), tocilizumab (3.4%), and rituximab (2.5%). We found significant variation within practices in the proportion of patients prescribed any of these drugs (range 0%-100%). In the adjusted analysis, we found that patients with higher disease activity in 2016 were more likely to receive biologics in 2017 (OR 1.56, 95% CI (1.51, 1.62)). Within a practice, as shown in the figure, the risk-adjusted likelihood of receiving a biologic prescription still showed significant variation (between 0%-83% of patients in each practice received a biologic; model c-statistic 0.61).

Figure. Proportion of RA patients prescribed biologics or tofacitinib, aggregated by practice and adjusted for disease activity and age, for practices with at least 20 patients with RA, between January and December 2017.



Conclusion: In this large sample of U.S. rheumatology practices, higher RA disease activity correlated with the likelihood that a patient would receive a prescription for a biologic, but did not account for all of the variability in biologic prescription patterns. These results suggest that there may be other factors in addition to RA disease activity that account for practice-to-practice variability in biologic prescription patterns. Disclaimer: These data were collected from the ACR's RISE Registry; however, the views expressed represent those of the authors, not necessarily those of the ACR.

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OP0313

COST-EFFECTIVENESS OF A JAK1/JAK2-INHIBITOR VS. A BIOLOGIC DISEASE-MODIFYING ANTIRHEUMATIC DRUG IN A TREAT-TO-TARGET STRATEGY FOR RHEUMATOID ARTHRITIS

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Background: Treating Rheumatoid Arthritis (RA) to an a priori defined disease activity target (T2T) is recommended in EULAR guidelines. This involves a step-up approach in which it is first attempted to achieve the target with a combination of conventional synthetic (cs) DMARDs. Baricitinib is a JAK1/JAK2-inhibitor approved for treatment of patients suffering from RA. EULAR and ACR guidelines currently position JAK1/JAK2-inhibitors and bDMARDs at the same level in the therapeutic treatment sequence for csDMARD Inadequate Responders (IR). Cost-effectiveness assessment of different T2T strategies, especially ones