

Baseline Characteristics & Preliminary Efficacy Results of Patients Receiving Biologic and Traditional Disease Modifying Anti-Rheumatic Drugs (DMARDs) in Ontario: Results from the OBRI

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Objective:

To describe the baseline characteristics & ‘real-world’ efficacy based on OBRI’s clinical registry.

Methods:

Patients were enrolled from 18 rheumatology clinics across Ontario and prospectively followed to assess drug changes, disease activity, and adverse events. Subjects were grouped into 3 cohorts: 1st DMARD, DMARD Change, and Biologic. Baseline data collected by rheumatologists were available for 426 (97%) of enrolled subjects. Patient reported data, collected through telephone interviews, includes patient global assessment, the Rheumatoid Arthritis Disease Active Index (RADAI) and the Health Assessment Questionnaire (HAQ-DI). t-tests of the means were used to evaluate primary efficacy.

Results:

The DMARD change group made up 55% of the enrolled patients. 26% of patients were prescribed a new biologic and 19% their 1st DMARD at the time of enrolment. The 1st DMARD cohort had the eldest population with a mean age of 60.8 (SD of 14.8) yrs., and the largest subgroup of patients over 65 yrs of age (41%). Mean age for the biologic and the DMARD change group were respectively, 54.4 (13.2), and 56.5 (13.4) yrs. The biologic cohort had the longest mean RA duration compared to the DMARD change and 1st DMARD groups [12.5 (10.9) vs 8.9 (9.2) vs 1.2 (3.8)]. The 1st DMARD patients were mostly prescribed methotrexate, 98% vs 86% in the DMARD change patients. Also, 72% of the biologic patients were taking concomitant methotrexate. Compared to the DMARD change cohort, the biologic patients had the highest scores on the physician global assessment (SD)[6.0 (2.1) vs 4.9 (2.1)], patient global assessment (SD) [7.3 (2.4) vs 5.9 (2.8)], 28 swollen joint count (SD) [8.9 (6.1) vs 6.0 (5.2)], 28 tender joint count (SD) [9.8 (7.5) vs 6.9 (6.3)], and CDAI (SD) [31.3 (15.1) vs 23.0 (12.9)]. At the time of their 6 month follow up, biologic and DMARD change patients showed statistically significant improvements ($p < 0.001$) in physician and patient global assessments, 28 swollen joint count, 28 tender joint count, DAS28, CDAI, RADAI and HAQ-DI.

Conclusion:

While all RA patients showed significant improvements in both physician and patient reported outcomes, regardless of the treatment they received, the largest changes were found in the biologic cohort.