Title: The Generalizability of the Ontario Best Practices Research Initiative to the Ontario rheumatoid arthritis population and general population

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Objectives: To compare the demographics of a clinical cohort of rheumatoid arthritis (RA) patients with all residents in Ontario (with and without RA).

Methods: We studied all patients in the Ontario Best Practices Research Initiative (OBRI), a clinical cohort of RA patients recruited from rheumatologists across Ontario (2008-present). All residents with RA as of 2010 were identified from the Ontario RA Database (ORAD) generated from provincial health administrative data. We used the 2011 Census from Statistics Canada and the National Household Survey to describe the general population. We evaluated the generalizability of the OBRI to the Ontario population with and without RA in terms of patient demographics.

Results: Of the 162 Ontario rheumatologists, 63 (39\%) are participating in the OBRI representing both community-based (48\%) and academic settings (52\%). Among the 2354 RA patients in the OBRI, 78\% are female and 36\% are ages 65 years and older. Among the 97,499 RA patients in ORAD, 71\% are female and 44\% are ages 65 years and older. As expected, 92\% of OBRI patients speak English as their primary language (followed by Punjabi (1\%)), compared to 79\% (followed by French (2\%)) in the Ontario population. The three most frequent ethnicities include Caucasian (85\% vs. 93\%), Indian (4\% vs. 8\%) and Oriental (3\% vs. 10\%) in OBRI and Ontario population, respectively. Postsecondary (56\% vs. 55\%), high school (36\% vs. 27\%) and no education degree (8\% vs. 19\%) are relatively similar between OBRI and Ontario, respectively. The annual household income is also comparable. The regional distribution of RA patient residences in OBRI is similar to that of all Ontario residents (with and without RA), with the highest proportion of residents living in southern Ontario.

Conclusions: Overall, the OBRI has comparable demographics to the Ontario RA population and general population, increasing the confidence in the generalizability of OBRI for clinical research.