

## SUPPLEMENTARY MATERIAL

### **Baseline Anti-citrullinated Protein Antibody Status and Response to Abatacept or Non-TNFi Biologic/Targeted-synthetic DMARDs: US Observational Study of Patients With RA**

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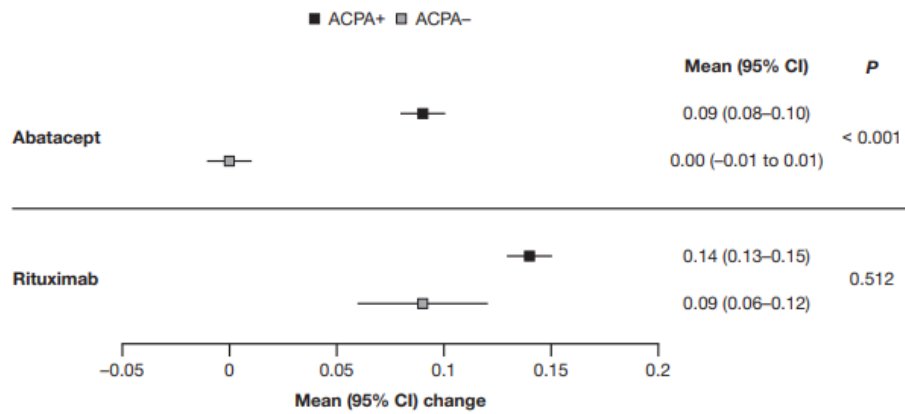
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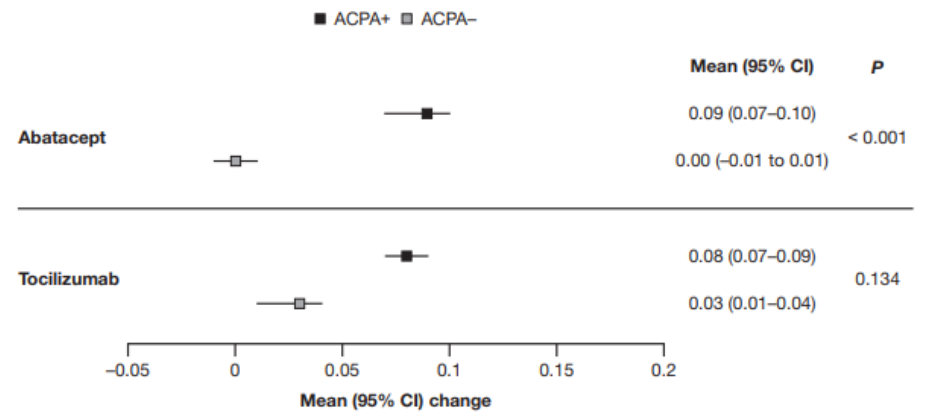
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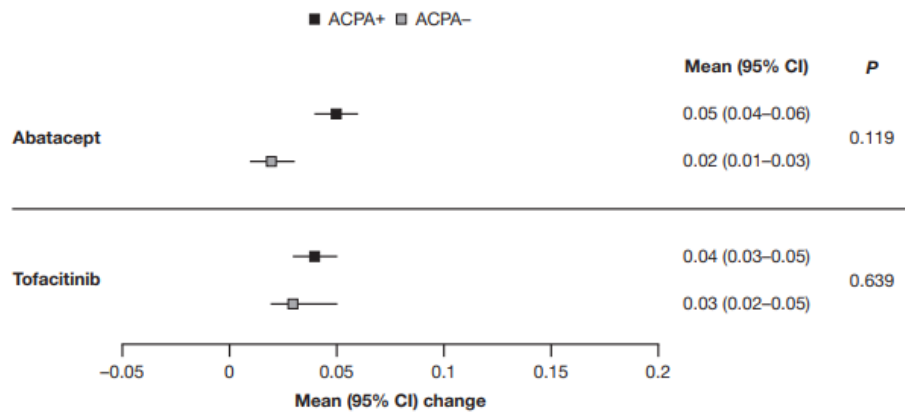
**A Abatacept and rituximab (2006–2019)<sup>a</sup>**



**B Abatacept and tocilizumab (2010–2019)<sup>a</sup>**



**C Abatacept and tofacitinib (2012–2019)<sup>a</sup>**



**Fig. S1** Adjusted mean improvement from baseline in mHAQ at 6 months after index date, by ACPA status, for abatacept or other non-TNFi b/tsDMARD initiators.\*<sup>a</sup>

\*Adjusted for baseline covariates that differed by ACPA status ( $P < 0.1$ ), not including factors that reduced the sample size by  $> 10\%$  or were correlated with CDAI. Only the main variable category is listed below, although some variables were further broken down within each category:

- *Adjusted variables for the 2006–2019 cohort included:* for both drugs—BMI, marital status, smoking status, and prednisone use; for abatacept only—sex, race/ethnicity, insurance, college, work status, duration of RA, ACR functional class, history of malignancies, history of hypertension, history of serious infection, and current combination therapy; and for rituximab only—history of COPD.
- *Adjusted variables for the 2010–2019 cohort included:* for both drugs—race/ethnicity, insurance, work status, duration of RA, ACR functional class and CDAI; for abatacept only—sex, marital status, smoking status, history of malignancies, history of hypertension, history of serious infections, current combination therapy, morning stiffness, and initiation year; and for tocilizumab only—age, history of CVD, and prednisone use.
- *Adjusted variables for the 2012–2019 cohort included:* for both drugs—college, duration of RA, and CDAI; for abatacept only—race/ethnicity, BMI, marital status, work status and initiation year; and for tofacitinib only—history of CVD, history of serious infections, prior non-TNFi use, current combination therapy, and patient pain.

<sup>a</sup>Time period of initiation; refer to the Methods section for full details.

$\Delta$  change, ACR American College of Rheumatology, ACPA+ anti-citrullinated protein antibody positive (anti-CCP2  $\geq 20$  U/mL), ACPA- anti-citrullinated protein antibody negative (anti-CCP2  $< 20$  U/mL), anti-CCP2 anti-cyclic citrullinated peptide-2, BMI body mass index, b/tsDMARD biologic or targeted-synthetic disease-modifying antirheumatic drug, CDAI Clinical Disease Activity Index, CI confidence interval, COPD chronic

obstructive pulmonary disease, *csDMARD* conventional-synthetic disease-modifying antirheumatic drug, *CVD* cardiovascular disease, *mHAQ* modified Health Assessment Questionnaire, *RA* rheumatoid arthritis, *TNFi* tumor necrosis factor inhibitor.