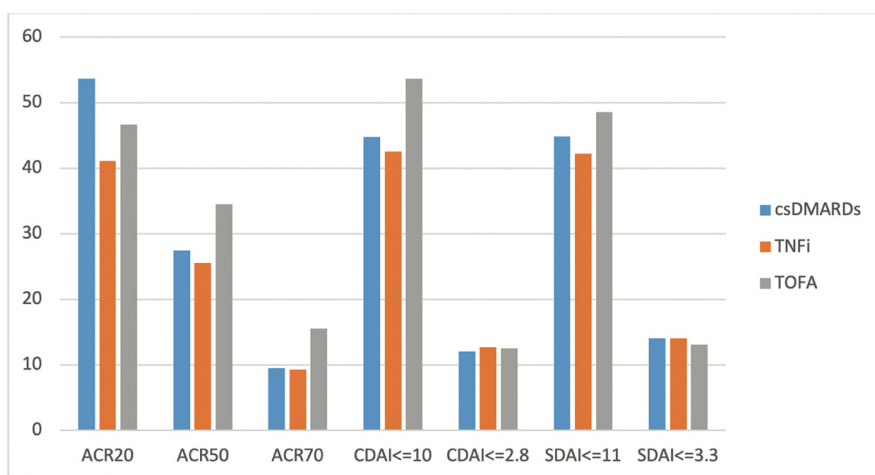
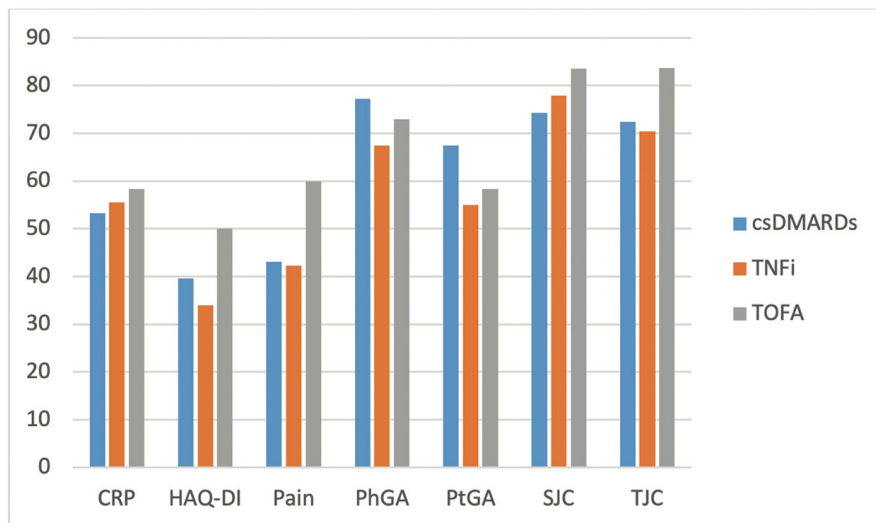


**Supplementary Fig. S1.** The contribution of secondary component to the attainment of the overall ACR20/50/70 achievement at 6 months after treatment.

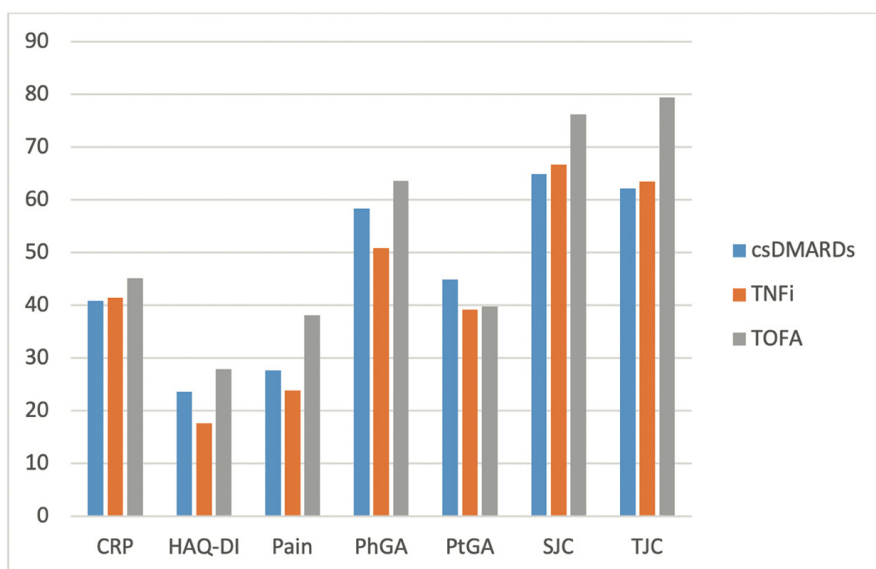


**Supplementary Fig. S2.** Percentage of patients achieving ACR20/50/70, SDAI and CDAI LDA and remission at 6 months after treatment in biologic naive patients (n=552). Analysis is based on observed case data (without imputation) of patients with all 7 components assessed ACR20/50/70: American College of Rheumatology  $\geq 20/50/70\%$  response rates; CDAI: Clinical Disease Activity Index; SDAI: Simplified Disease Activity Index csDMARD: conventional synthetic disease-modifying anti-rheumatic drug; TNFi: tumour necrosis factor inhibitors; TOFA: tofacitinib.

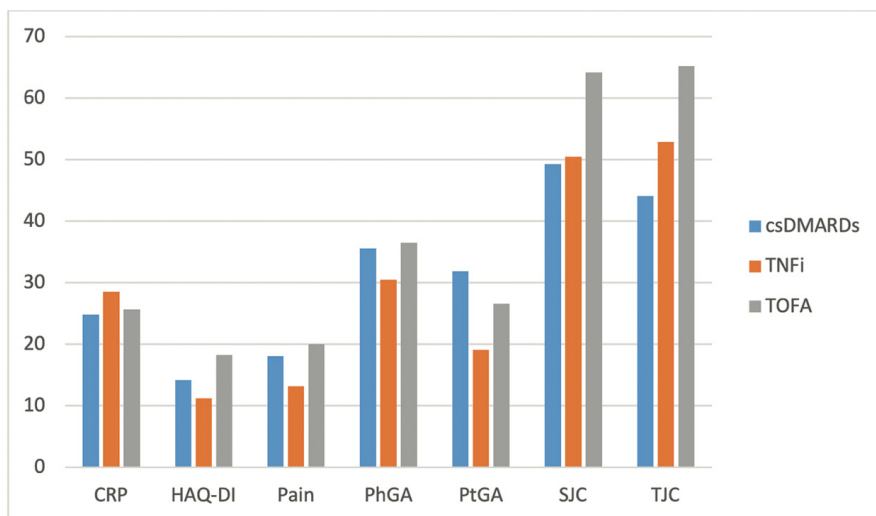
**a.  $\geq 20\%$  improvement in components**



**b.  $\geq 50\%$  improvement in components**



**c.  $\geq 70\%$  improvement in components**



**Supplementary Fig. S3.**  $\geq 20/50/70\%$  improvement in primary and secondary components of ACR20/50/70 at 6 months after treatment in biologic naive patients (n=552).

Analysis is based on observed case data (without imputation) of patients with all 7 components assessed ACR20/50/70: American College of Rheumatology  $\geq 20/50/70\%$  response rates; CRP: C-reactive protein; HAQ-DI: Health Assessment Questionnaire-Disability Index; Pain: patient-reported pain (visual analogue scale); PhGA: physician global assessment; PtGA: patient global assessment of disease activity; SJC: swollen joint count; TJC: tender joint count; csDMARD: conventional synthetic disease-modifying anti-rheumatic drug; TNFi: tumour necrosis factor inhibitors; TOFA: tofacitinib.