Supplementary Results

TCZ effectiveness according to subgroups

An exploratory post-hoc χ^2 test for independence revealed that achievement of DAS28-ESR remission (<2.6) at least once during the treatment period, was more likely in younger patients and in those with lower baseline DAS28-ESR or CDAI disease activity, concomitant therapy with csDMARDs (with or without GC) at baseline, and in patients with both concomitant csDMARDs therapy at baseline and prior csDMARDs only therapy (Suppl. Table S1).

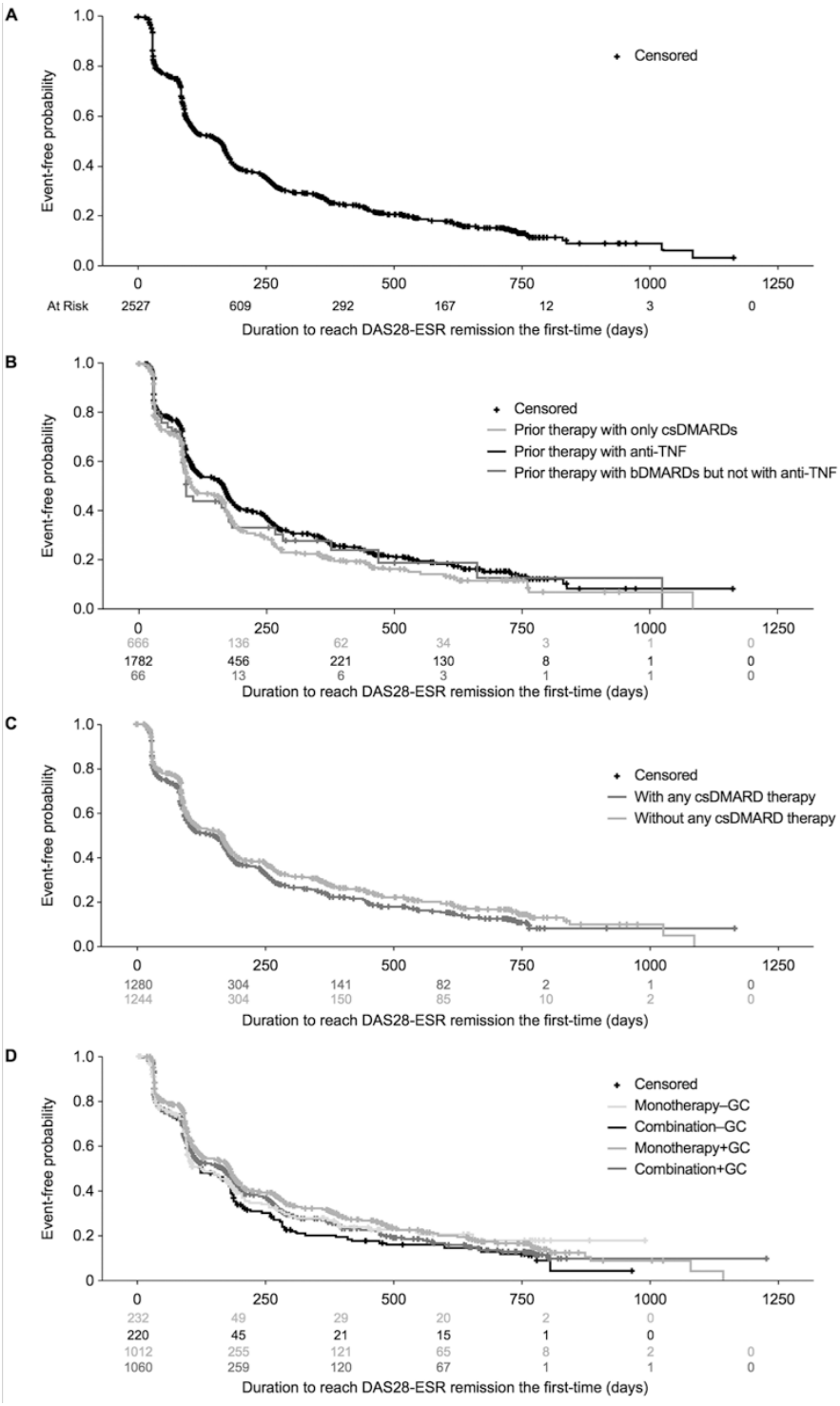
Supplementary Table S1. Proportion of patients to reach remission (DAS28-ESR <2.6) at least once (EFF-NPT).

Subgroup	DAS28-ESR remission n (%)	95% CL		*p*-value (χ^2 test)
		Lower	Upper	
Prior therapy				0.0591
csDMARDs only	453 (65.1)	61.4%	68.6%	
TNFi	1114 (60.3)	58.0%	62.5%	
non-TNFi bDMARDs	39 (56.5)	44.0%	68.4%	
Concomitant GC at baseline				0.5827
With GC	1317 (61.2)	59.1%	63.2%	
Without GC	297 (62.5)	58.0%	66.9%	
Concomitant csDMARDs at baseline				0.0018
With csDMARD	861 (64.4)	61.7%	66.9%	
Without csDMARD	753 (58.4)	55.7%	61.1%	
Concomitant csDMARDs/GC at baseline				0.0132
TCZ + csDMARD Combination + GC	707 (63.8)	60.8%	66.6%	
TCZ + csDMARD Combination	154 (67.3)	60.8%	73.3%	
TCZ Monotherapy + GC	610 (58.5)	55.4%	61.5%	
TCZ Monotherapy	143 (58.1)	51.7%	64.4%	
Prior therapy and concomitant csDMARDs at baseline				0.0009
TNFi/TCZ + csDMARDs	585 (62.8)	59.6%	65.9%	
nonTNFi bDMARDs/TCZ + csDMARDS	14 (45.2)	27.3%	64.0%	
csDMARDS/TCZ + csDMARDS	260 (69.7)	64.8%	74.3%	
TNFi/TCZ Monotherapy	529 (57.8)	54.5%	61.0%	
nonTNFi bDMARDs/TCZ Monotherapy	25 (65.8)	48.7%	80.4%	
csDMARDS/TCZ Monotherapy	193 (59.8)	54.2%	65.1%	

bDMARD: biological disease-modifying anti-rheumatic drug; CL: Clopper-Pearson (exact) confidence limit; csDMARD: conventional synthetic DMARD; GC: glucocorticoid; TNFi: tumour necrosis factor inhibitor.

Supplementary Table S2. Treatment-emergent adverse events in patients with the outcome of death.

MedDRA SOC	Events n	Patients n (%)
Total	37	19 (0.60)
Infections and infestations	11	9 (0.28)
Sepsis	4	4 (0.13)
Pneumonia	3	2 (0.06)
Bronchopneumonia	1	1 (0.03)
Empyema	1	1 (0.03)
Infection	1	1 (0.03)
Pneumocystis jiroveci pneumonia	1	1 (0.03)
Postoperative anaemia	1	1 (0.03)
General disorders and administrative site conditions	6	6 (0.19)
Death	3	3 (0.09)
Chest pain	1	1 (0.03)
Multi-organ failure	1	1 (0.03)
Sudden cardiac death	1	1 (0.03)
Gallbladder perforation	1	1 (0.03)
Cardiac disorders	7	4 (0.13)
Respiratory, thoracic and mediastinal disorders	4	3 (0.09)
Gastrointestinal disorders	3	2 (0.06)
Diverticular perforation	1	1 (0.03)
Large intestine perforation	1	1 (0.03)
Peritonitis	1	1 (0.03)
Hepatobiliary disorders	1	1 (0.03)
Injury, poisoning and procedural complications	1	1 (0.03)
Psychiatric disorders	1	1 (0.03)
Renal and urinary disorders	1	1 (0.06)
Surgical and medical procedures	1	1 (0.03)
Vascular disorders	1	1 (0.03)



Supplementary Fig. S1. Kaplan-Meier estimates for the time to reach first DAS28-ESR remission. Patients in DAS28-ESR remission at baseline were excluded from this analysis.
(**A**) EFF-NPT population, and baseline (**B**) prior therapy subgroups, (**C**) concomitant csDMARD subgroups and (**D**) concomitant therapy and GC subgroups over time.
Patients without DAS-28 ESR remission were censored on the day following their last assessment/visit. bDMARDs, biological disease-modifying anti-rheumatic drugs; csDMARDs: conventional synthetic DMARDs; DAS28-ESR: Disease Activity Score based on 28 joints and erythrocyte sedimentation rate; EFF-NPT: effectiveness population with no prior TCZ treatment; GC: glucocorticoid; TNF: tumour necrosis factor.