Supplementary Table 1 – Validation of VTE events.

Validation stages	Validation criteria
Stage 1	Coded to medDRA Higher Level Group Term 'Embolism & Thrombosis'
N.B. events coded to	
any of the terms were	
included for validation	
Stage 2	Presence of positive Doppler ultrasound scan for DVT
N.B. evidence of at	Or
least 1 of these must	Pulmonary Ventilation/Perfusion (VQ) or Computed Tomography
have been present for	Pulmonary Angiogram
verification to be	(CPTA) scan for PE
completed	Or
	Consultant reported event
	Or
	Listed as cause of death on Office of National Statistics (ONS) death
	certificate
	Or
	Patient reported event with a prescription for warfarin

Supplementary Table 2 – Hazard rates of verified first VTE in nbDMARD and anti-TNF treated patients.

Univariate predictor	nbDMARD	Anti-TNF	ETN	INF	ADA
Unadjusted HR	referent	1.1 [0.8, 1.6]	1.0 [0.7, 1.6]	1.4 [0.9, 2.1]	1.0 [0.6, 1.5]
Sensitivity analyses (unadjusted)*	referent	1.2 [0.8, 1.7]	1.1 [0.7, 1.7]	1.4 [0.9, 2.1]	1.2 [0.8, 1.8]
Adjusted HR 1**	referent	0.9 [0.6, 1.4]	0.9 [0.5, 1.4]	1.0 [0.6, 1.6]	0.9 [0.6, 1.5]
Adjusted HR 2***	referent	0.9 [0.5, 1.5]	0.8 [0.4, 1.5]	1.1 [0.6, 2.0]	0.8 [0.4, 1.4]
Adjusted HR 3****	referent	0.8 [0.5, 1.5]	0.8 [0.4, 1.4]	1.1 [0.6, 1.9]	0.8 [0.4, 1.4]

^{*} anti-TNF patients on drug with a 90 day lag window.

** adjusted for age, gender, diabetes, baseline steroid exposure, smoking, hypertension, disease duration, disease severity, year of first anti-TNF drug and year of entry into study without imputation.

***fully adjusted IPTW model, not including surgery as a time-varying co-variate with imputation.

****fully adjusted IPTW model with orthopaedic surgery as a time-varying co-variate with imputation.

Supplementary Table 3 - Univariate predictors of VTE in whole cohort.

Univariate predictor	HR for all patients		
	n=15554		
Age (per year increase)	1.0 [1.0, 1.1]		
Sex	0.7 [0.5, 0.9]		
Disease duration	1.0 [1.0, 1.0]		
Entry year			
2003	0.9 [0.6, 1.3]		
2004	0.8 [0.6, 1.2]		
2005 2006	0.6 [0.4, 1.0]		
2007	0.5 [0.2, 0.8]		
2008	0.8 [0.4, 1.5]		
	0.3 [0.1, 1.1]		
DAS28 score	1.0 [0.9, 1.1]		
HAQ score	1.4 [1.1, 1.7]		
Corticosteroids	1.8 [1.4, 2.3]		
Diabetes	1.0 [0.6, 1.8]		
Hypertension	1.4 [1.1, 1.8]		
Smoking status	0.8 [0.6, 1.1]		
(current smoker)			

Supplementary Table 4 – Risk of VTE in anti-TNF compared to nbDMARD cohort (univariate adjusting).

Univariate predictor	nbDMARD	Anti-TNF	
Unadjusted HR	referent	1.1 [0.8, 1.6]	
Age	referent	1.2 [0.9, 1.7]	
Sex	referent	1.0 [0.7, 1.4]	
Entry year	referent	0.8 [0.6, 1.1]	
DAS28 score	referent	0.9 [0.6, 1.4]	
HAQ score	referent	0.8 [0.6, 1.2]	
Corticosteroids	referent	0.9 [0.6, 1.2]	
Diabetes	referent	1.0 [0.7, 1.4]	
Hypertension	referent	1.0 [0.7, 1.4]	
Smoking status	referent	1.0 [0.7, 1.4]	
(current smoker)			