

SUPPLEMENTARY MATERIAL**SUPPLEMENTARY METHODS****Assessment of radiographic progression**

Two radiologists (S. Lee and K. Joo) independently evaluated mSASSS. They read the radiographs in different laboratories without EMR information about the patients. At 4 months after K. Joo had read all radiographs, she re-read these radiographs. She evaluated mSASSS without referring to previous assessments. Finally, intra-observer reliability with consistency (one-way model) and inter-observer reliability with agreement (two-way model) were obtained using the 'total mSASSS' values of 1,280 patients, measured once by S. Lee and twice by K. Joo.

Supplementary Table S1. Radiograph interval in 1,280 patients

	Value
Total patients	1,280
Mean number of mSASSS per patient (SD)	4.6 (1.2)
Median number of mSASSS per patient (min, max)	4 (2, 8)
Mean mSASSS interval (SD), day	2.4 (0.7)
Median mSASSS interval (min, max), day	2.2 (1.1, 11.6)

SD, standard deviation

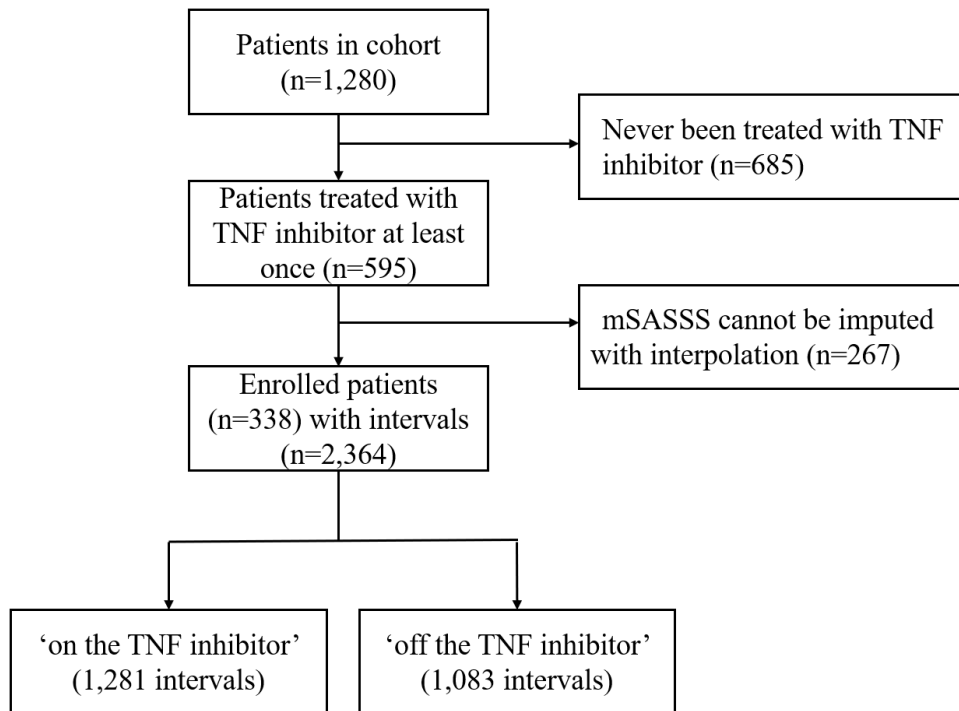
Supplementary Table S2. Association between treatment with TNF inhibitor and inflammatory markers

Outcome	Independent variable	Beta estimate*	95% CI		P-value
			LB	UB	
ESR at the start of the interval	TNF inhibitor	5.946	5.012	6.881	<0.001
CRP at the start of the interval	TNF inhibitor	0.412	0.339	0.484	<0.001
BASDAI at the start of the interval	TNF inhibitor	0.923	0.808	1.039	<0.001
ESR at the start of the interval (log)	TNF inhibitor	0.232	0.192	0.271	<0.001
CRP at the start of the interval (log)	TNF inhibitor	0.163	0.138	0.187	<0.001
BASDAI at the start of the interval (square root)	TNF inhibitor	0.214	0.186	0.241	<0.001

*Unstandardized regression coefficient

ESR, erythrocyte sedimentation rate; TNF, tumour necrosis factor; CRP, C-reactive protein; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index

Supplementary Figure S1. Flowchart of the included patients and intervals from the 18-year ankylosing spondylitis cohort data.



TNF, tumour necrosis factor; mSASSS, modified Stoke Ankylosing Spondylitis Spinal Score