

Supplementary data 1 - Results of sensitivity analyses accounting for missing joint activity assessments in two different ways

First, a joint was regarded as not active in case of a missing assessment. Second, an adjusted form of last observation carried forward (LOCF) was used: the last observation was only carried forward if that observation was equal to the observation after the missing joint assessment.

Repeating the model assessing the association between baseline joint inflammation and the number of joint inflammation episodes was not necessary since joint inflammation episodes were defined regarding missing assessments as absence of joint inflammation and there were no missing assessments at baseline.

Model	OR (95% CI) with missing = 0	OR (95% CI)* with adjusted LOCF
Model 1 (association between baseline joint inflammation and local joint inflammation during follow-up)	3.9 (3.4 to 4.3)	3.9 (3.5 to 4.3)
Stratification of model 1 for JIA category		
• Oligoarticular	3.4 (2.1 to 5.6)	3.4 (2.1 to 5.6)
• Polyarticular, RF-negative	4.1 (3.6 to 4.6)	4.1 (3.6 to 4.6)
• Juvenile psoriatic arthritis	1.8 (1.2 to 2.6)	1.8 (1.3 to 2.7)
Stratification of model 1 for joint inflammation at the previous study visit		
• Recurrent inflammation (no inflammation at previous visit)	2.6 (2.2 to 3.0)	2.7 (2.2 to 3.1)
• Persistent inflammation (inflammation at previous visit)	1.3 (1.1 to 1.7)	1.4 (1.1 to 1.7)
Association between baseline joint inflammation and the number of local joint inflammation episodes during follow-up	-	IRR 1.6 (95% CI 1.2 to 2.1)
Association between duration of baseline joint inflammation (weeks) and joint inflammation during follow-up	0.99 (0.98 to 1.00)	1.00 (0.99 to 1.00)
Model 1 in the 25% most affected joints	3.3 (2.9 to 3.8)	3.3 (2.9 to 3.8)

*unless specified otherwise