## **Supplementary materials for:**

## Smoking does not protect axial spondyloarthritis patients from attacks of uveitis

Sizheng Steven Zhao, Gary J Macfarlane, Gareth T Jones, Karl Gaffney, David M Hughes, Robert J Moots, Nicola J Goodson

	Supplementary to	Supplementary table 1. Summary of prior studies demonstrating a paradoxical				
	effect of smoking on uveitis among patients with axial spondyloarthritis.					
	Study	Registry	n	Comparison	Effect size	
	Zhao 2018	BSRBR-AS	2,031	Current vs never	OR <sub>adj</sub> 0.68	
	Jones 2017	SIRAS	946	Current vs ex	OR <sub>adj</sub> 0.42	
	Fitzgerald 2017	ASRI	683	Smoker vs non-smoker	OR 0.48	

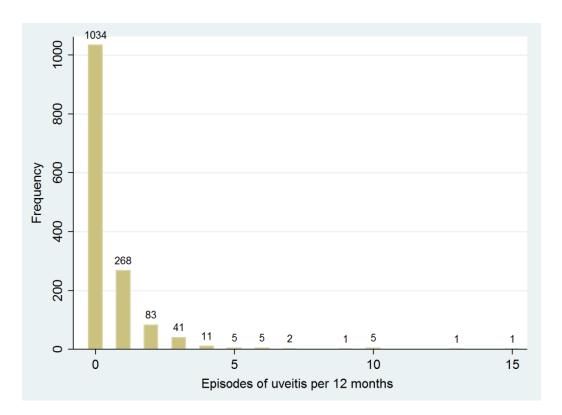
BSRBR-AS, The British Society for Rheumatology Biologics Register for Ankylosing Spondylitis; SIRAS, Scotland Registry for Ankylosing Spondylitis; ASRI, Ankylosing Spondylitis Registry of Ireland

## **Methods**

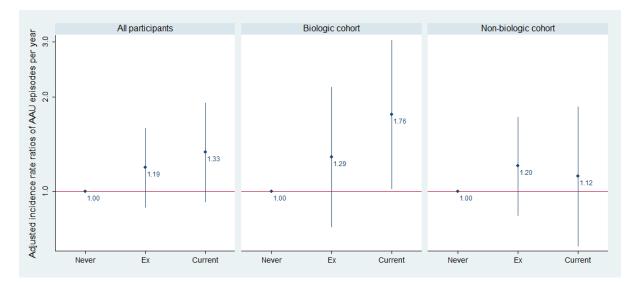
The negative binomial model can be considered as a generalization of Poisson regression, which is necessary when there is over-dispersion of count data (that is, the conditional variance is greater than the mean). Repeated measures within individuals were accounted for using mixed effects models with random intercepts for each patient. Time (years) was included as a fixed effect variable. All analyses were performed in Stata v13.

## Results

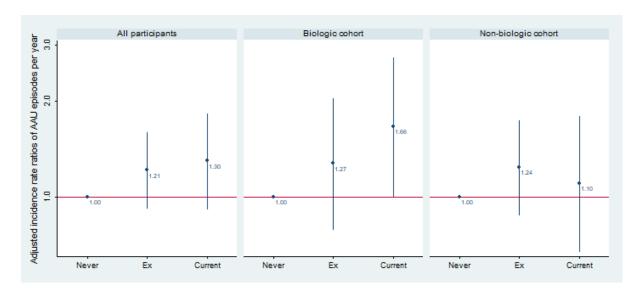
Supplementary tak	e characteristics.				
Age, mean (SD) yea	50.8 (13.3)				
Male	429 (68%)				
Meets modified No	472 (75%)				
HLA-B27 positive	437 (89%)				
Symptom duration	24.3 (12.4 to 35.5)				
Smoking status	Current	264 (48%)			
	Ex	198 (36%)			
	Never	92 (17%)			
TNF inhibitor use	196 (31%)				
Data shown as nun	se stated.				



Supplementary figure 1. Distribution of the number of uveitis episodes in each 12-month period



Supplementary figure 2. Sensitivity analysis restricting the maximum number of episodes per year to 10, to test whether effect estimates were robust against potential outliers.



Supplementary figure 3. Sensitivity analysis restricting the maximum number of episodes per year to 5, to test whether effect estimates were robust against potential outliers.