

Supplementary Table 1: Articles reporting on RA-related autoantibodies alone as risk factors in individuals at-risk of RA: Newcastle-Ottawa Scale for study quality assessment.

AUTHORS	YEAR	SELECTION	COMPARABILITY	OUTCOME	SUM	RISK OF BIAS
del Puente A. et al	1988	★★★★	★★	★★★	★★★★★★★★★	Low
Kudo-Tanaka E, et al	2007	★★★	---	★★	★★★★★	Intermediate
van der Linden MP et al	2009	★★★	★★	★★★	★★★★★★★★★	Low
Mjaavatten MD, et al	2010	★★★★	★★	★★★	★★★★★★★★★	Low
Bos W. et al	2010	★★★★	★★	★★★	★★★★★★★★★	Low
van de Stadt L, et al	2011	★★★★	---	★★★	★★★★★★★★★	Low
Shi J, et al	2013	★★★★	★	★★★	★★★★★★★★★	Low
Ramos-Remus C, et al	2015	★★★★	★★	★★★	★★★★★★★★★	Low
Ten Brinck R et al	2017	★★★★	★★	★★★	★★★★★★★★★	Low
Gan R. et al	2017	★★★★	★★	★★★	★★★★★★★★★	Low
Verheul M.K. et al	2018	---	—	—	—	<i>Systematic review & meta-analysis</i>
Tanner S, et al	2019	★★★★	---	★	★★★★★	Intermediate
Hafkenscheid L. et al	2019	★★★★	★	★★★	★★★★★★★★★	Low

Supplementary Table 2: Articles reporting on clinical features as risk factors in individuals at-risk of RA: Newcastle-Ottawa Scale for study quality assessment.

AUTHORS	YEAR	SELECTION	COMPARABILITY	OUTCOME	SUM	RISK OF BIAS
Gonzalez-Lopez L, et al	1999	★★★★	★★	★★★	★★★★★★★★★★	Low
El Miedany Y, et al	2008	★★★★	★★	★★	★★★★★★★★★★	Low
Kuriya B, et al	2009	★★★★	---	★★	★★★★★★	Low
Salaffi F, et al	2010	★★★	★★	★★	★★★★★★	Low
Tamai M, et al	2010	★★★	★	★★★	★★★★★★	Low
Ha YJ, et al	2012	★★★	★★	★★★	★★★★★★★★★★	Low
van de Stadt L et al	2013	★★★★	★★	★★★	★★★★★★★★★★	Low
Bizzaro N et al	2013	★★★★	★	★★★	★★★★★★★★★★	Low
McNally E, et al	2014	---	—	—	—	<i>Systematic review & meta-analysis</i>
Rakieh C. et al	2015	★★★★	★★	★★★	★★★★★★★★★★	Low
Yiannopoulos G, et al	2015	★★★	★	★★	★★★★★★	Low
Burgers LE, et al	2017	★★★	—	★★★	★★★★★★	Low
Nakajima T, et al (A)	2019	---	—	—	—	<i>Abstract</i>

Supplementary Table 3: Articles reporting on imaging (US and MRI) findings as risk factors in individuals at-risk of RA: Newcastle-Ottawa Scale for study quality assessment (Imaging)

AUTHORS	YEAR	SELECTION	COMPARABILITY	OUTCOME	SUM	RISK OF BIAS
van de Stadt LA, et al	2010	★★★★	—	★★	★★★★★★	Low
Freeston J, et al	2010	★★★	—	★★★	★★★★★★	Low
Filer A, et al	2011	★★★★	★★	★★★	★★★★★★★★	Low
Navalho M, et al	2013	★★★	—	★★	★★★★★	Low
Nam JL, et al	2016	★★★★	—	★★★	★★★★★★	Low
Zufferey P, et al	2017	★★★	★★	★★	★★★★★★	Low
van Beers-Tas MH, et al	2018	★★★★★	★	★★★	★★★★★★★★	Low
Sahbudin I, et al	2018	★★★	★★	★★★	★★★★★★★★	Low
Pentony P, et al (A)	2018	---	—	—	—	Abstract
Kisten Y, et al (A)	2018	---	—	—	—	Abstract
Hensvold et al (A)	2019	---	—	—	—	Abstract
Duquenne L et al (A)	2019	---	—	—	—	Abstract
Navalho M, et al	2012	★★★	—	★★★	★★★★★★	Low
Kleyer A, et al	2016	★★★	—	★★★	★★★★★★	Low
Van Steenberg H, et	2016	★★★★	★★	★★	★★★★★★★★	Low
Boer AC, et al	2017	★★★	★	★★★	★★★★★★	Low
Dakkak YJ, et al	2019	★★★	★★	★★★	★★★★★★★★	Low
Hunt L, et al (A)	2018	---	—	—	—	Abstract

Supplementary table 4: Other risk factors which have been reported in individuals at-risk of developing RA: Newcastle-Ottawa Scale for study quality assessment.

AUTHORS	YEAR	SELECTION	COMPARABILITY	OUTCOME	SUM	RISK OF BIAS
Deane KD. et al (A)	2019	---	—	—	—	<i>Abstract</i>
Jacobsen S, et al	2001	★★★	—	★★★	★★★★★★	Low
van De Stadt L, et al	2012	★★★★	★★	★★	★★★★★★★★	<i>Letter</i>
Rakieh C, et al	2015	★★★★	★★	★★★	★★★★★★★★	Low
van Beers-Tas, M.H et al	2016	★★★★	★	★★★	★★★★★★★★	Low
Hunt L, et al	2016	★★★★	★★	★★★	★★★★★★★★	Low
Yeo L, et al	2016	★★★★	—	★★	★★★★★★	Low
Gan R, et al	2017	★★★★	★★	★★★	★★★★★★★★	Low
Tak PP, et al	2017	★★★★	★★	★★★	★★★★★★★★	Low
de Rooy et, al	2012	★★★★	★	★★★	★★★★★★★★	Low
Mangnus L, et al	2017	★★★	★	★★★	★★★★★★★★	Low