

Supplemental Table 1. Search strategy.

PubMed/MEDLINE	Web of sciences	Scopus
(((((((("Stroke"[Mesh] OR Stroke[Title/Abstract]) OR "ischemic stroke"[Title/Abstract]) OR "cerebral infarction"[Title/Abstract]) OR "cerebrovascular disease"[Title/Abstract]) OR "cerebrovascular disorder"[Title/Abstract]) OR "cerebral ischemia"[Title/Abstract]) OR "brain ischemia"[Title/Abstract]) OR "brain infarction"[Title/Abstract]) AND (((("Spondylitis, Ankylosing"[Mesh] OR "ankylosing spondylitis"[Title/Abstract]) OR spondyloarthritis[Title/Abstract]) OR spondyloarthropathy[Title/Abstract]) OR "Spondylarthritis"[Mesh])	TS= (Stroke OR "ischemic stroke" OR "cerebral infarction" OR "cerebrovascular disease" OR "cerebrovascular disorder" OR "cerebral ischemia" OR "brain ischemia" OR "brain infarction") AND TS=("ankylosing spondylitis" OR spondyloarthritis OR spondyloarthropathy)	(TITLE-ABS-KEY("ankylosing spondylitis") OR TITLE-ABS-KEY(spondyloarthritis)OR TITLE-ABS-KEY(spondyloarthropathy)) AND (TITLE-ABS-KEY(Stroke) OR TITLE-ABS-KEY("ischemic stroke") OR TITLE-ABS-KEY("cerebral infarction") OR TITLE-ABS-KEY("cerebrovascular disease") OR TITLE-ABS-KEY("cerebrovascular disorder") OR TITLE-ABS-KEY("cerebral ischemia") OR TITLE-ABS-KEY("brain ischemia") OR TITLE-ABS-KEY("brain infarction"))

Supplementary Table 2: Study quality assessments for the included cohort studies

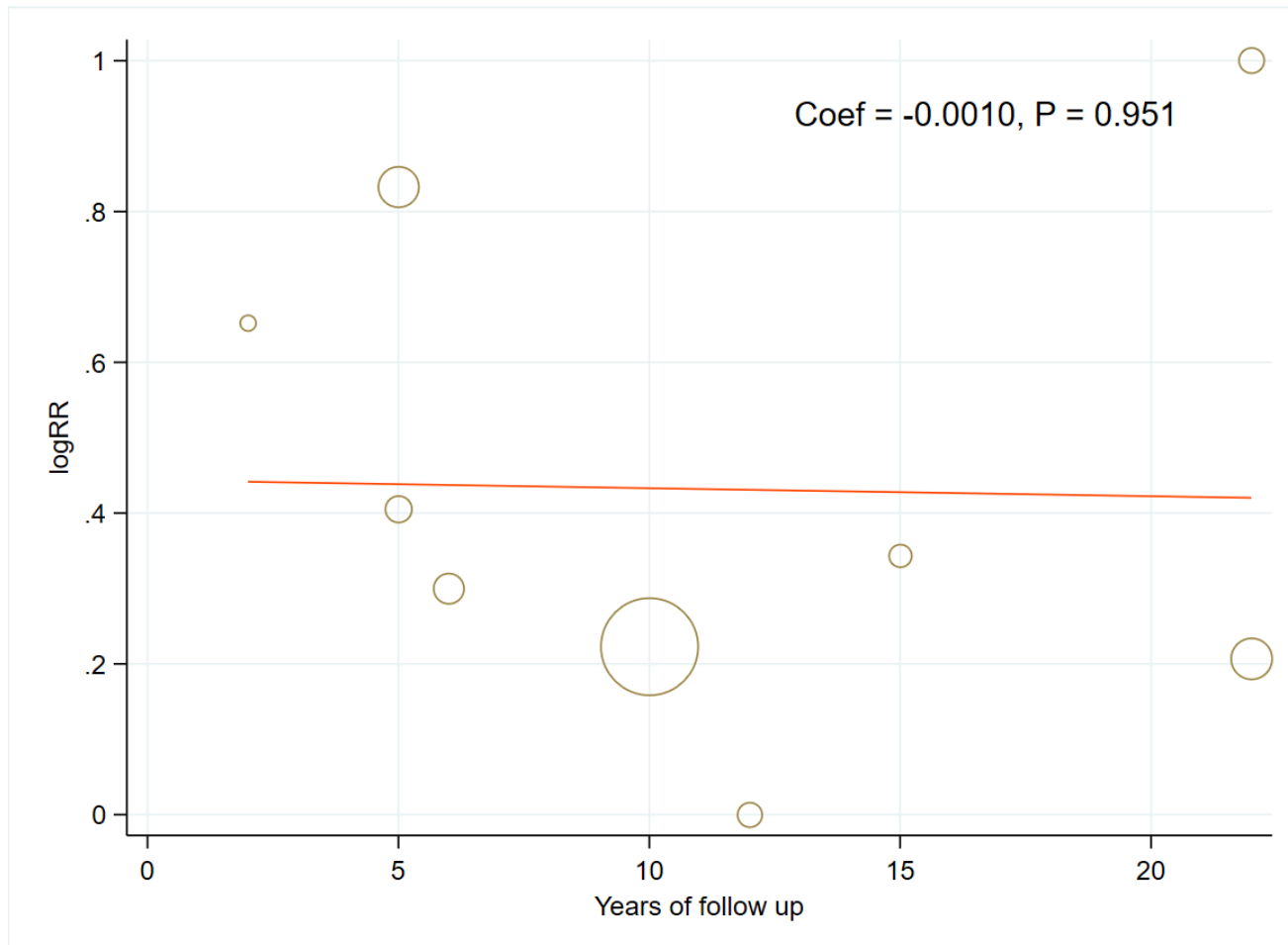
Studies	Selection	Comparability	Outcome	Total
Lee, D. H. et al.	**	*	***	6
Eriksson, J. K. et al.	***	**	***	8
Lin, C. W. et al.	***	**	***	8
Keller, J. J. et al.	**	*	***	6
Zoller, B. et al.	***	*	***	7
Brophy, S. et al.	***	*	***	7
Szabo, S. M. et al.	***	*	***	7
Trömmner, K. et al.	***	**	***	8

Newcastle-Ottawa Scale (Lewis et al. 2006) used by two independent investigators to assess the risk of bias.

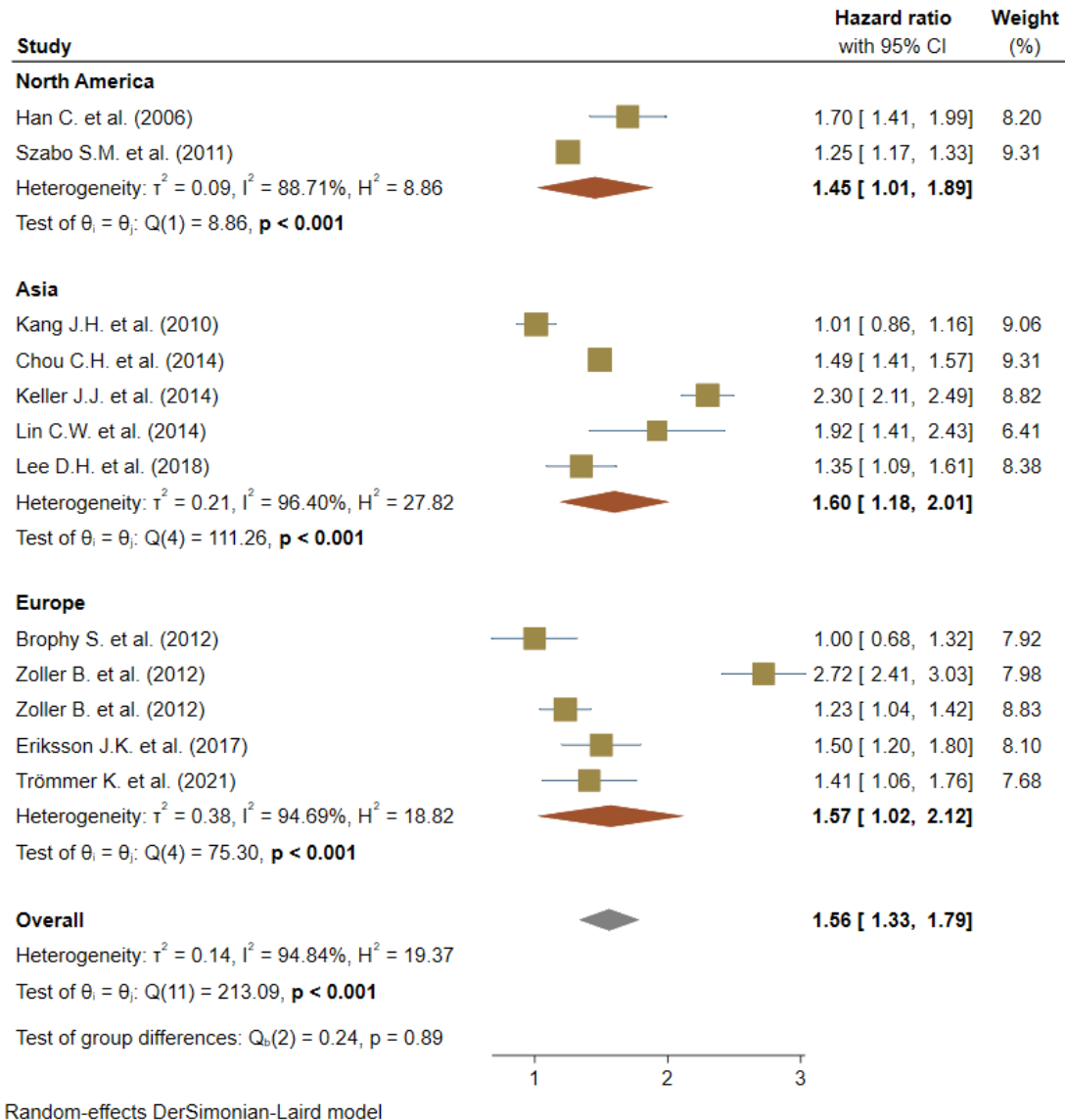
Supplementary Table 2a: Risk of bias assessments for the included **case-control** studies

Lead author, publication date	Selection	Comparability	Outcomes
Chou, C. H. et al.	****	**	***
Kang, J. H. et al.	***	*	**
Han, C. et al.	****	*	**

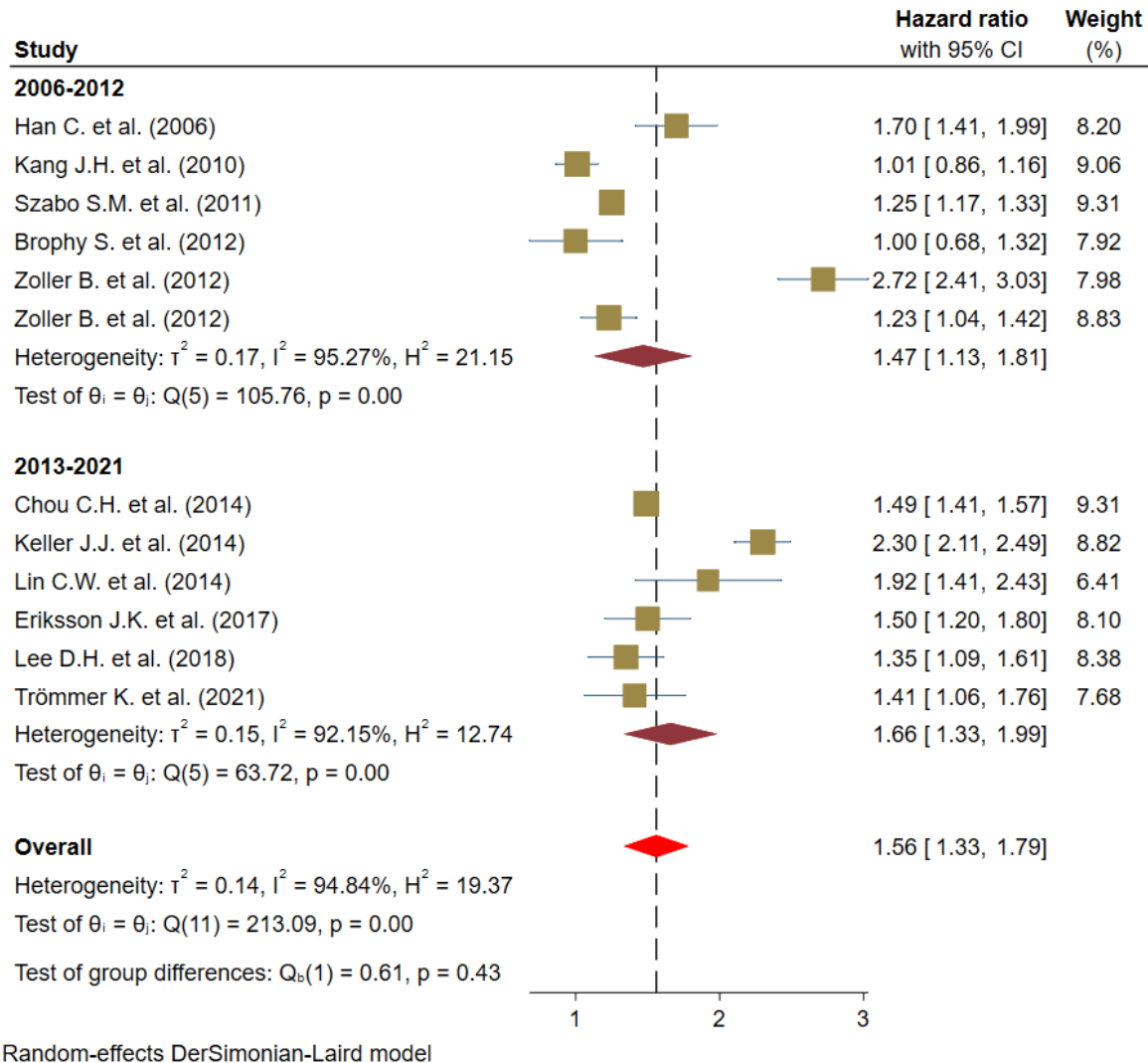
Newcastle-Ottawa quality assessment scale (adapted for **case-control** studies) used by two independent investigators to assess the risk of bias.



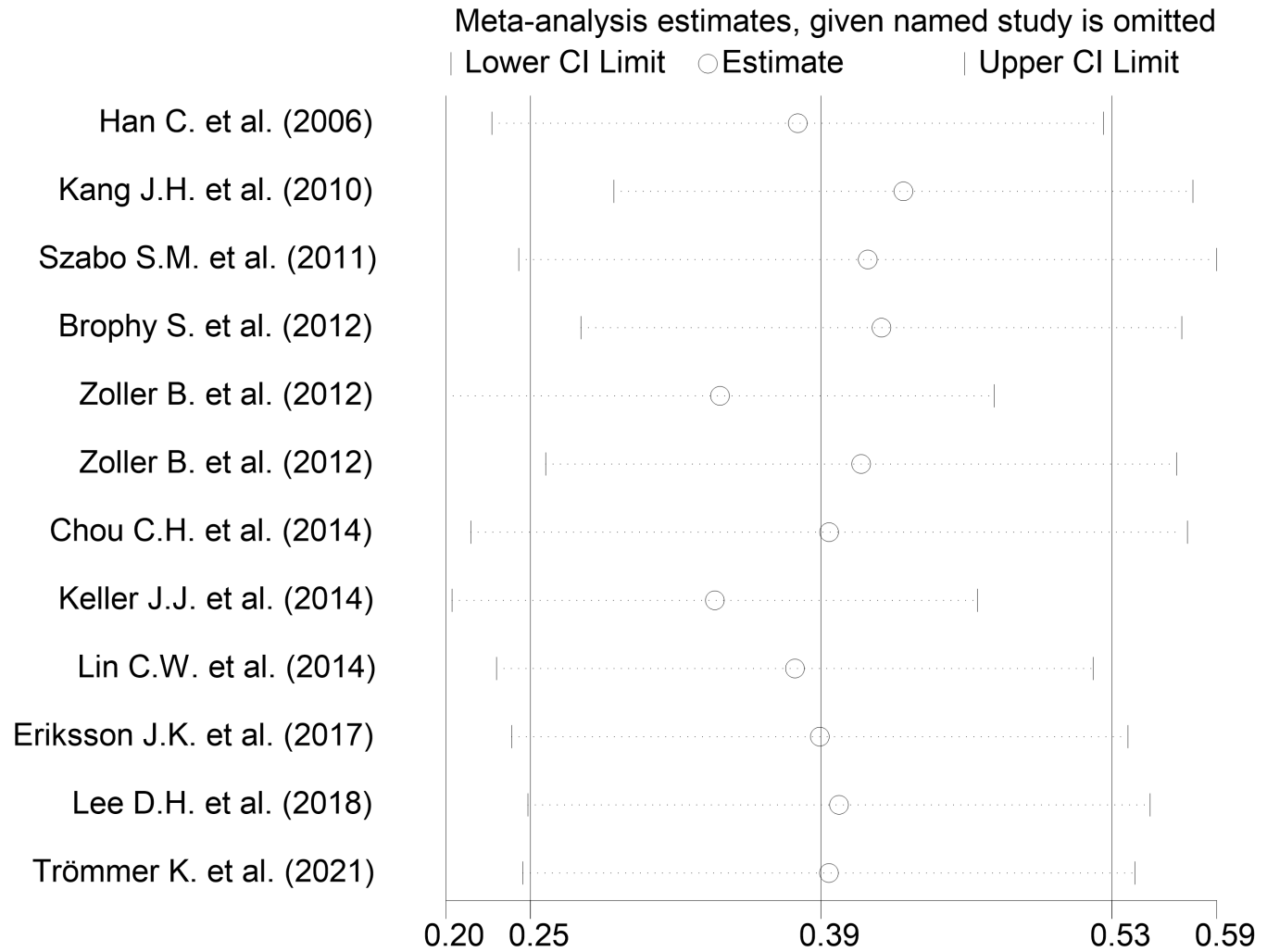
Supplemental Figures 1. Meta-regression analysis of relation between ankylosing spondylitis and stroke based on years of follow-up.



Supplemental Figures 2. Subgroup analysis of relation between ankylosing spondylitis and stroke based on study location.



Supplemental Figure 3: Association between ankylosing spondylitis and stroke based on the year of publication.



Supplemental Figure 4. Sensitivity analysis plot.