Appendix S1.

Unmeasured confounder analysis was performed to assess whether covariates that were not measured, such as smoking or body mass index, would have had the potential to materially affect the results had they been available. Using the framework presented by Lin et al. (29), the association between a hypothetical unmeasured confounder and the outcome of interest necessary to: (*i*) result in a non-significant association between exposure and outcome; and (*ii*) result in no association (hazard ratio; HR=1) between exposure and outcome under different assumptions of prevalence of the risk factor in the exposed and unexposed groups.

Size of confounding effect necessary to nullify the association between mild psoriasis and specific causes of death and all-cause mortality

Prevalence in mild psoriasis	Prevalence in referents	Required HR unity	Required HR Ns
Cardiovascular disease			
20%	10%	1.8	1.0*
30%	10%	1.0*	1.0*
40%	10%	1.0*	1.0*
Chronic lower respiratory disease			
20%	10%	3.6	1.0*
30%	10%	1.8	1.0*
40%	10%	1.2	1.0*
Kidney disease			
20%	10%	12.0	3.6
30%	10%	6.0	1.8
40%	10%	4.0	1.2
Severe infection			
20%	10%	4.1	1.1
30%	10%	2.1	1.0*
40%	10%	1.4	1.0*
Liver disease			
20%	10%	10.0	3.4
30%	10%	5.0	1.7
40%	10%	3.3	1.1
All-cause mortality			
20%	10%	1.5	1.0*
30%	10%	1.0*	1.0*
40%	10%	1.0*	1.0*

*Below 1.0 using the approximation presented by Lin et al. (29).

Size of confounding effect necessary to nullify the association between severe psoriasis and specific causes of death and all-cause mortality

Prevalence in psoriasis	Prevalence in general population	Required HR unity	Required HR ns
Cardiovascular disease			
20%	10%	5.2	2.1
30%	10%	2.6	1.0*
40%	10%	1.7	1.0*
Cancer			
20%	10%	3.2	1.0*
30%	10%	1.6	1.0*
40%	10%	1.1	1.0*
Liver disease			
20%	10%	32.6	8.7
30%	10%	16.3	4.3
40%	10%	10.9	2.9
Other causes			
20%	10%	12.5	5.9
30%	10%	6.2	2.9
40%	10%	4.2	2.0
Missing cause of death			
20%	10%	24.2	2.4
30%	10%	12.1	1.2
40%	10%	8.1	1.0*
All-cause mortality			
20%	10%	5.6	3.6
30%	10%	2.8	1.8
40%	10%	1.9	1.2

*Below 1.0 using the approximation presented by Lin et al. (29).

Table SI. *Treatments used to identify severe psoriasis*

Treatment	ATC/procedure code
Traditional systemics	
Acitretin	D05BB02
Cyclosporine	L04AD01
Methotrexate	L04AX03
Biologics	
Efalizumab	L04AA21
Etanercept	L04AB01
Infliximab	L04AB02
Adalimumab	L04AB04
Ustekinumab	L04AC05
Psoralen plus ultraviolet A (PUVA)	
Per oral PUVA	DQ010
Bath PUVA	DQ011

ATC: Anatomical Therapeutic Chemical.

Table SII. *International Classification of Diseases – 10th revision (ICD-10) codes for the causes of death groups*

Cause of death	ICD codes
Cardiovascular disease	I00–I09, I11-I13, I15, I20–I51, I60–I69, I10, G45, G46, F01
Neoplasms	C00–C97, D00-D47
Diabetes	E10–E14
Chronic lower respiratory disease	J40–J47
Neurological disease	F00, F02, F03, G00-G44, G47
Kidney disease	N00–N19, N25–N37
Infection	A00-A99, B00-B14, B20-B99, J09–J18
Liver disease	B15-B19, K70-K77
Suicide	U03, X60–X84, Y87.0
Accidents	V01–X59, Y85–Y86
Missing	R99.9
Other causes	Residual

Table SIII. *International Classification of Diseases – 10th revision (ICD-10) codes for relevant diseases*

Indication	ICD-10 codes
Psoriatic arthritis (PSA)	L40.5, M07.0–M07.3, M09.0
Non-PSA rheumatoid disease	M05-M06, M08, M45
Gastrointestinal disease	K50.0, K50.1, K50.8, K50.9, K51.0, K51.2, K51.3, K51.4, K51.5, K51.8, K51.9