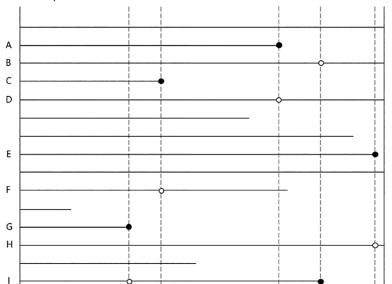Supplementary Fig. S1. An outline of case matching for the nested case-control analysis. Among patients A to I, patients A, C, E, G, and I were subject to outcomes of interest (cancer, tuberculosis, and serious infection) (l), whereas other patients did not experience the outcomes until the end of follow-up or were censored. The solid lines represent the time period over which the patients were observed. The dotted (vertical) lines indicate the case matched with the control (o). In this circumstance, the matched cases are A-D, C-F, E-H, G-I, and I-B. Patient I is the control for patient G and the case for patient B.

Supplementary Table S1. Criteria for defining patients and outcomes.

Patient definition[§]		
Diagnosis	ICD-10 code	Other requirement
Ankylosing spondylitis	M45	V140
Psoriatic arthritis	L40.5, M07.0, M07.1, M07.2, M07.3, and M09.0	V237
Psoriasis	L40	V280
Outcome definition[§]		
Events	ICD-10 code	Others
Cancer	C code	V193
TB	A15-19	At least two of the first-line drugs for TB (isoniazid, rifampin/rifampicin, pyrazinamide, and ethambutol) at the date of TB diagnosis
Infection	Respiratory tract: A310, A370, A371, A378, A379, B371, B440, B441, B442, B447, B448, B449, B450, B460, J00, J010, J011, J012, J013, J014, J018, J019, J020, J028, J029, J030, J038, J039, J040, J041, J042, J050, J051, J060, J068, J069, J09, J100, J101, J108, J110, J111, J118, J120, J121, J122, J123, J128, J129, J13, J14, J15, J160, J168, J170, J171, J172, J173, J178, J180, J181, J182, J188, J189, J20, J210, J211, J218, J22, J387, J440, J690, J80, J850, J851, J852, J853, J86, J860, J869, J90	Hospital admission
	Central nervous system: A321, A390, A812, A840, A841, A849, A85, A86, A87, A878, A879, A89, G000, G001, G002, G003, G008, G009, G01, G020, G021, G028, G038, G039, G040, G041, G042, G048, G049, G050, G051, G052, G060, G061, G062, G07, G08, G374	
	Genitourinary: N10, N110, N111, N118, N119, N12, N136, N151, N159, G160, N300, N301, N308, N309, N33, N330, N340, N370, N390, N412, N413, N418, N419, N510, N511, N512, N518	
	Skin/soft tissue: A46, H050, K610, K611, K612, K613, K614, L00, L010, L011, L020, L021, L022, L023, L024, L028, L029, L030, L031, L032, L033, L038, L039, L040, L041, L042, L043, L048, L049, L05, L050, L080, L088, L089, L030, M600, N481, N482, N499, N61, N726, N751	
	Bone/joint: K102, M000, M001, M002, M008, M009, M010, M011, M012, M013, M014, M015, M016, M018, M462, M463, M465, M600, M630, M631, M632, M650, M651, M680, M710, M711, M726, M728, M86, M860, M861, M862, M863, M864, M865, M866, M868, M869	
	Sepsis: A327, A391, A392, A393, A394, A395, A398, A399, A400, A401, A402, A403, A408, A409, A410, A411, A412, A413, A414, A415, A418, A419, A420, A421, A422, A427, A428, A429, A430, A431, A438, A439, A440, A441, A448, A449, A480, A481, A482, A482, A484, A488, A490, A491, A492, A493, A498, A499, R572, R65, R650, R651	
	Gastrointestinal/intraabdominal: A000, A001, A009, A010, A011, A012, A013, A014, A020, A021, A022, A028, A029, A030, A031, A032, A033, A038, A039, A040, A041, A042, A043, A044, A045, A046, A047, A048, A049, A05, A050, A051, A052, A053, A054, A058, A059, A060, A061, A062, A063, A064, A065, A066, A067, A068, A069, A070, A071, A072, A073, A078, A079, A080, A081, A082, A083, A084, A085, A090, A099, B971, K352, K353, K358, K37, K570, K572, K574, K578, K630, K650, K659, K670, K671, K672, K673, K678, K750, K770, K800, K803, K804, K810, K818, K819, K830, K850, K858, K859, K870, K871, K930	

[§]Patients and outcomes were defined according to the presence of ICD-10 codes and fulfilment of other criteria. The V code indicates a special exemption code issued by the South Korean government as a medical expenditure reduction program for patients with rare and intractable diseases.
ICD: International Statistical Classification of Diseases; TB: tuberculosis.