

Supplementary Table 1. Excluded comorbidities from Charlson Comorbidity Index

Comorbidities	Code
Hypertension (congestive heart failure, renal disease)	I11.0, I12.0, I13.0, I13.1, I13.2
Cerebrovascular disease	G45.x, G46.x, H34.0, I60.x-I69.x
Diabetes without chronic complication	E10.0, E10.1, E10.6, E10.8, E10.9, E11.0, E11.1, E11.6, E11.8, E11.9, E12.0, E12.1, E12.6, E12.8, E12.9, E13.0, E13.1, E13.6, E13.8, E13.9, E14.0, E14.1, E14.6, E14.8, E14.9
Diabetes with chronic complication	E10.2-E10.5, E10.7, E11.2-E11.5, E11.7, E12.2-E12.5, E12.7, E13.2-E13.5, E13.7, E14.2-E14.5, E14.7
Liver cancer (any malignancy, including lymphoma and leukemia, except malignant neoplasm of skin)	C22.x
Mild liver disease	B18.x, K70.0-K70.3, K70.9, K71.3-K71.5, K71.7, K73.x, K74.x, K76.0, K76.2-K76.4, K76.8, K76.9, Z94.4
Moderate or severe liver disease	I85.0, I85.9, I86.4, I98.2, K70.4, K71.1, K72.1, K72.9, K76.5, K76.6, K76.7
Hemiplegia	G81.x

Supplementary Table 2. Comorbidities in modified Charlson Comorbidity Index with KCD codes and weights after excluding codes in Supplementary Table 1

Comorbidities	Weight	Code
Myocardial infarction	1	I21.x, I22.x, I25.2
Congestive heart failure	1	I09.9, I11.0, I13.0, I13.2, I25.5, I42.0, I42.5-I42.9, I43.x, I50.x, P29.0
Peripheral vascular disease	1	I70.x, I71.x, I73.1, I73.8, I73.9, I77.1, I79.0, I79.2, K55.1, K55.8, K55.9, Z95.8, Z95.9
Dementia	1	F00.x-F03.x, F05.1, G30.x, G31.1
Chronic pulmonary disease	1	I27.8, I27.9, J40.x-J47.x, J60.x-J67.x, J68.4, J70.1, J70.3
Rheumatic disease	1	M05.x, M06.x, M31.5, M32.x-M34.x, M35.1, M35.3, M36.0
Peptic ulcer disease	1	K25.x-K28.x
Paraplegia	2	G04.1, G11.4, G80.1, G80.2, G82.x, G83.0-G83.4, G83.9
Renal disease	2	N03.2-N03.7, N05.2-N05.7, N18.x, N19.x, N25.0, Z49.0-Z49.2, Z94.0, Z99.2
Any malignancy, including lymphoma and leukemia, except malignant neoplasm of skin	2	C00.x-C21.x, C23.x-C26.x, C30.x-C34.x, C37.x-C41.x, C43.x, C45.x-C58.x, C60.x-C76.x, C81.x-C85.x, C88.x, C90.x-C97.x
Metastatic solid tumor	6	C77.x-C80.x
AIDS/HIV	6	B20.x-B22.x, B24.x

KCD; Korean standard classification of disease and cause of death, AIDS; Acquired Immune Deficiency Syndrome, HIV; human immunodeficiency virus.