

Supplementary Table 1. Definitions of each component of cardiometabolic diseases

Component of cardiometabolic diseases	Definition
Type 2 diabetes mellitus [1-3]	One or more claims per year for the prescription of anti-diabetes medications with ICD-10 codes E11–14
Obesity	Recorded ICD-10 code E66
Dyslipidemia	Recorded ICD-10 code E78
Hypertension	Recorded ICD-10 codes I10–I15
Ischemic heart disease	Recorded ICD-10 codes I20–25 or claims for percutaneous transluminal coronary angioplasty, percutaneous coronary intervention, thrombolytic treatment, or coronary artery bypass graft
Cerebrovascular disease	Claims for G45 during hospitalization or recorded ICD-10 codes I61–69
Atherosclerosis	Recorded I70
Aortic aneurysm and dissection	Recorded I71–72
Arterial embolism and thrombosis	Recorded I74
Hospitalization for heart failure [3-5]	Hospitalization with a primary diagnosis of ICD-10 code I50

ICD-10, International Classification of Diseases-10th Revision.

SUPPLEMENTARY REFERENCES

1. Noh J, Han KD, Ko SH, Ko KS, Park CY. Trends in the pervasiveness of type 2 diabetes, impaired fasting glucose and comorbidities during an 8-year-follow-up of nationwide Korean population. *Sci Rep* 2017;7:46656.
2. Lee YB, Kim DH, Kim SM, Kim NH, Choi KM, Baik SH, et al. Risk of type 2 diabetes according to the cumulative exposure to metabolic syndrome or obesity: a nationwide population-based study. *J Diabetes Investig* 2020;11:1583-93.
3. Lee YB, Han K, Kim B, Lee SE, Jun JE, Ahn J, et al. Risk of early mortality and cardiovascular disease in type 1 diabetes: a comparison with type 2 diabetes, a nationwide study. *Cardiovasc Diabetol* 2019;18:157.
4. Lee YB, Kim DH, Kim SM, Kim NH, Choi KM, Baik SH, et al. Hospitalization for heart failure incidence according to the transition in metabolic health and obesity status: a nationwide population-based study. *Cardiovasc Diabetol* 2020;19:77.
5. Yun JS, Park YM, Han K, Cha SA, Ahn YB, Ko SH. Severe hypoglycemia and the risk of cardiovascular disease and mortality in type 2 diabetes: a nationwide population-based cohort study. *Cardiovasc Diabetol* 2019;18:103.