## **Supplementary Online Content**

Shoji S, Sawano M, Sandhu AT, et al. Ischemic and bleeding events among patients with acute coronary syndrome associated with low-dose prasugrel vs standard-dose clopidogrel treatment. *JAMA Netw Open*. 2020;3(4):e202004. doi:10.1001/jamanetworkopen.2020.2004

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This supplementary material has been provided by the authors to give readers additional information about their work.

### eAppendix 1. Details Regarding Variable Definitions

Chronic kidney disease was defined as an estimated glomerular filtration rate (eGFR) below 60 mL/min/1.73 m<sup>2</sup>. To accommodate for missing preprocedural eGFR data, we substituted the value with postprocedural eGFR data, if available. Data regarding history of active cancer were collected at baseline from the patient's medical history. Cancer that did not impair patients' long-term prognoses (e.g., skin cancers other than malignant melanomas) was excluded. Coding for preprocedural anticoagulation therapy was added in 2012 and it was available for almost one-half of the registered patients (54.8%). The remaining clinical variables and in-hospital outcomes of the JCD-KiCS registry were defined according to NCDR version 4.1.

#### eAppendix 2. Variables Included in the Propensity Score

Age, sex, body mass index, pre-procedural anemia (hemoglobin <10 g/dL), cancer, history of cerebrovascular disease, chronic obstructive pulmonary disease, chronic kidney disease, dyslipidemia, diabetes mellitus, family history of coronary artery disease, hypertension, history of coronary artery bypass graft, previous heart failure, previous myocardial infarction, history of percutaneous coronary intervention, peripheral artery disease, history of smoking within one year, atrial fibrillation, ST-segment elevation myocardial infarction or non-ST-elevation-acute coronary syndrome, transradial intervention or transfemoral intervention, out-of-hospital cardiac pulmonary arrest, cardiogenic shock, use of venoarterial extracorporeal membrane oxygenation, use of intra-aortic balloon pumps, and hemodialysis.

#### eAppendix 3. Factors Regarding Pre-Specified Subgroup Analyses

The European Society of Cardiology and American College of Cardiology and American Heart Association guideline-defined high bleeding risk characteristics [age  $\geq$ 75 years, body weight  $\leq$ 60 kg, or a history of stroke or transient ischemic attack] vs. low bleeding risk profiles [age <75 years, body weight  $\geq$ 60 kg, and no history of stroke/ transient ischemic attack], age (over 75 years vs. 65 to 74 years vs. under 64 years), body weight (cutoff, 60 kg), sex (male vs. female), ST-segment elevation myocardial infarction vs. non-ST-elevation-acute coronary syndrome, presence of atrial fibrillation, presentation with cardiac pulmonary arrest or cardiogenic shock or use of venoarterial extracorporeal membrane oxygenation or intra-aortic balloon pumps, presence of chronic kidney disease, and presence of diabetes mellitus.

## eFigure 1. Study Flowchart



JCD-KiCS indicates Japan Cardiovascular Database-Keio interhospital Cardiovascular Studies; ACS, acute coronary syndrome; and PCI, percutaneous coronary intervention.



# eFigure 2. Time Trend of Low-Dose Prasugrel Use and Crude Incidence of Bleeding Events in High Bleeding Risk Patients with Acute Coronary Syndrome

**High bleeding risk:** age ≥75 years, body weight <60 kg, or a history of stroke/transient ischemic attack.





**Low bleeding risk:** age <75 years, body weight ≥60 kg, and no history of stroke/transient ischemic attack.

eFigure 4. Histogram of Propensity Score Distribution for Prasugrel and Clopidogrel



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## eFigure 5. Standardized Mean Differences Before and After Propensity Score Matching

CAD, coronary artery disease; PCI, percutaneous coronary intervention; CABG, coronary artery bypass graft; STEMI, ST-segment elevation myocardial infarction; VA-ECMO, venoarterial extracorporeal membrane oxygenation.