The number of patients and inclusion criteria of each facility

The J-DREAMS group includes 3 hospitals: National Center for Global Health and Medicine (NCGM), Juntendo University, and Kindai University. Seven thousand and ninety-two diabetes patients who visited each diabetes department in the hospitals from 2016 to 2018 were included in the J-DREAMS group. The U-CARE study group consists of 8 hospitals in Okayama prefecture: Okayama University Hospital, National Hospital Organization Okayama Medical Center, Okayama Saiseikai General Hospital, Kurashiki Central Hospital, The Sakakibara Heart Institute of Okayama, Tsuyama Chuo Hospital, Japanese Red Cross Okayama Hospital, and Okayama City General Medical Center. The U-CARE study included 777 diabetes patients who annually visited these hospitals from 2012 to 2016 without a previous history of malignancy in the previous 5 years or liver cirrhosis. The University of Tokyo cohort included 31 diabetic nephropathy patients who were ≤81 years old and had no history of treatment for malignancy or cirrhosis of the liver in the previous 1 year, were not on corticosteroid treatment, and did not have uncontrolled hypertension or glucose levels (systolic blood pressure [SBP] ≥ 170 mmHg or HbA1c [NGSP] ≥ 9.5% [80 mmol/mol]) (1 mmHg≒ 133.322 Pa). Their baseline eGFR was 30–60 mL/min/1.73 m², and the data were collected between 2015 and 2017. The Kanazawa Medical University cohort included

1,137 diabetes patients who visited the hospital annually except for patients who developed diabetes secondarily to another endocrine disease. The Kanazawa University cohort included 260 diabetic nephropathy patients who underwent renal biopsy and excluded those with other renal diseases from 1985 to 2017. Similarly, the Niigata University cohort included 41 diabetic nephropathy patients who underwent a renal biopsy between 1991 and 2017.

Information of our prescription data

We had not enough prescription data, for example, less than 25 percent patients had antihypertensive drug information, so the data could not be included to trajectory analysis. Regarding the prescription data, oral antidiabetic drugs included biguanide, sulfonylurea, thiazolidine, α-glucosidase inhibitors, glinide, dipeptidyl peptidase-4 (DPP-4) inhibitors, and sodium-dependent glucose transporter-2 (SGLT2) inhibitors. Antidyslipidemic drugs included statins, fibrates, and eicosapentaenoic acid. Antihypertensive drugs included RAAS inhibitors and calcium blockers.

Institutional Review Board/Ethics Committee Approval

The study protocol was reviewed and approved by the Ethical Committee of the

University of Tokyo School of Medicine [11621-(2)] on 18 July 2017 and subsequently approved by the local ethical committee (NCGM-G-002354-00, 17-116, 29-093, 1710-014, 1203, 2570-1, 2017-0386 for NCGM, Juntendo University, Kindai University, Okayama University, Kanazawa Medical University, Kanazawa University, and Niigata University, respectively).