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EARLY DAPAGLIFLOZIN UTILIZATION FOR CHRONIC KIDNEY DISEASE TREATMENT IN JAPAN

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Background and Aims: In 2021, dapagliflozin was approved for the treatment of adults with chronic kidney disease (CKD) in Japan. This observational analysis is part of the multinational OPTIMISE-CKD study program and aims to describe early dapagliflozin utilization in CKD following approval in Japan, contextualized by contemporary CKD management.

Method: Adult patients with CKD in hospital claims data from the Medical Data Vision Co. Ltd database (MDV; Tokyo, Japan) during 1 March 2020 – 28 February 2022 were included. CKD was defined as any of the following: 2 estimated glomerular filtration rate (eGFR) measures ≥90 days apart of which the second was ≤75 ml/min/1.73 m², or a CKD diagnosis code. Patients with type 1 diabetes, gestational diabetes, <365 days continuous enrolment or who were on dialysis were excluded. The remaining patients were considered eligible for dapagliflozin 10 mg treatment. Dapagliflozin initiators had a recorded prescription for dapagliflozin 10 mg on or after 26 August 2021, and no previous dapagliflozin 10 mg prescription.

Results: A total of 2,297 patients in MDV met the study criteria and had initiated dapagliflozin during the first 6 months since approval. The median age was 70 years (interquartile range; IQR 57-79 years), 33% were female and 50% had a recorded CKD diagnosis. For the 594 initiators who had eGFR data, the CKD stage distribution was as follows: 27% stage 1-2, 28% stage 3a, 28% stage 3b, 16% stage 4 and 1% stage 5 (non-dialysis). The average eGFR among these patients was 49 ml/min/1.73 m² (standard deviation; SD 19 ml/min/1.73 m²). The most common comorbidities were heart failure (37%), hypertension (34%) and type 2 diabetes (34%). Renin-angiotensin system inhibitors (RASi; 58%), calcium channel blockers (37%) and lipid-lowering drugs (37%) were commonly prescribed. Dapagliflozin 10 mg was most commonly initiated in nephrology departments (42%), with a mean initial prescription duration of 41 days (SD 22.6 days). The 180,462 patients who did not initiate dapagliflozin 10 mg were older on average (median 78 years; IQR 69-85 years), and 42% were female. The comorbidity profiles were similar, except that 24% of patients had type 2 diabetes. The distribution of CKD stages among the 95,465 patients with available data was slightly different: 59% stage 1-2, 22% stage 3a, 11% stage 3b, 6% stage 4 and 3% stage 5 (non-dialysis). Only 23% of patients were prescribed RASI and 41% were prescribed any kind of cardiovascular treatment.

Conclusion: Early use of dapagliflozin in Japan was observed in a broad range of patients with CKD with respect to baseline characteristics. These preliminary data suggest that there is a large proportion of CKD patients who may be eligible, but not yet treated with dapagliflozin 10 mg, which has shown to attenuate disease progression and reduce adverse outcomes. Considering that the majority of prescriptions was made in nephrology departments, there might be opportunities in other healthcare specialties to improve CKD diagnosis and treatment. Additional analyses, including sensitivity analyses using more conservative CKD definitions, could further specify the unmet need and highlight activities that may increase prescriptions among patients who might benefit from treatment. Further analyses across more patients and countries in the OPTIMISE-CKD program will provide additional insight into the real-world experience of novel treatments for CKD and facilitate optimized CKD management.