

PRESCRIPTION PATTERNS OF ANTIDIABETIC AGENTS AND RENAL EFFECTIVENESS CO174

AMONG PATIENTS WITH DIABETIC KIDNEY DISEASE

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OBJECTIVES

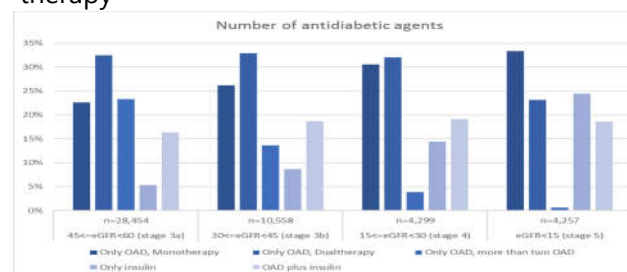
- The nephroprotective effect of antidiabetic medications is emphasized in guidelines for diabetic kidney disease (DKD) but evidence of real-world utilization and renal effectiveness is limited.
- This research aims to demonstrate the prescription patterns of antidiabetic medications by drug class and examine the subsequent renal outcomes among patients with DKD.

METHODS

- Diabetic patients with stable antidiabetic treatment and incident estimated glomerular filtration rate (eGFR) < 60 ml/min/1.73 m² were identified from Taiwan's National Health Insurance datasets between 2016-2018.
- Baseline renal function was classified by eGFR as 45-59 (stage 3a), 30-44 (stage 3b), 15-29 (stage 4) and < 15 (stage 5).
- Renal outcome: (1) renal progression: sustained eGFR decline of ≥ 50% from baseline; (2) severe renal failure: kidney dialysis or kidney transplantation.
- Survival analysis for renal effectiveness: sodium-glucose cotransporter-2 inhibitors (SGLT-2i) vs. dipeptidyl peptidase-4 inhibitors (DPP4i).

RESULTS

- A total of 47,568 DKD patients were identified. 59.82% were stage 3a, 22.20% were stage 3b, 9.04% were stage 4 and 8.95% were stage 5.
- Decreased multiple oral agents** in antidiabetic therapy



- Decreased metformin** use but **increased insulin** use among DKD population

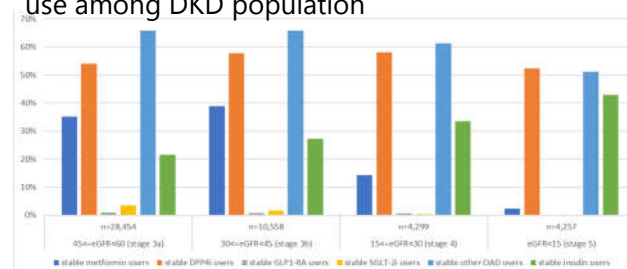


Figure 1. Exposure to antidiabetic agents, stratified by the baseline renal function

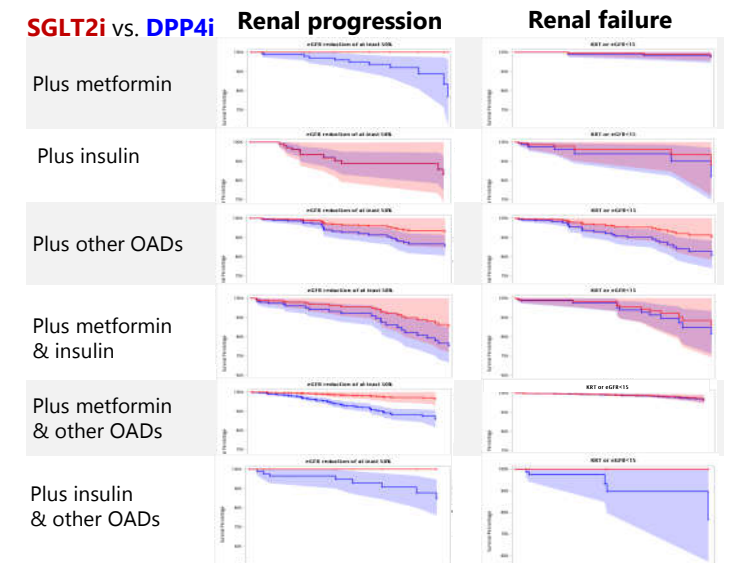


Figure 2. Kaplan-Meier curve for renal outcomes between SGLT-2i and DPP4i with other concurrently prescribed anti-diabetic agents.

CONCLUSION

This real-world data revealed the prescription pattern of antidiabetic agents according to the renal function. Our finding is also consistent with previous studies that SGLT2i slows the eGFR progression and renal failure