1. Introduction/Background
Sodium-Glucose Cotransporter-2 Inhibitors (SGLT2) have demonstrated cardiorenal disease protection (approved 2021), in addition to established anti-glycemic effects (approved 2013). Early health care provider (HCP) adoption of new SGLT2 formulare drug indications is variable due to prescription costs, payer approval and prescriber type, particularly when the label is broad, as in the case of SGLT2. Real World Data (RWD) of early adopter HCP use of SGLT2 use may offer insights into understanding practice trends for CKD management and health economics.

2. Goal
Describe patterns in new initiation of SGLT2 among patients with CKD stages 2-4.

3. Methods
• Study population was identified in the HealthVerity PrimarySource20 (PS20) closed claims linked with integrated Veradigm Health Insights EHR and Quest laboratory data (2018-2021).
• The first eGFR test date was the index date, patients were followed for initiation of SGLT2, end of continuous enrollment or end of data.
• The provider type on the prescription claim was identified.
• Patients with AKI & SGLT2 prescriptions during baseline were excluded. Figure 1 depicts the attrition when patient selection criteria are applied.
• Comorbidity conditions shown by CKD stage in Figure 2.
• Baseline Characteristics:
  • Mean age 63 years, 54.3% female
  • Payer type: 38.7% commercial, 50.0% Medicaid/Medicare, 11.3% unknown

4. RESULTS
• 5.1% of CKD patients (7094/137,874) Stages 2-4 started SGLT2 therapy.
• 94.0% of new SGLT2 use was among T2DKD. SGLT2 initiation was highest in Stage 2 and 3 (5.7%, 4.1%) respectively.
• Prescriptions increased until Q1 2020 (Fig 4)
• 4 specialty groups comprised 79.0% of prescribers overall; General Medicine-GM (59.0%) and Endocrinologists (16.0%)

5. Discussion
• Limitations of RWD include large attrition across inclusion requirements and inconsistent eGFR sampling.
• SGLT2 use was limited when first approved but increased over time due to expansion of uses and declined in 2020 due to COVID-19.
• SGLT2 prescriptions were greatest in Primary Care Providers, likely related to initial anti-glycemic indications.
• Prescriptions by Cardiologists and Nephrologist increased, possibly related to familiarity of cardiorenal benefits.
• The proportion of new SGLT2 prescription prescribed by Nephrologist increased with more severe CKD stage possibly related referral patterns, newer renal protective label and familiarity of complex therapeutic options.

6. Conclusions
• RWD indicates sparse initiation of SGLT2 in CKD patients.
• GM and Endocrinology were the most common prescribers
• Nephrology prescriptions increased among patients with more advanced CKD stage
• Additional SGLT2 evaluation is necessary to align with updated payer reimbursement, practice patterns and newer indications for reduction in cardiovascular and renal risk.

References

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