

Trends of Use of SGLT2 Inhibitors in Qatar

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Background

- Type 2 diabetes mellitus (T2DM) represents a growing health challenge in Qatar and worldwide^{1,2}
- T2DM is associated with a high risk of cardiovascular (CV) morbidity and mortality, and progression of renal disease³
- Sodium glucose co-transporter 2 inhibitors (SGLT2is) are the most recently approved class of glucose lowering medications (GLMs)
- To date, there is a limited knowledge about the adoption of SGLT2is by clinicians compared to other oral GLMs in Qatar and Middle East and North Africa (MENA) region

Objectives

- This descriptive, retrospective cross-sectional study aims to explore the trends in SGLT2is use compared to other oral GLMs in Qatar from 2016 to 2020

Methods

- Information on the usage of the approved SGLT2 inhibitors in Hamad Medical Corporation (HMC) formulary (dapagliflozin 10 mg, and empagliflozin 10 mg and 25 mg) compared to other oral GLMs were collected over the past 5 years
- Outcomes included the number and relative frequency of quarterly prescriptions of different oral GLMs classes [metformin, sulfonylureas (SUs), dipeptidyl peptidase 4 inhibitors (DPP-4is), thiazolidinediones (TZDs), meglitinides (MEGs), α -glucosidase inhibitors (AGIs), and SGLT2is] from 2016 to 2020
- Ethical Approval: Qatar University Institutional Review Board 1471-E/21

Results

- Overall, the prescription rate of GLMs increased during the last five years
- The total number of GLMs prescriptions was 217130 between 2016 and 2020 (Figure 1)

Results ... Continued

- SGLT2is use increased over the years after being introduced to the formulary in 2017, replacing SUs which exhibited significant decline between 2017 and 2020 (Figure 2)
- There was a slight reduction in metformin use, and a slight increase in DPP-4is use (Figure 2)
- TZDs, MEGs, and AGIs prescriptions remained stable (Figure 2)
- Among SGLT2is, empagliflozin showed considerable increase on the expense of dapagliflozin which decreased significantly by the end of 2018 (Figure 3)

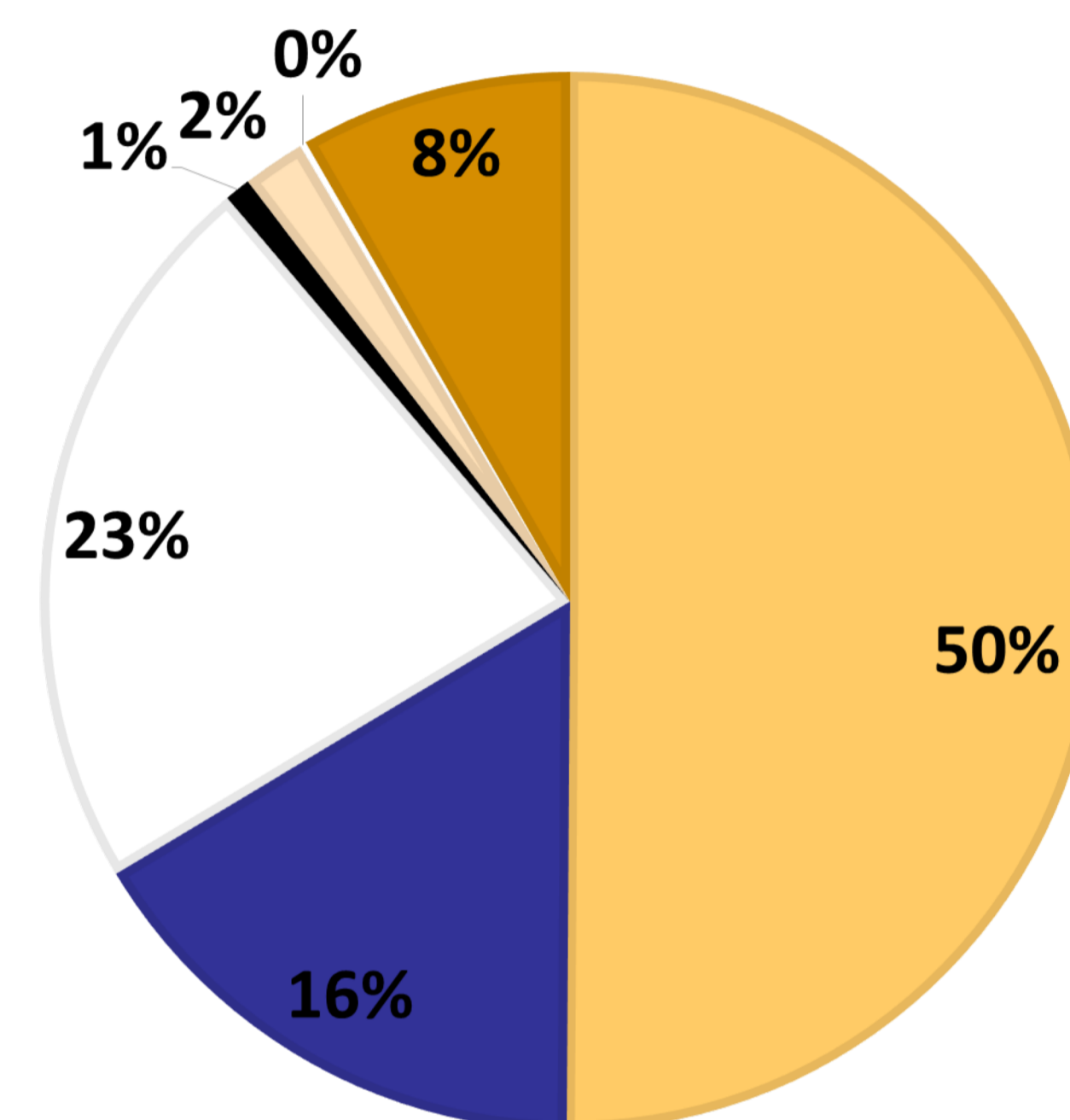


Figure 1: Percentage of each GLM class

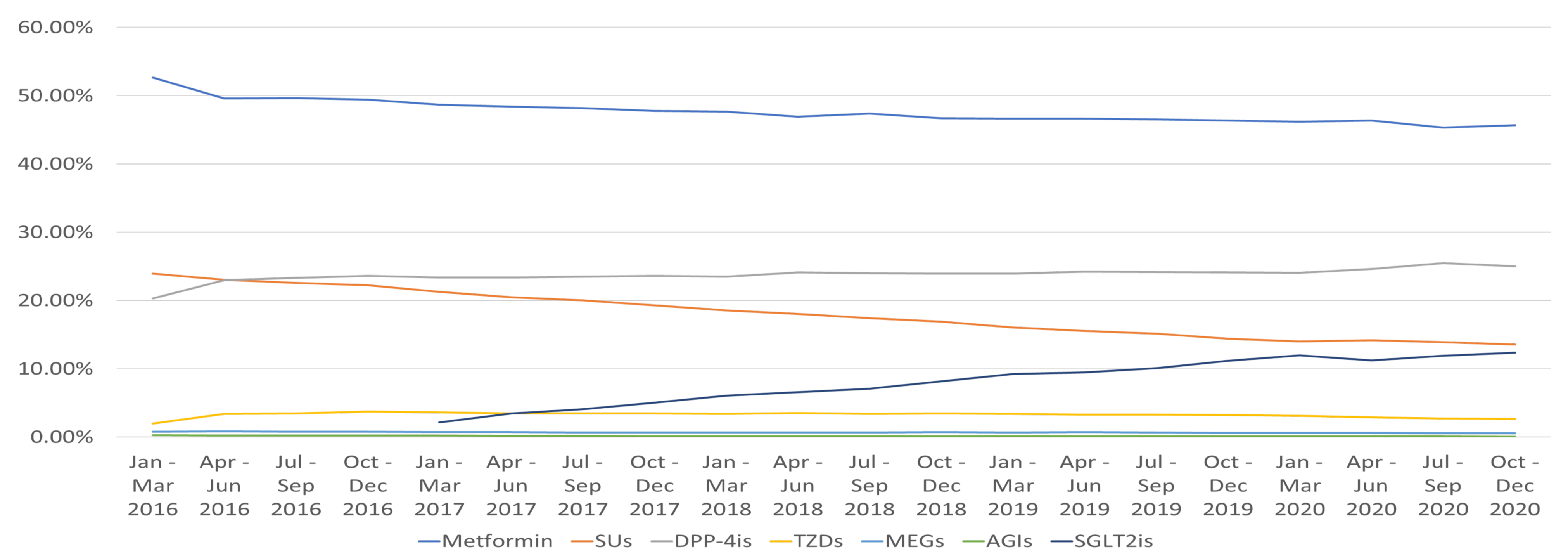


Figure 2: Percentage of patients taking GLMs

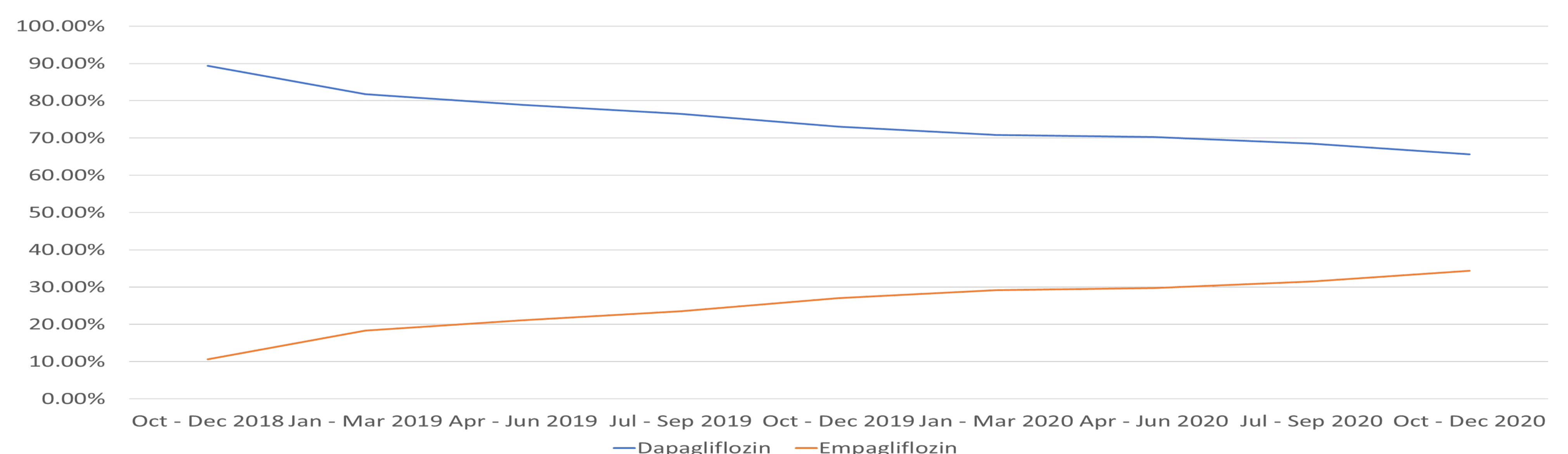


Figure 3: Percentage of patients taking SGLT2is

Conclusion

- SGLT2is have been gradually replacing SUs in Qatar and the trend of their use is similar to that reported in other countries
- The trend among SGLT2is suggests greater preference for empagliflozin over dapagliflozin

References

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