

BACKGROUND

Persons living with type 2 diabetes (PLwT2D) and micro/macro-vascular complications are more likely to experience premature mortality, high health care costs and lower quality of life (1-7).

Two classes of glucose lowering medications, glucagon-like peptide-1 receptor agonists (GLP-1 RA) and sodium-glucose cotransporter-2 inhibitors (SGLT2i) have been shown to reduce cardiorenal outcomes such as cardiovascular death, myocardial infarction, stroke, hospitalization for heart failure and progression of renal disease among PLwT2D (8-11).

As a result, Diabetes Canada Clinical Practice Guidelines recommend these glucose lowering medications for cardiorenal protection in persons living with type 2 diabetes (PLwT2D) and underlying cardiorenal conditions (11,12).

AIM

We sought to describe the proportion of PLwT2D with an indication for a cardiorenal antihyperglycemic agent and determine how many were currently prescribed these medications.

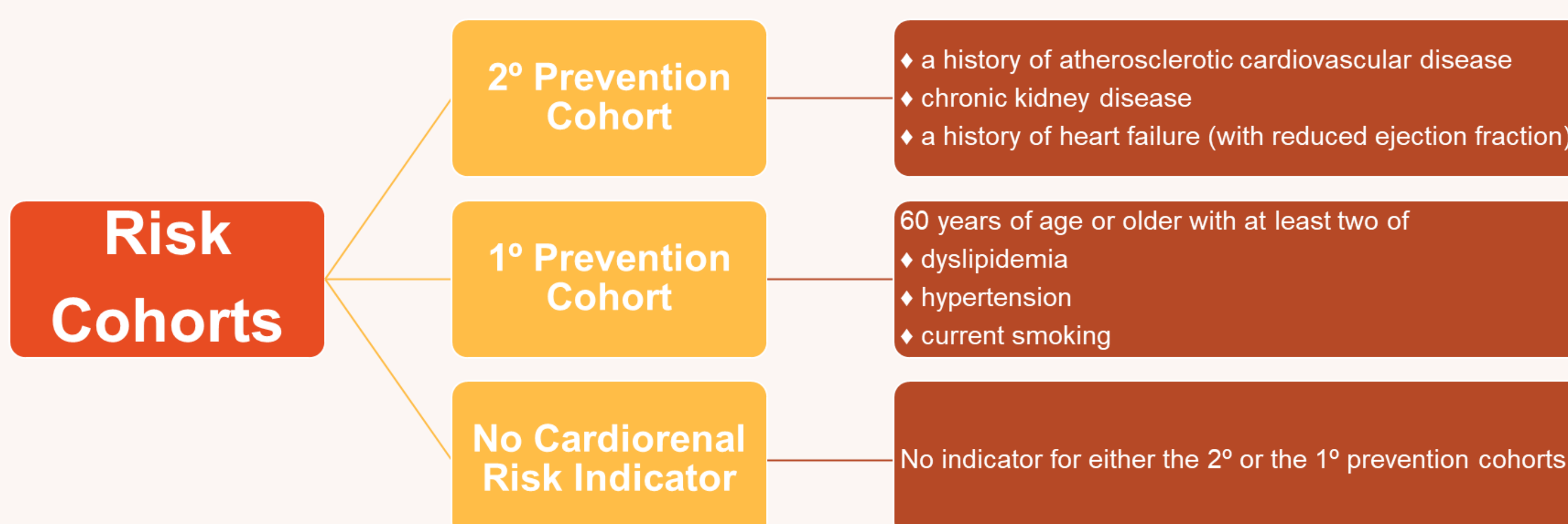


Figure 1: Description of risk cohorts recommended to be prescribed these antihyperglycemic agents compare to the “No Cardiorenal Risk Indicator Group”.

METHODS

This study used cleaned and processed CPCSSN data extracted from the electronic medical records of participating family physicians in southern Alberta and focused on PLwT2D with at least one clinical encounter with their primary care practice between 2018-2020.

Descriptive and multiple logistic regression analyses were used to characterize the study population and factors associated with GLP-1 RA and SGLT2i prescriptions, respectively.

RESULTS

Of the 11,939 PLwT2D, **66.3% had a cardiorenal indication for these medications.**

Table 1: Odds ratios and 95% confidence intervals for factors associated with being prescribed an antihyperglycemic agent.

Variables	Odds Ratio (95% CI)	Pr(> z)
Age in years	0.97 (0.96-0.97)	<0.001
Sex		
Female	Ref	--
Male	1.30 (1.15-1.48)	<0.001
HbA1c, %	1.29 (1.24-1.34)	<0.001
Comorbidity		
None	Ref	--
One to two	1.62 (1.11-2.43)	0.016
Three or more	1.80 (1.22-2.72)	0.004
Material Social Deprivation Index		
1 (least deprived)	Ref	--
2	0.89 (0.74-1.07)	0.220
3	0.96 (0.79-1.17)	0.660
4	0.85 (0.69-1.05)	0.124
5 (most deprived)	0.53 (0.41-0.68)	<0.001

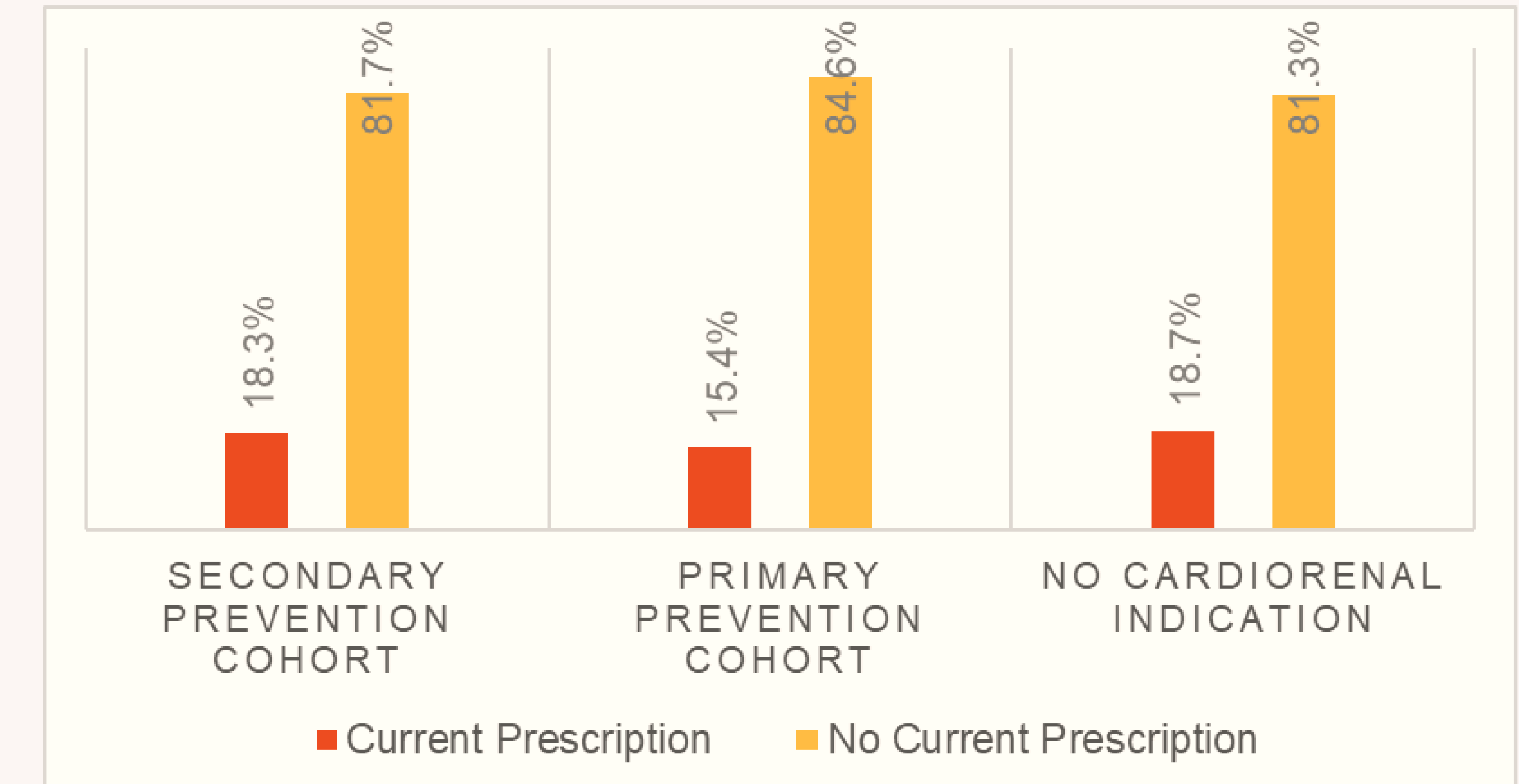


Figure 2: Percentage of patients who had a record of a current prescription for GLP-1 RA and/or SGLT2i based on their cardiorenal risk indicator group.

CONCLUSION

There was substantial underuse of cardioprotective diabetes medications in this sample of primary care patients. Tools and strategies to fill the gap between ideal and current prescription levels are needed if the benefits of these medications, demonstrated in trials, are to be seen at the population level.

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