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Note From the Editor-in-Chief

In This Issue...

Amongst a wide variety of articles, this issue of the *Canadian Journal of Diabetes* includes several studies that utilized data from electronic medical records or administrative databases. The reports highlight the potential for these sources to be used to improve our understanding of diabetes and its complications and to improve the quality of care for persons living with diabetes.

Risk Factors for Recurrent Diabetic Ketoacidosis in Adults With Type 1 Diabetes

Del Degan et al (1) present the findings of a study that aimed to identify risk factors for diabetic ketoacidosis (DKA) in adults with type 1 diabetes outside of the newly diagnosed period. They compared those with an isolated episode of DKA to those with recurrent episodes of DKA. This has not been described previously within the Canadian context. Data for this study were gathered from electronic medical records from 5 tertiary care centres in a single city.

This study demonstrates that those with recurrent DKA were more likely to have a higher glycated hemoglobin, poor adherence to insulin therapy, documented psychiatric illness and alcohol abuse or illicit drug use, and less likely to be on an insulin pump than those with an isolated episode of DKA. However, after multivariate analysis, only poor adherence to insulin therapy remained statistically significant, with a trend toward increased frequency of psychiatric illness in those with recurrent DKA. In addition, the authors found that only 50% of patients received education at the time of the DKA episode from a diabetes-specific health professional and only 25% when offered psychosocial supports. These rates did not differ between the isolated or recurrent DKA groups. The authors did not have a comparator group of adults with type 1 diabetes who did not have DKA. Perhaps the most sobering finding in the study is the high rate of all-cause mortality reported after an episode of DKA in this relatively young population. The report serves as reminder that DKA remains a significant concern among adults with type 1 diabetes. The authors suggest that interventions targeting adherence to insulin therapy and those that address psychiatric comorbidity could reduce the incidence of this potentially preventable high-risk complication, particularly in those with recurrent episodes.

Impact of Socioeconomic Status on Incidence of End-Stage Renal Diseases and Mortality After Dialysis in Adults With Diabetes

Lower socioeconomic status (SES) is positively associated with adverse renal outcomes in persons living with diabetes; however, this association is attenuated by access to universal drug coverage

according to Ke et al. (2) Their conclusions are based on a population-based, retrospective cohort study linking provincial administrative databases in Ontario. The authors aimed to determine whether SES, with or without universal drug coverage, is associated with incidence of end-stage renal disease in people living with diabetes. They hypothesized that lower SES would be associated with an increased incidence of end-stage renal disease, but that this association would be diminished by universal drug coverage. In Ontario, universal drug coverage is provided for individuals ≥ 65 years of age. Thus, individuals with diabetes ≥ 65 years old (receiving universal drug coverage) were compared with individuals < 65 years old living with diabetes (without universal drug coverage). The study highlights the ongoing health disparity associated with low SES, even in a country such as Canada with universal health care. The authors further suggest policies aimed at improving access to drug coverage may be a way to decrease this disparity.

Exploring Clinical Care Among Adults With Diabetes Mellitus: Alignment With Recommended Statin and Sulfonylureas Treatment

Sanchez-Ramirez et al (3) conclude that “Primary care providers practice does not always align with current evidence-based guidelines or Choosing Wisely Canada recommendations for patients with diabetes mellitus.” In their work, the authors report the results of a retrospective review using the electronic medical record to assess the extent that primary care providers (PCPs) in Manitoba incorporate 2 clinical practice guidelines related to the use of pharmacologic agents in the adult population with either type 1 or type 2 diabetes. Specifically, they assessed alignment with the guidelines to: 1) begin statin use in patients with diabetes who are ≥ 40 years old, and 2) avoid use of a sulfonylurea in patients ≥ 65 years old. To do this, they extracted data over a 10-year period (2007 to 2017) and looked at prescriptions for statins in individuals with newly diagnosed diabetes who were ≥ 40 years of age and prescriptions for sulfonylureas in those with diabetes ≥ 65 years of age. In addition, they extracted data on provider characteristics, such as age, sex, location of practice and remuneration type (fee for service vs salary). They found that statins were prescribed at a relatively low rate (41%) among newly diagnosed people with diabetes, whereas sulfonylureas were prescribed at high rates in the older age group (74%). They also found that older PCPs and female PCPs were less likely to prescribe statins, but did not identify any provider characteristics associated with low prescribing rates of sulfonylureas in the older population. The authors suggest their findings can be used to target

ongoing professional education for PCPs who provide care and support to adults living with diabetes.

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Author Disclosures

Conflicts of interest: None.

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