

Sight Loss Prevention and Diabetes Position Statement

Executive Summary

Diabetes represents one of the greatest public health and health systems challenges in Canada. Diabetes decreases quality and length of life and is the leading cause of sight loss in this country. Among the numerous diabetes complications, blindness due to diabetic retinopathy (DR) imposes an enormous burden on public health and has significant clinical implications. Even though substantial progress has been made in understanding the etiology of the disease and increasing access to new screening and treatment modalities, DR places an enormous impact on society and the economy. Further, in parallel with the increasing prevalence of diabetes and the aging population in Canada, the burden of sight loss attributable to DR is substantial and growing.

The development and progression of sight loss due to DR can be altered by addressing modifiable risk factors, early detection through recommended screening guidelines, and appropriate cost-effective management and treatment. This policy position presents the disease and economic burden of sight loss due to DR, as well as prevention interventions that can be administered by public health, primary health-care systems, and health-care providers.

Prevalence of Sight Loss

DR, the most common microvascular complication among people living with diabetes, is the leading cause of new cases of legal blindness in working-aged individuals. Diabetes is responsible for about 12% of all new cases of sight loss and DR will affect most people living with diabetes at some stage during their lifetime. People living with diabetes are 25 times more likely than the general population to become blind. Currently, at least 500,000 Canadians living with diabetes have some form of DR, 100,000 have a vision-threatening form (defined as severe DR, diabetic macular edema, or both), and 6,000 are already blind from the disease.

Impact of Sight Loss

Sight loss and blindness impose a great social and economic burden on individuals and society. Sight loss due to DR is associated with significant morbidity, including increased falls, hip fractures, and a four-fold increase in mortality. Treating sight loss resulting from DR is significantly more costly than treating sight loss from other causes and has been estimated at \$250 million in 2020 Canadian dollars.

Need for Sight Loss Prevention Initiatives

Prevention of sight loss involves activities aimed at reducing the onset of DR in people living with diabetes, and enhanced screening to detect the onset of DR, paired with access to treatments. Increased screening is associated with better vision outcomes, while low screening rates are associated with lost opportunities in preventing sight loss attributable to DR. In Canada, there are low levels of DR screening

(between 35.6%–67.4%). Low rates of screening are attributed to limited accessibility to eye care professionals, socioeconomic and geographic challenges, restricted mobility associated with poor health, and lack of awareness and knowledge. Effective diabetes management is a key strategy for preventing and delaying the onset of vascular complications, including DR.

Gaps in Care

Early detection of DR by screening is variable across Canada and is not readily accessible in rural, remote, and northern regions. Interventions to increase DR screening rates can be delivered at a patient, provider, or health system level. A shift in focus from managing DR to preventing it is needed. The effective implementation of prevention strategies has the potential to significantly reduce the burden of sight loss due to DR.

Recommendations

Diabetes Canada recommends that the **federal** government:

- Adopt a National Diabetes Strategy that includes a campaign on the importance of vision care in the management of diabetes, to raise eye health as a priority on a national platform.
- Develop programs and services to enable screening for and management of diabetic retinopathy. This includes using available data to help identify individuals who are at risk for sight loss, assessing approaches to managing diabetic retinopathy, and facilitating access to integrated diabetes care teams that include optometrists and ophthalmologists, who can help delay or prevent sight loss for people with diabetic retinopathy.
- Within a national framework to address diabetes, develop and launch a diabetic retinopathy screening service for everyone and target certain population groups who are vulnerable and/or disproportionately affected, including people residing in northern, rural, and remote regions. Access to screening must be coupled with access to timely treatment.
- Under the auspices of a National Diabetes Strategy, develop a multi-stakeholder coalition comprising people living with diabetes, researchers, clinicians, and organizations that advocate for diabetes and vision-related complications, to address barriers and identify solutions at a national level to support the development of evidence-based policy, foster intergovernmental collaboration within ministries, and develop a national strategy for diabetes-related eye complications.
- Assess the disparities in access to care at a national level, including proximity to health-care services and at-risk populations, to develop strategies to address identified inequalities.
- Establish an interdisciplinary and multi-sectoral research funding strategy, which aims to address the research gaps in diabetes-specific risk factors and indicators, socio-economic implications of diabetes-related eye complications, screening and treatment of diabetes-related eye complications, and effective knowledge translation, to optimize patient outcomes and improve access and delivery of health-care services.

- Invest in continuing education and training for all health-care providers, about the etiology of diabetes, prevention strategies, and advancement in available diabetes and diabetes-related complications, screening, treatment, and management.
- Promote the vision health guidelines on screening, treatment, and management, as outlined in the most current Diabetes Canada *Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*.

Diabetes Canada recommends that **provincial and territorial** governments:

- Adopt a National Diabetes Strategy that includes a campaign on the importance of vision in the management of diabetes, to raise eye health as a priority on a provincial/territorial platform and, if available, inform people with diabetes of available screening services.
- Develop programs and services to enable screening for and management of diabetic retinopathy. This includes using available data to help identify individuals who are at risk for sight loss, assessing approaches to managing diabetic retinopathy, and facilitating access to integrated diabetes care teams that include optometrists and ophthalmologists, who can help delay or prevent sight loss for people with diabetic retinopathy.
- Establish a collection of information and patient education resources regarding diabetes-related sight loss.
- Evaluate the effectiveness of eye-related information and interventions provided by patient support programs, to ensure adequate access to education and behavioural interventions.
- Promote a patient-driven health-care system that supports effective communication between relevant health-care providers, including the sharing of relevant patient data, to optimize patient outcomes.
- Ensure that clinical settings of health-care providers, which provide care to people living with diabetes, have sufficient patient education information on diabetes-related eye complications. Information should be available in the patient's native language and provided upon both initial diagnosis of diabetes and initial eye exam.
- Assess health-care system barriers to eye exams and define a strategy to ensure that they are available to all people living with diabetes, regardless of age, duration of diabetes, gender, and socioeconomic status.
- Promote the vision health guidelines on screening, treatment, and management, as outlined in the most current Diabetes Canada *Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*.

Diabetes Canada recommends that **municipal** governments:

- Educate the public by promoting the value of eye examinations to detect and monitor the development and progression of diabetic retinopathy through a multi-stakeholder public health information campaign.

- Establish a hub of information and patient education resources regarding diabetes-related sight loss.
- Evaluate the effectiveness of eye-related information and interventions provided by patient support programs, to ensure adequate access to education on behavioural interventions.
- Promote the vision health guidelines on screening, treatment, and management, as outlined in the most current Diabetes Canada *Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*.

Diabetes Canada recommends that **health-care providers**:

- Consider diabetic retinopathy prevention and management a population health priority and integrate it into patients' preventive health-care routine.
- Provide diabetic retinopathy screening and treatment, as well as management guidance, as outlined in the most current Diabetes Canada *Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*.
- Incorporate a vision care professional (optometrist or ophthalmologist) in the health-care team of their patients living with diabetes to ensure optimal patient outcomes.
- Are trained to engage people with diabetes in a proactive dialogue on the importance of eye health and preventive strategies, including adherence to eye exams, as outlined in the *Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*.
- Inform people living with diabetes of the results of their screening exam, their diagnosis, rationale for treatment modality, and preventive measures, to ensure they are an active participant in their medical care.
- Ensure people with diabetes are equipped with sufficient and suitable information on diabetes vision-related complications and effective screening, treatment, and management. Information should be available in a language they understand and provided upon both initial diagnosis of diabetes and initial eye exam.
- Evaluate the uptake, barriers, and effectiveness of eye-related information in diabetes management programs, to ensure appropriate education on lifestyle and behavioural interventions.

Diabetes Canada recommends that **Canadians** living with diabetes:

- Continue to manage their diabetes to prevent or delay the onset of diabetes-related complications, including blindness.
- Regularly communicate with their team of health-care providers to facilitate adherence to diet, exercise, and medication regimens.
- Get a comprehensive eye exam, as outlined in the *Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*, as diabetic retinopathy can be undetected without routine screening until irreparable sight loss occurs. Discuss the recommended frequency with your diabetes health-care team and experienced vision care professionals (optometrist or ophthalmologist).

Diabetes Canada will:

- Advocate for a National Diabetes Strategy that includes a campaign on the importance of vision care in the management of diabetes, to raise eye health as a priority on a national platform.
- Call for affordable and timely access to medications, devices, supplies, education, services, and supports that are necessary to achieve optimal diabetes management and prevent the onset of serious complications, including sight loss.
- Call for access to publicly funded services to prevent and treat diabetic retinopathy, including screening, treatment, and management.
- Advocate on behalf of Canadians living with diabetic retinopathy who are denied access to evidence-based treatment, or screening services, due to reimbursement restrictions and/or the inability to pay for life-sustaining services.
- Work with patients and health-care providers to establish information requirements for people with diabetes regarding diabetes-related sight loss and develop appropriate patient education resources on diabetic retinopathy.

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For More Information: Please visit www.diabetes.ca

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