

Outcome Analysis of a Pilot Community Population-Based Screening Program for Diabetic Retinopathy

LICA CHUI, PEGGY DUNBAR, VLADIMIR KOZOUSEK. Retinopathy Screening Group. Ophthalmology, Dalhousie University and The Diabetes Care Program of Nova Scotia (DCPNS), Halifax, NS.*

The purpose of this pilot was to improve the screening rates of diabetic retinopathy in selected Nova Scotia communities and to determine the number of individuals with unrecognized and/or untreated sight threatening retinopathy.

Three First Nations and 3 non-First Nations communities were selected for screening. The program adopted a community-based screening approach and used a mobile camera, ophthalmic photographer, local area nurses, and trained volunteers. Referrals from health care professionals as well as self-referrals from persons with diabetes, were accepted for the program. The screening examination consisted of patient consent and confidentiality explanation, standard visual acuity determination, blood pressure (BP) measurement, and fundus photography of 3 fields (in both eyes) using a standard, mydriatic 30° fundus camera. Independent evaluation of the processed slides was performed by 2 graders.

Four hundred forty-nine (449) people were screened. 57% (257) had not had a dilated eye exam since diagnosis. 16% (73) were found to need further assessment by ophthalmology. Of the 73 individuals needing further assessment, 7.3% (33) were referred due to their level of retinopathy (level 47 or worse by the modified ETDRS classification or clinically significant macular edema), 4.7% (21) were referred due to inadequate photographs, 1.6% (7) were referred for findings suspicious of glaucoma, and 2.7% (12) were referred for other findings. BP measurements were found to be within the recommended targets for people with diabetes (< 130/85 mmHg) in 30% of First Nations' individuals and 50% of non-First Nations' individuals.

As demonstrated, this pilot project did meet its goals of improving retinopathy screening rates and detecting vision threatening pathology.

Poster presentation. CDA/CSEM Professional Conference and Annual Meetings, Vancouver, BC, October 2-5, 2002.