A game changer for eye care for diabetes

Non-mydriatic photography may be the key to accessible eye care

Every patient with diabetes is at risk of losing vision, but up to 98% of the cases of severe vision loss could be prevented.[1] At any given time, about a third of patients with diabetes will have diabetic retinopathy, and one in ten will experience sight-threatening retinopathy requiring prompt treatment.[2] The National Health and Medical Research Council (NHMRC) guidelines recommend an eye examination every 2 years for non-Indigenous Australians with diabetes, and annual examinations for Indigenous people with diabetes.[3] However, approximately only half of non-Indigenous patients with diabetes and only one in five of Indigenous Australians with diabetes receive the recommended eye examinations.[4]

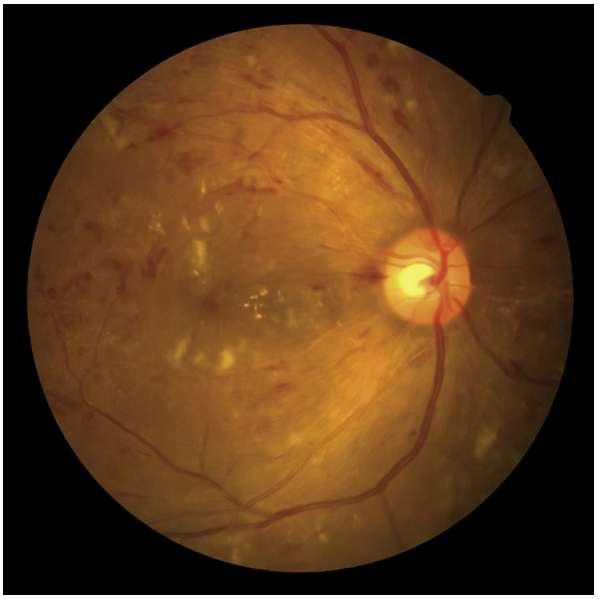
Although the prevalence rates of diabetes have increased dramatically in Australia over recent years, they have increased even more so among Indigenous people. In the 1970s, the prevalence of diabetes among Indigenous people was one-tenth that of non-Indigenous people,[5] and now it is about five times higher.[6]

For patients with diabetes, maintaining good vision is an essential goal. Not only is good vision important in its own right but, without it, patients cannot manage their diabetes, look after medications, check blood sugars, check their feet and attend clinic appointments unassisted, let alone manage home dialysis.

Diabetes is also a leading cause of vision loss and blindness in Indigenous people and causes 12% of vision loss cases and 9% of blindness cases — rates that are 14 times higher than those in the non-Indigenous population.[4] There are many reasons why Indigenous people with diabetes do not receive the appropriate care they need; the *Roadmap to close the gap for vision* lists 35 individual problems that need to be dealt with to provide this care.[7,8]

Consistent with the Roadmap is an important announcement in the May 2016 federal Budget of the new Medicare items for non-mydriatic photography (listed in November 2016), which will enable easy and affordable eye screening within the primary care setting for patients with diabetes.[9] This is a very important development and a game changer for both non-Indigenous and Indigenous people with diabetes.

The new item numbers cover a test of visual acuity and a retinal photograph.[9] Patients with abnormalities in the eye will need to be referred to a specialist for further assessment and treatment. Patients with a normal eye examination will be reviewed again according to the NHMRC recommendations. Non-mydriatic cameras are now readily available, and most are at least semi-automatic, making them easier to use by clinic staff. Moreover, non-mydriatic cameras do not require the use of dilating drops, which facilitates patient assessment. The patient does not need to wait and there is no discomfort of blurry vision for several hours as the drops wear off. Testing visual acuity and taking a retinal photograph in the primary care setting means that a separate specialist appointment is not required, and the eye examination can be easily incorporated into the care plan. If the vision is found to be impaired or a photograph cannot be obtained, then the patient requires a comprehensive eye examination and should be referred to a specialist, as in the case of visible signs of retinopathy.



This method provides real benefits to patients because the eye examination becomes an integral part of their normal care, avoiding in many cases the need for an additional eye examination and allowing timely treatment, if required. There is a real advantage for the clinic as well, since they can be sure that their patients are receiving the necessary eye examinations. Moreover, there are also advantages for optometrists and ophthalmologists, because people with diabetes who particularly need their care — those with retinopathy and vision loss — will be referred, rather than them seeing people for widespread screening. Of course, it is expected that the overall number of people with diabetes being screened will increase significantly, and that changes in the eye will be found much earlier and severe retinopathy will be avoided. There is also a tangible advantage to the community through cost savings in the identification and care of retinopathy, which will prevent unnecessary blindness and vision loss.[10]

The impact will be particularly noted among Indigenous people with diabetes, who represent three-quarters of the Indigenous adults who need an eye examination each

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year.[7,8] In addition to diabetic retinopathy, people with diabetes have an increased risk of cataract and may also need a change in glasses. To provide adequate eye care to people with diabetes, a referral process for the treatment of retinopathy needs to be established, along with a process of specialist referral for appropriate further investigation and treatment — including post-operative follow-up when required — for those who need cataract surgery or refraction. Those who do not have diabetes will also use these pathways. The focus on eye care for Indigenous people with diabetes will therefore deal with over 70% of the eye care needs in the community, and it will also assist with providing care for Indigenous patients who do not have diabetes. Again, it is a real game changer.

There are a number of resources to assist with the uptake and promotion of these new services. There are online modules aimed at helping clinic staff learn more about the eye care required for people with diabetes,[11,12] for conducting eye examinations and for grading diabetic retinopathy. In addition, culturally appropriate health promotion material has been specifically developed with close community involvement, which aims to alert and inform patients and the community about the need for regular eye examinations.[13]

It is said that "what is not measured is not done" and that "what is not monitored cannot be managed". It is very important that appropriate monitoring and evaluation processes to track performance are put in place at the clinic, regional, jurisdictional and national levels. The diabetic eye screening rate should be a key performance indicator for primary care and diabetes clinics.

The new Medicare item number for non-mydriatic diabetic retinopathy screening is a major advance in closing the gap for vision.

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