Late referral for diabetic retinopathy screening in general practice

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Received 16 June 2016; accepted 22 June 2016

Conflict of interest: None

Funding sources: The study was supported by the Charles Viertel Charitable Foundation, the Lloyd and Kathleen Ansell Ophthalmology Foundation and the Mankiewicz-Zelkin Fellowship of the University of Melbourne to Dr Finger. CERA receives Operational Infrastructure Support from the Victorian Government. Dr Rees is funded by National Health and Medical Research Council Career Development Award 1061801.
Diabetes care, in accordance with recommended guidelines, which includes regular eye examinations, has been shown to significantly reduce the occurrence of vision loss and blindness in persons with diabetes\textsuperscript{1}. Despite this evidence, diabetic retinopathy (DR) remains a leading cause of blindness in working-aged adults in Australia.

Since 2008, the Australian National Health and Medical Research Council (NHMRC) guidelines recommend that DR screening occurs at the diagnosis of type 2 diabetes and at least biennially thereafter\textsuperscript{2}. Yet, a recent Australian study found one in three people with diabetes reported not having had an eye test within the past 2 years\textsuperscript{3}.

General practitioners (GPs) are on the front line to safeguard individuals from vision loss associated with diabetes, by coordinating the early detection and timely treatment of diabetic retinopathy (DR). In this study we examined current GP management practices for DR screening in adherence with the Australian NHMRC guidelines.

A cross-sectional survey of 598 GPs in Victoria was conducted in January 2014. GPs were identified from consenting individuals with diabetes from another research project\textsuperscript{4}. The survey comprised 12 multiple-choice and open-ended questions relating to DR screening of the specific individual involved and general DR screening referral practices. A total of 198 responses to the survey were received (of 598, 33% response rate). Of these, 175 were complete (of 598, 29% participation rate).

The mean period between the diagnosis of diabetes and first eye referral was 3.1 years (standard deviation [SD] 5.1 years). Over half (53\%) of GPs reported that they refer a person newly diagnosed with diabetes for an eye check at the time of diagnosis. However, 23\% of GPs stated they refer patients for a first eye check 1
year or more after initial diagnosis of diabetes. Almost all GPs (97%) reported to refer patients with type 2 diabetes at least biennially for DR screening.

Communication with eye care providers was inconsistent: only 55% (n=96) of GPs verified patient uptake of the first eye referral and 39% (n=68) confirmed receiving a report back from the eye health professional following this first eye assessment.

Nearly half of GPs were interested in being involved in a national screening programme for DR (42%). The barriers to DR screening cited by GPs were lack of education related to diabetes and its complications for patients (34%); lack of GP skills or education (22%); lack of time (20%); lack of a recall system (ie. reminders for GPs and patients; 13%) and cost (13%).

The average delay of 3.1 years for an initial diabetes eye exam found in this survey is alarming, given that deferral in screening is significantly associated with more severe DR upon first assessment. GP-described high referral rates at least biennially do not correlate with 34% of people with diabetes reported not having an eye test within the past 2 years. It is possible that GP overestimation of referrals; breakdown in the referral chain and challenges in utilising the referral could contribute to this disparity.

A limitation of our study is the relatively low response rate. This increases the possibility of response bias and may present an overly optimistic picture, limiting the generalisability of our results to the broader GP population.

This is the first cross-sectional survey of DR referral practices of Australian GPs, in comparison with current NHMRC guidelines. We found our sample of GPs did not adhere closely to NHMRC guidelines for DR screening referral at diagnosis of
diabetes, and suboptimal communication with eye care providers was revealed. This study signals the need for better systems of care to support DR screening and, ultimately, improve long-term visual outcomes for persons with diabetes.

**Acknowledgements**

We gratefully acknowledge the assistance of Kathy Fotis at the Centre for Eye Research Australia.

**REFERENCES**


Author/s:
Papa, BM; Fenwick, EK; Rees, G; Lamoureux, EL; Finger, RP

Title:
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Date:
2016-12-01

Citation:

Persistent Link:
http://hdl.handle.net/11343/291545