Dr Jason Cheng
BSc MBBS FRCOPHTH FEBO FAMS FRANZCO
Ophthalmologist, Vision Eye Institute

Information to include in a glaucoma referral

As an essential means of communication between primary and secondary clinicians, referral letters have a significant bearing on patient care. Glaucoma referral letters that do not contain the information required to effectively triage a patient can lead to treatment delays and irreversible vision loss.[1] By contrast, a good referral letter can improve patient care by minimising the need for repeated investigations[2] and avoiding prescribing treatments that have already been trialled and found to be ineffective or not tolerated.

To determine which data glaucoma specialists find most useful in a referral letter, my colleagues and I conducted a survey of 135 American and Canadian glaucoma specialists (I was working in Canada at the time).[3] In this survey, we asked about the five most important pieces of information glaucoma specialists would like to know when receiving a referral letter for either consideration of glaucoma progression, surgery, or a diagnosis of glaucoma. The results of this survey were published in *Ophthalmology* in 2014.

We then performed an audit of 200 consecutive referral letters received by a tertiary glaucoma unit to assess how well these letters matched up with: (1) the desired information by glaucoma specialists and (2) the Canadian Ophthalmology Society's guidelines for the management of glaucoma. The results of our survey showed that there was a lack of alignment between the information needed by glaucoma specialists and the data provided by referrers (**Figure 1**). For example, 80% of specialists valued serial visual fields to help identify glaucoma progression or the need for surgery. However, only 16% of referrals for progression or surgery included this data. Additionally, 76% of specialists felt maximum intraocular pressure (IOP) was valuable in the diagnosis of glaucoma. Again, this information was only provided in 16% of referral letters.[3]

> *"... historical information is crucial for diagnosis, setting target pressures and deciding whether surgery is indicated."*

Overall, referral letters requesting a glaucoma diagnosis did not include sufficient historical information to aid diagnosis. As mentioned above, maximum IOP was only provided in 16% of cases. Additionally, family history was only noted in 51% of cases, previous surgery in 44%, and other ocular pathology in 57%.[3] Since glaucoma is a progressive disease that can be difficult to diagnose, historical information is crucial for diagnosis, setting target pressures and deciding whether surgery is indicated.

Our survey identified the five most important data frequently left out of the audited referral letters: maximum IOP, serial visual fields, current glaucoma therapy, current IOP and serial disc imaging. Of these, maximum IOP and serial visual fields were the most important to include.

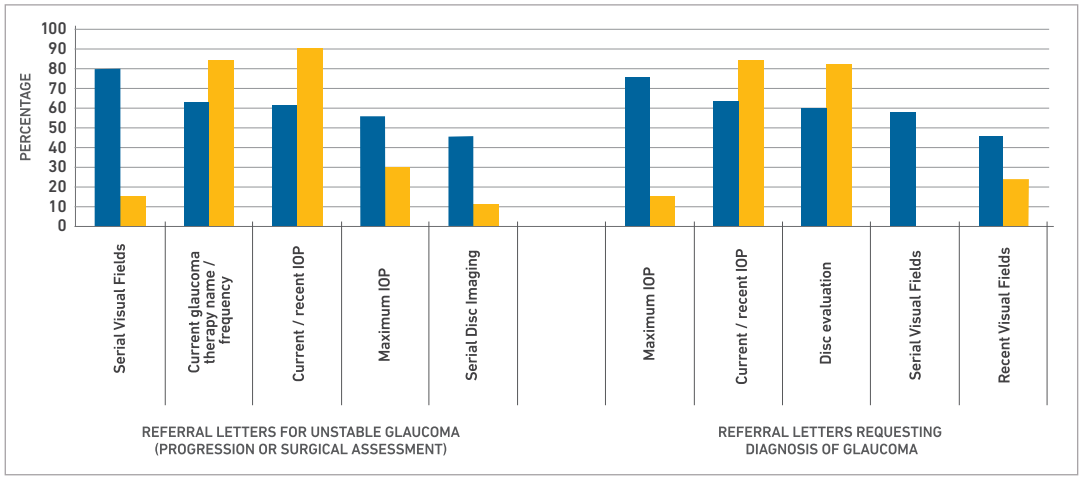

Figure 1. A comparison of the top 5 data needed by glaucoma specialists with the information included in referral letters for glaucoma diagnosis, and progression or surgical assessment. IOP = intraocular pressure.[3]

The five most important data frequently omitted from glaucoma referral letters[3]

Maximum IOP*

Serial visual fields*

Current glaucoma therapy

Current IOP

Serial disc imaging

*** = most important to include**

Crafting a good glaucoma referral letter

A good glaucoma referral letter should begin with a clear statement of the purpose of the referral; for example, diagnosis of glaucoma, narrow-angle assessment, glaucoma progression or surgery, or patient lost to follow-up. This may seem obvious, however, in a Canadian Medical Association survey of 3,000 general practitioners and specialists, 51% of specialists felt that the reason for referral was not adequately stated in referral letters.[4]

Likewise, the urgency of the referral should be determined and stated upfront. Does the patient have ocular hypertension or primary open-angle glaucoma? Is the patient in pain? Are they at high risk of vision loss? In our survey, degree of urgency was only mentioned in 27% of audited referral letters,[3] making triage difficult. Including current medications, allergies to previous treatments as well as previous surgery or laser is also important to avoid repeating treatments that have already been trialled.

"An excellent glaucoma referral letter includes a mix of 'hard science' and 'soft science'."

The clinical information most useful to include in your letter depends on the clinical context and the reason for referral. For example, when referring a patient for glaucoma diagnosis, historical information about the patient's highest recorded IOP as well as disc assessment and visual fields are highly useful inclusions. Conversely, for a narrow-angle assessment, visual fields and disc imaging are likely to be less relevant.

Some public hospitals now request that referrers use a template and will not accept referrals without what they consider to be key information. With the use of electronic referral systems, templates can be set up to remind referrers of the key information to include, or even automatically include the data.

"If you are really short of time and can only include the minimum, I would request that you at least include the maximum recorded IOP and serial Humphrey visual field (HVF) tests."

An excellent glaucoma referral letter includes a mix of 'hard science' and 'soft science' – that is, a combination of the patient's history and clinical findings ('hard science'), and relevant social and psychological information about the patient, including behavioural information, personality and/or preferences ('soft science'). Optometrists are ideally placed to elicit this kind of information due to their long-term relationship and rapport with the patient and including this information can be extremely helpful in managing the patient's case. It is also important to include any clinical discussion you have had or recommendations you have made to the patient, including treatment options.

I appreciate that, in a busy practice, taking the time required to prepare an excellent glaucoma referral letter may be a daunting prospect. However, you can try to save time by using a template (Vision Eye Institute will have one available shortly). If you are short on time and can only include the minimum, I suggest that you at least include the maximum recorded IOP and serial Humphrey visual field (HVF) tests.

By ensuring effective communication between yourself and the glaucoma specialist, we can reduce the risk of treatment delays and improve patient outcomes. •

About the author

Dr Jason Cheng is a fellowship-trained glaucoma specialist who performs complex glaucoma surgery, including trabeculectomy, tube implant, angle surgery and minimally invasive glaucoma surgery (MIGS). He is also a highly skilled cataract surgeon and frequently combines cataract and glaucoma surgery. He practices at Vision Eye Institute Hurstville in Sydney.

1. Canadian Medical Association. The referral/consultation process: no easy fixes. MD Lounge. September 2008:2e5. Available at http://www.cma.ca/multi- media/CMA/Content_Images/Inside_cma/MDLounge/Sept 2008_e.pdf. [Accessed 11 August 2013].
2. Westerman RF, Hull FM, Bezemer PD, Gort G. A study of communication between general practitioners and specialists. Br J Gen Pract 1990;40:445–9.
3. Cheng J, Beltran-Agullo L, Trope, GE et al. Assessment of the quality of glaucoma referral letters based on a survey of glaucoma specialists and a glaucoma guideline. Ophthalmology. 2014;121(1):126–133.
4. Canadian Medical Association. National Survey: experiences with referrals from primary to specialty care. Available at http://www.cma.ca/advocacy/experiences-referrals-primary-to-speciality [Accessed 24 July 2013].