

Towards integrated care: Australia's new model of care for patients with glaucoma

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Using shared care to tackle the complexity of optimal patient management

Globally, the burden of disease has shifted from acute to chronic illnesses and the management of multiple comorbidities. To address the challenges this creates, integrated care has received growing attention as a means of improving health care delivery and outcomes.¹ Integrated care (frequently equated with “disease management” and “shared care”) is defined by the World Health Organization as

a concept bringing together inputs, delivery, management and organization of services related to diagnosis, treatment, care, rehabilitation and health promotion. Integration is a means to improve services in relation to access, quality, user satisfaction and efficiency.²

For the first time, Australia has a shared care model for the management of a chronic condition — namely, glaucoma — launched under the Pharmaceutical Benefits Scheme (PBS) in January 2008. Under the new PBS guidelines (Box),³ authorised optometrists can co-manage patients with glaucoma in a shared care arrangement with an ophthalmologist.

Also, similarly to optometrists in the United Kingdom, Canada, and the United States, authorised optometrists in Australia may now prescribe therapeutic agents for certain eye conditions under the PBS. In January 2008, prescribing rights for topical ophthalmic medications were extended to certified optometrists as a result of a legislative change (*National Health Amendment [Pharmaceutical Benefits] Act 2007* [Cwlth]).⁴ The range of medications that authorised optometrists may prescribe under the PBS includes lubricants and therapeutic agents for treating allergies, infection, inflammation, and glaucoma.

Glaucoma is a heterogeneous group of diseases leading to a progressive optic neuropathy. It is the most common cause of preventable blindness in developed countries.⁵ Commonly, glaucoma is managed with topical hypotensive medications that include prostaglandin analogues, carbonic anhydrase inhibitors, selective α -adrenoceptor agonists and topical β -blockers.

Under the shared care model, the patient's ophthalmologist and optometrist together develop a written management plan that specifies the treatment goals and the roles and responsibilities of the two practitioners, create a review schedule, and communicate clinical information to the patient's general practitioner to promote an integrated approach. The PBS guidelines also recommend that a pharmacist be involved in providing medicines information, such as advice related to administration and techniques to limit systemic absorption and side effects of ophthalmic medications, as well as potential interactions with concomitant systemic medications for comorbidities.³

Quality integrated care practices require effective communication and coordination among the involved health care providers and with patients. Decision making in relation to medicines for optimal patient management is increasingly complex because of more pharmacotherapeutic options for more conditions, increasing exposure and age at exposure of older patients to a wider range

Guidelines for the shared care of glaucoma patients under Australia's Pharmaceutical Benefits Scheme (PBS)³

Confirmation of diagnosis and development of a management plan

- An authorised optometrist who makes a provisional diagnosis of glaucoma is to refer the patient to an ophthalmologist for confirmation of the diagnosis.
- With the consent of the patient, the optometrist and the ophthalmologist are to develop a management plan together, including the sharing of care between the two practitioners, and the communication of clinical information to the patient's nominated general practitioner.
- Patients being considered for anti-glaucoma therapy with a β -blocking agent should be assessed for any potential cardiovascular or respiratory risk by a medical practitioner (eg, the patient's GP) before initiating therapy. This assessment should be repeated if a change in dose of the β -blocker is proposed.
- Once a treatment plan is established with the ophthalmologist, the optometrist can prescribe topical medications under the PBS and perform ongoing reviews to monitor the patient.
- Changes to the management plan are only made following consultation between treating practitioners.

A written patient management plan must specify:

- all the agreed components of treatment, including any pharmacotherapy;
- target intraocular pressures and actions to be taken if these are not achieved within a specified time frame;
- an agreed approach to monitoring visual fields and optic disc imaging and actions to be taken following changes in visual fields;
- triggers for referral for immediate ophthalmological and GP review;
- likely side effects from agreed treatment and the action to be taken to address these;
- an agreed schedule for patient review by both practitioners;
- who is responsible for performing each of the required tests and the required frequency for performing them;
- an agreed method for timely communication of clinical findings and patient management between the two practitioners and the patient's nominated GP. ◆

of medications, and rising numbers of affected patients as the population ages. Ophthalmic medications are often overlooked in medical history taking. Almost half the medical records kept by GPs have been reported to have no record of eye drops being used by patients with glaucoma.⁶

Ophthalmologists, GPs, optometrists and pharmacists need to consider a patient's comorbidities and concurrent treatments to be able to provide a holistic approach to patient care. Topical ophthalmic medications may have effects on other diseases and their

management: topical β -blockers may cause bronchospasm in those with reactive pulmonary disease,⁷ and their prescription may warrant an additional bronchodilator. Topical ophthalmic medications may interact with systemic medications. Polypharmacy, especially in the older population, may have serious consequences.⁸ For example, cimetidine, an over-the-counter H₂-receptor antagonist for gastrointestinal irritation, may increase the effect of β -blockade when used in conjunction with β -blockers and should be used with caution in patients with underlying cardiac conditions.⁹

Australia's new integrated care model promises to increase patient access to eye health care services, particularly in rural areas, and thereby enhance continuity and quality of care in these regions.² Involvement of optometrists offers the opportunity for increased detection of glaucoma and patient access to subsidised ocular therapeutic agents. However, the processes and clinical outcomes of this new model of care need to be evaluated rigorously to determine its quality, feasibility and durability. Are anticipated improvements being realised? Are there unintended consequences?

Important measures will include the rate of medication-related problems among glaucoma patients before and after the introduction of this shared care arrangement; patient adherence to and persistence with therapy; detection of undiagnosed glaucoma (prevalence of which has been reported to be high¹⁰); patient satisfaction; rates of visual field deterioration; and intraocular pressure levels. Some of these outcomes, such as medication use outcomes recorded in computerised health care datasets, will be easier to measure than others. Commitments by government and public agencies to rigorous research and funding to allow prospective studies and direct measures of health outcomes would seem a sound investment. This would provide valuable information not only for Australia but also for other countries that develop and implement integrated care models.

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