

Method: Policy guidelines and position statements were sought from relevant major authorities with respect to sun protection guidelines for children. A systematic review of the literature on the effects of UV exposure on the eye was performed.

Results: The consensus of the relevant authoritative bodies is that children's eyes warrant protection from UV exposure through the wearing of appropriate sunglasses. There is sufficient evidence to suggest that children would benefit from the introduction of sunglasses wearing from a young age, as cumulative exposure to UV light is a risk factor for development of many ocular diseases.

Conclusion: The harmful effects of cumulative exposure to UV light is well-documented. A large proportion of exposure to UV light occurs during the early years, and during this time the eye is particularly vulnerable to its effects. Minimisation of a child's exposure to UV light is thus desirable. Current sun protection policies recommend the use of sunglasses, however to a great extent this behaviour is not observed amongst children within the wider community. Promoting sunglasses wearing amongst children could foster the development of appropriate sun protective behaviours early in life, which would likely be maintained through adolescence and adulthood. Early childhood education centres and primary schools would provide an ideal setting to introduce the concept of children wearing sunglasses, and this should be further explored in a systematic manner.

6. A CRITICAL REVIEW OF EXISTING RESOURCES TO MANAGE OCULAR EMERGENCIES IN AUSTRALIA

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Purpose: Misdiagnosis rates of ocular emergencies in referred patients by primary care providers range from 51–64% (Statham et al. 2008). The purpose of this study is to assess whether existing ophthalmology resources are sufficient for primary health care providers to assess, manage and refer as necessary ocular emergencies in Australia.

Method: Criteria were established to assess the utility of resources for primary care providers – general practitioners, emergency doctors, optometrists and nurse practitioners. Commonly used resources were selected and verified by a survey of medical officers from 10 metropolitan and 10 rural Victorian emergency departments.

Results: It was found that 11 out of 12 resources were not evidence-based. Most resources lacked relevant clinical images. Common and vision threatening eye conditions were differentiated by diagnosis, not symptoms. Instructions on how to use slit lamps and ophthalmoscopes were usually inadequate.

Conclusion: No single text met all criteria. To fully address the needs of primary care providers, an ideal resource should emphasise common and vision-threatening eye conditions, organise chapters by symptoms and signs and include 'red flags' for diagnosis, explain slit lamp use and demonstrate findings with colour images, explain conservative and pharmacological management, list indications and urgency for referral, and be evidence-based. Such a resource does not currently exist to the best of our knowledge.

7. DIABETIC RETINOPATHY SCREENING AND MANAGEMENT PRACTICES OF AUSTRALIAN OPTOMETRISTS: RESULTS FROM THE NATIONAL OPTOMETRISTS SURVEY FOR DIABETIC RETINOPATHY MANAGEMENT

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Purpose: To describe current diabetic retinopathy (DR) screening and management practices among the Australian optometrists since the release of NHMRC guideline in 1997.

Method: Self-administered questionnaires were mailed to a stratified random sample of 1000 optometrists across Australia, including metropolitan and rural areas, during 2007/2008. The questionnaires included questions relating to location of practice, previous training, DR screening and management practices, and specific management scenarios.

Results: Of the 1000 optometrists contacted, 568 (56.8%) responded to the survey. Among the respondents, 16.6% have never received a copy of 1997 NHMRC DR Management Guidelines. Only 66.1% of optometrists have read the guidelines at least once. 21.1% of optometrists do not routinely perform dilated ophthalmoscopy on diabetic patients. Patients' unpreparedness to drive post-dilation and the worry of angle closure glaucoma were the two main major barriers to optometrists not performing dilated ophthalmoscopy. More than half of optometrists (53.5%) found it very difficult to detect retinal thickening near the macula suggestive of clinically significant macular edema (CSME). Less than half of optometrists (41.9%) had a strong desire to play a role in community DR screening.

Conclusion: The desire of optometrists to play active role in community DR screening remain slow, and that with a substantial number who do not routinely perform dilated ophthalmoscopy on diabetic patients despite ongoing availability of the guidelines since 1997. Attempts to increase the role of optometrists in DR screening should be directed towards reducing perceived barriers to screening, and providing further education on the detection of important clinical signs.

Disclosures: Centre for Eye Research Australia, Melbourne University Eye and Vision Epidemiology Research (EVER) Group.

8. ACCESS TO EYE EXAMS PROVIDED BY OPHTHALMOLOGISTS THROUGH MEDICARE

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Purpose: Medicare is designed to provide universal, uncapped access to primary health care for all Australians. Lower expenditure on Indigenous people compared to other Australians is a major source of inequity in the provision of health services. In these inequities is a major step in closing the health gap between Indigenous and other Australians. In this paper we explore whether the utilisation of eye exams by ophthalmologists through Medicare varies depending on the proportion of Indigenous people resident in an area.

Method: Data on use of eye exam items were obtained from Medicare Australia for the financial years 2004/05–2007/08. Data on the population composition, remoteness, and Socio economic Index for Areas (SEIFA) were obtained from CDATA online. Stata v10 was used to conduct a panel poisson regression. The dependent variable was eye exams. The independent variables were year and the percentage of Indigenous people living in each area. The analyses were run adjusting for remoteness and SEIFA.

Results: The results show that the utilisation of eye exams showed a dose response relationship with the proportion of Indigenous people living in an area, where the greater the proportion of Indigenous people living in an area the lower the rate of eye exams. This effect persisted when confounding due to remoteness and SEIFA were taken into account.

Conclusion: The results suggest that there are significant disparities in access to Medicare funded eye exams for Indigenous Australians compared to other Australians. This may contribute to the well established inequities in eye health.

9. THE PREVALENCE AND CAUSES OF VISUAL IMPAIRMENT IN INDIGENOUS AUSTRALIANS WITHIN CENTRAL AUSTRALIA: THE CENTRAL AUSTRALIAN OCULAR HEALTH STUDY

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Purpose: To determine the prevalence and causes of visual impairment and blindness among indigenous Australians living in central Australia.

Method: 1,884 individuals aged 20 years or older, living in one of 30 remote communities within the statistical local area of 'Central Australia' were recruited for this study. This equated to 36% of those aged 20 years or older and 67% of those aged 40 years or older within this district. Participants were recruited as they presented to the eye clinic at each remote community. Patients underwent snellen visual acuity testing and subjective refraction. Following this, an assessment of their anterior and posterior segments was made. Rates and causes of bilateral visual impairment (vision worse than snellen visual acuity 6/12 in the better eye) and bilateral blindness (snellen visual acuity worse than 6/60 in the better eye).

Results: 19.4% (365/1883) had bilateral visual impairment (25.1% of those aged 40 years or older), and 2.8% (53/1883) had bilateral blindness (3.6% of those aged 40 years or older). Refractive error, followed by cataract were the main causes for bilateral visual impairment and blindness. Following this, diabetic eye disease was the main cause of bilateral visual impairment and trachomatous corneal opacification was the main cause of bilateral blindness.

Conclusion: This study indicates that bilateral visual impairment and blindness are respectively 25.1% and 3.6%; 4 to 7 times higher amongst indigenous Australians compared with the non-indigenous population. Trachoma is the leading cause of bilateral blindness after refractive error and cataract.

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