

Selected Abstracts from the OAA 62nd Annual Scientific Conference, held in Hobart, 6 – 9 November 2005

THE ACCURACY OF CONVERGENCE WHEN THE NEAR TARGET IS NOT ON THE MIDLINE

Assoc Prof Elaine Cornell,

School of Applied Vision Sciences, University of Sydney

Introduction: Although orthoptists usually assess convergence by moving a target closer to the eyes along the midline (similar to 'pursuit' movement), in everyday life we normally make quick changes of fixation to a near target, sometimes on the midline but more often it is displaced to one side. This requires asymmetrical convergence. The dynamics of these movements are now well known, and they are usually brought about by the highly integrated action of conjugate and disjunct mechanisms, both of which are expressed preferentially in fast, saccadic movements. In an asymmetrical situation, where one eye needs to converge more than the other, the accuracy of this movement may be affected if the eye that normally fails on convergence is the one that needs to make the larger movement. The purpose of this study was to evaluate: whether the accuracy of ocular alignment following a convergence movement is affected by whether the movement is symmetrical (near object on the midline) or asymmetrical (near object displaced to one side), and whether the accuracy of asymmetrical convergence is related to the eye that normally 'fails' when testing the convergence near point.

Method: The accuracy of binocular fixation was assessed in twenty two subjects after converging 10o symmetrically (5o each eye) and asymmetrically to the right and left (2.5o one eye, 7.5o the other eye, or 10o with one eye only). For each subject ocular dominance was assessed by a sighting test and also by noting the eye that failed at the convergence near point.

Results: All subjects, except one, maintained fixation with the right eye at the convergence near point, that is, the left eye 'failed' in almost every case. Eighteen subjects had right eye dominance and four were left eye dominant as assessed by the sighting test. In over half of the subjects (13/22) the accuracy of binocular alignment decreased as the position of the near target moved to one side. In eight subjects errors increased as the target was shifted to the left, in the other five the errors increased as the target was shifted to the right. In most of these cases, the errors were made by the eye that was making the larger adducting movement – this was more frequently the right eye.

Conclusions: Binocular fixations for near are more likely to be imprecise following asymmetrical vergence than those following symmetrical vergence. The findings from this study suggest that it is the adducting eye that tends to be less precise. This was most commonly the right eye, resulting in more errors on left gaze. Although there was a strong association between the right eye as the dominant eye and the eye that was less precise, it is not readily apparent how this would form a causal relationship. These findings are therefore not directly related to ocular dominance.

THE EFFECTS OF INCREASED VISUAL TASK DEMAND ON FOVEATION IN CONGENITAL NYSTAGMUS

Dr Linda Tkalcovic¹, Dr Larry Abel²

¹ Department of Clinical Vision Sciences, La Trobe University

² Department of Optometry and Vision Sciences, University of Melbourne

Purpose: Commonly, when an individual with congenital nystagmus (CN) performs a visually demanding task their nystagmus intensifies and their visual acuity decreases, probably due to poorer foveation. However, the relationship between fixation attempt and nystagmus waveform has never

been quantified. This study attempted to determine the relationship between visual demand and mental state of CN subjects on their foveation time during reading of varying sized optotypes at distance fixation.

Methods: In this study, 14 CN subjects (7 classified as idiopathic & 7 as albino) viewed a Landolt C of varying orientation and size. They indicated its orientation via a push button array whilst eye movements were recorded via a binocular infrared oculographic system.

Results: Eye movement data were analysed for changes in duration of foveation periods (defined as those periods of the eye movement recording during which eye velocity was less than or equal to 4 deg/sec and eye position ± 2 deg from the point of fixation from cycle to cycle), and whether the CN waveform itself changed during times of increased visual demand. Foveation was uncorrelated with optotype size.

Conclusion: The results suggest that CN is not exacerbated by visual demand per se rather the need to do something visually demanding of importance to the individual. Explicit manipulation of anxiety, arousal and motivation during recordings of CN should aid in broadening our understanding of the behaviour of this disorder.

ALCOHOL EFFECTS ON THE SACCADIC EYE MOVEMENT SYSTEM

Dr Suzane Vassallo¹, Dr Larry Abel²

¹ Department of Clinical Vision Sciences, La Trobe University

² Department of Optometry and Vision Sciences, University of Melbourne

Alcohol, a central nervous system (CNS) depressant, was the first drug to be examined for its effect upon the saccadic eye movement system. Over time, the literature has shifted to the analysis of higher-order saccadic tasks under alcohol – e.g., self-paced and antisaccade tasks. This laboratory investigated a battery of saccadic eye movement paradigms under two doses of alcohol in healthy males. Low to moderate doses of alcohol (0.045 to 0.071% BAC) impaired reflexive not volitional saccade control. Error rates arising from the antisaccade and memory-guided saccade paradigms did not increase under alcohol. These latter findings are ill-explained in the context of the disinhibition theory used to describe alcohol's effect on behaviour. Also, it was discovered that the saccade latency distribution shifted under alcohol, causing a reduction of saccade frequency in the express saccade mode. The latency distribution has been hitherto unexplored under alcohol. These results suggest that low to moderate doses of alcohol appear to especially exert their effect upon posterior cortical pathways controlling reflexive saccades. Frontal areas mediating volitional control, including response suppression, appear unaffected by the drug at this concentration. It is interesting to note that there are some disorders (e.g., ADHD, Tourette's Syndrome, OCD) which are associated with failures of saccadic inhibition and disinhibited social behaviour. This does not seem to be the case under alcohol at low to moderate doses. This work has highlighted that different forms of behavioural inhibition exist and that, in some instances but not others, they may co vary.

EYE MOVEMENT CONTROL DURING THE VISUAL SCANNING OF OBJECTS

Lisa Jones, Dr Suzanne Vassallo

Department of Clinical Vision Sciences, La Trobe University

This study examined the scanpaths of young healthy individuals while they viewed half objects (e.g., half a car which had been dissected vertically). Eye

movements provide a remarkable guide to where attention is deployed in the visual environment. The visual scanpath is a sequence of eye movements (saccades) and fixations that not only depend upon visual features that capture attention, but also cognitive components such as planning, experience and memory. Empty regions of space are generally not fixated, yet new research into mental imagery has found that viewers sometimes do look towards empty, uninformative regions of a scene if it previously contained an interesting object or if viewers were imagining an object or scene. Recent research in the Department of Clinical Vision Sciences (Dyer, Vassallo, Abel, unpublished data) found that while healthy subjects viewed images of half faces, they made eye movements to the missing half of the face 64% of the time. This adds to evidence suggesting that there are specialised mechanisms within the brain for processing faces. Thus raising the question: what happens when viewers are presented with half objects? The current study has demonstrated that the types of eye movements used for face versus object viewing are different - people generally do not exhibit learned eye movement behaviour for viewing objects though seem to when they look at faces. Taken together, the hypothesis that there is a possible pre-wired way of looking at faces appears supported. Differences in the nature of the scanpaths will be discussed.

PATRICIA LANCE MEMORIAL LECTURE – THE SYDNEY MYOPIA STUDY: IMPLICATIONS FOR EVIDENCE-BASED PRACTICE AND PUBLIC HEALTH

Dr Kathryn Rose,

School of Applied Vision Sciences, University of Sydney

The Sydney Myopia Study is a study of refractive error and other ocular conditions in a large representative sample of Australian school-aged children in Sydney. Children attending Year 1 (aged 6) and Year 7 (aged 12) were recruited from 34 primary schools and 21 high schools that were selected using a stratified random cluster design based on socio-economic status. The study incorporates significant sub-groups of children of East Asian, Middle Eastern and South Asian origin. Children receive a full and comprehensive eye examination in their school including visual acuity, cover test, colour vision, slit lamp, ocular biometry, cycloplegic refraction, ocular computerized tomography and retinal photography. Parents of the Year 1 students completed a 193 item questionnaire on health, socio-demographic information and life-style, while the Year 7 students and their parents completed separate questionnaires addressing the same items. The examination of the 1740 children in Year 1 cohort is complete and preliminary data from the anticipated 2,300 Year 7 cohort is available. The overall participation rate thus far is 78%. A study of this design is able to address many issues relevant to the ocular health of Australian school children including the prevalence of refractive error and other ocular conditions, access to vision screening and the need for services, adequate and appropriate prescription of glasses, as well as factors that may associated with eye disease in children. This study is the first of its kind in Australia to addresses these issues in a population-based sample of school children.

THE IMPORTANCE OF MEASURING RADIUS OF CORNEAL CURVATURE WHEN USING THE HEIDELBERG RETINAL TOMOGRAPH

Anne Klawir

Introduction: In September 2004, we received correspondence from Heidelberg Engineering indicating that the 'absolute scaling of the HRT2 images is dependent on the correct measurement of the radius of corneal curvature'. If the default value of 7.7mm is not changed, measurement results will not be accurate.

Method: Over the last year, we have measured just over 200 eyes using the IOL master in the keratometry mode. Using the average between K1 and K2 results, we entered the correct radius of corneal curvature for each patient, replotted contour line segments and reprinted old results.

Results: Our average radius of corneal curvature results for these 100

patients was 7.66mm. However, there were many outliers with the distribution ranging from 7.06mm to 8.34mm. Different stereometric analysis of ONH values were revealed when radius of corneal curvature values were changed. The chart of 'possible amount of error' from Heidelberg Engineering shows that 'amount of error is dependant on the amount of deviation' from 7.7mm. For example, one patient aged 59 had radius of corneal curvature values of R 8.05mm and L 8.00mm. According to the chart, her error is -2.4% distance, -4.9% area and -9.9% volume. If only Moorfields regression analysis and change probability map analysis techniques will be used, the value of 7.7mm can be left.

Conclusion: To ensure accuracy and to take advantage of all analysis software of the HRT2, it is highly recommended that you measure and change all radius of corneal curvature measurements.

RETAANE VERSUS VISUDYNE PHOTODYNAMIC THERAPY IN WET AGE-RELATED MACULA DEGENERATION

Nathan Clunas,

Marsden Eye Research, Marsden Eye Specialists

Retaane (anecortave acetate) 15mg (n=255) was compared to Visudyne PDT (n=256) in a multi-centre, randomised, double-masked, active-controlled, parallel group 12 month study, with 12 months follow-up, in patients with predominantly classic wet AMD (Study C-01-99).

Patients received Visudyne PDT every 3 months if leakage was present, or Retaane every 6 months by posterior juxtascleral injection, plus the appropriate placebo. At 12 months, 45% of Retaane patients were within 15 letters of their baseline visual acuity, compared to 49% of PDT patients (p=ns). Efficacy in both groups was lower than that seen in other similar studies, most likely because the lesions were much smaller, younger and more aggressive.

Further analysis of prospectively collected data showed that 50% of Retaane patients did not receive the full dose of drug at 6 months due to reflux, and 30% did not receive the 6 month dose on time, adversely affecting the results. Several steps have been taken to improve the reliability of the injection procedure. The procedure is simple but requires attention to detail. There were no cases of globe penetration, endophthalmitis, serious side effects or significant systemic effects seen with Retaane.

Retaane is effective for the treatment of predominantly classic wet AMD, utilising a safe procedure with significant convenience benefits due to the 6-monthly dose regimen. The role of the clinical trial coordinator in this study will also be explained in this presentation.

VISUAL HALLUCINATIONS – CHARLES BONNET SYNDROME

Lynn Dalmazzo,

Vision Australia

Patients with a severe and sudden vision loss can experience visual disturbances known as Charles Bonnet syndrome. Recognition of its possible existence is important. Primary consideration should be the management of the client's anxiety and their lack of understanding of what they are experiencing. Visual hallucinations related to vision loss go largely unreported. Routine enquiry about them is advised. It is for this reason that the question is included in a questionnaire completed by all clients before attending a low vision clinic. The significance of diagnosis and explanation of the hallucinations is important for the client's well being. Although there is no treatment, there are strategies that may lessen the frequency of the occurrence of visual hallucinations.

SOCIAL ISSUES EXPERIENCED BY 16-25 YEAR OLDS WITH VISION IMPAIRMENT

Cathryn Galtry, Assoc Prof Kerry Fitzmaurice,

Department of Clinical Vision Sciences, La Trobe University

Aims: To identify some of the social issues experienced by young adults with vision impairment; to compare the social issues reported by this group of young Australian adults with those reported in the literature.

Method: Four young adults between the ages of 16 – 25 who have vision impairment were recruited. Participants were engaged in semi structured interviews. The interviews were recorded, transcribed and analysed for themes.

Results: Data is not yet fully analysed but to date a number of themes have emerged. (1) Mobility: participants reported a preference for sighted guide rather than the use of a cane or guide dog, however they acknowledged this increased their dependence. (2) Relationships: participants reported enjoying passive activities such as going out for dinner or going to movies. This was an interesting report as both of these participants were severely vision impaired however both indicated that the interaction with company was the important feature not the activity. (3) Personal care and household tasks: both participants reported a large degree of dependence in these areas and reported being frightened to undertake activities such as cooking. (4) Education: neither participant felt schooling had been a problem but both indicated they had relied heavily on siblings when adjusting to a new school environment.

LIGHTING FOR LOW VISION: BEYOND TASK LAMPS

Luisa Ferronato, Lynn Dalmazzo,

Vision Australia

In the field of low vision and vision rehabilitation, the importance of lighting or illumination is frequently highlighted as a strategy to enhance not only vision for near tasks such as reading and writing, but also to enhance independence and safety when moving around an environment. Both quantity and quality of lighting need to be considered when formulating recommendations for people with vision impairment.

This paper will present a review of the literature and draw on the experiences of the authors to discuss the general principles surrounding people with vision impairment and their ambient lighting needs. The advantages and disadvantages of different types of light sources will be outlined as well as strategies to improve lighting quality through facilitating uniformity, glare control and use of contrast.

A MULTIDISCIPLINARY APPROACH TO ECCENTRIC VIEWING TRAINING: A CASE STUDY

Assoc Prof Kerry Fitzmaurice, Lee Clark,

Department of Clinical Vision Sciences, La Trobe University

Eccentric viewing is a strategy that has been shown to be effective in ameliorating the impact of vision impairment as a result of macular disease in adults. However clinically it is assumed children automatically learn to use this technique without assistance. In addition orthoptists are often unable to provide eccentric viewing training as it is seen as time consuming and therefore not cost efficient.

This case study reports our experience of two brothers aged 10 and 12 years with severe reduced vision and bi-lateral centre field loss. Best eccentric viewing position was established and a basic training program designed by the orthoptist. The visiting teacher provided eccentric viewing training using EccVue software as part of the normal support service. Both boys showed marked improvement in visual function and the program was considered a very positive experience by the boys, their mother and the visiting teacher. The impact of the program on the boys schooling, leisure

and home activities was documented in a follow up interview. An outline of the program and the outcomes will be presented.

“WHAT’S WITH THE DOTS?” WHEN IS IT APPROPRIATE TO LEARN BRAILLE?

Marion Rivers,

Vision Australia

A diagnosis of severe vision impairment or blindness in early childhood is devastating news to most parents. Initial fear and dread for their child’s future soon becomes focused on the practicalities of life without sufficient vision for normal learning and reading. Learning Braille is so foreign to most parents in this position that they find the concept difficult to understand. Professionals working with the families outside of blindness agencies are often in the same position as parents, with little understanding of the practicalities of Braille versus the newer alternative or supplementary technologies. This paper looks at the issues surrounding the introduction of Braille and the orthoptist’s role in the decision making process.

ECCENTRIC FIXATION REVISITED – A CASE STUDY

Chen Jie¹, Neryla Jolly²

¹ Eye Hospital of Wenzhou Medical College (China)

² School of Applied Vision Sciences, University of Sydney

A review of the literature about the treatment of eccentric fixation was unable to disclose any recent information about strategies to change the pattern. This case study reports a patient in China, aged 11 years with a left esotropia who was unable to take up left fixation, had gross left amblyopia and retinal fixation near the disc. He had had no previous treatment and the parents were very concerned about the vision and wished to undertake treatment.

This case presents an interesting combination of a condition that is now rarely seen at such a marked level, which presented at an age that is less likely to respond to treatment. The treatment is described and the surprising outcome discussed.

VISION SCREENING IN PRESCHOOL CHILDREN USING THE MELBOURNE ACUITY SCREENING TEST (MAST)

Sarita Ibbotson, Sue Silveira,

School of Applied Vision Sciences, University of Sydney

Routine vision screening of children within their first year of school has recently been abolished in NSW. Our focus for vision screening must now reside on establishing a vision screening program for the younger preschool population. Visual acuity tests currently used for vision screening of 5-6 year old children are not appropriate for use with preliterate preschool children. A simpler means of assessing visual acuity in preschool aged children is needed.

The Melbourne Acuity Screening Test (MAST) is a modified visual acuity test designed to provide a quick and simple method of vision screening in children. It incorporates a linear presentation with a simple pass/fail test method and does not allow for measurement of threshold visual acuity. The MAST is based on the principles of the Sheridan Gardiner seven letter chart, and consists of two pages for testing at 6 meters, along with a practice page containing larger optotypes. The size of the letters of the MAST is equivalent to the 6/9 line on the standard Sheridan Gardiner vision chart. The simplicity of the MAST makes it an ideal test for use by non-vision professionals such as nurses.

The ongoing research involving 140 subjects aged between 5 and 7 years comparing the MAST and the LogMAR charts, and 137 preschool children aged between 3-5 years old comparing the MAST and the Sheridan-Gardiner linear chart will be presented.

AMBLYOPIA AND READING DIFFICULTIES

Kate Brassington¹, Connie Koklanis^{1,2}, Lesley Bretherton³

¹ Department of Clinical Vision Sciences, La Trobe University

² Department of Ophthalmology, Royal Children's Hospital

³ Department of Psychology, Royal Children's Hospital

Reading is an important part of learning and education. For this reason there has been extensive research into investigating the causes of reading difficulties. Most of the vision research completed in the last 20 years has focused on several areas such as visual acuity, refractive error, accommodation and binocular functions. However, the literature has overlooked specific vision disorders as a source of reading problems. In particular the impact of amblyopia on reading ability has been neglected. In order to address this issue, we have conducted a pilot study investigating the relationship reading disability in children with amblyopia. The findings of this study will be discussed.

**PAEDIATRIC CATARACT MANAGEMENT:
THE SCIENCE UNDERLYING CLINICAL PRACTICE**

Prof Frank Billson AO,

Sydney Eye Hospital, and Sydney Children's Hospital, and Save Sight Institute Australia, University of Sydney

Paediatric cataract is the commonest cause of surgically treatable blindness in early infancy. Its outcomes in paediatric cataract surgery owe much to the increased understanding of neurophysiology and neurobiology of lens and ocular development and their place in the maturing visual system. There is general agreement on the principles of cataract surgery in early childhood and the place of intraocular lens implantation in the paediatric age group particularly after the age of two. Where opinions are divided is about intraocular lens implantation in the first two years of life, with increasing divergence of opinion and controversy about lens implantation in early infancy and particularly at birth.

Management of cataract in children is different from the adult, because of increased intraoperative difficulties, propensity of postoperative inflammation, changing refractive state of the eye, difficulty in documenting anatomic and refractive changes due to poor compliance, and a tendency to develop amblyopia. Adoption of different techniques for cataract surgery is mostly due to a low scleral rigidity, increased elasticity of the anterior capsule, and high vitreous pressure.

This paper discusses controversies surrounding these issues and the science that underpins them, including case selection, timing of surgery, surgical technique and optical correction. It presents the contribution of basic science to improving outcomes of surgery. It refers particularly to the management of the post-operative complications including posterior capsular opacification, aphakic and pseudophakic glaucoma, post-operative inflammation and quality of paediatric anaesthesia.

Reference is made to the contrast between developed and developing countries in terms of available human and material resources and late presentation where expectations of communities are less. Such a divergence of resources and community awareness may occur in the one country, particularly where there are remote and rural areas.

ULTRASOUND BIOMICROSCOPY IN STRABISMUS MANAGEMENT

**Dr Shuan Dai, Dr David R. Smith, Dr Raymond Buncic,
Prof Stephen P. Kraft,**

Department of Ophthalmology and Vision Sciences, University of Toronto, and The Hospital for Sick Children, and Toronto Western Hospital

Ultrasound biomicroscopy (UBM) utilizes high frequency (50 MHz) ultrasound waves that depict the anterior segment structures of the eye in high resolution, a goal not possible with conventional (10 MHz) ultrasound used for orbit and intraocular lens work. The UBM has proven to be very

helpful in assessing various forms of glaucoma as well as in following lesions in the cornea and iris.

We previously reported the results of UBM in evaluating the insertions of 79 horizontal rectus muscles in patients undergoing primary strabismus repairs (Watts et al, J of AAPOS, 2002). At the time of surgery the UBM was used to localize the muscle positions. During surgery the actual muscle positions were measured with calipers by the surgeon who was masked to the results found with the UBM. We found a good correlation between the surgical and UBM measurements.

In a subsequent study we assessed the efficacy of UBM in determining the positions of horizontal rectus muscles that had previously undergone surgery. We performed UBM determinations of eye muscle positions in 43 muscles either at the preoperative visit or at surgery prior to the conjunctival incision. These were compared to the measurements by the surgeon at the time of surgery. We found a "very good" correlation between the measures found by the two methods. The UBM could detect the medial rectus muscle if it was within 12 mm. from the limbus, and the lateral rectus if it was no further than 15 mm. from the limbus.

The results suggest that UBM can be a reliable indicator of the position of the horizontal rectus muscles in patients undergoing reoperations, as long as the muscles are located within the ranges that are physically reachable with this technology. It is a short, easily performed study that can obviate the need for more expensive or time-consuming tests such

**PROGRESS IN VISION SURVEILLANCE AND SCREENING
IN NSW: THE FIGHT GOES ON**

Sue Silveira,

School of Applied Vision Sciences, University of Sydney

In 2000 the NSW Department of Health introduced the Families First Initiative which changed the direction of child health surveillance and screening. This change saw a cessation of the traditional vision screening of children in their first year of school. Although the value of continued vision screening was recognised, there was no formal framework suggested. Concern was raised by orthoptists and ophthalmologists as to how the high numbers of children would continue to be vision screened at this early age.

During 2004 and 2005 a group of orthoptists, ophthalmologists and community nurses have met to develop the Early Childhood Health Plan which addresses both vision surveillance of babies and vision screening of 4-5 year old children, prior to school entry. The Plan addresses four key result areas, these being a service delivery model, professional development for nurses involved in vision surveillance and screening, tests and equipment and health promotion.

A brief overview of the Early Childhood Health Plan will be presented, with particular attention paid to the planned vision surveillance and vision screening protocols. Plans for research and implementation will also be discussed.

YOKOYAMA PROCEDURE FOR ESOTROPIA WITH HIGH MYOPIA

Robyn Wallace,

Orthoptic department, Royal Victorian Eye and Ear Hospital

Increasing interest in anatomical abnormalities as the aetiology for strabismus has led to increases numbers of patients with squint undergoing imaging of muscles as an investigation prior to the decision of the surgical procedure.

One well documented group of patients where this applies and surgical techniques have been designed to address the underlying problem is that group with axial myopia.

Yokoyama in 1999 reported this his procedure where the Medial Rectus of

the esotropic eye is recessed while the Lateral Rectus and Superior Rectus of the same eye is split and the edges joined together.

This procedure reduces strabismus which is often very marked and increases the lateral visual field. RVEEH Ocular motility clinic has undertaken several of these procedures with some very pleasing results.

COMPARISON OF THE GOLDMANN PERIMETER AND ESTERMAN WHEN VISUAL FIELDS ARE ASSESSED FOR DRIVING

Sue Silveira, Neryla Jolly, Dr Robert Heard, Karen Pepper,
School of Applied Vision Sciences, University of Sydney

Visual standards for driving in Australia are currently determined by two bodies – Austroads and the National Transport Commission. A document titled "Assessing Fitness to Drive for Commercial and Private Vehicle Drivers" is released to practitioners, which outlines medical standards for licensing and clinical management guidelines.

Visual fields are considered in assessment of a person's fitness to drive. Visual fields can initially be assessed by confrontation. If the practitioner suspects visual field loss, then automated static perimetry is performed, using a Humphrey Field Analyser, Medmont M700, Octopus etc. If automated perimetry suggested that the criteria for an unconditional licence won't be met then Goldmann Perimetry or Esterman Perimetry should be performed.

Traditionally the accepted target on the Goldmann Perimeter has been the IV4e. The target on the Esterman however represents a smaller sized target, and is the equivalent to the III4e on the Goldmann Perimeter. Research was conducted to compare the visual fields plotted using the IV4e on the Goldmann Perimeter and the smaller Esterman target, over a population of 150 people, ranging from 18-85 years of age.

Orthoptists are routinely involved in assessing the visual standards and onroad performances of people attempting to gain or regain their licence. Understandably clinical work in this area is often complex for the Orthoptist, who may be responsible for presenting the most accurate clinical findings on a person's visual status. Variation in results on visual field assessment presents a dilemma. The findings of this ongoing research which examines the variation in visual field results according to the Perimeter and target used will be presented.

AMBLYOPIA MANAGEMENT – TRENDS FOR THE 21ST CENTURY?

Dr Connie Koklanis, Zoran Georgievski,
Department of Clinical Vision Sciences, La Trobe University

Occlusion therapy and atropine penalization are the most commonly prescribed treatment modalities for the management of amblyopia. However, recently amblyopia treatment has been criticised for not being sufficiently 'evidence-based'. In particular, there has been criticism of the lack of rigorous research investigating the effectiveness of these treatment modalities. To address this issue the North American Pediatric Eye Investigator Group (PEDIG) and several other researchers have conducted various randomized controlled trials (RCTs) to evaluate the effectiveness of amblyopia treatment. This 'interactive forum' will outline these developments and involve discussion of cases in the context of this current literature and the Australian eye health care system. A panel of experts will be asked to present their views on each case and active participation from the audience will be encouraged.