Conference roundup

Our 22nd Annual enVision Optometry Conference featured a range of clinically relevant presentations from a number of our New South Wales doctors along with our guest speaker, Dr Kate Clezy. Below we outline the key take-home messages from each presentation.

Dr Kate Clezy

Infection and optometric practice: what you don't know could hurt you

- **Means of transmission of organisms:** direct contact, droplet and aerosols
- Surfaces and clothes become contaminated with microorganisms
- **Standard precautions:** hand hygiene, personal protective equipment, sharp use and disposal, cleaning, reprocessing of reusable instruments, aseptic non-touch technique, waste management
- Perform hand hygiene before and after you touch the patient
- **Gloves:** not recommended for routine care; poor hand hygiene is common, resulting in contamination upon glove removal
- **Eye drops can be contaminated:** use single dose where appropriate
- **Disinfect equipment according to the manufacturer's instructions:** clean tonometer probes by washing/rinsing; disinfect with sodium hypochlorite; rinse; dry; store
- **Antibiotic resistance is an increasing problem:** use antibiotics only when necessary; choose narrow spectrum where possible; check treatment duration

Dr Colin Chan

The KISS guide to dry eye management in optometric practice

- Grade dry eye with targeted questionnaire on symptoms and 3 key signs: corneal staining, Schirmer's and TFBUT
- All grades of dry eye should have step 1 treatments: warm compresses, regular AFTs and omega-3 supplements
- Treatment with step 2 measures (e.g. FML, cyclosporine, IPL, tetracyclines) needs to co-exist with ongoing step 1 treatments

Dr Simon Chen

Retinal detachments: everything you need to know!

- **Types of RD:** rhegmatogenous, tractional, exudative, combined
- **Risk factors for RD:** myopia, cataract surgery, family history, RD in other eye, lattice degeneration, retinal tears, trauma, age 40–70, Stickler syndrome, Marfan syndrome
- **Evidence base:** lacking for optimal management of patients with asymptomatic retinal breaks and lattice degeneration. Management decisions regarding prophylactic laser treatment are based on individual risk/benefit analysis considering patient preference, ability to report symptoms, access to high quality urgent eye care, presence of risk factors for RD
- **Progression of retinal tears and retinal detachments**
  - Can take hours to years
  - Rate depends on symptoms, type, size, location, duration of retinal breaks, refractive error, vitreous detachment, patient age, volume of subretinal fluid present
  - A young hypermetropic patient without a PVD, with a single, small, round retinal hole located inferiorly will progress slowly, if at all
  - A 70-year-old high myope with multiple, large, superior horseshoe tears with a PVD and 6 disc diameters of subretinal fluid is likely to progress very quickly
- **Tips for urgent RD referrals**
  - Ensure the patient understands urgency and risk of blindness without treatment
  - Advise the patient not to eat for 6 hours or drink for 2 hours before potential surgery
- **Treatment options for RD**
  - Observation, barrier laser treatment, pneumatic retinopexy, scleral buckling surgery, vitrectomy surgery, combined vitrectomy and scleral buckling

Dr Jason Cheng

The role of MIGS in the care of glaucoma patients

- MIGS: surgical micro-devices that lower IOP with a relatively low-risk profile
- Can be inserted into 3 locations: Schlemm's canal (iStent and Hydrus), subconjunctival space (XEN) or suprachoroidal space (CyPass)
- Schlemm's canal MIGS are most effective in POAG, pseudo-exfoliative glaucoma and ocular hypertension patients who have target pressure ~18 mmHg, controlled on one medication
- Currently, iStent and Hydrus must be combined with cataract surgery to gain insurance or government rebate
- Hyphaema is a common post-operative finding that is almost always self-limiting

Dr Tess Huynh

Keratoconus: managing patients at risk

- **Keratoconus:** Bilateral, progressive, non-inflammatory
- **Genetic predisposition:** family history, environmental-atopy and eye rubbing
- **Treatment:** spectacles and contact lenses, collagen cross-linking, intrastromal rings, corneal transplant, antihistamine
- **Allergen-specific exposure:** associated with high IgE and eye rubbing, predisposes to progression of keratoconus

Collagen cross-linking: an update

- **Collagen cross-linking:** additional covalent bonding between collagen molecules has a 'stiffening' effect concentrated in anterior 200–300 µm of cornea – halts progression of keratoconus; safe
- **Intrastromal corneal rings:** remodel the cornea, regularise topography, centralise the corneal apex and reduce refraction and aberrations, improve VA and CL tolerance

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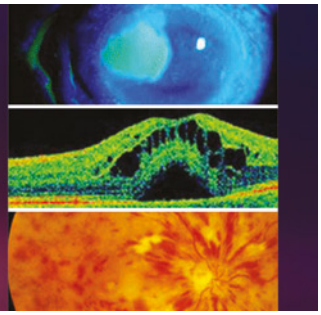

Dr Mark Jacobs

Ready, steady, go! When to initiate treatment for POAG

- Glaucoma is an optic neuropathy
- **Types of glaucoma:** open angle, closed angle, uveitic, neovascular, congenital
- **Open angle glaucoma** suspects have at least one feature of the disease: raised IOP, suspicious optic disc appearance, repeatable visual field abnormality, strong family history
- **IOP:** most patients with raised IOP do not develop glaucoma; not all patients who develop glaucoma have high IOP
- **Physiological cupping:** bilateral; follows ISNT rule; OCT – normal RNFL and ganglion cell thickness
- **Disc area (OCT):** small <1.6 mm; medium 1.6–2.8 mm; large >2.8 mm
- **Thin CCT is a risk factor for glaucoma:** thick is protective; normal 520–580 µm
- **Family history increased risk:** parent – 2.2 x higher, sibling – 3.7 x higher
- **Treatment:** medical, SLT
- **Target IOP:** 30–50% lower than pre-treatment; consider patient lifespan, severity, family history

Dr David Ng

Diabetic retinopathy: what to look for, when to refer

- Patients should be reviewed every 1–2 years if they have no DR
- Patients with mild DR should be reviewed annually
- Patients with gestational diabetes do not need review
- Patients should be referred to an ophthalmologist if there are signs of:
  - Diabetic maculopathy and/or oedema
  - Moderate-to-severe non-proliferative DR
  - Proliferative DR
- Patients must understand that:
  - Diabetes causes blindness
  - They can be completely asymptomatic and then go blind overnight
  - They need regular review even if they have had no symptoms
  - They need to carefully control their blood sugar levels as well as their cholesterol and blood pressure, if required

A/Prof Tim Roberts

Clinical pearls in red eye management

- **Toxic epitheliopathy following cataract surgery**
  - Common cause of irritation and blurred vision 4 weeks after surgery
  - Reassure patient; use preservative free lubricants; wait for resolution before glasses prescribed
- **Bacterial endophthalmitis following cataract surgery**
  - Urgent referral: every hour counts
  - History: recent cataract surgery
  - Patient has blurred vision/pain/hypopyon/inflammation
- **Retained lens material**
  - Must be excluded in any post-cataract-surgery patient who presents with symptoms of blurred vision/raised IOP/inflammation
- **Sub-tarsal foreign body**
  - Classic vertical corneal staining
  - Red/sore/slight blur sometimes
  - Resolves upon FB removal
- **Allergic conjunctivitis**
  - Symptoms: red, itchy, watery eyes
  - Conjunctival papillae
  - Treatment with cold packs and antihistamines or mast-cell stabilisers
- **Viral follicular conjunctivitis**
  - Symptoms: red, watery eyes
  - Follicles not papillae, clear non-mucopurulent discharge
  - Treat with supportive lubricants, not topical antibiotic
- **Acute uveitis**
  - Symptoms: bilateral redness, tearing, sensitivity to light, painful
  - AC activity and some disc swelling
  - Urgent referral, treated with topical steroids and cyclopegics as well as systemic management
- **HSV1 keratitis**
  - Slight blurring of vision/redness/sore eye
  - Typical dendritic corneal lesions
- **Marginal keratitis**
  - Red/painful eye/light-sensitive and some blur and watery discharge
  - History: blepharitis with inflamed lid margins
  - Hypersensitive reaction to staphylococcus endotoxins
  - Be suspicious of bacterial keratitis
  - Treat with lid toilette, antibiotic and steroid drops

Prof Gerard Sutton

SMILE – an update

- An essential option for patients considering myopic refractive surgery
- My preferred option for higher levels of myopia >3 D
- Causes less dry eye than LASIK or ASLA/PRK
- LASIK is still preferred for lower levels of myopia and moderate astigmatism
- ASLA/PRK is preferred for thinner corneas or questionable topography

Fuchs' endothelial dystrophy – a guide for optometrists

- A common problem
- New types of endothelial keratoplasty such as DMEK are providing improved visual outcomes
- Femtosecond laser reduces endothelial cell loss in cataract surgery
- Cataract surgery in patients with corneal issues (e.g. Fuchs' dystrophy, keratoconus) requires a nuanced approach to treatment to achieve optimal outcomes

Dr Patrick Versace

Demystifying post-cataract surgery symptoms & signs

- **Post-op cataract surgery:** review day 1, 1 week, 3 months, 1 year, 10 years
- **AC activity:** always at day 1, common at 1 week, rare at 1 month; rebound at 6 weeks as finish post-op drops, treat with steroids and non-steroidals (Ilevro). Persistent iritis post-cataract can be infectious or inflammatory
- **Steroids can cause cataract or rise in IOP:** less IOP rise with FML
- Can get post-cataract corneal oedema or Descemet's folds
- **Warning signs after cataract surgery:** vision loss, pain, redness
- **Endophthalmitis:** pain, redness, loss of vision, inflammation, hypopyon, cells in vitreous
- **Consider IOL:** position, refractive outcome, toric axis, PC, clarity
- **PCO:** treated with YAG laser
- **Dysphotopsia caused by lens edge:** positive or negative

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