VOTING INSTRUCTIONS FOR PRESENTATION

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- Use your mobile phone browser to visit: pollev.com/bruceevans029
- When asked for name, select skip

DISCLOSURE

- Paid lectures & KOL/product feedback programmes:
  - Alcon, American Academy of Ophthalmology (UK), Association of Optometrists, Society of Independent Practitioners, BCLA, ICO, American Ophthalmological Society, Grannum, CooperVision, Johnson & Johnson, General Optical Council, College of Optometrists, Geo Optics (UK), Skin Care Foundation, Optos, Optos (UK), Finsbury,打包, Text BRUCEEVANS029 to 020 3322 5822 once to join, then A, B, C, D, E...

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Case 1:
50y old female in contact lenses with PH of strab since teenager, now worsening (6274)

Symptoms:
- AHP gradually worse over last year or diplopia
- Rx: R+6.00DS 6/6 L+6.25DS 6/6 Add+1.75
- WEARING: RGP R+6.00 L+8.50 (monovision)
- Cover test:
  - D 10Δ L Hyperphoria  G5
  - L hypertropia
  - N 15Δ L Hyperphoria  G5
  - L hypertropia
- Fundus:
  - fully described; all normal
- IOP:
  - R13 L14 mmHg

Grade Description
1 rapid and smooth
2 slightly slow/jerky
3 definitely slow/jerky but not breaking down
4 slow/jerky and breaks down with repeat covering, or only recovers after a blink
5 breaks down readily after 1-3 covers

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Full handout of slides from www.bruce-evans.co.uk
**LSO palsy**

- In LSO palsy, usually:
  - Hyper-deviation of affected eye, worse in down-gaze
  - Underaction of affected eye when looking down and in
  - More likely to have symptoms with reading than with distance
- But, may have secondary sequelae

**SO palsy**

- Usually:
  - Hyper-deviation of affected eye, worse in down-gaze
  - Underaction of affected eye when looking down and in
  - More likely to have symptoms with reading than with distance
- But, may have secondary sequelae
- May contraindicate fitting multifocal spectacles or monovision

**What management?**

A. Refer urgently
B. Refer routinely
C. SV CL & large readers
D. Alternating vision MF CL
E. Stop CL, MF glasses
F. Stop CL, 2 pairs of glasses (DV & NV)
Case 3: 10y old female, asthenopic young myope

Plan

Case 4

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Case 3:10y old female – further tests

Accommod. lag: not done (would do now!)
Cycloplegic: done in 2009 showing early myopia
Maddox wing: 3Δ eso with subjective
Mallett unit s: 1Δ base out L aligning prism; or +0.50D aligning sphere
AC/A ratio: 3.5 Δ/D
(Sub: R-0.25/-0.50x155 6/7.5 L-0.50/-0.50x175 6/9)

Why does myopia matter?

- Common and increasing prevalence
  - 93% of Taiwanese medical students are myopic (Lin et al., 1996)
  - Prevalence of myopia in USA has increased in last 30 years from 25% to 42%
  - 50-53% of UK university students are myopic (Logan et al., 2005)
- Significant health impact
  - High myopia (≥-6) increases risk of retinal detachment, myopic macular degeneration, glaucoma, and other conditions
  - “No evidence of a safe threshold level of refractive error in the human eye” (Verdon, 2012)
  - In the Copenhagen study myopia-related diseases were the most common cause of impaired vision (Madsen et al., 2014)

Larger near segment gives greater treatment effect

Slowing of myopia progression with multifocal spectacles
Case 3: 10y old myope – what happened?

**PLAN**

**INTRODUCTION**

**CASE 1**

**CASE 2**

**CASE 3**

**CASE 4**

**CASE 5**

**CASE 6**

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Many cases never require full-time occlusion.

If 6/9 to 6/25, 2h occ. ≡ 6h

If ≤ 6/30, 6h > 2h

Avoid full time occlusion for orthotropic anisometropia

Timings approximate

See patients frequently during the treatment of amblyopia, to begin with every 4-6 weeks

Flow chart based on review of recent RCTs in Evans et al. (2011)

Many cases of amblyopia can be cured by refractive correction alone; 20% don't need occlusion (Gibson, 1955; Pickwell, 1984; Stewart et al., 2004; West & Williams, 2011)

Contact lenses are likely to be best (Evans, 2006)

Case 6: some literature on treatment

- Flow chart based on review of recent RCTs in Evans et al. (2011)
- Many cases of amblyopia can be cured by refractive correction alone;
  - 20% don't need occlusion (Gibson, 1955; Pickwell, 1984; Stewart et al., 2004; West & Williams, 2011)
- Contact lenses are likely to be best (Evans, 2006)
- Many cases never require full-time occlusion
  - If 6/9 to 6/25, 2h ≡ 6h
  - If ≤ 6/30, 6h > 2h
- Avoid full-time occlusion for orthotropic anisometropia
- Timings approximate
- See patients frequently during the treatment of amblyopia, to begin with every 4-6 weeks.
**CONCLUSIONS**

- Always be on the lookout for pathology
- Refer if no significant improvement
- But pathology is very rare
- It is possible to treat amblyopia in optometric practice
- Patients will need good instructions & regular checks
- Many comitant ocular motor anomalies are treatable
- Plus for eso, minus for exo, & prisms are under-used treatments
- Vision therapy for convergence insufficiency is evidence-based, but there is a need for more research for other forms of vision therapy

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**Dr Optometry**

- In 2008 the Institute of Optometry launched a Doctor of Optometry degree in collaboration with London South Bank University
- 5 year part time professional doctorate
  - Year 1 has 13 taught days & 2 assignments
  - Year 2 has 8 taught days & 2 assignments
  - Years 3-5 are supervised doctoral research
- "The ultimate HQ for UK optometrists"