



# Episode 4.06 Show Notes Vision

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# **Learning Outcomes**

#### Knowledge:

- To recall the common causes of visual loss in older adults
- To know how these are managed

#### Skills:

- To be able to undertake an initial history about visual loss
- To recognise when onward referral is beneficial

#### Attitudes:

- To appreciate that visual loss can be a modifiable condition
- To consider visual assessment in those falling, with delirium and as part of a CGA.

#### **Definitions:**

Vision can be measured and defined in many different ways e.g. central or peripheral acuity, and more subtle elements such as contrast and colour. All of which contribute to ability to see and perceive the world. In practice all forms used day to day but not all of them can be tested and quantified for routine testing but many can.

# Practical Definition:



Practically, visual testing in an ophthalmology clinic with take into account more of these items than just acuity but will also focus testing on the relevant area of difficulty or in relation to their problem.

Blind is a term moving away from, instead: severely visually impaired or partially sighted. Generally everyone should be seen by an ophthalmologist to assess and diagnose blindness because

- Assess more than central acuity (e.g. Snellen chart), to get better picture
- Inform GP so can access additional services
- Royal College Ophthalmology data for epidemiological surveillance
- Low Visual Aid (LVA) Clinic attached to almost all ophthalmology clinics
  - Charitably supported
  - Ensure all available useful aids are offered
  - Links to social services too

# **Key Points from Discussion**

Sight loss affects people of all ages, but as we get older we are increasingly likely to experience sight loss.

- One in five people aged 75 and over are living with sight loss.
- One in two people aged 90 and over are living with sight loss.
- Nearly two-thirds of people living with sight loss are women.
- People from black and minority ethnic communities are at greater risk of some of the leading causes of sight loss.
- Adults with learning disabilities are 10 times more likely to be blind or partially sighted than the general population.

#### Causes of visual loss

- Age related macular degeneration is commonest cause of blindness
- Other significant causes include cataract, glaucoma and diabetic retinopathy

Red Flag features that need medical or ophthalmological review

- Curtain across visual field: amaurosis fugax and retinal detachment
- Part of visual field e.g. just one side: may be neurological





- Painful red eye (except if confident it is simple viral conjunctivitis -> chloramphenicol)
- Associated headache, nausea and vomiting (with red eye): acute angle closure glaucoma
- Orbital cellulitis i.e. near or around the eye, high risk for tracking backwards

Is it part and parcel of Ageing?

- 50% is preventable
- % of visual loss is due to refractive error or cataracts
- NB accommodation (reading) reduces after age of 40

RNIB Evidence Based Review: People in Later Life

There is a link between sight loss and reduced wellbeing. Over one-third of older people with sight loss are also living with depression.

Hodge, Barr and Knox (2010) Evaluation of emotional support

OT interventions to help modify home for visually impaired, reduced depression scores.

Tracy - can you help me find the reference for this again please?

When should you check vision?

- Fall
- Delirium
- CGA

Big modifiable risk factor for falls.

Nb Varifocals





#### ARMD: Wet and Dry

- Both cause painless distortion of vision in one eye: Straight to squiggly lines.
- WET: onset over days urgent referral
  - o Treatment should start within 2 weeks
  - o Eye injections with local anaesthetic at first assessment
  - Once a month for 3 months, then PRN (clinic monitoring usually)
- DRY: onset gradual over years supportive management
  - Fish oils and green vegetables may help slow progression
  - Central loss of visual acuity, usually complain of worsening vision, thinking need new glasses.

#### Cataracts

- Complain of glare, particularly at night / when driving in low light.
- Gradual onset
- Almost always operable
  - Local anaesthetic
  - Lie flat and still 30 mins
  - Home same day
  - One eye at a time: risk of infection (1 in 1000)

#### Glaucoma (Open Angle or 'Chronic')

- Raised pressure in eye due to flow problems with circulation of fluid in the front of the eye (the aqueous humour), anterior chamber: in front of iris.
- Peripheral visual field loss
- Often asymptomatic otherwise
- More common in afro caribbean descent, short sighted and those with family history
  - Free eye tests for >40 if first degree relative
- Drops mainstay of treatment to improve drainage of eye
  - Changes in pressure are main issue so avoid missing doses
  - SIDELINE into aids for drop administration





 Drops: 1) prostaglandin analogue, 2) beta-blocker (avoids 1st pass metabolism), 3) carbonic anhydrase

#### Diabetic retinal screening

- Annual usually well organised
- Good global BM control is key

# Non-visual eye problems

## Dry eyes

- Common, benign condition with potentially high symptom burden
- Lubricating drops to increase protective liquid layer over eye
- Chronic blepharitis common cause
  - o Glands at base of eye lashes produce oils, help stop tears evaporating
  - Can get blocked by dry skin: good eye lash care can help keep glands open

#### **Entropion and Ectropion**

- Eyelids curving in or out of lower due to lid laxity
- Drops to maintain protective layer over eye
- Uncomfortable but usually benign, can use tape to keep eye lid out
- Operation if needed.

#### Access

Community optometrist can do a lot of initial assessment in say NH or at home if unable to get to clinic.

High street optician will have more equipment to do fuller assessment e.g. check pressures, visual fields, look at retina, check for cataracts, refractive errors. Particularly acuity: are they wearing the right glasses?

Free eye test for over 60s.





#### Care Home Residents

UK based study looking at barriers to access included limited awareness of eye health and eye disease, concern about the cost of spectacles and the appropriateness of optometry in a commercial setting. Attendance at the optometrist was primarily symptom led. A positive previous experience or continuing relationship with the optometrist helped to alleviate the barriers and promote attendance.

Improving access to optometry services for people at risk of preventable sight loss: a qualitative study in five UK locations. <u>Leamon et. al</u> Journal of Public Health 2014

Good eye health contribute to a lower rate of falls, depression and isolation; and better quality of life.

Undetected sight loss in care homes: an evidence review July 2012 by ILCUK

## Any questions from twitter:

- ?Value (and how) of contrast sensitivity testing on inpatients for falls prevention. (Gareth Clifford @gcliffordpt)
- Is end of bed visual acuity test useful? Again for falls prevention. (Gareth Clifford)
- ...which visual ability most important for #posturalstability? #stereopsis #acuity #contrastsensitivity #falls (Physio Melon @physiohead)
- Do varifocals actually increase risk of fall (evidence?) esp when ppl have used them for 10+years. (Jo Kitchen @JoFallsPhysio)
- How to do bedside assessment of 3d vision and evidence for changes in 3d vision in pt with Parkinson's (Jo Jennings @JoJenningsNHS)
- Great piece of work. Wondering about efficacy particularly for contrast sensitivity. All white bathrooms are major issue. (Gareth and Jo)





https://www.rcplondon.ac.uk/projects/outputs/bedside-vision-check-falls-prevention-assessment-tool

• If you suspect acute glaucoma (esp if some distance or delay from eye centre) should you treat before sending for Ax and if so with what? (Sandy Thomson @DrSandyThomson)

Resources for website:

http://www.dlf.org.uk/factsheets/vision

http://shop.rnib.org.uk/

5 things

- 1) One five people aged 75 and over are living with sight loss / One in two people aged 90 and over are living with sight loss.
- 2) Low Visual Aid (LVA) Clinic attached to almost all ophthalmology clinics
  - Charitably supported
  - Ensure all available useful aids are offered
  - Links to social services too
- 3) Age related macular degeneration is commonest cause of blindness
  - Other significant causes include cataract, glaucoma and diabetic retinopathy
- 4) Is it part and parcel of Ageing? No
  - 50% is preventable
  - % of visual loss is due to refractive error or cataracts
- 5) Opportunities to check vision?
  - Fall
  - Delirium
  - CGA

# **Curriculum Mapping:**

This episode covers the following areas (n.b not all areas are covered in detail in this single episode):

Curriculum

Area





NHS Knowledge Skills Framework	Suitable to support staff at the following levels:  • Personal and People Development: Levels 1-3  • Service Improvement: Level 1 - 2			
Foundation curriculum	Section 3.11 3.16	Title Support for patients with long term conditions Demonstrates understanding of the principles of health promotion and illness prevention		
Core Medical Training	Common Competences:  • The patient as central focus of care • Health promotion and public health  System specific competences • Visual Disturbance			
GPVTS program	<ul> <li>Section 3.05 - Managing older adults</li> <li>Core Competence: Managing medical complexity</li> <li>Core Competence: Working with colleagues and in teams</li> <li>Core Competence: Practising holistically and promoting health</li> <li>Section 3.16 Care of people with eye problems</li> </ul>			
ANP (Draws from KSF)	Section			
Physician Associate Matrix of conditions	Section 6	- Eye		

# **Feedback**

We will add feedback to this as we receive it! The website will have the most up to date version always available: <a href="www.thehearingaidpodcasts.org.uk/mdtea">www.thehearingaidpodcasts.org.uk/mdtea</a>





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