

Recorded Lectures - Multiple Choice Answers

Changing Vision

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Six of the following questions were presented online following a recorded lecture video to entrants to comply with the General Optical Council's best practice specification for this type of CET.

Q1. Which statement is correct?

- a. Dementia is quadrupling every 10 years
- b. Dementia is stable
- c. Dementia is doubling every 20 years
- d. Dementia is doubling every 10 years

c is the correct answer. There are currently around 850,000 people with dementia in the UK. This is projected to rise to 1.6 million by 2040.

More information can be found at:

<https://www.alzheimers.org.uk/about-us/news-and-media/facts-media#:~:text=There%20are%20currently%20around%20850%2C000,age%20of%2080%20have%20dementia.>

Q2. Common types of dementia which cause sight loss are?

- a. Lewy Body
- b. Vascular
- c. Alzheimer's
- d. All of the above

d is the correct answer. Common types of dementia include Lewy Body: symptoms include hallucinations, confusion, fainting & tremors. Vascular: caused by reduced blood flow to the brain. Alzheimer's: the most common type of dementia in the UK which affects memory, thinking skills & other mental capacity.

More information can be found at:

<https://www.nhs.uk/conditions/dementia/symptoms/>

Q3. Patients affected by which eye condition is the single largest group for Low Vision in the UK?

- a. Glaucoma
- b. Cataract
- c. Age Related Macular Degeneration (ARMD)
- d. Diabetic Retinopathy

c is the correct answer. RNIB research indicates that 'When considering causes of sight loss or blindness, AMD (13.8%), cataract (10.0%) and under-corrected RE (8.1%)

were estimated to be the largest contributors to the expected lifetime risk for someone born in the UK in 2016-17.'

Incidence and risk of sight loss and blindness in the UK. RNIB. 2017. Available at <https://www.rnib.org.uk/professionals/knowledge-and-research-hub/incidence-and-risk-sight-loss-and-blindness-uk>

Q4. Treatments for WET Age-Related Macular Degeneration (ARMD) include:

- Injections directly to the eye
- Oral preparations
- Intravenous infusions
- Topical drops

a is the correct answer. VEGF (Vascular Endothelial Growth Factor) is the chemical in the body responsible for the development of healthy blood vessels. In wet AMD, too much VEGF is produced in the eye, causing the growth of unwanted, unhealthy blood vessels. The drugs used in the injections block the production of VEGF.

More information can be found at: <https://www.macularsociety.org/diagnosis-and-treatment>

Q5. What does the term "Acuity Reserve" mean in relation to advising on or dispensing a magnifier for use at near?

- Giving the patient the magnifier we have in stock
- Give the patient a magnifier that they can see well with but is not too much of an effort for them
- Give the patient the most powerful magnifier we can get
- Give the patient the cheapest magnifier as they won't use it much

b is the correct answer. It is prudent to get the patient to see comfortably & to not work to the limits of their threshold. When dispensing magnifiers for sustained tasks the effort required would not be sustainable for long periods of time – such as reading the newspaper as all 'reserve' would be used.

More information can be found at: <https://clearviewtraining.co.uk/2012/12/14/optical-appliances-competency-4-3/>

Q6. What does the "Inverse Square Law" refer to when advising on task lighting?

- Where the light source should be situated
- What type of bulb is used for illumination
- The relationship between the magnifier & the internal bulb in it
- The relationship between the light source & the distance it is from the object being viewed.

d is the correct answer. Experiments done show that light (illuminance/irradiance) is inversely proportional to distance from the point source. So, if we halve the distance to the light source we can increase illumination by 4.

Q7. Complete the sentence correctly. It is generally accepted that in patients with cataract they will:

- a. Suffer with glare & a general dulling of colours
- b. Are unaware of any changes to their vision
- c. Can see without any refractive correction
- d. Cannot wear Contact Lenses

a is the correct answer. One of the most common symptoms of cataract is light scatter from the increasingly opaque crystalline lens & glare. Also, colours appear reduced due to the increase in lens opacities.

Q8. Which statement is false?

- a. Glaucoma is more prevalent in those aged 60 or over
- b. Early detection of glaucoma is important to stop its progression
- c. Glaucoma cannot be acute in presentation
- d. Glaucoma responds well to treatment

c is the correct answer. Glaucoma can be acute in presentation & is often very painful due to the quick rise in intra ocular pressure (IOP). Symptoms include seeing halos around light sources, a red eye, cloudy vision, distorted pupil, and, occasionally vomiting due to extreme pain. It should be treated as an emergency presentation as it is potentially sight threatening.

Q9. Which colour of specially tinted lenses can help some patients with the genetically inherited eye condition Retinitis Pigmentosa (RP)?

- a. Blue/Grey
- b. Grey/Green
- c. Brown/Green
- d. Brown/Red

d is the correct answer. Some RP sufferers have reported that a Red/Brown tint helps as it blocks the high energy blue light end of the visible spectrum. These lenses are often used to reduce glare, protect against UV & enhance contrast. Most are suitable for use both indoors & outdoors but not in low light levels as they absorb around 50-55% light.