**# Faculty of Public Health

## Working to improve the public’s health

**Of the Royal Colleges of Physicians of the United Kingdom**

**

**OSPHE 183**

**Primary vision screening in children**

**QUESTION X**

**Primary vision screening in children**

**CANDIDATE PACK**

Candidate task

You are a public health registrar working for an organisation responsible for vision screening in children. You are meeting a local elected councillor to discuss late referral for amblyopia (reduced visual acuity not correctable by glasses) in your area. Your Director of Public Health (DPH) has asked to meet with you before the meeting.

You have eight minutes to prepare for the station. You are not required to prepare any visual aids. You will then spend eight minutes discussing the task with a role player. You may use paper notes to aid your verbal briefing.

Outline of situation

The local councillor has obtained a copy of audit data that shows a high number of ‘late’ referrals of children to the eye clinics within your local area A compared to a neighbouring area C. Your area Ahas a population of 600,000 and is mainly rural and affluent with some pockets of deprivation in towns. Neighbouring area C has a population of 500,000. The population is semi-rural and affluent, although some pockets of deprivation exist.

Your area A uses school nurses to conduct eye tests in children during their first year of primary school (children aged four to five years). Area C has a primary vision screening service for all three and a half year olds. Children are invited to attend a clinic to have their vision tested by an orthoptist. Eye tests in schools at age 4-5 have been discontinued in area C.

Recent authoritative national screening committee recommendations are that all children should be screened for visual impairment between four and five years of age. This screening should be undertaken either by orthoptists or by professionals trained and supported by orthoptists.

Candidate guidance

### Discuss with the DPH how to explain the amblyopia referral audit results to the councillor and respond to the DPH’s questions.

### At the station

You will be greeted by a marker examiner who will take your candidate number and name, and then hand over to the role player.

**Candidate Briefing**

**1. Amblyopia: definition and detection.**

Amblyopia is reduced visual acuity not correctable with glasses in an otherwise ‘healthy’ eye. Amblyopia occurs in 2-5% of children in the UK. The condition usually develops in one eye only but not always. The reduced vision may become permanent if not treated early.

Evidence suggests that early treatment for amblyopia gives better results. It may be difficult to diagnose amblyopia until visual acuity can be easily measured. Visual acuity can be measured reliably after the age of three years and should be corrected before the age of five.

The causes of amblyopia include:

* [Squint](http://www.patient.co.uk/showdoc/40000832/) - this causes the suppression of one of the two competing clear images.
* Anisomtropia - a large difference in refraction between the two eyes. This results in one clear and one blurred image. The one in the blurred eye is suppressed.
* Cataracts or other opacities that block vision.

An orthoptist detects amblyopia in children by using a LogMAR (logarithm of the minimum angle of resolution) test. The test requires the precise use of a chart with letters sized and spaced in a way to provide visual acuity scores for each eye. If the LogMAR chart is used correctly, the visual acuity scores for each eye can be compared, which is important for the detection of amblyopia. With adequate training by orthoptists, health care workers can implement the LogMAR test as an acceptable alternative to orthoptist-led visual screening.

**2. National Screening Committee recommendation extract**

The National Committee recommends children should be screened for visual impairment between four and five years of age. This should either be conducted by orthoptists or by professionals trained and supported by orthoptists. Children should have their visual acuity measured in each eye separately using LogMAR charts and referred if abnormal. No other pre-school vision screening can be justified.

A recent survey of screening in the UK showed that many areas had not implemented this policy. This can result in children with significant visual problems being missed and also unnecessary referrals being made.

**3. A description of current child vision services.**

**Your area (A):** All children in your area are offered an eye sight test between four to five years of age. The test is conducted in schools by nursery nurses using a Snellen chart which is a chart designed to detect reduced vision. The Snellen test does not specifically identify squints or other causes of amblyopia. A second service exists for direct referral of children of any age by health visitors or GPs to an orthoptist to allow their visual defects to be assessed. This is not a systematic screening service and referral to the secondary service relies upon visual acuity problems being detected opportunistically by a health professional or in response to concern expressed by a parent or carer.

**Neighbouring area C:** All children aged three and a half years are invited for a primary vision screening assessment conducted by an orthoptist using the LogMAR test. As in area A, a second service is also offered where children are referred directly by health visitors or GPs to an orthoptist to have visual defects assessed. No eyesight tests are conducted in schools in area C.

**Review of late referral for amblyopia results in areas A and C.**

The figure below shows the number of referrals of children over the age of five and a half years for amblyopia (defined as ‘late referrals’) to eye clinics at each hospital. Area A sends patients to two hospitals (X and Y). Area C sends all patients to hospital Z. Data were collected over a six month period in the past year.

**Review of late referrals for Amblyopia comparing patients from areas A and C**

Number of children

Area A patients- hospital Y

Area C patients - hospital Z

Area A patients – hospital X

0

5

10

15

20

25

30

35

**Primary vision screening in children**

**MAIN MARKER**

**EXAMINER PACK**

Examiner situation

The candidate will be greeted by the marker examiner who will take the candidate number and name, and then hand over to the role player by saying:

“This is the DPH. They will now start the station”.

Examiner Answer guidance

This station examines the candidate’s ability to:

* evaluate the performance of two services
* consider ways to review services where currently there are inadequate data

**Examiner briefing pack** (these will be inserted by the Faculty office)

Candidate pack, Role Player briefing pack.

**Marking guide to the examiner**

Specific marking guidance is carefully prepared to indicate to you when a candidate should fail (or excel) at a particular competency based on core material from the scenario. However, we recognise that we cannot anticipate all possible candidate responses. If a candidate says something that in your view merits a fail (or indicates excellence) on that competency or station that we have not explicitly included in the marking guidance, it is important that you do then mark the candidate as a fail (or indicate excellence). In that situation, you need to operate outside the specific marking guidance but please detail the issue in the examination feedback.

1. Has the candidate appropriately demonstrated presenting skills in a typical public health setting (presenting to a person or audience)?

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| --- |
| Avoids jargon. Is clear. Uses appropriate language for the audience. Maintains eye contact. Uses an appropriate manner for the situation. |

2. Has the candidate appropriately demonstrated listening skills in a typical public health setting (listening and responding appropriately)?

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| --- |
| Ensures actor questions are answered appropriately. Answers totality of the question. The manner of response is appropriate. |

3. Has the candidate demonstrated ascertainment of key public health facts from the material provided and used it appropriately?

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| --- |
| An **adequate candidate**:   * explains how eye sight tests are currently conducted in areas A and C. * is clear that neither service meets the national recommendations at the moment. * Area A has right age uses inappropriate method (should use LogMAR not Snellen) and unclear info on screener skills. * Area C is doing the right test at the wrong age * Explains the review data: * similar size populations but much higher referral numbers from area A than C. * issues with service structure and lack of info means it is not possible to determine the correct referral rate   A **good candidate:**   * states that because hospitals X and Y are both used by area A and both perform similarly, this increases the likelihood there is a true increase in referral numbers from area A compared with C * notes no information on the age structure of areas A and C so unclear if population size for screening age is similar.   A **poor candidate:**   * Is not clear that neither service meets current national recommendation * states the high referral rate in area A must be due to poor practice |

4. Has the candidate given a balanced view and/or explained appropriately key public health concepts in a public health setting?

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| An **adequate candidate:**   * Explains what further data are needed: * Structure, process, outcome approach. * More information on population structure, service model in Area A – have the screeners been appropriately trained? If not why not? Any barriers? * More data/intelligence on referral processes, age of children seen, outcome of referral   A **good candidate:**   * suggests practical ways to implement a change to the system in line with national recommendations * explains the process to be used which will be appropriate to the audience ensuring councillors see adequate stakeholder involvement without excess operational detail.   A **poor candidate:**   * does not provide examples on what extra data are needed * does not provide an appropriate way forward. |

5. Has the candidate demonstrated sensitivity in handling uncertainty, the unexpected, conflict and/or responding to challenging questions?

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| --- |
| An **adequate candidate**   * explains the data do not tell whether the referral numbers are inappropriate * agrees to look into the matter further * does not agree to implement the model in area C * provides limited information for the press before the meeting with the councillor   A **good candidate:**   * agrees to look into the arrangement in area C to see how they might inform changes needed in area A * volunteers a follow up meeting with the councillor when appropriate.   A **poor candidate:**   * agrees to implement the model in area C * wants to provide detailed information to the press before the meeting with the councillor |

**Primary vision screening in children**

**ROLE PLAYER BRIEFING PACK**

Station background

As candidate pack.

Role Player Brief

You are preparing the candidate to meet a local elected councillor. You know that the councillor is concerned about the results of this review which appear to show an unacceptable number of late referrals to the eye clinics in children from area A. It is likely that the councillor thinks area A is missing children with amblyopia at a younger age who are consequently presenting late to eye clinics. The councillor knows that the National Committee recommends that all children should be offered screening for amblyopia by an orthoptist or orthoptist-trained worker at age 4-5y and that this is not happening in your area.

Begin by asking:

**“Thank you for coming. I know you are off to talk to the councillor soon and just wanted to check you are ready. So can you start by summarising what you know about eye screening in area A and how it compares to area C and the national standard?”**

[Right age, wrong test (should use LogMAR not Snellen), unclear re capability of screeners. Area C does right test but earlier than recommended and with a different service model]

**“The councillor is going to challenge us to explain why we seem to be failing local children by offering inadequate eyesight tests and what we can do about it. Can you explain what you think the referral numbers show?”**

[Higher numbers in both hospitals used for area A. Unclear what the “right” figure should be because neither area does the right test at the right time]

Then ask:

**“We clearly need to understand better what is going on here. How do you suggest we go about this?”**

[Structure, process, outcome approach. More information on population structure, service model in Area A – have the screeners been appropriately trained? If not why not, any barriers? More data/intelligence on referral processes, age of children seen, outcome of referral. Investigation needs to involve current providers and not cause undue worry]

Then ask:

**“What are you going to say if the councillor wants you just to implement a service as in area C?”**

[Not appropriate. They screen the wrong age. The low late-referral rate may indicate missed need. Would be useful to understand how the model was set up in case useful to changes needed in area A]

Then ask:

**“The press has just phoned about this data. Any messages we should give them?”**

[Need a general holding statement that services are safe but under review and outcome will be shared when appropriate. Avoid saying too much before meeting with the councillor.]

Then finally

**“So just summarise for me what you are going to tell the councillor?”**

[Issues with structure of local service, referral data show increased numbers being seen in hospital clinic but uncertain how many are inappropriate. Need further info on how the service is organised and outcomes for children to determine change needed. Public Health team will look into it further and get back to the councillor]

**Any ‘no go’ areas**

None.

**Level of conflict**

Medium. You are concerned the meeting with the councillor could be challenging and want the candidate to be adequately prepared.