THE COLLEGE OF OPTOMETRISTS

Learning outcomes for the Professional Higher Certificate in Paediatric Eye Care

1. Aims

This higher certificate:

- provides optometrists with knowledge and skills to support evidence-based eye care for infants and children of all ages
- supports optometrists in developing, communicating and delivering a management plan for infants and children, including those with complex presentations
- provides optometrists with the skills to critically appraise the evidence underpinning vision therapies
- builds on the Professional Certificate in Paediatric Eye Care with its requirement for higher level understanding and knowledge, along with demonstration of practical experience and reflection on the optometrist's practice.

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2. Learning outcomes

Following completion of the programme an optometrist will be able to demonstrate:

a) a detailed knowledge of typical visual development and common abnormal visual outcomes

b) an understanding of childhood development

c) a detailed knowledge of the strengths and limitations of tests and techniques for infants and children

d) an ability to assess visual function in infants and children with visual impairment (VI) and with developmental disability

e) a detailed knowledge of the typical visual characteristics of infants and children with visual impairment and developmental disability

f) a detailed knowledge of the evidence base for the risks and benefits of binocular vision therapy

g) an understanding of current and developing amblyopia therapies

h) an understanding of the current evidence underpinning myopia control

i) an understanding of the indications for and implications of contact lens wear in infants and children

j) an ability to formulate, communicate and deliver an evidence-based management plan for infants and children both typically developing and those with developmental disability and/or visual impairment.

3. Indicative content

a) Typical visual development and common abnormal visual outcomes:

- visual development milestones:
  - acuity
  - refractive error and emmetropisation
  - binocular vision
  - accommodative function
- ocular biometrics
- amblyopia
- strabismus.

b) Childhood development:

- developmental milestones in infancy and early childhood
- adapting communication skills and examination techniques.

c) Strengths and limitations of tests and techniques including, but not limited to:

- electrodiagnostic tests
- preferential looking.

d) Use of robust and evidence based tests, appropriate for age and ability including, but not limited to:

- dynamic retinoscopy
- binocular and monocular acuity
  - preferential looking
  - typical values for age, including interocular difference
- binocular function
  - typical values for age
- eye movements and ocular motility
- refractive error; different refractive techniques including, but not limited to:
  - cycloplegia
  - modified subjective refraction
  - Mohindra/near retinoscopy
  - typical values for age
- visual fields
- contrast sensitivity
- application of a flexible approach and appropriate communication strategies.

e) Typical visual characteristics of infants and children with visual impairment and developmental disability including, but not limited to:

- Attention Deficit Hyperactivity Disorder (ADHD)
- autistic spectrum disorder
- cerebral palsy
- cerebral visual impairment.
- consequences of pre-term birth
- Down's syndrome
- specific learning difficulties.

f) Evidence base for the risks and benefits of binocular vision therapy including, but not limited to:

- refractive control of convergence excess
- refractive control of convergence insufficiency
- surgical management of ocular motor anomalies
- occlusion amblyopia.

g) Current and emerging techniques for treating amblyopia.

h) Current evidence underpinning myopia control.

i) Indications for and implications of contact lens wear in infants and children.

j) Management plan for infants and children with specific reference to:

- interpretation of test results and/or observations
- differential diagnosis
- prescribing decisions
- treatment of strabismic and refractive amblyopia
- role of contact lenses
- referral criteria and responsibilities
- binocular vision therapy
- follow up timescale for patients
- communicating with parents and carers, understanding and managing expectations and concerns
- communicating results to all relevant parties and stakeholders eg schools
- GOS regulations and local protocols
- support services and educational systems for children with special educational needs (SEN) and VI.

4. Teaching, learning and assessment strategies

The programme should be of sufficient length to achieve the stated learning outcomes. Programme delivery may be achieved through a variety of learning strategies, for example, face-to-face instruction, practical skills, distance learning or directed private study, as appropriate for the material or skills being taught.

To guide teaching strategy we distinguish between different levels of trainee competence in our learning outcomes:

- awareness – the trainee will be familiar with the item(s) in the learning outcome but is not required to demonstrate detailed understanding, knowledge or practical experience
- understanding – the trainee will be able to explain the key item(s) in the learning outcome but is not required to have practical experience
- detailed knowledge – the trainee will be able to demonstrate higher order thinking in most item(s) in the learning outcome
- ability – the trainee will have competence in a practical task acquired through skills based training or experience. Ability should incorporate higher order thinking.

We envisage that the practical skills will be taught and assessed as part of the programme, and that candidates will examine children as part of their clinical optometric work. Candidates are required to compile a logbook.

Assessments should be designed to provide valid and reliable judgements about a trainee's performance. Assessment criteria must be made explicit and be appropriate for the competency they are designed to test. For example, competencies relating to a clinical skill should be assessed using an appropriate skills-based assessment. For each assessment, a marking scheme with the appropriate pass/fail criteria should be established. Candidates should demonstrate skills such as critical thinking, problem solving and reflection.

Logbook

- a logbook of 40 patient episodes directly examined by the candidate
- the patient episodes must be from a minimum of 20 patients
- a patient episode is a patient visit and it is assumed that some patients will be seen on several occasions.
- items of evidence within a logbook have a currency of two years
- of these 20 patients candidates must include:
  - a child with a developmental disability
  - use of preferential looking
  - a preschool child
  - an infant under two years of age
  - treatment of refractive amblyopia
  - use of objective assessment of accommodative function
- the 20 patients should also typically include these cases:
  - a child with visual impairment
  - binocular vision therapy
  - contact lenses
- a minimum of five patient episodes must demonstrate follow up periods of between 3-12 months.

Case records

Candidates must make a separate presentation of five full case records, which cover a range of individual patients and clinical needs. They should be reflective in nature and demonstrate evidence informed practice.

Accreditation of Prior Learning (APL)

Accreditation of prior learning (APL) may be awarded to candidates as appropriate. It should be noted that the APL must be specific to the units and certificates already held by candidates. APL can count for no more than one third of the programme.