



THE COLLEGE OF OPTOMETRISTS

Learning outcomes for the Professional Diploma in Contact Lens Practice

1. Aim

This diploma is designed to improve knowledge and skills for GOC registered optometrists to be able to provide an enhanced standard of contact lens care in both a community and/or hospital setting. The Diploma:

- is for those involved in the provision of complex contact lenses for refractive management, ocular surface abnormalities and disease
- is a College accredited qualification in contact lens practice which builds on the Professional Higher Certificate in Contact Lens Practice
- is worth 60-75 HE credits (this includes 30-40 credits which will have been gained by the candidate with the Professional Higher Certificate in Contact Lens Practice)
- optometrists working at this level should additionally possess all of the competencies required at the Professional Higher Certificate level in Contact Lens Practice.

2. Learning outcomes

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

- a) an ability to identify and select the most appropriate lens for patients with complex refractive and clinical needs
- b) an ability to assess, fit and manage specialist designs to include hybrids, mini-sclerals and sclerals
- c) an ability to assess, fit and manage patients with advanced keratoconus in contact lens practice
- d) an ability to assess, fit and manage children under 8 years of age with contact lenses

- e) an ability to assess, fit and manage patients who require bandage, therapeutic, cosmetic or occlusive contact lenses
- f) a detailed knowledge of contact lens fitting following corneal and refractive treatments
- g) an ability to investigate and manage anterior segment conditions related to contact lens wear
- h) an ability to manage contact lens discomfort, intolerance and complications
- i) a detailed knowledge of myopia control with contact lenses and orthokeratology
- j) an ability to identify and verify a range of contact lenses
- k) a detailed knowledge of emerging technology in contact lens design and use.

3. Indicative content

- a) Identify and select the most appropriate lens for patients with complex refractive and clinical needs:
 - including, but not limited to:
 - high refractive errors (over -10.00 DS, +6.00 DS and +/-3.00 DC)
 - presbyopic patients with astigmatism
 - corneal ectasia
 - aphakia
 - cosmetic lenses for congenital abnormalities or post-trauma.
- b) Fit and manage specialist designs to include hybrids, mini-sclerals and sclerals:
 - patient selection
 - indication of appropriate lens type and design
 - 'piggy back' lenses, large diameter RGPs
 - fitting strategies
 - insertion and removal techniques
 - management and care.

c) Assess, fit and manage patients with advanced keratoconus in contact lens practice:

- patient selection
- indication of appropriate lens type and design
- fitting strategies
- management and care.

d) Assess, fit and manage children under 8 years of age with contact lenses:

- indication of appropriate lens type and design
- insertion and removal techniques
- communication with parent/carer and child
- management and care.

e) Assess, fit and manage patients who require bandage, therapeutic, cosmetic or occlusive contact lenses:

- patient selection
- indication of appropriate lens type and design
- fitting strategies
- management and care (refer where appropriate).

f) Contact lens fitting following corneal and refractive treatments:

- corneal topography following current corneal graft surgery
- corneal effects of current refractive surgery techniques
- medical and surgical treatment options for keratoconus including collagen cross-linking and corneal intrastromal rings
- referral criteria.

g) Investigate and manage anterior segment conditions related to contact lens wear:

- use of diagnostic techniques, stains and instrumentation
- conditions including, but not limited to:
 - dry eye
 - ocular allergy
 - anterior and posterior blepharitis
 - conjunctivitis
 - corneal inflammation and infection.

h) Manage contact lens discomfort, intolerance and complications:

- management of contact lens drop-outs
- inflammatory events
- corneal infection (manage and refer where appropriate)
- solution hypersensitivity and toxicity
- corneal warpage
- corneal exhaustion syndrome associated with PMMA, low dK RGP and hydrogel lenses
- pre-ocular tear film and the effect of contact lens wear on the tear film.

i) Myopia control with contact lenses and orthokeratology practice:

- current and past theories of myopia progression including the evidence base
- rationale for lens design and understanding the principles behind the designs
- communication of intended outcomes, including managing expectations
- patient selection criteria and understanding key factors in predicting success
- fitting systems and rationale for lens design
- management of adverse outcomes.

- j) Identify and verify a range of contact lenses:
- identification and indication of specialist lens types
 - use of appropriate instrumentation
 - awareness of British Standard contact lens standards and tolerances
 - relating lens parameters to British Standard contact lens specification.
- k) Emerging technology in contact lens design and use:
- Including, but not limited to:
 - anti-microbial lens surfaces and storage cases
 - drug delivery
 - physiological function monitoring eg blood sugar levels
 - pathogen detectors
 - 3D contact lens technology.

4. Teaching, learning and assessment strategies

As a prerequisite to the course candidates will have:

- achieved the College of Optometrists Professional Higher Certificate in Contact Lens Practice
- access to patients with complex contact lens requirements
- access to appropriate instrumentation for detection, measurement and management of these patients
- access to ordering lenses to fulfil the needs of these patients.

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 development, distance learning or directed private study. However, these must be appropriate for the material or skill being taught. Assessments should be designed to provide valid and reliable judgements about a candidate's performance. Candidates should demonstrate skills such as critical thinking, problem solving and reflection.

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

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

Assessment criteria must be made explicit and be appropriate for the competence they are designed to test. For example, competences 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.

The following must be included in the assessment:

- log book of 50 patient episodes directly examined by the candidate; the patient episodes must be on a minimum of 20 patients, note that a patient episode is a patient visit and it is assumed that some patients will be seen on several occasions
- these episodes are in addition to the 50 episodes logged for the Higher Professional Certificate, however, a maximum of 10 patients may be carried over from the Higher Professional Certificate
- a separate presentation of 15 full case records to include an appropriate range and depth of experience, of which eight records will be sampled
- case records to include a range of follow up periods of between 1-24 months.

It is suggested that patient selection could include, but is not limited to:

- advanced keratoconus
- post refractive surgery
- children under 8
- therapeutic indications
- cosmetic/prosthetic
- post graft
- high myopia
- complications
- orthokeratology.

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