



Cert 3 Enhanced Service and Clinical Excellence

MODULE 1: Chapters 1-5



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Module 1 Specsavers Enhanced Eyecare

Chapters 1-5

This unit assesses the learner's knowledge and understanding on enhanced eyecare and the skills required to provide clinical excellence.

Learning Outcomes and Assessment Criteria:

1. Understand what is considered enhanced optical services.
2. Know the Principles of EOS.
3. Know what services are available in your area.
4. Understand what a MECS eye examination is comprised of and when it would be carried out.
5. Understand how to effectively triage a patient presenting with an eye condition.
6. Ensure compliance with GOC Standards of Practice.
7. Demonstrate knowledge of common eye conditions.
8. Understand the MECS patient journey and what it consists of.
9. Understand the criteria for inclusion in EOS schemes.
10. Understand the Opticians Act 1989 and what it governs.
11. Be able to carry out the following skills: Completing a triage form, instilling eye drops, non contact tonometry, visual fields testing and fundus photography.
12. Know what equipment is used in EOS and understand how it works.

Chapter 1 - Enhanced Optical Services



1.1 What Are They?

Enhanced Optical Services (EOS) are clinical activities that are performed in addition to those that may be performed as part of the standard sight test. Such services are often referred to as Locally Commissioned or Locally Enhanced Services or Schemes though they can also be accessed privately by patients where the correct framework exists.

NHS commissioned services exist to benefit both the patient and the NHS. The patient benefits because they receive care in more convenient locations with greater choice, access and flexibility. The NHS benefits because there is a lower cost to the patient being seen in primary care and with an ageing population the demands are increasing on what is already a stretched system in many areas.

Ophthalmology has the third largest budget of the NHS and by engaging with primary care providers such as optometrists they can reduce costs associated with capacity in terms of staff, clinic space and equipment. Also, harnessing the potential of primary care providers means that they are better able to meet their performance KPIs such as Referral to Treatment Times (RTTs).

Care within a hospital or eye department is termed Secondary Care (i.e. Hospital Eye Service) whereas care in a community setting such as within an optometry practice or General Practice (GP) is termed Primary Care. The services fall broadly into two fields:

Those that reduce referrals into the Hospital Eye Service

Those that move Hospital Eye Service clinical workload into primary care

1.2 Principles of EOS Services

- Provide a rapid access, high quality service to patients
- Ensure equity of service
- Reduce the total number of patient visits
- Reduce the number of visits the patient makes to secondary care
- Reduce waiting lists
- Improve the quality of referrals
- Support care closer to home

- Improve quality of life
- Provide accurate data about outcomes and patient satisfaction

1.3 Why Aren't They All Over the UK?

National services exist in Scotland and Wales that incorporate EOS principles. These have additional clinical scope to take advantage of the skills of primary care optometrists to reduce the burden on the Hospital Eye Service and benefit patients. Northern Irish providers also have National services that have become available in 2016.

In England, there are over 200 Clinical Commissioning Groups (CCGs) that have local responsibility for a wide range of health services. It is usually this group that designs / approves pathways to best fulfil the needs of the community it serves. In some cases CCGs are getting together to commission services over a wider area but, by and large, they still pursue single provider agendas.

1.4 Why Should We Be Involved?

EOS allows optometrists to use the full breadth of their training to better serve the communities in which they work, improving the profile of the profession and making their caseload more interesting and engaging. All optometrists should aspire to take part in any viable Enhanced Optical Services that are live in their area to build the professionalism of the practice and benefit the patients that really need our expertise.

It seems counterintuitive that we would wish to send our patients to another practice because we don't participate. It is likely that the patient would see us as less professional and be less likely to trust us for their eye-care in the future.

Imagine seeing a patient with cataract and referring them; only for them to have to go to another local optometrist before that referral is acted upon? Imagine having to send a patient to another practice because they have a red-eye and you aren't accredited as part of the local PEARS (Primary Eye-care Assessment & Referral Service) / MECS (minor eye conditions) service? This is often the reality when we aren't involved in these services. What must these patients think of our professionalism?

1.5 How Do Services Get Set Up and Administered?

The services are usually developed with the Local Optical Committee (LOC) of which there are 78 in total within England. The LOC is defined in law and is therefore a statutory body, representing all local optometrists and dispensing opticians who provide services through the General Ophthalmic Services (GOS). These are funded through a levy that is imposed as a small percentage (typically 0.5% to 2%) on GOS1 payments.

LOCSU (Local Optical Committee Support Unit) is an organisation that supports the LOCs in England. Where services are being set up or already commissioned LOCSU assists by offering

guidance and administrative help for payments, governance, etc. This is usually achieved through setting up an LOC Company, however, some services are directly contracted with NHS Trusts and other providers of care.

In Northern Ireland, Scotland and Wales the devolved governments work with the Local Representative Groups (LRGs) such as Optometry Northern Ireland, Optometry Scotland, Optometry Wales and other stakeholders to design the services that are available.

See **Appendix 1 – How to process an EOS sale.**

1.6 Variability of Services

EOS services are commissioned locally, usually by CCG area or by devolved countries. As such, and in accordance with local health needs and preferences, the design of service pathways varies hugely. The following chapters give an outline indication of what typically occurs in an EOS Service, by condition, along with a précis of how that customer journey may unfold and how the service is best delivered.

1.7 Why are Diabetic Services Different?

Though we think of Diabetic services as a part of EOS they are commissioned in a very different way. The NHS diabetic eye screening (DES) programme is co-ordinated and led nationally with local screening services provided in line with national quality standard and procedures. We look at this in more detail in Chapter 8.

Exercise 1.1 Services available

With the help of your supervisor find out the following information about services in your area:

- What services are available in your area?

- What is your CCG called?

- What is your LOC called?

- Does anyone from store attend LOC meetings?

Important Notes

- EOS services frequently involve the use and disposal of diagnostic drugs. This can be for pupil dilation, corneal anaesthesia, etc. The GOC Standards of Practice guidelines are very specific on the use of diagnostic drugs. The patient should give consent but also be given written information about the drops used and signposted to emergency services should any problems arise.
- This course breaks down EOS services into its constituent services by condition type. In Scotland, Wales and other areas many of these may be bundled together to serve the patients of that area.

Exercise 1.2 Store processes

Find out the following information about processes in your store:

- How does your store record patient advice and consent to comply with the GOC standards?

- How does your store dispose of its clinical waste?

- How does your store order stock of diagnostic drugs?

Chapter 2 - MECS Services and Non-GOS Eyecare

2.1 MECS Services

A MECS (Minor Eye Conditions) examination will provide a timely assessment of the needs of a patient presenting with an eye problem or condition. This will be undertaken by an accredited optometrist (see Appendix 2 - accreditations and qualifications for EOS) within suitably equipped premises who will manage the patient appropriately and safely. Management will be maintained within the primary care setting for as many patients as possible, thus avoiding unnecessary referrals to hospital services.

There are many variants of this type of examination and they can often be known as PEARS (Primary Eye-care Assessment & Referral Service) PEATS (Primary Eye-care Assessment and Treatment Service) ACES (Acute Community Eye-care Service).

Clinical commissioning guidance from the College of Optometrists and the Royal College of Ophthalmologists shows that:

- Over 50% of patients attending eye casualty services self-refer
- 'Eye emergencies' are estimated to make up 1.46-6% of accident and emergency attendances of which 89.7% will be self referrals. 51-65.6% of the caseload will be related to trauma, 11-27% will be related to infection/inflammation
- 1.5-2% of GP consultations may be eye related (Estimated 340 million GP consultations happen in the UK per year)
- Urgent eye conditions are mostly non-acute and relatively straightforward to treat but a significant minority are emergencies that cause acute distress and are sight threatening
- As many as 78.1% of cases attending eye casualty are deemed 'non serious', with 50-70% of cases not constituting either an accident or an emergency, a figure supported by patient feedback. Optometrists have shown agreement of around 90%, with diagnosis, treatment and management strategies of ophthalmologists in eye casualty settings, therefore making optometrists an ideal health care provider for this service
- Many cases can be managed without the input of an ophthalmologist (eye specialist)
- Patients may rate immediate treatment and reassurance more highly than diagnosis as the most important aspect of their urgent eye care

Patients can self-refer or be referred into the service by their own GP (or the practice nurse or surgery receptionist), pharmacist, another optometrist, NHS 111 (or equivalent), A&E or Eye Clinic / Eye Casualty by arrangement. There is usually a list of participating optometrists for the patient to choose from. Children under 17 years of age should be accompanied by a responsible adult.

Optometrists must, within reason, be able to offer an acute MECS examination within 48 hours of the day that the appointment has been requested by the GP or pharmacist (excluding weekends and public holidays) unless it is for routine assessment. Where this is not possible, the patient should be directed to a colleague nearby.

For acute potentially sight threatening eye conditions the optometrist should arrange to see the patient on the same day or refer directly to Eye Casualty. All referrals should be read and prioritised within 24 working hours. An appointment for a routine assessment should be offered within 2 weeks. However, in many cases the scheme specification dictates it is sooner than this.

The level of examination should be appropriate to the reason for referral. All procedures are at the discretion of the optometrist.

The most common eye conditions are listed below in exercise 2.1. It is recommended that practitioners utilise the College of Optometrists' Clinical Management Guidelines which can be found on their website:

http://www.college-optometrists.org/en/professional-standards/clinical_management_guidelines/

Exercise 2.1 Eye conditions

Using the website link above make notes on the following:

Condition	Signs	Symptoms	Additional Notes
Dry Eye			
Subconjunctival Haemorrhage			
Corneal Foreign Body			
Conjunctivitis (Allergic)			
Blepharitis			

A GOS sight test or private eye examination may also be required but it would be unusual for this to be carried out at the same time as a MECS examination.

Outcomes resulting from the consultation are likely to be one of the following:

- The optometrist decides to manage the condition, and offers the patient advice and/or prescribes/recommends medication. A follow-up consultation may be necessary.
- The optometrist carries out a minor clinical procedure, e.g. eyelash removal or foreign body removal. A follow-up consultation may be necessary.
- The optometrist diagnoses the condition and suggests / prescribes appropriate medication or the GP is requested to prescribe.
- The optometrist makes a tentative diagnosis and refers the patient urgently/non-urgently into the Hospital Eye Service using the usual channels of communication.
- The optometrist reassures the patient and discharges him/her.
- The examining optometrist recommends an NHS or private sight test.

All procedures undertaken and advice given to the patient should be recorded on a patient record card or electronic device, and stored in a safe retrieval system.

2.2 The MECS Patient Journey

The key points of note in this patient journey from the perspective of an optical assistant are:

- These patients present unscheduled - they are a walk-in patient. The triage process in this module (Chapter 3) can be hugely effective in dealing with them effectively.
- Diary management and use of reserve slots is vital to successful implementation of a MECS service.
- Patients in this service will often require diagnostic drugs, especially if they present with flashing lights, floaters, etc.
- Even if this service is in place there may be those who present who are not eligible. These patients can be seen on a private basis or, if eligible, via General Ophthalmic Services (see section 2.4). Each store should have its own process for this linked to a triage process.
- As with all EOS services there is variability by area. Please familiarise yourself with the local variations should services exist in your area.

Exercise 2.2 EOS Implementation and MECS

Watch the EOS Implementation and MECS video and podcasts using this link:

[**MECS**](#)

2.3 Criteria for Inclusion in EOS Schemes

http://www.college-optometrists.org/en/professional-standards/clinical_management_guidelines/

Criteria for inclusion of patients	Same day referral	Exclusions
May include the following:	The following cases should be referred directly to the nearest Eye Casualty:	Other conditions excluded from the service:
Loss of vision including transient loss	Severe ocular pain requiring immediate attention	Diabetic retinopathy
Sudden onset of blurred vision (but always consider if a sight test would be more appropriate)	Suspect retinal detachment	Adult squints, long standing diplopia
Ocular pain or discomfort	Retinal artery occlusion	Repeat field tests to aid diagnosis following an eye examination
Systemic disease affecting the eye	Chemical injuries	
Differential diagnosis of the red eye	Penetrating trauma	
Foreign body and emergency contact lens removal (not by the fitting practitioner)	Orbital cellulitis	
Dry eye	Temporal arteritis	
Epiphora (watery eye)	Ischaemic optic neuropathy	
Trichiasis (ingrown eyelashes)	Sudden loss/dramatic reduction in vision in one eye	
Differential diagnosis of lumps and bumps in the vicinity of the eye		
Recent onset of diplopia		
Flashes/floaters		
Retinal lesions		
Patient reported field defects		
GP referral		

2.4 Non-GOS Eyecare

(For Information only -this is not part of the level 3 assessment)

2.4.1 What If There Is No MECS Scheme Available In My Area?

Since September 2016 there have been optometrists in every UK Specsavers Store that are accredited to manage patients in the format required by a MECS service.

This means that we can offer the very best in-patient care and have a base level of optometry within our business that we can be proud of. It will also allow us to continue making the case for more widespread access to such services for all patients. In working with Local Optical Committees, CCGs and other stakeholders we can improve outcomes for patients, relieve pressure on local services in terms of cost and volume whilst ensuring that we are at the forefront of eyecare in the community.

Thousands of patients present to our stores every day with eye problems that may not be directly linked to their vision. Where MECS services (or equivalent) are in operation then these patients are dealt with efficiently and effectively. However in many areas there are no services or the patient may not qualify for the service; these patients can fund the appointment privately (as they would a private sight test) or, should they be eligible, utilise the provision of the General Ophthalmic Services (GOS).

However, as in the section below, access to GOS services for non-visual problems requires careful consideration. Ultimately the optometrist undertaking the examination is best placed to decide the eligibility of that patient based on their symptoms; however, a robust triage process (see chapter 3) can assist in this process.

2.4.2 Is Your Patient Eligible For a GOS Sight Test?

The reasons why someone may, or may not be, eligible for a General Ophthalmic Services (GOS) examination are well established but there is blur, if you'll pardon the pun, when it comes to those who present with a sudden onset issue or a minor eye condition.

Of course, where a MECS or PEARS type EOS scheme exists this is simple; the patient simply enters the EOS pathway that is available in that area. But what happens if a patient attends for a sight test with, for example, a red eye, flashing lights or floaters, etc. and there is no such scheme in your area.

A sight test as defined by the Opticians Act (1989) is:

“testing sight with the object of determining whether there is any and, if so, what defect of sight and of correcting, remedying or relieving any such defect of an anatomical or physiological nature”

This is the reason GOS funding is not appropriate if a patient does not display any symptoms that relate to a refractive error.

In Scotland and Wales additional schemes run which are funded allowing stores to see a patient; to do so in England you must participate in a local Enhanced Optical Service (EOS) scheme if one is available.

The number of cases should be relatively low because any blurred vision would fulfil the criteria but in cases where possible refractive error is not indicated stores can;

- Complete an EOS pathway if their store is involved in a local scheme
- See the patient privately explaining it's not covered under NHS (if no EOS)
- Advise the customer to attend the GP or Hospital Eye Service (HES)

In this instance retail staff must consult an optician who must make a note of the advice given to the patient.

Refer to Cert 3 20.2 or Cert 3 CL 8.2 The Optician's Act 1989

The College of Optometrists has issued some useful scenarios to help explain this, one of which is reproduced below. It includes commentary from Dr Susan Blakeney, who is their Clinical Advisor.

College of Optometrists Ethical Scenario

Sonia Hamilton, aged 71, attends your practice in England complaining that her right eye is red and watery for the past 3 days. She last had a sight test 12 months ago and was put down for a 2 yearly recall, and there was no change in prescription. She says her vision is OK, but the eye is a bit itchy.

What should/can you do, assuming that your practice does not participate in any enhanced services?

- Examine Sonia under the GOS as she is over 70 so she is entitled to have a sight test every year according to the Memorandum of Understanding.
- Examine Sonia under the GOS as she is having problems with her eyes.
- Tell Sonia that you are not legally allowed to see her unless you do a full sight test so she should go to her GP.
- Tell Sonia that you would be delighted to see her, but she will need to pay privately as the GOS does not cover this.

d) Is the correct answer. The reasoning behind the answer is given below:

- Examine Sonia under the GOS as she is over 70 so she is entitled to have a sight test every year according to the Memorandum of Understanding (MoU).

Incorrect. The MoU lists 'minimum' sight test intervals, and does not say that patients are 'entitled' to have a sight test at these frequencies. Patients should have a sight test as often as they clinically need to have one, and the previous optometrist suggested a 2-year recall for Sonia. As Sonia is not having any problems with her sight then she does not need a 'sight test', as defined in law (s.36(2) Opticians Act (1989)).

b. Examine Sonia under the GOS as she is having problems with her eyes.

Incorrect. Sonia's problems do not mean that she needs to have a 'sight test', which is defined in law (s.36(2) Opticians Act (1989)). She needs to have an anterior eye examination to diagnose her problem and advise on appropriate management. This is not (in England) covered by the GOS and would be an ideal candidate for a PEAR scheme or similar.

c. Tell Sonia that you are not legally allowed to see her unless you do a full sight test so she should go to her GP.

Incorrect. You have the expertise to see her, and you are legally allowed to see her, but you are not funded by the GOS (in England) to do so. You can therefore either see her privately, or direct her to an alternative healthcare provider, but if you do so you should be clear that it is not because you are 'not allowed' to see her, but because you are not funded to do so. If she is unable or unwilling to pay for a private consultation then you should direct her to an alternative source of care. This may be her GP or a practice that participates in a PEARS or similar service.

d. Tell Sonia that you would be delighted to see her, but she will need to pay privately as the GOS does not cover this.

Correct. Sonia does not need a 'sight test', but needs an examination, which is appropriate to her condition. The GOS in England (and Wales and Northern Ireland) does not fund this so - unless you have a locally enhanced service, such as PEARS, under which you can claim funding from the NHS - you can either examine her for nothing or charge an appropriate fee. If she does not wish to pay you should direct her to an appropriate source of care

College of Optometrists Clinical Advisor Dr Susan Blakeney says:

It is not infrequent for patients, who are eligible for a GOS sight test, to attend the practice complaining of a problem that does not require a 'sight test'. Examples would be someone with a red and watery eye as in this example, but also (commonly) patients who present with flashes and/or floaters.

Patients (and GPs) are often unaware of the intricacies of the GOS and so do not realise that these consultations are not funded by the NHS (I know that our colleagues in Scotland do not have these problems, nor do those in Wales who participate in the Wales Eye Care Services or those in England or Northern Ireland who have an enhanced service such as PEARS or ACES).

I would recommend that with the changes in the NHS in England that this is an ideal opportunity for optometrists to engage with their Local Professional Networks (LPNs) and Clinical Commissioning Groups (CCGs) to design services that enable patients to access timely and convenient advice for these conditions. Optometrists are ideally placed to provide such services if there is a will to commission them.

Chapter 3 - Skills for EOS: Effective Triage

3.1 Why Do We Need To Triage?

When a patient presents, either in person or via the telephone, describing a problem with their eyes or vision, it is very important that we establish the potential urgency of the eye condition and therefore how quickly they need to be seen by the optometrist. This is known as effectively triaging the patient.

Asking the correct questions about their eye condition is critical in giving the optometrist the most appropriate information about the patient's symptoms. This allows the optometrist to begin narrowing down the most likely cause of the problem, whether it could be sight threatening, and therefore how swiftly the patient needs to be assessed.

In order to abide by the GOC's Standards of Practice, we should be recording all relevant patient interactions with respect to their reported eye conditions, as this forms part of the patient's record. It is useful to have a universal method of triaging and recording this advice so best practice can be encouraged.

3.1.1 Why Use Triage Forms?

Triage Forms were introduced so that the most efficient questions could be asked to patient's about their eye condition or problem and their responses easily documented. This ensures those needing urgent care are offered the correct appointment and that those who will not suffer any further deterioration can be offered an appointment as appropriate.

Refer to Cert 3 18.2 or Cert 3 CL 6.2 Using The Emergency Advice Triage Form

The form is a record of the patients reported symptoms and issues; this may be required in the future as part of their clinical record. This is especially important with patients who did not have time to stay for an appointment, were signposted to other sources of care or were given advice over the phone.

The 'Emergency Advice Triage Record' can be found on Connect and printed copies should be available for use throughout the store (See Figure 3.1). Ideally the Triage Forms should be kept wherever patient interactions happen, e.g. in the call centre or at the reception desk, as these patients will either contact the store by phone, or walk into the practice.

There are a vast number of reasons why a patient may seek advice about their eyes and it is very important that an optometrist is always consulted and the final decision on the final advice given to the patient is decided upon by them.

Where EOS Services that require a triage process exist there will a triage form and procedure bespoke to that area. All that are eligible for such a service should follow that process.

3.2 Triage Process

3.2.1 How These Patients Present

Most patients who contact stores with an urgent eye related problem will explain the problem they are having at the time of requesting an appointment, but sometimes, without being prompted, they do not. If a patient requests an appointment earlier than their recall date, it is best practice to ask if they are having any problems or concerns with their eyes. This helps to identify patients who require more urgent care compared to those needing a routine sight test.

3.2.1.1 What Type of Appointment is Required?

Identifying the nature of the problem using the triage form will help the optometrist ascertain which type and duration of appointment is necessary. If the patient's presenting symptoms relate to their vision, a sight test appointment might be most appropriate. If not, a MECS / SEE appointment type must be used. See Chapter 2 section 2.3.

3.2.1.2 Before You Begin...

Prior to completing the triage form, it is important to check that the customer's personal details are accurately recorded on Socrates, especially their contact telephone number. If the patient is new to the store, it is vital to create a file for them in the normal way on Socrates. In both cases it is important to record details of the patient's GP, in case an onward referral is necessary.

3.2.2 Completing the Triage Form

When the time comes to complete the Triage Form it is important to consider patient confidentiality. As with all personal details this process is subject to confidentiality; you will be discussing personal details and asking questions of a medical nature. Ideally this discussion should take place in as private an area of the store as possible.

It is vital to complete all sections of the form clearly and accurately. The questions that require responses from the patient are written in bold font. Asking 'What is the problem' allows the patient to tell you, in his or her own words, what has happened. This is followed by a series of questions that require the response simply to be circled. There is no need to ask questions that are not on the triage form unless the optometrist specifically asks for further information.

Date

Emergency Advice Triage Record



Px name	D.O.B	Phone number	Customer number
Info taken by		Time of contact	
What is the problem?			
			Date of last test

How long have you had this issue?			
1-2-3- Days	Less than 1 week	Less than 1 month	Over a month

Which eye is affected?		
Right eye only	Left eye only	Affecting both eyes

Is there any pain?			
No discomfort	Irritable	Uncomfortable	Painful

Is there any redness?			
No redness	Mild redness	Moderate redness	Severe redness

CL wearer?	
Yes	No

Flashes?	
Yes	No

Floaters?	
Yes	No

Is there discharge?	
Yes	No

Is the discharge?	
Gunky	Watery

Double vision?	
Yes	No

Is your vision blurred?	Yes R / L / Both	No
-------------------------	------------------	----

Is there discomfort or pain when looking at lights or in bright places (Photophobia)?			
None at all	Mild	Moderate	Severe

Other symptoms or Notes

Where is Px.?	Store	Phone	How to contact Px.	Waiting	Call back
---------------	-------	-------	--------------------	---------	-----------

Optometrist urgency advice				Advice to patient if unable to be seen here			
Now	Today	Tomorrow	Routine	GP	Casualty	Other OO	Pharmacy

Notes / Advice given to patient

Professional advisor name and signature	
Patient informed of advice / Contacted by	
Appt. made?	Yes / No / NA
Appt. date and time	

Has the Px been advised on driving / removing any contact lenses etc?

Figure 3.1 Triage form

3.2.3 Advising the Patient and Additional Information

Once the triage form has been completed, inform the patient that an optometrist will look at the form as soon as possible and provide further advice.

It is useful to ask the patient about their availability for an appointment, especially if they are on the telephone. Explain that if the optometrist feels their eye problem requires immediate investigation, the patient will need to attend the store at short notice.

You should identify where the patient is - have they telephoned from home or work? Are they planning on waiting in store? Are they planning on leaving the store whilst waiting for a response? This may impact on how quickly they can attend an appointment and how we deal in communicating with them. This can be captured on the form.

Once the triage form is complete and has been reviewed by an optometrist there will be an indication as to whether dilatory drops will be required, appropriate advice on travel plans, etc. can then be made.

3.3 Outcome and Retention of Forms

Once the optometrist has reviewed the Triage Form and recorded their advice on the bottom section of the form, the patient should be informed immediately. This advice could range from booking a MECS / Private EOS appointment, booking a routine sight test, or for an emergency referral to eye casualty; whatever is most suitable for that patient.

The Triage Form is an important document that should be used for the optometrist to make an efficient decision about the care and urgency of appointment that is needed for the presenting patient.

It is important to record the date and time that you take the information from the patient, along with your name.

Making the final decision is the duty of the optometrist in practice and they should complete their section of the form with advice given and, if an appointment is needed, how soon it should be made.

As mentioned previously the form becomes part of the patient record, either in paper form or scanned onto the patient record via DIPS. It must be kept even if the patient is advised to seek other medical attention and a paper copy must not be destroyed unless digitally captured (i.e. DIPS). They should be treated in exactly the same respect as other patient data.

Under no circumstances should you offer an opinion on the cause of the symptoms to the patient, even if you feel sure you know what the problem is.

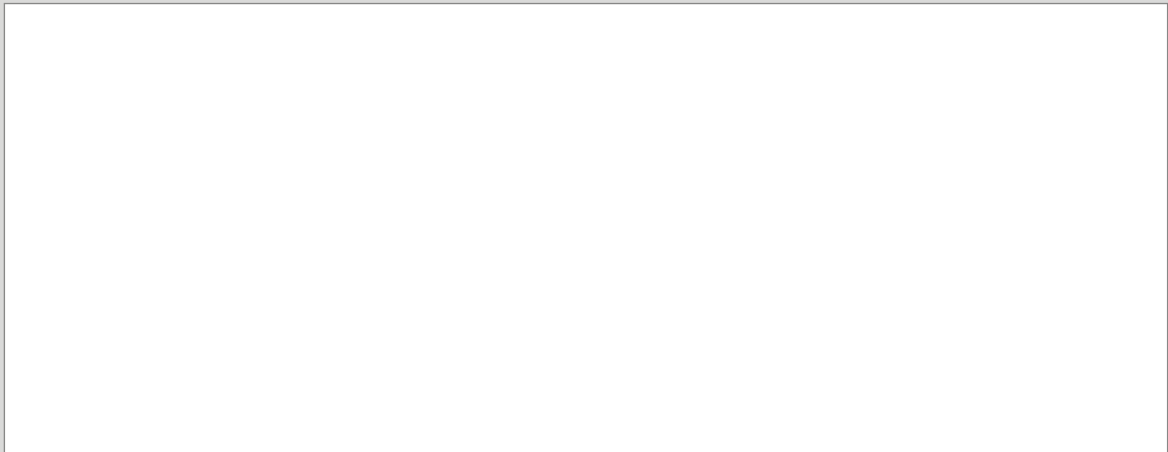
Exercise 3.1 Using the triage form

With the help of your supervisor complete a triage form for a patient presenting with an ocular concern.

- Follow the process through to find out the outcome and make notes on the process below.



- Review the triage process for your store. Note any improvements that could be made.



Chapter 4 - Skills for EOS: Instillation of Drops

4.1 Introduction

In this chapter we will discuss, in detail, the instillation of drop and the considerations that should be made when doing so. Many patients in EOS clinics, as well as normal clinics, require diagnostic drops to facilitate their examination.

Some optical assistants have been trained to instil drops as part of their support function under the supervision of an optometrist. This chapter will give you the step-by-step guide to achieve this skill should your supervising optometrist require this support. Where this support is utilised there is a noticeable improvement in efficiency and waiting times for patients.

The College of Optometrists advises that there is no legal restriction on who can instil eye drops as the law only restricts supply of the drops. Therefore local training can be agreed in store for non-clinical staff to instil eye drops, as long as a supervising Optometrist is on site and available to intervene if necessary.

The guidelines require that when an optometrist delegates any task, he or she must be satisfied that the person to whom they are delegating:

1. Is adequately trained to perform that function
2. Is appropriately supervised when performing the function to meet legal requirements and to ensure the safety of the patient
3. Understands the need to preserve confidentiality in relation to all patients This has ramifications for the assistant.

Assistants are expected to behave in a responsible manner, particularly when performing tasks that have been delegated by the supervising optometrist and to behave in a way that would at all times be considered ethical.

Additional Resources

The Cert 3 chapters referenced below may be useful to accompany this section - they can be found on iLearn under your Cert 3 EOS heading:

- Infection Control (Cert 3 Chapter 2.6.1 or Cert 3 CL Chapter 16.5)
- Ocular Anatomy especially with particular reference to the Iris and Pupil Control (Cert 3 Chapter 17.8.1 or Cert 3 CL Chapter 5.8.1).
- Ophthalmic Drugs (Cert 3 Chapter 19 or Cert 3 CL Chapter 7) especially Drug Storage (Cert 3 Chapter 19.2 or Cert 3 CL 7.2), Drug Instillation (Cert 3 Chapter 19.3 or Cert 3 CL Chapter 7.3) and Mydriatics (Cert 3 Chapter 19.7 or Cert 3 CL Chapter 7.7)

4.2 Instillation of Drops

	Prior to Instillation	Additional resource or advice
1	<p>Before using an ocular drug, it is imperative to consider the four Ds</p> <ul style="list-style-type: none"> • Drug - the name of the drug must be checked to make sure it is the correct one. • Dosage - the concentration of the drug must be checked. • Date - the expiry date of the drug must be checked. A drug should never be used if it is past its expiry date. • Dispose - safely after use. 	see Cert 3 Chapter 19.2 or Cert 3 CL Chapter 7.2.
2	Ask the patient if they have had previous reactions to eye drops used to dilate their pupils?	If yes, do not proceed. Seek an optometrist's advice.
3	<p>Explain the rationale for performing dilation and importance of the clinical assessment that it enhances.</p> <p>i.e. gives a better view of the back of the eye which enables the assessment of any eye disease and grading of its severity.</p>	
4	Outline potential side effects and risks from the procedure.	See 4.2.1: Side Effects and Risks
5	Advise the patient what they can and can't do once the drugs have been instilled and for how long that will affect them.	See Cert 3 Chapter 19.7 or Cert 3 CL Chapter 7.7.
6	Give the patient written advice regarding their eye drops. Usually detailing side effects to watch out for, who to contact should they experience any concerning symptoms, the name of the drop used and date and time of instillation.	
7	Obtain consent to proceed.	This is usually obtained using verbal consent, which should then be recorded - check local protocols.
8	Verify drug type, expiry and batch number and record this.	Check local procedures for where on the patient's file it is best to do this.

Instillation of Drops		Additional resource or advice
1	Ensure you have clean hands. Wash them or use hand sanitiser in front of the patient.	
2	Offer the patient a tissue in case they find the drops sting.	
3	Remove the Minim from the packet and shake it to gather together any air pockets within the phial.	
4	Twist and remove the cap from the Minim.	
5	Ask the patient to tilt their head back and look up.	
6	Hold down their lower eyelid with your forefinger.	
7	Without touching the end of the Minim onto the eye or eyelid/lashes, squeeze the Minim and direct one eye drop into the pocket created by the lower eyelid. The tip of the eyedropper should be at least 1 cm from the surface of the eye. See right.	<p>Ask patient to look up</p> <p>Gently pull down lower lid</p> <p>Instill eyedrop into pouch</p>
8	Ask the patient to close their eyes, press the tissue over the closed eye, applying light pressure in the corner of the closed eyelids by the nose. This aids the absorption of the eye drop.	
9	Repeat steps 5-8 for the other eye.	
10	Dispose of the used Minim in the clinical waste bin.	

4.2.1 Side Effects, Risks and Post Dilatation Checks

In most cases it is recommended to measure intra-ocular pressure (IOP) before the patient leaves the store. A rise of more than 4mmHg should be monitored by the supervising optometrist.

As discussed previously the information provided at the point of consent and prior to instillation to the patient will outline what steps need to be taken should they experience any side effects post use of a diagnostic drop.

4.2.2 How Can I Get Signed Off?

Many healthcare settings use optical assistants or the equivalent to instil eye drops as it is an extremely low risk procedure. **Please refer to Appendix 6** - Framework for competence validation on how to learn and be signed off on this skill under the supervision of an optometrist.

Exercise 4.1 Instillation of eye drops

- Discuss with your supervisor if this support function could be required in your clinics.
- Observe the instillation of diagnostic drops on a number of patients.
- Practice this on a colleague. Minims of saline are readily available to use to facilitate this exercise; these have no effect on the eye when instilled.

Chapter 5 - Equipment used in EOS

5.1 Delegated Tasks

In normal day-to-day running of clinics there are some important clinical tests that are routinely completed on behalf of the optometrist. These are known as delegated tasks or functions, and help the optometrist with their assessments and management of patients. Therefore, it is vital that these delegated tasks are completed accurately and professionally, so that the patient receives the best care and service.

Any delegated task requires that person undertaking it to identify themselves on the patient record. Each store should have its own procedure for this to be compliant with the GOC standards of practice. This often involves signing / initialling the printouts from the equipment or annotating the test record (TR) before for review by the optometrist.

As an optical assistant specialising in Enhanced Optical Services, you may become aware of several additional clinical tests and techniques that an optometrist would use or undertake as part of an EOS examination.

As your role requires interaction with patients passing through an EOS pathway it is useful for you to have an understanding of the equipment used though many can be used in regular sight testing.

This section describes many of the processes you may already be familiar with as well as others that are more often seen in EOS services.

5.2 Intra-Ocular Pressure (IOP)

Intra-ocular pressure relates to the delicate pressure balance of the fluid filled eyeball. Fluid, known as aqueous humour is produced by the ciliary body, flows in front of the lens, through the pupil, and drains into the anterior chamber angle. The system of aqueous humour production and drainage is in fine balance, in order to maintain a healthy IOP. If either the production or drainage systems becomes unbalanced then the IOP can rise. This increased pressure can start to press on various structures (in particular the nerve fibre layers) within the eyeball and cause damage. For example, when high pressure starts to damage the optic nerve head, this causes glaucoma (see Chapter 7).

IOP is therefore an important measurement used in the diagnosis of several eye conditions, including glaucoma. IOP is measured for most patients, aged 35 and over, during the standard eye sight test. However, in EOS appointments, IOP may be measured more frequently in order to investigate potential eye diseases. The average IOP is 15 mmHg (unit of measurement), with a range of 10 to 21 mmHg being the normal range.

Patients where IOP measurement is especially important:

- Age is more than 35 years, as the incidence of glaucoma is higher in the over-35s.
- African/Caribbean ethnic group, as the incidence of glaucoma is higher
- Where there is a direct family history of glaucoma, particularly siblings.
- Where ophthalmoscopy shows large cupping, a significant difference in cupping of the optic nerve between the eyes or a significant change in cupping since the previous examination
- Suspicious visual fields
- After a central retinal vein occlusion - secondary glaucoma is more likely
- Steroid users (high-dose and long-term, topically or systemically)
- Diabetics
- Hypertensives (high blood pressure)
- Before and after pupil dilation (importance is dependent on the type of mydriatic used)
- To aid differential diagnosis of red eye
- Haloes, especially coloured, around lights (could indicate swelling of the cornea)

5.2.1 Measurement of IOP

There are two methods of measuring IOP

- Non-Contact Tonometry (NCT) - the 'puff-of-air' test
- Contact Tonometry
 - often known as Applanation Tonometry
 - only carried out by an optometrist in store
 - Goldmann or Perkins instrument is used

5.2.1.1 Non-contact tonometry (NCT)

Every store has a non-contact tonometer. The machines are quick and simple to use, and this task is usually delegated by the optometrist to an optical assistant, after training (see Appendix 3).

It is important that the machine is prepared correctly for each patient, ensuring that it has been properly cleaned using alcohol-free wipes and using disposable chin-rest paper in front of the patient. This reduces the risk of cross-contamination from other users of the machines. It is also important to ensure that the patient is physically comfortable whilst using the machine by adjusting the table height, seat position or chin rest height.

Before taking any measurements it is vital to give the patients instructions on what to expect during the test. Explain that a reading of the pressure inside the eye will be taken by using puffs of

air in each eye. The patient should be reassured that this measurement is not painful in anyway, but may make them blink, which they are free to do in between measurements. The patient should be instructed to look at a target during the assessment (usually a dot of light).

Once the patient is correctly aligned with the machine, you should begin by taking readings from the right eye first, before moving onto the left. It is important to get to least 3 measurements from each eye, as this creates a more accurate reading of the IOP for the optometrist. Often the results are printed automatically by the tonometer, but in some cases you will be asked to write them down for the optometrist. In this case write all measurements for the right eye together, then the left eye, and also the time that the measurements were taken.

Exercise 5.1 Non-contact tonometry

Ask your Supervisor to run a training session on non-contact tonometry using the outline provided in **Appendix 3**. Once you feel competent ask your supervisor to observe you carrying the procedure out.

5.2.1.2 Contact tonometry

Contact tonometry is the most accurate and repeatable method of measuring IOP, and Goldmann applanation tonometry is the clinical gold standard method. Therefore, if a patient has suspicious IOPs (higher than 21mmHg) when measured with NCT, the optometrist will repeat the pressure measurement with contact tonometry in order to get the most reliable reading. It is this reading that will be used in determining patient management. **This is never a delegated function in optometric practice.**

There are two pieces of equipment widely used in the measurement of contact tonometry:

- Goldmann Slit lamp mounted equipment
The Gold Standard and therefore some EOS schemes will only accept IOP measurement with Goldmann
- Perkins A portable, handheld device
Can be used with the patient seated or lying down
Uses the same type of probe as Goldmann and is closer to the Goldmann than a NCT.

Goldmann and Perkins are both based on the Imbert Fick Law:

$$\text{Intra-ocular pressure (IOP)} = \text{tonometer force (g)} / \text{applanated area (mm}^2\text{)}$$

This relationship holds only for a spherical container with an infinitely thin membrane, which is flexible, elastic and dry, and when an increase in applanation does not increase IOP. The cornea is thick, wet and has some rigidity but, with careful design, the tonometer approximates the Imbert Fick Law over the normal IOP range.

At 3-4mm diameter the surface tension (of the tears) is cancelled by corneal rigidity plus tear compression, therefore force used is equal to IOP. If a diameter of 3.06mm is used, force (g) x 10 = pressure (mmHg), Goldmann found that an applanation diameter of 3.06mm was required to applanate an area of 7.354 mm², which satisfied the criteria. There is negligible IOP fluid displaced (0.5µl), so drainage from the eye does not need to be considered. Therefore, accurate repeatable measurements can be achieved with a contact tonometer.

Both Goldmann and Perkins use disposable heads containing a split prism, which gives a more accurate Vernier-type measurement.

The disposable head makes contact with the cornea as the IOP is measured, so the optometrist will instil anaesthetic eye drops prior to measurement. They will also use Fluorescein (orange dye that fluoresces under UV light), which illuminates the corneal touch made by the tonometer head and allows accurate readings to be taken.

5.2.2 Factors That Affect the Accuracy of IOP Measurement

The patient must be relaxed and comfortable when measuring IOP

- Stress and apprehension can cause a large increase in IOP
- Breath holding, straining and squeezing the eyelids shut causes IOP to increase
- Blinking can cause a large increase, due to the eye retracting and pressure from the lids.
- Tight clothing around the neck causes increase in IOP

Instruct the patient to look straight ahead and keep the eyes as still as possible:

- Extra-ocular muscles under tension can cause up to 10mmHg increase, so ensure the patient is fixating in the primary position
- Accommodation can fluctuate IOP, so a distance gaze is important
- It is essential to record the time at which IOP is taken:
- There is normal variation throughout the day, where IOP can swing by up to 5mmHg (highest early morning and lowest in the afternoon)
- In patients with glaucoma this IOP swing can be up to 13mmHg

Patient lifestyle can cause influence eye pressures; be aware of the following:

- Recent alcohol consumption decreases IOP
- Exercise can increase IOP by up to 50% during it
- Recent consumption of fluids increases IOP
- Medication or drugs
- Recent contact lens removal

- Eye rubbing
- Smoking increases IOP
- Caffeine increases IOP

Accuracy when taking IOP measurements is important

- Excessive repeated IOP measurements can decrease IOP by up to 5mmHg

5.3 Pachymetry

A device known as a pachymeter is used to measure corneal thickness. Typically in practice a handheld machine, often called a Pachmate but there are other models, is used after the instillation of anaesthetic eye drops. The Pachmate lightly touches the cornea to take its reading.

A human cornea is typically 0.55mm thick centrally, and normal variation is between 0.48 - 0.60mm. A pachymeter can measure the patient's central cornea thickness, often used to check for corneal swelling in contact lens use.

A common use within an EOS pathway would be measuring the corneal thickness, in conjunction with IOP readings, as a cornea which is much thinner or thicker than average will skew IOP measurement. IOP tends to be overestimated in patients with thick corneas, and underestimated with thin corneas.

5.4 Gonioscopy (contact lens type mirror)

The Gonioscope is used to examine the anterior chamber angle, when analysing the drainage route of aqueous humour out of the eye. A direct view of the anterior chamber angle is not normally possible with the slit lamp alone. To get an accurate assessment of the angle, the cornea must be neutralised. The contact lens part of the gonioscopy lens neutralises the corneal power and the mirrors reflect the illumination and observation systems from the slip lamp into the angle. This may form part of an EOS glaucoma scheme and would only be done by an optometrist.

5.5 Visual Field Testing

Visual field testing involves an assessment of the non central vision a person has. The most common area tested is the central 30 degrees of vision and is carried out using an automated machine. In some cases, a wider field of vision may be tested, for example, in the DVLA screening which tests up to 120 degrees of vision. Visual field testing can provide important information that helps in the detection of many conditions, including glaucoma, retinal detachments, and even damage to the optic nerve caused by stroke.

Particular indications for visual fields examination:

- New patients to the practice
- Glaucoma patients and those with a family history of glaucoma

- Patient reports some visual field loss
- Recent onset headaches
- To monitor existing stable conditions, e.g. glaucoma
- Localisation of the disease process within the visual pathway
- If the patient finds it difficult to locate steps, or misses part of the letter chart
- Acquired colour vision changes
- If the patient is taking certain medications, such as quinine
- DVLA driving assessment

In order to reduce the chance of any cross-contamination between patients, the machine should be prepared for the patient every time it is used, including thorough cleaning of the forehead and chin rest, and the use of disposable eye patches is recommended.

Again, you should ensure that the patient is sitting at a comfortable height for the visual field test, this is especially important for visual field assessment, as it can sometimes take between 5-10 minutes to complete. Where necessary, ear defenders can be worn to minimize outside distraction. The correct refractive correction should be worn and fitted correctly to avoid artefact visual field errors.

The patient should be given clear instructions on how to carry out the test, and if possible be given an opportunity to practice, before carrying out the real examination. The patient should be advised that this test assesses their peripheral vision and usually involves one eye being assessed at a time. The specific instructions given to the patient will depend on which field machine you have in store.

Once the patient has completed the visual field test the results will be displayed on a printout that shows the optometrist the extent of the patient's visual field and any defects.

The visual field assessment is only as accurate as the patient's ability to complete the test. If the patient has not been given comprehensive instructions or they have not been monitored properly throughout the test, then the results may not be deemed accurate, and they may be asked to repeat the test. It is therefore vital to give clear instructions to the patient prior to starting this assessment.

Exercise 5.2 Visual fields

Ask your Supervisor to run a training session on visual fields using the outline provided in **Appendix 4**. Once you feel competent ask your supervisor to observe you carrying the procedure out.

5.6 Fundus (Retina and Other Structures) Viewing Lenses

The slit lamp can only focus as far as the anterior vitreous due to the refractive power of the cornea and lens, and also because the slit lamp is a microscopic system. To view the fundus a high powered plus lens (such as a Volk lens) forms an aerial image of the retina, which can be focused by the microscope. Volk lenses, e.g. 60D, 78D, 90D and Superfield NC form a real inverted aerial image between the lens and the slit lamp viewing system. This method is known as biomicroscopic indirect ophthalmoscopy (BIO). This is never a delegated function in optometry. See Figure 5.1.

Description	Magnification	Field of view (°) Static/Dynamic	Working distance from cornea (mm)	Particular users
60D 31mm	1.15	68/81	13.0	Disc and macula
78D 31mm	0.93	81/97	8.0	General purpose
90D 21.5mm	0.76	74/89	7.0	Wide field
Super 66 stereo	1.0	80/88	11.0	Enhanced stereo
SuperPupil XL	0.45	103/124	4.0	Undilated wide field
SuperField NC	0.76	95/116	7.0	Wider field than 90D
SuperZoom 78/90	0.96/0.78	82/101	7.0	Combination zoom
SuperVitreofundus	0.57	103/124	4.0	Small pupil

Types of Fundus viewing lenses

The main advantages of using these lenses to view the fundus are:

- Stereoscopic view facilitating the observation of detachment, disc cupping and raised lesions such as tumours.
- Better field of view when compared to the 8 degrees (approximately) seen with the direct ophthalmoscope, therefore less likely to miss an abnormality.
- Not dependent on refractive error therefore much better for viewing the fundus of high myopes.
- Much sharper view of the fundus in the presence of cataract and vitreous opacities.

5.7 Fundus Photography (Digital Retinal Photography)

Fundus photography involves taking an image using digital retinal photography. This provides high quality images of the retina for the optometrist to use in monitoring eye health and in the diagnosis of eye disease, but also to show the patient in the test room. It is important to mention that the optometrist will also look at the retina (with a volk or direct ophthalmoscope) but the photograph forms part of their clinical record and is a great way to monitor any changes between exams.

Again, it is vital that the camera is cleaned in front of the patient before use, and clear instructions are given. The patient should be advised that you are about to take an image of the back of the eye, which will be used by the optometrist in the test room to check the health of the eye.

On occasion the quality of the image may not be as good as it should be, e.g. the patient may blink during the photograph, or there may be a mark on the camera lens. If this occurs it is important to retake the photo again until a good clear image is captured for the optometrist to show the patient.

Exercise 5.3 Fundus photography

Ask your Supervisor to run a training session on Fundus photography using the outline provided in **Appendix 5**. Once you feel competent ask your supervisor to observe you carrying the procedure out.

5.8 Optical Coherence Tomography (OCT)

Optical Coherence Tomography is effectively 'optical ultrasound'; imaging reflections from within different layers of the eye to provide high resolution, 3D cross-sectional images.

In optometric practice, OCT is typically used to give a 3D scan of the retinal layers, and allows detailed examination of the different layers of the retina, macular and optic nerve. Most OCTs also take a fundus picture at the same time as the scan is carried out, and so this can be cross referenced to analyse areas of interest.

OCT allows the optometrist to visualise the retina in more detail than they can see even with Volk lenses. This is because the individual retinal layers are pictured on the OCT, so the deeper retina can be examined. This is invaluable in analysing the disease process that takes place in Macular Degeneration, as using an OCT makes it possible to determine whether there is fluid within the layers of the retina (wet macula degeneration) or not (dry macula degeneration). This classification is much harder to ascertain by traditional ophthalmoscopy methods (direct and indirect).

When the machine is equipped with an anterior eye module it can image the cornea, iris and other anterior structures to aid diagnosis and management.

OCT is routinely used in hospital settings and, more frequently in optometry, to determine how to manage a patient's macula degeneration or suspect degeneration. OCT also plays an important part in monitoring glaucoma and suspect glaucoma patients. OCT scans tell us the thickness of the nerve fibre layers in the retina and can give an indication as whether damage has occurred to them via a disease process.

END OF MODULE

NOTE TO SUPERVISOR: Once you have observed the student carry out any delegated tasks competently, you can use **Appendix 6:** Framework for competence Validation to sign them off. Please ensure that exercises 5.1-5.3 have been completed before the competence validation document.

Module 1 revision questions

Now complete the revision questions for module 1 (chapters 1-5) - they can be found on iLearn > My Learning within your **Cert 3 EOS** course