



inspire

INSPIRE Submission Form for writing materials and submitting them to the platform

INSPIRE is the online learning platform of the Royal College of Ophthalmologists. It welcomes submission of educational materials from members and non-members who would like to contribute to this resource.

A Contributor may submit their own work, or the work of other authors, with appropriate consents. Materials will then be reviewed by the Editors, and the Contributor will be informed of the materials selected for inclusion on the platform.

Contribution Process

1. Collect together the **files** you would like to submit
2. If contributing work by **other authors**, obtain their **consent** off-line using the downloadable form <https://rcophth.net/CPDF>
3. **Complete** this **INSPIRE Submission Form (Pages 2-4 below)**
4. Enrol in INSPIRE, if not already enrolled - <https://rcophth.net/Contrib> (**you will need to login first, then click the Register button and follow the Checkout process**)
5. Click on your name at the top of the page, then My Courses follow by with the appropriate Access Course button, or View My Courses
6. Access the online **Contributions Area** on the platform once you've enrolled on the **Contributions course**.
Follow the instructions in the announcements box, and more details are provided if required in the course materials.
7. Complete the [online consent form](#), on behalf of yourself and any authors whose work you are contributing.
8. **Upload** this submissions **form** and the **materials** files through the Contributions Area.

Submission Form

Please complete the white areas on this form and upload it with your educational materials on the Contributions Area.

The purpose of the form is to:

- Provide author details for attribution of the materials
- Provide context for the educational materials that can be provided for learners
- Guide the editors in how the submitted materials may be best combined into a lesson

Please write or insert your materials the white areas beneath each purple box.

Title of Materials

Succinct – easy to display and read
Specific – to distinguish it from other similar materials

Persistent Corneal Epithelial Defect in a Graft

Files Submitted

File Name – name of file submitted
Title/Description – could be used in the text if not otherwise obvious
Banner – if you have a preference for which image file should be used as a banner at the head of the page, label it as such

File Name	Title/Description
PED Image 1	Pre-op – use as banner
PED Image 2	Immediately post op
PED Image 3	Later post op

Contributor & Author details

Copy this table as many times as necessary.
Submit one table for each Contributor and Author.
Succinct answers please, eg: main role relating to this educational material

Image 1 - banner

Role	Author
Name	<i>Melanie Corbett</i>
Role	<i>Consultant Ophthalmologist specialising in Cornea and Ocular Surface</i>
Affiliation	<i>The Western Eye Hospital, Imperial NHS Trust</i>

Aims & Objectives

Introduce the learning.
Write aims and objectives.

*Tip: Aims are one or few and more general. Objectives are multiple and more specific.
They would be a list following the sentence: "By the end of this lesson you will be able to:"
= VERB (sets the level in the learning pyramid) + NOUN (topic/activity/competency)*

Patients undergoing corneal transplantation commonly have co-existing ocular surface disease. It is most important to identify and manage such conditions before embarking on surgery and postoperatively.

Aims

- Perform a thorough critical assessment of the ocular surface

Objectives

- Know the common important omissions to be avoided when examining the ocular surface
- Describe signs on the ocular surface
- Identify the processes underlying the signs, and their importance
- Question apparent inconsistencies in the findings

Inspire your Learning

What should the learners do to generate engagement and excitement in the topic before undertaking the main learning?

Consider creating a quiz question.

QUIZ	
Question / MCQ stem & options	Answer
What are the really important parts of the Ocular Surface Examination which are most commonly forgotten or overlooked?	<ul style="list-style-type: none"> • Eversion of the upper lid - to examine the tarsal conjunctiva • Assessment of the tear film - the quantity and quality • Assessment of the superior cornea - by asking the patient to look down whilst lifting the upper lid

Develop your Learning

This is the main part of the learning.
 How could the materials be organised?
 Give the file names (in red if possible) amongst the text and other items
 What text should be included before and after video or image materials?
 What tools (eg: flip cards, tables) could be used to present image and text materials?

Tip: write the text; add, duplicate, reorder or remove any components, or rows in the table

A patient was referred from a neighbouring unit having had a full thickness penetrating keratoplasty 4 months previously.

For the past 3 months they had had an irregular surface in the inferonasal cornea.

FLIP CARD	
Front – eg: image, question	Back – eg: answer
<p>Image 1</p> <p>Signs Describe the signs using a structures approach</p>	<p>Signs</p> <ul style="list-style-type: none"> • Tear film - good quantity and quality • Conjunctiva - moderate injection • Cornea - corneal graft (full thickness penetrating keratoplasty) with loose sutures proud of the corneal surface. • Corneal epithelial defect - in the inferonasal quadrant, with ragged edges, and up to the graft-host junction. • Corneal stromal oedema in the area of the epithelial defect.

FLIP CARD	
Front – eg: image, question	Back – eg: answer
<p>Processes What are the possible processes contributing to the epithelial defect?</p>	<p>Processes</p> <p>Likely options:</p> <ul style="list-style-type: none"> • Limbal stem cell insufficiency in the inferonasal quadrant • Subtarsal roughness nasally <p>Other possible options:</p> <ul style="list-style-type: none"> • Corneal graft rejection • Inflammatory ocular surface disease

On further questioning the patient admitted having pterygium surgery two years previously.

EXPANDING TABLE, Click & Reveal or Accordion		
Heading	Questions	Click to reveal
Processes	Questions	Answers
Mechanism	Do you think the history of pterygium surgery is related to his current problems? And, if so, how would it contribute?	Yes. By causing localised limbal stem cell deficiency

Likelihood	Does prior pterygium surgery usually cause limbal stem cell deficiency sufficient to cause a persistent epithelial defect?	No, because if the limbus is functioning well in the rest of the cornea, epithelial cells can migrate across the cornea to prevent a defect.
Contributing Factors	So why in this patient so you think they had a persisted epithelial defect?	He had partial limbal stem cell deficiency affecting the remainder of the cornea, due to previous trachoma.

What was the important SIGN that had been missed at the preoperative assessment prior to surgery?

Eversion of the upper lid revealed sub tarsal scarring consisted with trachoma. Closer inspection of the remainder of the limbus revealed milder more widespread limbal stem cell deficiency. This meant that the other limbal areas could not compensate for the deficient limbus in the area of the pterygium.

CALL OUT BOX – insert a key message
<p>Learning Point</p> <p>Always evert the upper lid to view the subtarsal conjunctiva in patients with ocular surface disease, and perform a detailed examination of the whole ocular surface prior to surgery.</p>

The patient went on to have a combined redo-penetrating keratoplasty with a sectoral limbal stem cell allograft, with systemic immunosuppression.

Image 2

This resulted in healing of the epithelium of the new graft within the first week (below) and the defect was totally closed by 2 weeks.

Image 3

Immunosuppression was stopped 2-3 years later, and the graft survived for many years beyond that.

Check your Learning

Suggest how learners can check their learning, eg: reviewing flip cards, click & reveal, etc
Consider creating quiz question(s) – with the answer.

Tip: add, duplicate or remove any components, or rows in the table

QUIZ	
Question / MCQ stem & options	Answer
What were really important parts of the Ocular Surface Examination which are most commonly forgotten or overlooked?	<ul style="list-style-type: none">• Eversion of the upper lid - to examine the tarsal conjunctiva – <i>most important in this case</i>• Assessment of the tear film - the quantity and quality
Which was most important in this case?	<ul style="list-style-type: none">• Assessment of the superior cornea - by asking the patient to look down whilst lifting the upper lid

Apply your Learning

Give examples of consolidation work, eg: how the learning can be applied in practice, eg: clinical activities, project work, challenges, discussions, teaching others.

Within the next week, evert the upper lid in at least 10 patients you examine, and describe your findings in detail.

Further your Learning

Provide links to suitable INSPIRE learning that could be done next.
Or list suitable topics to search on INSPIRE.

CALL OUT BOX – insert a key message

Additional Resources

Links to suitable INSPIRE preparatory learning or pre-requisites.

- Link: Slit lamp examination
- Link: Limbal stem cell deficiency

- Link: Limbal stem cell grafting

Thank you very much for submitting your materials to INSPIRE!