



Corneal Abrasions

Background

Corneal abrasion is a very common eye injury. Causes include superficial corneal injury (such as would be caused by a foreign body), wearing of contact lenses and corneal or epithelial disease (such as dry eye). The abrasions themselves can be large or small and usually heal completely without any problems in the long term. Deep corneal abrasion can cause scars.

An abrasion is defined as a defect in the corneal surface superficial to the Bowman membrane and limited to the epithelial layers. It can be the result of chemical or physical injury. The healing process is interesting (and has been known for some time). During the healing phase corneal cells flatten, spread and move across the injured area until they cover it completely. About a day after injury cell proliferation starts. While there are temporary attachments between the migrating cells and the underlying areas of cornea, it takes about 6 weeks for full adhesion to occur.

Patients complain of a sensation of a foreign body (scratching), pain in the eye and photophobia. These symptoms begin immediately at the time of trauma and last minutes to days depending on the size of the injury. Some patients go on to develop recurrent erosion syndrome—with the symptoms (in this case a sharp, bad pain together with lacrimation) often coming back when the eyes are opened from sleep.

Being the commonest eye injury the care of this condition reflects the care given to patients with any eye problem



Special points of interest:

- Corneal abrasion is the commonest eye injury
- Trauma can be chemical or physical
- Although most abrasions heal quickly it takes up to 6 weeks for the new corneal cells to adhere fully
- Patients can develop recurrent erosion syndrome - when symptoms recur on opening the eyes after sleep

Methods

Retrospective audit

Sample: 30-50 Emergency Department patient records

Criteria:

Inclusions: All patients above the age of 2 years presenting with corneal abrasions

Exclusions: Penetrating eye injury, patients with chronic eye disease

Please ensure you register the audit with your Trust Clinical Audit Department

Notes can be obtained by computer search of the ED database. The coding system on the back of the ED cards should be searched using the terms :

The search should extend long enough to include the 30 most recent obtainable events. Contact the ED information manager to obtain a list of case notes matching these criteria.

Your search should be for the previous 6 months. Cards are only physically kept in the department for a couple of weeks and then sent for scanning and archiving electronically. This usually takes about 4 weeks. It is only after that time that they can be accessed electronically on the computer in the secretarial office. So you should start with cards from 6 months ago and work forward to be sure of finding them electronically. Select 30-50 of these cards for review.

Additional information with respect to laboratory timings can be obtained from the Clinical Workstations.

Once you have the cards for the relevant patients then you need to record this in an accessible way. Data should be entered into the excel spreadsheet that contains all the relevant data and will automatically calculate statistics and graphs for you (good eh!). We strongly recommend that you use it. For some of the items on the spreadsheet there are a number of options. To maintain a consistency between rolling audits we ask that you stick to the approved list.

Work plan

Week 1-2, background reading and ordering case notes

Week 3-4, accessing EC cards on the workstation in the secretarial office and entering data into the spreadsheet.

Week 5-6, preparing the Powerpoint presentation of your findings

Presentation of findings

The data should be collated and then presented using the associated PowerPoint presentation with the new data entered.

Data **MUST** then be uploaded onto www.st-emlyn.org.uk as instructed. Please obtain password from your audit lead.

For further information contact:





How to upload the audit data

- www.stemlyns.org/admin
- Username and Password
- Select Appropriate Audit Title
- Select EDIT RESULTS next to appropriate date
- Enter results and CONTINUE
- FINISH
- LOG OUT

Traffic lights within 5% of target  within 6-15%  within 16%+ 

Criteria	Standard (%)	Standard achieved Locally (%)	Standard Achived Regionally (%)	Standard Met?	Status
All patients examined in both eyes for visual acuity	100				
Appropriate pain relief offered	100				
All patients prescribed topical antibiotics	100				
Evidence of fluroscein examination	100				

