

Birmingham and Midland Eye Centre
Ophthalmic Guideline

OPHTHALMIC NURSING PROCEDURE GUIDELINES FOR IRRIGATION OF THE EYE

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Approving body	Divisional Governance Group – Surgery B Drugs & Therapeutic Committee
Policy reference	SWBH/ BMEC/Ophth/014

ESSENTIAL READING FOR THE
FOLLOWING STAFF GROUPS:
1 – BMEC Ophthalmic Clinical Staff
2 – Ophthalmology Clinical Staff

STAFF GROUPS WHICH SHOULD BE
AWARE OF THE POLICY FOR
REFERENCE PURPOSES:
1 – Trust Ophthalmology Clinical Staff

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IMPLEMENTATION
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DOCUMENT CONTROL AND HISTORY

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1	October 2008	October 2008	September 2010	No changes made
3	March 2012	March 2012	March 2015	

**Ophthalmic nursing procedure
Guidelines for irrigation of the eye/s of patients who have sustained
chemical splashes**

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1. Introduction

Patients who have recently sustained chemical splashes to the eye/s require irrigation as a matter of urgency in order to preserve sight. Other patients who have presented with multiple non-penetrating superficial foreign bodies, or other foreign materials to the eye/s, or are experiencing excess mucus discharge from the eye socket may also require irrigation as part of their initial treatment. This guideline should be used in conjunction with patient Group Directions number 032 or 035.

2. Aim / Purpose

- 2.1 To irrigate the eye in such a manner that all foreign material, debris, chemicals or mucus are removed from the eye /eyes / socket as quickly as possible
- 2.2 To minimise damage and potential sight loss to the eye/s
- 2.3 To ensure that patients sustaining CS gas to the eye/s are NOT irrigated as this would exacerbate the problem

3. Objectives

- 3.1 The irrigation of the eye/s will be carried out by an ophthalmic trained nurse or a general trained nurse who has received instruction in the procedure and has been deemed competent.
- 3.2 Equipment for the procedure will be collected together before beginning the irrigation and a suitable room found with a bed or chair with headrest.
- 3.3 Patient's sustaining ACID or ALKALINE burns to the eye/s will receive prompt irrigation treatment to minimise damage to the eye/s

4. Definitions used

- 4.1 **Cornea** – Transparent layer at the front of the eye sometimes referred to as 'the window of the eye'
- 4.2 **PGD** - Patient Group Directions

5. Process / Specific detail of procedure

5.1 Equipment

- 1 litre of normal saline 0.9% x 3 (double amount to 6 if both eyes are affected)
- Intravenous infusion giving set
- Drip stand
- Suitable light source
- Minims® oxybuprocaine 0.4% – local anaesthetic for adults
- Minims® proxymetacaine 0.5% – local anaesthetic for children
- Protective cape, apron and paper towels or terry towels.

- Clean tissues
- Kidney shaped receiver for discarded fluid
- Universal pH indicator paper
- Suitable chair or couch

ACTION	RATIONALE
Check patient's name, address and personal details with the case notes or casualty card. Check the procedure required	To confirm the correct identity of the patient and confirm the investigation required
Obtain relevant history from the patient, nature of incident, time, place of incident.	To ascertain nature of chemicals or foreign materials involved in the incident.
Explain the procedure to the patient and the purpose of the investigation	To obtain patients informed consent and co-operation and allay any fears or anxieties
Seat or lie the patient with their head well supported	To ensure the patient's and the nurse's safety and comfort
Wash hands in accordance with Trust policy	To reduce the risk of cross infection
Ask the patient to look up. Draw lower lid down gently; insert pH indicator test paper at the junction of the middle and outer third of the lower lid. After strip is wet read against pH indicator score. (after 30 seconds)	To minimise the discomfort to the patient and to ascertain the pH of the chemicals involved
Instil one drop of local anaesthetic into the lower fornix of the affected eye/eyes (see equipment)	To ease the patients discomfort & enable patient co-operation
Assemble the giving set and check fluid flow ready for use. Place all equipment on affected side	To ensure safety of equipment and solution. Ensure adequate flow of irrigation solution. All equipment is at hand.
Place protective cape/towel around the patient's neck and shoulders on the affected side.	To protect the patient's clothing
Give the patient a receiver/dish to collect irrigation solution and then instruct the patient to incline their head towards the affected side, placing the receiver against the cheek	To ensure correct technique with minimal spillage
Stand behind the patient's affected side. Check the receiver is in the correct position. Hold the giving set nozzle	To allow easy access to carry out the procedure.

approximately 3cm above the patient's cheek. Commence the flow of saline starting on the cheek. Ask the patient to look up, pull the lower lid down and wash out the conjunctival sac. Ask the patient to look right and left in rotation ensuring a continuous irrigation flow of saline. Evert upper lid and wash out.	To familiarise patient with temperature and flow of fluid, thus gaining confidence and co-operation To ensure effective removal of all debris
Allow flow of saline to run into receiver. (Empty receiver as necessary).	
Continue irrigation until appropriate amount of saline has been used.	
Fluid flow should not be allowed to fall directly onto the cornea.	To avoid corneal damage and minimise patient's discomfort
Dry the patient's skin and assist into a comfortable position	To maintain patient comfort
Check pH of patient's eye 5 minutes after completion of the irrigation. If outside normal range (7-7.5) repeat irrigation. If pH is within normal range check again after ½ hr to verify reading.	To evaluate the effectiveness of the irrigation. To record the results in case notes or casualty card
Document results accurately Refer patient to the medical staff who will prescribe further treatment if required	To ensure continuity of care
Dispose of all waste materials in accordance with Trust policy for disposal of clinical waste.	To maintain safety
Wash hands in accordance with Trust protocol.	To reduce the risk of cross infection
Complete documentation	To ensure accurate record keeping

NOTE

This procedure is for the irrigation of one eye only. It is often necessary to irrigate both eyes, particularly when the patient has sustained chemical splashes. Repeat procedure to other eye as required.

CHILDREN

When irrigation of the eye/s of a child is necessary it is important that the procedure is fully explained to the parents and that consent is obtained and that this is documented.

If at all possible ensure the parents stay with the child throughout so that fears can be minimised and co-operation obtained

Prior to commencing the irrigation the child should be undressed to nappy or underwear and wrapped in a towel as it is highly likely that their clothes will become wet during the process.

When irrigating the eyes of a small child or baby it is necessary to lay the child on a couch or ideally ask the parent to hold the child on their lap making sure their clothes are well protected against spillages. The parents can help to support the child's head

Local anaesthetic drops of Minims® proxymetacaine 0.5% can be instilled prior to irrigation to minimise discomfort

Constant reassurance of the child and parents is required as the child usually cries a lot and parents often find it distressing
If a FULL irrigation is not required 20ml bottles of normal saline solution may be used to allow for easier irrigation

6. Training

- 6.1 All ophthalmic trained nurses will receive instruction in this procedure during their ophthalmic course
- 6.2 General trained nurses and health care assistants will be allowed to carry out the procedure under supervision until deemed competent by the ward or departmental manager

7. References

Dunne A (1991) *Eye Irrigation – Practice, Procedures and Problems*. Hospital Pharmacy Practice, Vol 1 No5 October

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Evans N.M (1996) *Ophthalmology 2nd Ed.*Oxford University Press.Oxford.

Hooper M (1997) *Prompt treatment for chemical eye injuries*. Nursing Standard May 28. Vol 11,Number 36, page 40-43

Morgan S J (1997) *The Management of chemical burns of the eye*. Eye News, Vol 4, Number 3, October/November

Stollery R, Shaw M, Lee H (2005) *Ophthalmic Nursing 3rd Edition*. Blackwell Science Ltd. Oxford.

PGD number 032

The administration of minims Oxybuprocaine (Benoxinate) 0.4% stat to anesthetize the cornea to facilitate ocular examination or treatment of patients with a corneal epithelial defect

PGD number 035

The administration of minims Proxymetacaine Hydrochloride 0.5% stat to anesthetize the cornea to facilitate ocular examination or treatment of patients with a corneal epithelial defect