GUIDELINES ON PERFORMING EYE CARE:-
- PERFORMING EYE CLEANSING
- PERFORMING EYE SWABBING
- INSTILLING EYE MEDICATION
- APPLY EYE PADDING / DRESSING(S) / SHIELD(S)

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### Document Change History

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1.0 Introduction

Eyes are an area where micro-organisms potentially can gain access into the body (Glasper & Richardson 2010). However, there is usually no need to clean the eye due to their natural self-regulation process, as the conjunctiva is protected by a film of tears (containing antibacterial properties) and the constant blinking mechanism of the eyes flushes and cleanses the eye surface (Harrison 2006). Therefore, healthy children may only need the area of skin surrounding the eye cleansed as part of their general hygiene routine. However, a sick or vulnerable child may need more frequent specific eye care with the duration of eye care depending on the child’s underlying conditions (Marsden & Shaw 2003).

2.0 Definition of Eye Care

The production of tears and blinking mechanism of the eyes provide a natural cleansing process for the eyes (Harrison 2006). When this process is interrupted the eyes may need to be artificially cleansed to remove debris, prevent dryness and ensure eyelid closure (Dawson 2005). Eye cleansing may be performed alone or in conjunction with eye swabbing, instilling eye medication, applying eye padding/dressing(s)/shield(s).

3.0 Indication of Eye Care *(this is not an exhaustive list)*:

- Children undergoing eye surgery
- Children whose eyes cannot close properly (e.g. Hydrocephalus)
- Unconscious, sedated or muscle relaxed children
- Presence of infection (e.g. conjunctivitis / neonatal conjunctivitis (eye discharge))
- Infants with non-infected sticky eye due to underlying cause (e.g. Blocked tear ducts)
- Immunosuppressed children
- Trauma

(Wright & Spiegel 1999; Dawson 2005; Briggs 2006; Harrison 2006; Trigg & Mohammed 2010)

4.0 Purpose of Performing Eye Care

To maintain eye cleanliness, thereby promoting comfort and preventing cross infection.

- To prevent eye dryness: A variety of approaches such as methylcellulose drops and ointment, general lubricants, polyacrylamide hydrogel dressings, hypromellose drops (artificial tears) have been used. However, in the unconscious/sedated/paralysed child polyacrylamide hydrogel dressings have been identified as the most effective, with a two-fold function, firstly to moisten and lubricate the eye area and secondly to maintain eye lid closure.
- To ensure eyelid closure (by using polyacrylamide hydrogel dressings i.e. Geliperm ®)
- To treat an existing eye infection
- Prior to administering medication
- To protect the eye from retinal damage during phototherapy light lamp treatment

Department of Nursing
5.0 Complications associated with performing eye care

Anxiety and discomfort

(Trigg & Mohammed 2010)

6.0 Purpose of eye medications

Topical medication remains the preferred route of delivery for the treatment of eye diseases. Eye medications are delivered:

- To treat infections
- To provide intraocular treatment for diseases such as glaucoma
- Pre and post-surgical procedures
- To dilate pupils to facilitate eye examination and/or refraction
- To provide lubrication

(MacQueen et al 2012)

7.0 Complications associated with administered eye medication

The administration of eye medication in itself is complicated by effective removal mechanism of the eye that includes:

- The blinking reflex,
- Tear turnover and
- Low corneal permeability

8.0 Equipment

- Sterile dressing pack (if infected or post operatively)
- Eye swab (if infection is suspected) (See Appendix 1)
- 0.9% w/v NaCl / Water for irrigation (Sterile/Non Sterile)
- Medication Prescription Sheet
- Tissue / Unwoven Gauze Squares (Sterile/Non Sterile)
- Gloves (Sterile/Non Sterile)
- Gallipot (Sterile/Non Sterile)
- Disposal bag
- Eye dressing(s) if required (polyacrylamide hydrogel dressings (Geliperm ®) / padding / shield(s)) (Sterile/Non Sterile)
- Eye medication (drops/ointment/solution/suspension) (if prescribed)
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<tr>
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<tr>
<td>Explain to the child and parent/carer what will occur and why the procedure needs to be performed and discuss the procedure with the child</td>
<td>To ensure that the patient understands the procedure and gives his/her valid consent (Trigg &amp; Mohammed 2010, Dougherty &amp; Lister 2011) and to gain verbal consent from the parents / carers (Hockenberry and Wilson 2010) in accordance with the Prevention of abuse to children while in the care of the hospital (OLCHC 2007)</td>
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<td>Ensure the child/infant is clinically stable prior to undergo the procedure</td>
<td>To prevent causing any undue stress (MacQueen et al 2012)</td>
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<td>Assess the child/infants level of pain and administer analgesia if required prior to the procedure</td>
<td>To ensure comfort (Trigg &amp; Mohammed 2010)</td>
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<td>Prepare the environment and collect all equipment</td>
<td>To ensure procedure is completed smoothly (Dougherty &amp; Lister 2011, MacQueen et al 2012)</td>
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<td>Decontaminate hands</td>
<td>To prevent cross infection (HSE 2009, Infection Control Department 2010, Nurse Practice Committee 2011, OLCHC 2011)</td>
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<td>If the eye is infected/post eye surgery/trauma, apply sterile gloves, otherwise apply non-sterile gloves</td>
<td>Assepsis is essential, particularly when the child has a damaged eye or has just had an operation on the eye. Infection can lead to loss of an eye (Dougherty &amp; Lister 2011)</td>
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<td><strong>Position</strong> the child / infant with parental assistance if appropriate</td>
<td>To facilitate observation and assessment of the eyes and performing eye cleansing (Trigg &amp; Mohammed 2010)</td>
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<td>• lying flat (swaddling an infant if appropriate) with the head tilted back and neck well supported</td>
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<td>OR</td>
<td>To prevent cross infection (Nurse Practice Committee 2011)</td>
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<td>• sitting up (in parent/carers lap or independently) with his/her head well supported, head tilted back and ask him/her to look upwards</td>
<td>To promote safety and prevent cross contamination. (Department of Health and Children 2004, OLCHC 2010)</td>
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<td>Apply non-sterile gloves (to remove old eye dressing(s)/patch(es)/shield(s))</td>
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<td>Remove any eye dressing(s)/patch(es)/shield(s) insitu, and discard in the appropriate disposable bag</td>
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If eye dressing(s) are difficult to remove from the eye lid / lashes, apply gauze moistened with 0.9%w/v NaCl solution to the eye dressing

Assess the general condition of each eye and surrounding tissue before proceeding for:-
- redness
- swelling
- abrasions
- irritation (itching, stinging, burning)
- discharge (colour, odour, volume)
- Eye lid position (partial/full closure, blink)

If cooperative ask the child to look upwards, or if uncooperative gently hold the child with parental assistance and then gently pull the lower lid downwards to part the eyelid

If there is evidence of any encrustation on the eye lids and lashes, dampen sterile gauze with 0.9%w/v NaCl solution and apply to the eye.

If there is any discharge, perform an eye swab before proceeding with eye cleansing

Performing eye swabbing:-
- Use a preselected sterile cotton wool swab
- Gently roll the swab over the conjunctival sac inside the lower eyelid.
- Hold the swab parallel to the cornea to avoid injury if the child moves
- Place the swab in the transport medium
- Transport immediately to laboratory

Note: For suspected Chlamydia Infection, perform eye swab after eye cleansing by parting the eyelids and gently rubbing the conjunctival sac of the lower eye lid

Decontaminate hands again as above.

Performing eye cleansing:-
Place the 0.9%w/v NaCl / Water (sterile) into the gallipot (sterile), moisten the gauze (sterile) with 0.9%w/v NaCl / Water (sterile)

To soften the encrustation and facilitate its easy removal of the eye dressing(s) (Hunter 2004).

Assessment must be performed to identify any improvements or deterioration in the condition of the child’s eye, so the appropriate intervention and actions can be performed as necessary (Suresh et al. 2000; Marsden & Shaw 2003; Trigg & Mohammed 2010)

This opens the eye and facilitates assessment of the eye and surrounding tissue (Dougherty & Lister 2011)

To identify the underlying cause of the discharge (Trigg & Mohammed 2010)

To successfully perform an eye swab, without causing corneal damage (Trigg & Mohammed 2010, OLCHC 2012a, Nurse Practice Committee 2012)

To obtain a clear view of the conjunctiva to obtain epithelial cells (Trigg & Mohammed 2010, OLCHC 2012)

To prevent cross infection (HSE 2009, Infection Control Department 2010, Nurse Practice Committee 2011, OLCHC 2011)

The use of moistened sterile woven gauze is indicated for eye care, as cotton wool may cause damage to the delicate skin surrounding the eye resulting in soreness and as fibres of cotton are
In one stroke, wipe the eye from the inside aspect to the outside aspect, using a new gauze square for each stroke.

Continue to wipe the eye until the eye is clean

Discard the used gauze

Clean the non-infected eye first

Decontaminate hands again as above.

**Instilling eye medication:**

If eye medication is prescribed, instill after first cleansing the eye(s)

Identify the child’s identification band by checking it against the medication prescription chart.

Adolescence over 16 years of age may consent for the procedure. However, if the eye medication potentially causes temporary blurred vision and/or altered visual perceptions, parental/guardian supervision is required.

Eye medication containers used prior to eye surgery should be discarded and new containers used post eye surgery

The nurse positions a hand gently on the forehead while holding eye medication container

With the other hand, place a tissue/non-sterile unwoven gauze swab under the lower eyelid and gently pull down the lower eyelid.

at risk of sticking to and even scratching the conjunctiva or corneal epithelium causing painful abrasions (Marsden 2002; Marsden & Shaw, 2003)

To prevent the reintroduction of debris into the eye or recontamination of the eye (Trigg & Mohammed 2010)

To prevent cross infection between each eye (HSE 2009, Infection Control Department 2010, Nurse Practice Committee 2011, OLCHC 2011, MacQueen et al 2012)

To prevent cross contamination from the infected to the non-infected eye (Trigg & Mohammed 2010)

To prevent cross infection (HSE 2009, Infection Control Department 2010, Nurse Practice Committee 2011, OLCHC 2011)

To minimise the risk of error and to ensure procedure is carried out on the correct child (OLHSC 2006)

To maintain patient safety and in accordance with the Prevention of abuse to children while in the care of the hospital (OLCHC 2007)

To prevent cross infection as the protective mechanism of the eye may have been damaged due to eye surgery, predisposing the child to infection (BNFC 2010)

To reduce the risk of eye trauma caused by the eye container if the child moves (Trigg & Mohammed 2010)

To absorb any excess eye medication which may irritate to the surrounding skin (Dougherty & Lister 2011), to facilitate the opening of lower
Do not touch the eye or surrounding area with the medication container or with your fingers

If cooperative, ask the child to look up immediately before instilling the eye medication

**Drops / Suspensions / Solutions:**
Administer each drop separately, into the lower (fornix) outer corner of the each eyelid, not directly onto the eyeball

![Fornix of the Conjunctiva](image)

If more than one eye medication is prescribed at the same time, consult the Pharmacy Department and/or manufacturers labelling regarding the order of eye medication instillation and the time interval to be allowed between eye medications.

Continue administering the eye drops until the prescribed amount of drops are instilled

Eye drops/suspension/solution should be instilled before eye ointment

**Ointment**
Squeeze the ointment along the inside of the lower (fornix) eyelid, from the inside out

eyelid and ensure that the eye medication is instilled into the inferior fornix of the lower eyelid (Trigg & Mohammed 2010).

If done too soon the child may blink as the eye medication is instilled (Dougherty & Lister 2011)

To avoid contamination of the bottle (Trigg & Mohammed 2010, MacQueen 2012)

To facilitate the instillation of the eye medication into the inferior fornix of the eye (Trigg & Mohammed 2010).

To ensure absorption of the fluid and to avoid excess running down the cheek (Dougherty & Lister 2011)

To avoid overfilling the fornix as it can only accommodate one drop at a time and to accommodate medication absorption (Marsden & Shaw 2003, Andrews 2006, McQueen 2006)

To facilitate the safe absorption of the therapeutic medication dose and preventing drug interactions (Marsden and Shaw 2003, Andrews 2006, McQueen 2006, BNFC 2010)

As eye ointment waterproofs the eye, therefore eye drops instilled after eye ointment will not be absorbed resulting in the patient not receiving the prescribed dose of medication (Marsden & Shaw 2003; BNFC 2010)

To ensure accurate administration (MacQueen) and to accommodate medication absorption (Hunter 2004)

To facilitate closure of the eyelid and dispersion
Lacrimal punctum area

Release the eyelid
After the instillation of eye medications, use the duct occlusion technique:

**Digital occlusion:**
Oclude the punctum by applying gentle pressure at the lacrimal punctum area with a finger and a tissue/non-sterile unwoven gauze) after each eye drop instillation.

Wipe away any excess fluid from around the eye

Observe and assess the child for effectiveness and unwanted side effects of the eye medication:
- Discomfort/irritation/stinging
- Transient blurred vision
- Light sensitivity
- Nasty taste in back of throat: Infection, inflammation and a prolonged recovery time

Eye medication containers used in hospital should be discarded one week after first opening / 24 hours if preservative-free / discard immediately, if for single use only.

Applying eye padding/dressing(s)/shields(s)

Eye Padding
Apply a square of gauze folded over the closed eye lid and another open square gauze on top of it
- Secure the gauze firmly to the face with tape

OR

Eye Dressing(s)
In the muscle relaxed child apply the eye dressing(s) (polyacrylamide hydrogel dressings i.e. Gelipurm ®). Cut to cover the whole closed eyelid (do not let this dressing become dry)

OR
- Apply Patch(es) OR

Eye Shield(s)
Apply the clear shield over the effected eye, secure with clear tape over the sides of the shield to avoid obstructing the child vision

and absorption of the eye medication (BNFC 2010)

To enhance the therapeutic effects of eye drops used in the eye medication treatments (McQueen 2006).

To minimise adverse systematic effects of the eye medication (Goldberg 2002, Andrews 2006)

To prevent skin irritation of the surrounding eye and face (Marsden & Shaw 2003, Andrews 2006, McQueen 2006)

To adhere to medication safety standards (Marsden & Shaw 2003, Bradshaw 2006, An Bord Altranais 2007, Mohammed & Trigg 2010) and local hospital policy (Nurse Practice Committee 2006)

To ensure that eye medication is pharmacologically stable and to prevent cross infection (BNFC 2010)

To protect the healing eye, and prevent the closed eye from opening (Marsden 2006)

Guidelines (Nurse Practice Committee 2012b)

To prevent retinal damage caused by phototherapy light lamp treatment (Ostrowski et al 2000) as per Phototherapy

To promote safety and prevent cross contamination. (Department of Health and Children 2004, OLCHC 2010)
• Apply a phototherapy shield

Dispose of all equipment appropriately

**Decontaminate hands again as above**

Ensure the child is reassured and comfortable after the procedure.

Repeat the procedure as clinically indicated

Educate the child/parent(s) / carer(s) about the procedure, if appropriate.

Evaluate and document the procedure in the patients nursing care plan other hospital and/or legally required documents.

To prevent cross infection (HSE 2009, Infection Control Department 2010, Nurse Practice Committee 2011, OLCHC 2011)

To help maintain a trusting relationship between the child and nurse (Hockenberry and Wilson 2003, Bradshaw 2006)

There is no research to suggest the frequency of such eye care (Dawson 2005, Briggs 2006). Therefore, the frequency of eye care requires nurses to use the nursing process and professional judgement in providing care (An Bord Altranais 2000a, 2000b), medication guidelines (An Bord Altranais 2007) and manufacturers’ instructions regarding eye dressing(s) / shields(s).

Patient/Parental education plays a key role in improving compliance to treatment and patient outcomes (Kowing & Kester 2007) and promotes family centred care approach to care (Casey 1995)

To maintain accountability through accurate recording of nursing care (An Bord Altranais 2002), and to prevent any duplication of treatment (Dougherty & Lister 2011)

### 9.0 References


Department of Nursing


Nurse Practice Committee (2011) Aseptic Non-Touch Technique. OLCHC, Dublin.


