Principles and procedure for eye assessment and cleansing

The eyes have a vital role in helping us carry out our daily activities safely (Shaw, 2014). Light entering the eye is converted into nerve impulses that are transmitted to the occipital region of the brain, where they are converted into the images we see. Patients may present to hospital with pre-existing eye conditions or need help to care for their eyes during a period of illness. Nurses need to be able to:

- Carry out a baseline assessment of the eye and vision;
- Deliver essential care including eye cleansing;
- Administer topical therapies;
- Know when to make a referral for specialist support.

External structure of the eye

The external structures of the eye (Fig 1) serve an important function in protecting the eye from injury. For example, the eyelashes act as a barrier to grit and debris and eyebrows prevent sweat from running into the eyes. Eyelids contain muscles that enable them to open and close (Dougherty and Lister, 2015) and the lacrimal apparatus is responsible for tear production and drainage. Tears provide:

- Lubrication that prevents drying of the ocular surface;
- A smooth surface that allows light to enter the eye;
- Antimicrobial protection against potential pathogens (McDermott, 2013).

Tears drain away from the eyes into the nasal cavity via the lacrimal puncta (singular punctum) (part of the lacrimal apparatus), which are found on the upper and lower eye lids (Fig 1).

Falls are linked to poor eyesight so eye assessment is an integral part of falls prevention. Older people with impaired vision fall 1.7 times more often, and sustain hip fractures 1.3-1.9 times more frequently than those with normal eyesight (College of Optometrists, 2014; College of Optometrists and British Geriatrics Society, 2011). In response to these concerns, the Royal College of Physicians (2017) has produced a bedside tool to help check older patients’ eyesight and reduce hospital falls risk.

Patients should be asked whether they have any new problems with their vision. These should be reported immediately, as acute eye problems such as acute glaucoma, orbital cellulitis or retinal detachment may result in serious eye complications if treatment is delayed.

It is important to record any sight aids the patient uses such as glasses, contact lenses and a prosthetic eye. If necessary, patients should be given support to use these aids, such as ensuring that patient’s glasses are clean; nurses should seek expert help if they lack skills to meet a patient’s needs.

Procedure for eye cleansing

Eye cleansing is an essential aspect of daily hygiene and patients in hospital or residential/care home, or those who are dependent on care at home may need support to maintain this aspect of their care. Those with reduced vision or blindness may struggle to maintain independence in an unfamiliar environment, such as

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Box 2. The underpinning principles of eye cleansing

- The eye should be carefully assessed before eye care is provided
- Patients should be encouraged to carry out their own eye care if they are assessed and found able to do so
- Each eye should be treated as a separate procedure and a separate dressing pack should be used for each eye to prevent cross contamination
- Infected eyes should be treated last to reduce the risk of cross infection (Dougherty and Lister, 2015)
- A clean technique can be used for eye cleansing unless there are specific concerns about infection risk such as in post-operative patients – in which case an aseptic procedure should be used (Dougherty and Lister, 2015)
- Low-lint or lint-free swabs should be used to cleanse eyes as lint fibres can scratch the cornea. Cotton wool should be avoided as the cotton wool threads can catch on the eyelashes
- Dougherty and Lister (2015) recommend sterile water for eye cleansing and suggest sterile sodium chloride 0.9% may cause stinging and irritation. However, other authors suggest using sodium chloride 0.9% (Shaw and Lee 2016; Ring and Okoro, 2012)
- A light source should be positioned behind the nurse so it illuminates the eye, but it should not shine directly into the eye as this will be uncomfortable for the patient

Hospital, and may need help to manage their eye care (Dougherty and Lister, 2015).

Indications for eye cleansing are outlined in Box 1. The procedure aims to maintain healthy eyes and it is important that infection from one eye is not transferred into the other. General principles underpinning the procedure are outlined in Box 2.

Equipment

- Sterile dressing pack;
- Sterile low-lint swabs;
- Sterile water or saline (cool boiled water can be used in the home);
- Disposable apron.

Glove use

Nurses need to assess individual patients for risk of exposure to blood and body fluids (Royal College of Nursing, 2018) and be aware of local policies for glove use for this procedure. When gloves are required they must be single-use and should be disposed of according to local infection prevention and control policy (Loveday et al, 2014).

The procedure

1. Confirm the patient’s identity.
2. Decontaminate hands following the five moments for hand hygiene (World Health Organization, 2009).
3. Discuss the procedure with the patient, ask about their usual eye care routine and any problems they have with their eyes.
4. Obtain informed consent to carry out the procedure.
5. Ensure the patient’s privacy by screening the bed or ensuring their room door is closed.
6. Assemble your equipment and ensure the bed is at the correct working height.
7. Position the patient sitting comfortably with the head tilted back (Fig 2).
8. Decontaminate hands and put on an apron. Gloves should be applied if assessment indicates they are required.
9. Assess the external appearance of the eye.
10. Ask the patient to close their eyes.
11. Check for any discharge, bruising or inflammation (Fig 3). If the eyelids fail to close completely, report this to medical staff as it may be a sign that a lump or cyst is present (Dougherty and Lister, 2015), or there may be problems with eyelid muscles.
12. Ask the patient to open their eyes and check for signs of redness in the conjunctiva and for evidence of discharge (Fig 4) (Dougherty and Lister, 2015). These signs may indicate the presence of infection or inflammation.
13. Take a sterile swab in your hand and moisten it slightly with sterile water or saline. A very wet swab can be uncomfortable for the patient and increase the risk of contamination of the opposite eye.
14. Ask the patient to close their eyes again and swab the lower eye lid from the medial canthus outwards (Fig 5). Swabbing in this direction reduces the risk of introducing infection into the lacrimal punctum (Dougherty and Lister, 2015). Do not allow the swab to go above the lid, to ensure that contact between the swab and cornea is avoided – this is uncomfortable and may cause damage to the cornea.

15. Repeat, using a clean swab each time to reduce the risk of infection, until the eyelid is clean.

16. Ask the patient to look down and slightly evert (turn inside out) the upper lid (Fig 6a).

17. Moisten a swab and gently clean the upper eyelid from the medial canthus outwards (Fig 6b).

18. Repeat with a new moistened swab until the lid is clean. Dab off any excess water/saline around the eye to ensure patient is dry and comfortable.

19. Make the patient comfortable.

20. Remove your apron (and gloves if worn).


22. Repeat the procedure on the second eye if required.

23. Record the care in the patient’s records. Record and report any abnormal findings.

References