



STONEY HEALTH SERVICES POLICY AND PROCEDURES

EYE IRRIGATION POLICY & PROCEDURE

Effective: June 22, 2016

Code: PP + Title

Revision: June 22, 2016

Next Revision: June 22, 2020

Sheet : 1 of 8

Approval: Executive Director, Office of Primary Health Care

**Applies
To:**

- Leadership & Operations
- Programs & Services
- Client, Family & Community

Category: Patient Safety

Related Polices & Procedures : FNIHB Guidance Document, 2016: Handling and Administering of Methotrexate for Non-chemotherapy Indications -Section 12.2 Eye Contact

- 1. STANDARD:** A nurse registered with a provincial college and holding a current practice permit [NP, RN, RPN, LPN, RGN] can perform eye irrigations upon physician's orders or without an order in emergent/urgent situations when prompt irrigation is required.
- 2. RATIONALE:** Irrigation will flush chemicals, foreign bodies and secretions from the eye. It also allows for administration of prescribed medications for conjunctival/corneal disorders. The amount of solution required for irrigation depends upon the contaminant/foreign body; for example, secretions require a moderate amount of solution while chemical burns usually require much more (i.e. a continuous irrigation with normal saline from a suspended IV bag).
- 3. POLICY:** Authorised nursing personnel shall perform eye irrigations for adults and children as required according to the following procedure. This implies that nurses shall complete a thorough nursing assessment of the client before irrigating, shall be fully accountable for outcomes related to the irrigation, shall be properly oriented/trained and shall be fully supported as needed by the organization for eye irrigations (i.e. mentorship for new nursing staff; access to physicians or nurse practitioners when the nursing assessment contraindicates eye irrigation etc.).
- 4. CONTRAINDICATIONS:**
 - Non-complaint client
 - Possibility of orbital fracture
- 5. COMPLICATIONS:**
 - Trauma
 - Infection
- 6. CLINICAL ALERTS & SPECIAL CONSIDERATIONS/PRECAUTIONS:**
 - a) **Clinical Alert:** If the client complains of acute pain during the irrigation, stop the irrigation, wait a few minutes and then continue. If the pain continues, stop treatment and notify the physician or nurse practitioner.
 - b) **Special Considerations/Precautions:**
 - Maintain asepsis throughout the procedure.
 - Wear Personal Protective Equipment throughout the procedure.
 - Warm sterile irrigating solution to body temperature (37 °C or 98.6°F).



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- When irrigating both eyes, have the client tilt his head toward the side being irrigated to avoid cross-contamination.
- For chemical burns, irrigate each eye for at least 15 minutes with Normal Saline solution.
- Tap water may be used as an irrigant in an emergency situation.

7. EQUIPMENT (alphabetical order):

- Curved emesis or irrigation basin
- IV pole
- Litmus paper
- Irrigating syringe or bulb
- Light source
- Morgan Lens (if required)
- Normal saline in 1000 mL IV bag with Iv tubing (for copious irrigation) or vial/squeeze bottle as required; or prescribed sterile ophthalmic irrigant, as required
- Protective glasses/goggles
- Sterile gauze pads
- Sterile gloves
- Topical anesthetic as required (Tetracaine minums)
- Towel
- Waterproof pad

8. PROCEDURE:

- a. Confirm client's identity using two (2) client identifiers.
- b. Obtain informed consent.
- c. Identify type of irritant before irrigating. Measure the pH of the eye's surface (Litmus paper) if the irritant has not been identified ***NB:** Some irritants are damaging to the eye (i.e. alkaline substances, bleach, automatic dishwasher detergents, hair relaxers, oven cleaners, lye, drain cleaners etc.).*
- d. Explain procedure to the client to ease his/her anxiety and facilitate cooperation.



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- e. Wash hands.
- f. Check strength, sterility and expiration date of irrigant to be used.
- g. Set up equipment. ***NB:*** For IV irrigation, use sterile technique to set up IV. Hang saline container, prime the tubing and adjust drip regulator for adequate flow.
- h. Position client (preferably) lying (see Fig. 1, below) or sitting with the head tilted toward the affected eye to prevent the irrigation solution from flowing into the other eye. Protect the bed with waterproof pad. Give the client a towel to hold against his/her affected side to catch any excess solution.

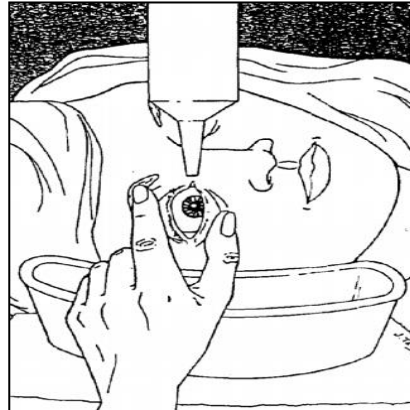
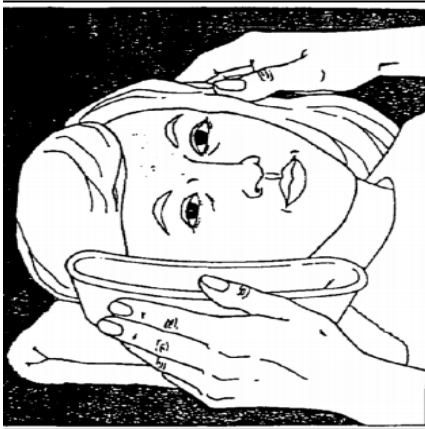


Fig. 1: Correct Position for Eye Irrigation

- i. Put on gloves.
- j. Separate eyelids with thumb and forefinger. ***NB:*** Remove any contact lenses.
- k. Instill anesthetic eye drops, if prescribed, as comfort measure. ***NB:*** Use anesthetic drops only once since repeated use retards healing.
- l. Clean the lids and the lashes with a sterile gauze pad with normal saline or the solution ordered for the irrigation. Wipe from the inner canthus to the outer canthus to protect the nasolacrimal duct and the other eye. Discard the pad after each wipe.



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- m. Place curved basin at the cheek on the side of affected eye to receive irrigating solution. If client is sitting up, ask him/her to support basin.
- n. Begin irrigation:

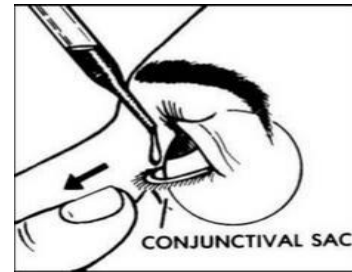


Fig. 2 : Conjunctival Sac Irrigation

- For conjunctival sac irrigation (Fig. 2), separate the eyelids with thumb and index finger



Fig. 3a: Squeeze Bottle Irrigation

- For moderate irrigation with squeeze or eyewash bottles (see Fig. 3a & 3b):

- **Squeeze Bottle Method:** Hold the squeeze bottle with the irrigating solution about one inch from the eye and direct a gentle, constant stream at the inner canthus so the solution flows to the outer canthus.
- **Eyewash Bottle Method:** Hold the spout of the eyewash bottle to affected eye and squeeze gently with both hands. Irrigation fluid will flow out the side vent.



Fig. 3b: Eyewash Bottle Irrigation

- For Both Methods:

- Irrigate until the eye seems clean and the outgoing solution is clean in the curved basin:
- Evert the lower and then the upper eyelids to check for any retained foreign particles.
- Remove foreign particle gently with wet tip of sterile gauze. **NB:** Avoid the cornea.
- Resume irrigation until all visible foreign particles removed.



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Fig. 3c : IV Tube Irrigation

- For copious irrigation using IV tubing (Fig. 3c) :

- Hold the tip of the IV tubing about one inch from the eye and direct a gentle, constant stream at the inner canthus so the solution flows to the outer canthus. Irrigate until the eye seems clean and the outgoing solution is clean in the curved basin **NB:** *Use only sufficient force to gently remove secretions from the conjunctiva. Avoid touching any part of the eye with the irrigating tip.*
- Ask the client to rotate his/her eye periodically while you irrigate to help dislodge any foreign particles.
- Evert the lower and then the upper eyelids to check for any retained foreign particles **NB:** *This is especially important if the client has caustic lime in his/her eye.*

• For Copious Irrigation using Morgan Lens attached to IV tubing (Figs. 4 & 5)

- Attach the tube to the saline solution bag and prime the tube
- Attach the lens to the solution bag tube and prime

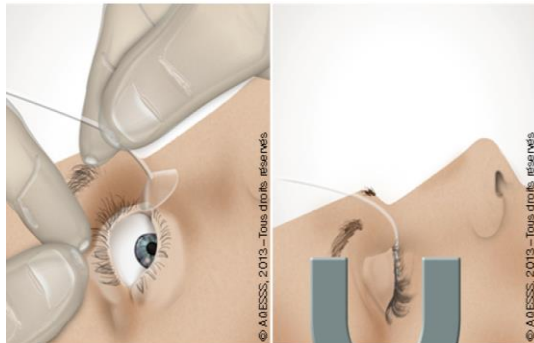


Fig. 4: Inserting Morgan Lens

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To insert the Morgan lens (see Fig. 4)

- Gently raise the upper eyelid with the thumb of the non-dominant hand;
- Ask the client to look down;
- Insert the lens under the upper eyelid;
- Ask the client to look up;
- Slightly lower the lower eyelid;
- Place the lens on the cornea;
- Allow the eyelids to cover the lens;
- Open the flow regulator clamp and adjust it to a moderate flow speed (*approximately 500 mL in 30 minutes (6 mL/minute)*);
- Add additional anesthesia around the lens every 15 minutes or after 1000 mL of irrigation.



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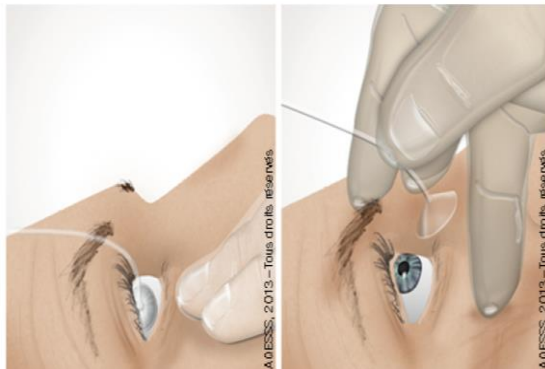


Fig. 5: Removing Morgan Lens

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To remove the Morgan lens (see Fig. 5)

- Let the irrigation continue;
- Ask the client to look up and lower the lower eyelid with your non-dominant hand;
- Slide the lens outward toward the bottom of the eye;
- Stop the irrigation;
- Take the pH of the eye's surface again to ensure that it has returned to neutral level (pH 7);
- Wipe the eyelids with sterile gauze pads without pressing on the eye;
- Wait a few minutes and then conduct a vision test using the Snellen eye chart.

o. **Dry eyelids with sterile gauze.** Wipe from the inner canthus to the outer canthus, using a new pad for each wipe.

p. **Apply eye patch.** See Fig. 6

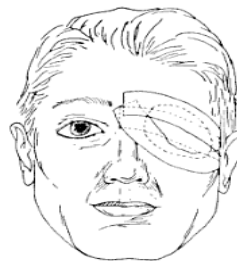


Fig. 6: Eye Patch

q. **Do client teaching :**

- Explain to the client that discomfort should be minimal and, if present, it should only last for a few hours. The application of cool compresses may help.
- Advise clients for whom topical anesthetic was used not to touch their eyes before the anesthetic has worn off so as not to damage the cornea/conjunctiva;
- Advise client to keep the eye patch on for 24 hours and not to rub the eye.
- Explain signs and symptoms to report (i.e. continued irritation, pain/discomfort, changes in vision, drainage etc.).
- Reinforce good hand hygiene.

r. **Discard equipment in appropriate area.**



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s. **Remove gloves and wash hands.**

t. **Document the irrigation including the following:**

- Appearance of the eye before, during and after irrigation (i.e. redness, discharge etc.);
- Duration of irrigation as well as the type and amount of the solution used ;
- Use of topical anesthetic, if applicable;
- Drainage characteristics ;
- Litmus test and Snellen vision test findings;
- Type of irritant seen, removed and/or irrigated;
- Client's response to procedure ;
- Client teaching provided and any follow-ups required. ***NB:*** after irrigating a chemical, send the time, date and the name of chemical by email to your superior in case you develop contact dermatitis.
- Any follow-ups required.

6. REFERENCES

- AQESSS (2006 & 2011) Irrigation of the Eye Using a Morgan Lens
- Lippincott & Williams (2008) Nurses' 5-minute Clinical Consult : Procedures
- Nursing-Nurse.com : Your Online Health and Nursing Guide and Reference : Eye Irrigation
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- Dougherty, L. & Lister, S. (2015) The Royal Marsden Manual of Clinical Nursing Procedures : Eye Irrigation

7. DEVELOPED BY:

IPS – Pharmacy

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Approved by IPAC Members on February 25, 2016

DATE:



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8. APPROVALS:

Robin Buckland, Executive Director
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Signed – June 22, 2016

DATE