Eye Pain
--Chemical Burn of the Eye
--Foreign Body on Eye (Non-Penetrating)
--Corneal Abrasion
Level II
(No Level I)

**SKILL LEVEL:** RN

**DEFINITION:** Eye pain has many causes, including inflammation. Dirt, chemicals, metal particles, insects or other small objects can be lodged in or on the cornea, sclera or conjunctiva. These foreign bodies are usually superficial and non-penetrating; if not removed quickly however, corneal abrasion, infection or penetration of the eyeball may result. Foreign objects (like fingers) may cause a corneal abrasion and no longer be present.

<table>
<thead>
<tr>
<th>Subjective:</th>
<th>Assessment:</th>
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<td>- Pain, especially with ocular movement. Diminished vision. Possible headache.</td>
<td>- Alteration in comfort:</td>
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<tr>
<td>- &quot;Chemicals splashed in my eye(s).&quot;</td>
<td>- Eye injury due to foreign body on eye, corneal abrasion, corneal ulceration, chemical or other burn.</td>
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<td>- &quot;I got something in my eye.&quot;</td>
<td>- Disturbed Sensory Perception: Visual</td>
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<td>- &quot;I have a flash burn.&quot;</td>
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<td>- &quot;I was welding and now my eye hurts.&quot;</td>
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<th>Objective:</th>
<th>Plan:</th>
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<tr>
<td>- Lacrimation (Tearing). Excessive blinking/eye spasms</td>
<td>- Ask Patient about any allergies to medications.</td>
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<td>- Photophobia.</td>
<td>- If history of chemical burn, flush affected eye with copious amounts (1-2 liters) of water medially to laterally. May use normal saline, plain water, or eyewash solution, depending on availability.</td>
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<td>- Conjunctival inflammation.</td>
<td>- Call poison control center (1-800-222-1222) if chemical toxin has splashed in the eye. (Have MSDS from institution handy if possible for known toxins.)</td>
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<td>- Conjunctival swelling.</td>
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<td>- Visible foreign body on cornea, sclera or conjunctiva.</td>
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<td>- No penetrating Foreign Body. See Foreign body in Eye (Penetrating) Emergency Protocol</td>
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<td>- No clouding of cornea.</td>
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<td>- No loss of visual acuity.</td>
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<td>- A rust ring may be visible for metallic foreign bodies which have been present for several days.</td>
<td><strong>Alkaline burns can be very damaging and will frequently require urgent transport to hospital for further treatment.</strong></td>
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Plan (cont):
- For suspected foreign bodies and/or corneal abrasions: Instill Ophthaine 0.5% one drop in the affected eye for effective exam and pain relief.
- Gently evert the eyelid(s) to visualize foreign body and remove with sterile cotton swab moistened with saline, if possible.
- If foreign body suspected, but not seen, may flush affected eye with copious amounts of water medially to laterally. May use normal saline, plain water, or eyewash solution, depending on availability.
- **Consider asking the patient to get a 30 minute shower in the unit. Call the officer to coordinate care if possible.**
- Stain affected eye with sterile fluorescein to better visualize possible abrasions. Denuded areas will stain green. Note: read package insert or actual package for instructions.
- Test visual acuity after irrigation and/or foreign body removal.
- If unable to remove a known Foreign Body, stop the attempt and refer patient to on-site Practitioner.
- If practitioner not available, send patient with persistent foreign body to ER or other appropriate off-site facility for removal.
- If Corneal Abrasion present, instill Gentamicin or Ciprofloxin ophthalmic suspension 2 drops TID to QID in affected eye x 5 days.
- May place eye patch for 12-24 hours for comfort.
- Evaluate tetanus status and give tetanus shot if indicated.
- Schedule follow-up exam in 24 hours.
- If symptoms of pain are still present after 24 hours, refer to practitioner for prompt evaluation, or call practitioner.
Nursing Education:

1. Place Ophthaine drop on fluorescein strip for installation—check for contact lens prior to instillation.
2. The purpose of an eye patch in this situation is to reduce eyelid blinking with minimal pressure. Do not insist on an eye patch as its use is purely for patient comfort.
3. The following conditions need immediate referral to a practitioner (emergency facility if on-site practitioner is not available):
   a. Hyphema (blood in anterior chamber of the eye).
   b. Severe unexplained eye pain (simple conjunctivitis is usually not painful).
   c. Penetrating Foreign Body of eyeball (see emergency protocol).

Patient Teaching:

1. Explain that eye pain is related to foreign body, and should subside after object is removed. If there is a corneal abrasion from the foreign body, pain can persist for 24-48 hours after it is removed.
2. Instruct patient to avoid rubbing eyes.
3. Describe those symptoms that should be reported to the nurse i.e., persistent pain, inflammation, tearing or visual disturbances.
4. Advise protective eye wear in needed situations, e.g., grinding, drilling, hammering, etc.

Follow-up: If untoward symptoms persist or eye infection is suspected, refer to on site Medical Provider or Emergency Room.

APPROVED:

_________________________________________________________________________
Health Services Manager

_________________________________________________________________________
Chief Medical Officer

_________________________________________________________________________
Medical Director

Effective Date 3/2015
Revised: February 2015

Date

Date

Date

3/2015

2/24/2015