

PRACTICE GUIDELINE

Effective Date: 7-16-04

Manual Reference: **Deaconess Trauma Services**

TITLE: MANAGEMENT OF EYE INJURIES

PURPOSE: To define signs and symptoms suggestive of eye injuries in trauma patients, define early treatment plans for patients with eye injuries, and determine situations for ophthalmologic consultation.

GUIDELINES:

1. Follow the ABC's.
2. During the secondary survey obtain history of the injury as it relates to the eye:
 - a. Pain (consider corneal injury).
 - b. Visual acuity.
 - c. Photophobia.
 - d. History of thermal injury.
 - e. History of corrective lens use.
 - f. Previous visual acuity.
 - g. Medications (e.g., pilocarpine, etc.).
3. Perform a physical exam:
 - a. Eye:
 - i. Gross visual acuity (e.g., count fingers, read label, see light, etc).
 - ii. Pupils: shape, size, reactivity, consensual reactivity.
 - iii. Range of motion.
 - iv. Anterior chamber (clear, hyphema, cloudy).
 - v. Conjunctiva (scleral hemorrhage, edema, etc.)
 - vi. Globe (anterior displacement, shape, symmetry).
 - vii. Retina (tears, hemorrhage, detachment).
 - viii. Papilledema.
 - b. Lids:
 - i. Laceration.
 - ii. Ecchymosis.
 - iii. Edema.
 - c. Orbits:
 - i. Symmetry.
 - ii. Crepitus or instability.
 - iii. Obtain CT scan with 2 mm cuts through orbits and facial bones.
 - d. Cornea:
 - i. Apply fluorescein after topical anesthetic.
 - ii. Examine with ultraviolet light.
4. Early treatment:
 - a. Chemical burns:
 - i. Apply topical anesthetic.
 - ii. Copiously irrigate with 1000 ml or more of warm saline placed into the eye.
 - b. Corneal injury:
 - i. Apply topical anesthetic.

- ii. Apply antibiotic ointment (no steroids!).
 - iii. Apply eye patch.
 - c. Eyelid injury:
 - i. If superficial, suture with fine non-absorbable nylon.
 - ii. Make sure that eyelid approximates when finished.
 - d. Foreign body or material on the surface of eye:
 - i. Irrigate the eye gently with normal saline to see if it floats away.
 - ii. If the material is over sclera, gently try to capture it with cotton-tipped applicator.
5. Consult ophthalmology for the following injuries:
- a. Disrupted globe.
 - b. Retrobulbar hematoma – EMERGENCY!!!
 - c. Unequal pupils without central injury; ovoid or notched pupils suggesting iris injury.
 - d. Lack of full extraocular motion, suggesting trapped eye muscle.
 - e. Hyphema.
 - f. Complex laceration of eyelid.
 - g. Marked change in visual acuity.
 - h. Foreign body that is not easily removed.

REFERENCES:

- ❖ Deaconess Trauma Guideline Manual, ENDOTRACHEAL INTUBATION AND AIRWAY MANAGEMENT.

REVIEWED DATE	REVISED DATE
JAN 05	JAN 08
JAN 06	
JAN 07	

