REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Basic

SMO: Ophthalmic Trauma

Overview: Common causes of eye injury are blunt and penetrating trauma from motor vehicle crashes, sport and recreational activities, and violent altercations; chemical exposure from household and industrial accidents; foreign bodies; and animal bites and scratches. It is important to keep in mind that assessment and treatment of these injuries is crucial to possible saving of the patient's future vision abilities.

INFORMATION NEEDED

__ Patient complaint
__ Mechanism of injury
__ Visual acuity
__ Use of eye medications
__ Use of corrective glasses or contact lenses
__ Presence of ocular prostheses
__ Duration of symptoms and treatment interventions that may have been attempted before EMS arrival

OBJECTIVE FINDINGS

__ Physical signs of trauma:
- Deformity
- Open wounds
- Swelling
- Ecchymosis
- Contusions, tenderness, crepitus
- Abnormal papillary reaction to stimuli, double vision or altered extra-occular movement
- Visual acuity is less than normal
- Tearing or spasm of the eyelids
- Obvious trauma to the periorbital areas of either or both eyes
- Obvious trauma to the eye

__ Glasgow Coma Scale-- a Glasgow Coma Scale of less than 12 should indicate that the patient is potentially critical

General Approach—Routine Trauma Care

Special considerations:

- Quickly obtain gross visual acuity in each eye: light perception / shapes / motion / read name badge.
- Assess tearing, spasm of lids.
- Assess cornea, conjunctiva, sclera for signs of injury / clouding.
- Discourage patient from sneezing, coughing, straining, bending at waist or defecating.
- Vomiting precautions.

Chemical Splash / Burn: True Emergency: Load And Go

- RTC
- Thoroughly and continuously irrigate affected eye(s) using copious amounts of saline instilled through IV tubing. Start irrigation as soon as possible and continue while enroute to the hospital.

Corneal Abrasions:

- Observe for profuse tearing, severe pain, redness, spasm of eye lid.
- RTC
- No signs of penetrating injury.
- Elevate head of stretcher to 45º angle.

Penetrating Injury/Ruptured Globe

- Observe for signs of penetration: peaked pupil, excessive edema of conjunctive (chemosis), subconjunctival hemorrhage, blood in anterior chamber (hyphema), defect on sclera or cornea (vitreous humor or black defect), foreign body/impaled object.
- RTC
- Do not remove impaled object; do not irrigate eye.
- Avoid all pressure on injured eye. Cover with cup or metal / plastic protective patch over injured eye. May patch both eyes.
- Elevate head of stretcher to 45° angle.

Documentation of adherence to protocol:

__ Patient's complaint
__ Mechanism of injury
__ Pain medications administered
__ Oxygen provided

REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Intermediate

SMO: Ophthalmic Trauma

Overview: Common causes of eye injury are blunt and penetrating trauma from motor vehicle crashes, sport and recreational activities, and violent altercations; chemical exposure from household and industrial accidents; foreign bodies; and animal bites and scratches. It is important to keep in mind that assessment and treatment of these injuries is crucial to possible saving of the patient's future vision abilities.

INFORMATION NEEDED

__ Patient complaint
__ Mechanism of injury
__ Visual acuity
__ Use of eye medications
__ Use of corrective glasses or contact lenses
__ Presence of ocular prostheses
__ Duration of symptoms and treatment interventions that may have been attempted before EMS arrival

OBJECTIVE FINDINGS

__ Physical signs of trauma:
- Deformity
- Open wounds
- Swelling
- Ecchymosis
- Contusions, tenderness, crepitus
- Abnormal papillary reaction to stimuli, double vision or altered extra-occular movement
- Visual acuity is less than normal
- Tearing or spasm of the eyelids
- Obvious trauma to the periorbital areas of either or both eyes
- Obvious trauma to the eye

__ Glasgow Coma Scale-- a Glasgow Coma Scale of less than 12 should indicate that the patient is potentially critical

General Approach—Routine Trauma Care

Special considerations:

- Quickly obtain gross visual acuity in each eye: light perception / shapes / motion / read name badge.
- Assess tearing, spasm of lids.
- Assess cornea, conjunctiva, sclera for signs of injury / clouding.
- Discourage patient from sneezing, coughing, straining, bending at waist or defecating.
- Vomiting precautions.

Chemical Splash / Burn: True Emergency: Load And Go

- RTC
- **0.5% TETRACAINE 2 gtt** each affected eye. May repeat until pain relief is achieved.
- Thoroughly and continuously irrigate affected eye(s) using copious amounts of saline instilled through IV tubing. Start irrigation as soon as possible and continue while enroute to the hospital.
- Contact Medical Control for administration of **Morphine Sulfate 2 mg IVP.** Contact Medical Control for subsequent doses.

Corneal Abrasions:

- Observe for profuse tearing, severe pain, redness, spasm of eye lid.
- RTC
- No signs of penetrating injury.
- Elevate head of stretcher to 45º angle.

Penetrating Injury/Ruptured Globe

- Observe for signs of penetration: peaked pupil, excessive edema of conjunctive (chemosis), subconjunctival hemorrhage, blood in anterior chamber (hyphema), defect on sclera or cornea (vitreous humor or black defect), foreign body/impaled object.
- RTC
- Do not remove impaled object; do not irrigate eye.
- Avoid all pressure on injured eye. Cover with cup or metal / plastic protective patch over injured eye. May patch both eyes.
- Elevate head of stretcher to 45° angle.
- Contact Medical Control for administration of **Morphine Sulfate 2 mg IVP.** Contact Medical Control for subsequent doses.

Documentation of adherence to protocol:

__ Patient's complaint
__ Mechanism of injury
__ Pain medications administered
__ Oxygen provided

Medical Control Contact Criteria
__ Contact Medical Control if there is any difficulty in maintaining a patent airway __ Contact Medical Control for administration of Morphine and subsequent doses.

REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Paramedic

SMO: Ophthalmic Trauma

Overview: Common causes of eye injury are blunt and penetrating trauma from motor vehicle crashes, sport and recreational activities, and violent altercations; chemical exposure from household and industrial accidents; foreign bodies; and animal bites and scratches. It is important to keep in mind that assessment and treatment of these injuries is crucial to possible saving of the patient's future vision abilities.

INFORMATION NEEDED

__ Patient complaint
__ Mechanism of injury
__ Visual acuity
__ Use of eye medications
__ Use of corrective glasses or contact lenses
__ Presence of ocular prostheses
__ Duration of symptoms and treatment interventions that may have been attempted before EMS arrival

OBJECTIVE FINDINGS

__ Physical signs of trauma:
- Deformity
- Open wounds
- Swelling
- Ecchymosis
- Contusions, tenderness, crepitus
- Abnormal papillary reaction to stimuli, double vision or altered extra-occular movement
- Visual acuity is less than normal
- Tearing or spasm of the eyelids
- Obvious trauma to the periorbital areas of either or both eyes
- Obvious trauma to the eye

__ Glasgow Coma Scale-- a Glasgow Coma Scale of less than 12 should indicate that the patient is potentially critical

General Approach—Routine Trauma Care

Special considerations:

- Quickly obtain gross visual acuity in each eye: light perception / shapes / motion / read name badge.
- Assess tearing, spasm of lids.
- Assess cornea, conjunctiva, sclera for signs of injury / clouding.
- Discourage patient from sneezing, coughing, straining, bending at waist or defecating.
- Vomiting precautions.

Chemical Splash / Burn: True Emergency: Load And Go

- RTC
- **0.5% TETRACAINE 2 gtt** each affected eye. May repeat until pain relief is achieved.
- Thoroughly and continuously irrigate affected eye(s) using copious amounts of saline instilled through IV tubing. Start irrigation as soon as possible and continue while enroute to the hospital.
- **Morphine Sulfate 2 mg IVP.** Contact Medical Control for subsequent doses.

Corneal Abrasions:

- Observe for profuse tearing, severe pain, redness, spasm of eye lid.
- RTC
- No signs of penetrating injury.
- Elevate head of stretcher to 45º angle.

Penetrating Injury/Ruptured Globe

- Observe for signs of penetration: peaked pupil, excessive edema of conjunctive (chemosis), subconjunctival hemorrhage, blood in anterior chamber (hyphema), defect on sclera or cornea (vitreous humor or black defect), foreign body/impaled object.
- RTC
- Do not remove impaled object; do not irrigate eye.
- Avoid all pressure on injured eye. Cover with cup or metal / plastic protective patch over injured eye. May patch both eyes.
- Elevate head of stretcher to 45° angle.
- **Morphine Sulfate 2 mg IVP** May repeat up to maximum of 10 mg**.** Contact Medical Control for subsequent doses.

Documentation of adherence to protocol:

__ Patient's complaint
__ Mechanism of injury
__ Pain medications administered
__ Oxygen provided

Medical Control Contact Criteria
__ Contact Medical Control if there is any difficulty in maintaining a patent airway __ Contact Medical Control for subsequent doses of Morphine.