SAN FRANCISCO EMERGENCY MEDICAL SERVICES AGENCY

Effective: 01/01/11 **Protocol: P-034**
Supersedes: 09/01/06

HEAD, NECK AND FACIAL TRAUMA

SUBJECTIVE FINDINGS

- Mechanism of injury.
- Medical history: cardiovascular problems, diabetes, seizure disorder.

OBJECTIVE FINDINGS:

- Signs of airway obstruction: stridor, abnormal voice, difficulty breathing.
- Glasgow Coma Scale.
- Neurologic impairment or focal deficit (paralysis/paresthesias).
- External evidence of trauma: wounds, deformities, swelling, ecchymosis, contusions, tenderness, crepitus, pupil exam, double vision, altered extra-ocular movement, blood or fluid from ears or nose.

BLS Treatment	ALS Treatment
• High flow oxygen 10-15 L/min via non-rebreather mask. • C-spine immobilization. • Control external bleeding with direct pressure. • Stabilize impaled objects with bulky damp dressing and leave in place (only impaled objects that obstruct the airway can be removed). • Apply cold pack to soft tissue swelling. • If eye is injured, cover both eyes with dressings. • Keep avulsed teeth in saline soaked gauze and transport with patient. • Routine Medical Care.	• Monitor for airway obstruction (i.e. swelling, blood, secretions). • Advanced airway management as indicated while maintaining spinal immobilization. NOTE: Nasotracheal intubation should NOT be performed in the presence of significant mid-facial trauma. • IV of NS. • Fluid challenge if patient is hypotensive according to the following guidelines: - Injury mechanism of blunt trauma: for the SBP of 90 with AMS infuse a bolus of 300 ml of crystalloid. Document full effect of bolus i.e. B/P, heart rate, and improvement in mental status when infusion is finished - Injury mechanism of penetrating trauma: IV access TKO, unless SBP drops to less than 60. If SBP is less than 60, infuse a bolus of 300 ml of crystalloid to achieve SBP of 60.
BASE HOSPITAL CONTACT CRITERIA	
• Consider **Morphine sulfate,** 4 mg slow IVP, repeat to max of 20 mg in patients with no evidence of head injury (GCS < 15) or signs of hypoperfusion. Use smaller doses if patient is very young or elderly. • Consider **Ondansetron** 4 mg IV/IM for nausea/vomiting, may be repeated q 20" to a maximum dose of 12 mg.	

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DOCUMENTATION

C-spine precautions.
Airway interventions follow AIRWAY MANAGEMENT algorithm (P-004).

PRECAUTIONS AND COMMENTS

- If head injury patient deteriorates, recheck for problems with airway, breathing, or circulation.
- Be prepared to turn entire spine board on side and suction if patient vomits.
- Avoid prophylactic hyperventilation in the field. Hyperventilation for head trauma is indicated **only** for signs of cerebral herniation such as posturing, pupillary abnormalities or sudden neurologic deterioration not due to hypotension or hypoxemia. Hyperventilation for adults is 16-20 breaths per minute.
- If there is any question as to the hemodynamic status of a patient when administering **Morphine sulfate** the Base Hospital shall be contacted.