	**Department Name** **Address**	**ALS**	**Paramedic**
		Revision #	
		Implementation Date	
Protocol	**2.1.36 Head Injury**	**Last Reviewed/Update Date**	
Author / Owner		**Medical Director**	

If history, symptoms, or signs of head injuries are present, suspect a spinal injury and manually immobilize the head and neck while maintaining a patent airway using a modified jaw thrust. Take full spinal immobilization precautions following initial stabilization.

1. Baseline care standards.

2. Use appropriate spinal immobilization procedures.

3. Administer oxygen at 15L per minute via non-rebreather mask.

4. Maintain airway per protocol. Any intubation attempt must include manual stabilization of cervical spine.

5. Transport to trauma center as soon as possible. Consider helicopter intercept.

6. While en route, establish two large bore IV's of Normal Saline. Rate will be TKO if Blood Pressure (BP) is 90 mmHg or greater. If BP is less than 90 mmHg, administer fluid boluses until BP is 90mmHg.

7. Hyperventilate if the following symptoms are found:
   - GCS < 9
   - SPO2 < 90%
   - Persistent seizures
   - Pupils non-reactive, asymmetric, or dilated

8. Open wounds, which expose the brain tissue, should be covered with saline-soaked gauze.

9. If patient is combative, check airway to ensure adequate ventilation and respiration. Physically or chemically restrain as needed per protocol.

10. If patient has seizures or is combative:
    - Administer *Lorazapam 2 – 4mg IV*, or
    - *Diazepam 2 - 10 mg IV*.

11. Re-evaluate GCS, level of consciousness, and circulatory, motor, and sensory status frequently.

12. Consider the administration of:
    - *Mannitol 0.5 - 1.0 gm/kg IV.*
    - *Furosemide 20 mg IV.*

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Medical Director's Signature *Date*