The Regional Emergency Medical Advisory Committee (REMAC) of New York City is responsible to develop, approve and implement prehospital treatment and transport protocols for use within the five boroughs of the City of New York. The Regional Emergency Medical Advisory Committee (REMAC) of New York City operates under the auspices of Article Thirty of the New York State Public Health Law.

The New York State Department of Health, Bureau of EMS has issued Suspected Spinal Injury BLS Guidelines, as developed by the New York State EMS Council (SEMSCO) and State Emergency Medical Advisory Committee (SEMAC). The NYS DOH BEMS requires all EMS personnel to participate in an update. Information from the NYS DOH BEMS for specific instructions on how to meet update requirements has been uploaded to the NYC REMSCO website at: [http://www.nycremsco.org/news.asp?intCategoryID=1&intArticleID=486](http://www.nycremsco.org/news.asp?intCategoryID=1&intArticleID=486). NYS DOH BEMS requires completion of provider training by October 30, 2015.

Any agency that completes update of its employees/members should notify REMSCO and begin using the protocol.

NYC EMS Agencies not able to meet this deadline should notify the NYC REMAC of training barriers and anticipated implementation dates.

In accordance with SEMAC approval, the Regional Emergency Medical Advisory Committee (REMAC) of New York City has revised regional spinal injury protocols.

Attached:

1. Summary of NYC REMAC Protocol Revisions
3. Revised CERTIFIED FIRST RESPONDER PROTOCOL: 312: Head and Spine Injuries
4. Revised BASIC LIFE SUPPORT (EMT-B) PROTOCOL: 412: Head and Spine Injuries

A list of all revised protocols summarizing changes is attached, along with actual protocols identifying specific changes. New Language is underlined and bold. Deleted Language is struck-out.

Current and Updated Protocols can be accessed at the Regional EMS Council website: [www.nycremsco.org](http://www.nycremsco.org).

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Summary of Proposed Protocol Revisions

GENERAL OPERATING PROCEDURES:
- New GOP Language: Spinal Precautions & Spinal Injury Protection

CERTIFIED FIRST RESPONDER PROTOCOLS
- 312: Head and Spine Injuries

BASIC LIFE SUPPORT (EMT-B) PROTOCOLS
- 412: Head and Spine Injuries
GENERAL OPERATING PROCEDURES:

New GOP Language: Spinal Precautions & Spinal Injury Protection

All patients should have spinal cord injury precautions taken during their assessment. Transporting a patient without a rigid longboard will not be considered a deviation from the standard of care. Application of spinal injury precautions includes the following treatment modalities.

- Application of an appropriately-sized rigid cervical collar
- Maintenance of patient in a supine position; if the patient is unable to tolerate that, the head of the stretcher may be raised to position of comfort (maximum 45 degrees)
- Adequate security of the patient’s trunk and limbs to a padded stretcher
- Minimal movement / transfers
- Maintenance of inline stabilization during any movement / transfers
- Extrication of and conveyance of patients may be accomplished with a rigid longboard, but should be removed via logroll maneuver with manual inline stabilization after the patient is moved to the EMS cot/stretcher. Patients in extremis may remain on the rigid longboard to expedite rapid transport.

The following patients, without evidence of spinal injury, have greater risk of harm than benefit if restrained to a rigid longboard:

- Ambulatory patients
- Patients with extended transport
- Inter-facility transfer patients
- Penetrating trauma to the head, neck or torso
- Patients with significant anatomical derangements (kyphosis, contractures)

**NOTE:** SPINAL CORD INJURIES THAT ARE NOT CAUSED BY THE INITIAL FORCE ARE NOT LIKELY TO BE CAUSED BY THESE MINIMAL PATIENT MOVEMENTS BY EMS.

**DO NOT USE RAPID TAKE-DOWN.**
HEAD AND SPINE INJURIES

1. Establish and maintain airway control while stabilizing the cervical spine.
   
   **NOTE:** Do not use a nasopharyngeal airway in patients with facial injuries or if severe head injury has occurred.

2. Utilize the Rapid Takedown Technique if the patient is standing.

3. Monitor breathing for adequacy.

4. Administer oxygen, if needed.

5. Assess for shock and treat, if appropriate (see Protocol #315)

6. **Apply a rigid cervical collar.** Immobilize the patient's head and spine with a rigid collar and appropriate immobilization device, if available.

7. Continue to monitor initial assessment.
BASIC LIFE SUPPORT (EMT-B) PROTOCOLS

HEAD AND SPINE INJURIES

1. Establish and maintain airway control while stabilizing the cervical spine.
   
   **NOTE:** Do not use a nasopharyngeal airway in patients with facial injuries or if severe head injury has occurred.

2. Patients meeting one or more of the following criteria, either at the time of evaluation or at any time following the injury in question, must be immobilized have spinal injury precautions during care and transport. Do not use Rapid Takedown technique.
   
   a. Altered mental status for any reason, including possible intoxication due to drugs or alcohol.
   b. GCS <15
   c. Complaint of, or inability of the provider to assess for, neck and/or spine pain or tenderness.
   d. Weakness, paralysis, tingling, or numbness of the trunk or extremities at any time since the injury.
   e. Deformity of the spine not present prior to the injury.
   f. Distracting injury or circumstances, including anything producing an unreliable physical exam or history.
   g. High risk mechanism (axial load such as diving or tackling, high-speed motor vehicle accidents, rollover accidents, falls greater than standing height).
   h. Provider concern for potential spinal injury.

   **NOTE:** Once spinal immobilization has been initiated, it must be completed. Spinal immobilization may not be removed in the prehospital setting.

3. If necessary, initiate spinal immobilization, utilize the Rapid Takedown technique only if the patient is standing.

4. Administer oxygen.

5. Monitor breathing for adequacy.

   **NOTE:** Monitor breathing continuously. Be alert for signs of hypoxia and/or increasing respiratory distress.

6. Control external bleeding.

7. If the patient meets any of the criteria described in #2, is not awake or is unstable, immobilize the patient's head and spine with a rigid collar and appropriate immobilization device apply a rigid cervical collar.

8. Assess and Continue to monitor the Glasgow Coma Score. (See Appendix E.)

9. If the Glasgow Coma Scale (GCS) score is less than 8, ventilate the patient with high concentration oxygen at a rate of 12 breaths per minute for an adult patient and up to 20 breaths per minute for a pediatric patient.
10. If the Glasgow Coma Scale (GCS) score is less than 8, and active seizures or one or more of the following signs of brain herniation are present, hyperventilate the patient with high concentration oxygen at a rate of 20 breaths per minute for an adult patient and up to 25 breaths per minute for a pediatric patient.
   
a. Fixed or asymmetric pupils
b. Abnormal flexion or extension (neurologic posturing)
c. Hypertension and bradycardia (Cushing’s Reflex)
d. Intermittent apnea (periodic breathing)
e. Further decrease in GCS score of 2 or more points (neurologic deterioration)

**NOTE:** Do not hyperventilate unless the above criteria are met.

11. Assess for shock and treat, if appropriate. (See Protocol #415.)

12. Transport. (See Appendix F.)