

SIM 387 Assessment and Evaluation of Upper Extremity Injuries

Risk Management and Injury Prevention

- 1-1: The student will assess the following:
 - d. pulse
 - e. limb girth

- 2-1: The student will demonstrate the ability to perform and evaluate the results of the following tests:
 - a. flexibility tests
 - b. strength (repetition) testing

Assessment and Evaluation

- 1-1: The student will recognize the following postural deviations and predisposing conditions:
 - a. kyphosis
 - b. lordosis
 - c. scoliosis
 - d. pelvic obliquity
 - f. hip anteversion and retroversion

- 1-2: The student will perform a postural assessment of the following:
 - a. cervical spine and head
 - b. shoulder
 - c. lumbo-thoracic region

- 2-1: The student will:
 - a. use standardized record keeping methods (e.g., SOAP, HIPS, HOPS)
 - b. select and use injury, rehabilitation, referral, and insurance documentation
 - c. use progress notes

- 4-1: The student will identify and assess the following:
 - a. cranial nerves
 - b. dermatomes
 - c. myotomes
 - d. deep tendon reflexes
 - e. pathological reflexes

- 6-C1: Obtain the medical history of an ill or injured athlete or other physically active individual suffering from a cervical spine injury.

- 6-C2: Observe and identify the clinical signs and symptoms associated with common injuries, illnesses, and predisposing conditions:
 - a. atrophy
 - b. dislocation or subluxation
 - c. vertebral fracture
 - d. head and neck posture
 - e. intervertebral disc herniation
 - f. nerve root compression or stretch
 - g. ischemia
 - h. torticollis

- 6-C3: Administer active and passive range-of-motion tests using quantifiable techniques (e.g., tape measure, goniometer, and inclinometer) for the cervical spine.
- 6-C4: Use manual muscle-testing techniques for the cervical spine.
- 6-C5: Administer appropriate sensory, circulatory, and neurological tests for the cervical spine.
- 6-C6: Administer functional tests and activity-specific tests for the cervical spine.
- 6-C7: Identify, palpate, and assess the integrity of bony landmark of the cervical spine.
- 6-C8: Identify, palpate, and assess the integrity of soft tissue of the cervical spine.
- 6-C9: Administer commonly used special tests to make a differential assessment of the cervical spine:
- a. nerve root compression (e.g., distraction/compression test, Spurling's test, shoulder depression test)
 - b. brachial plexus neuropathy (e.g., brachial tension test, Tinel's sign)
 - c. cervical disc herniation (e.g., Valsalva's maneuver)
 - d. neurovascular dysfunction (e.g., vertebral artery test)
- 6-E1: Obtain the medical history of an ill or injured athlete or other physically active individual suffering from elbow pathology.
- 6-E2: Observe and identify the clinical signs and symptoms associated with common injuries, illnesses, and predisposing conditions:
- a. symmetry
 - b. carrying angle (cubital valgus/varus)
 - c. dislocation or subluxation
 - d. fracture
 - e. atrophy
 - f. efficiency of movement
 - g. bursitis
 - h. epicondylitis
 - i. tenosynovitis and tendonitis
 - j. osteochondritis dissecans
 - k. sprain
 - l. strain
 - m. nerve injury
- 6-E3: Administer active and passive range-of-motion tests using standard goniometric techniques of the elbow.
- 6-E4: Use manual muscle-testing techniques of the elbow.
- 6-E5: Administer appropriate sensory, neurological, and circulatory tests for the elbow.

- 6-E6: Administer functional tests and activity-specific tests for the elbow.
- 6-E7: Identify, palpate, and interpret the integrity of bony landmarks of the elbow.
- 6-E9: Identify, palpate, and interpret the integrity of the soft tissue of the elbow.
- 6-E9: Administer commonly used special tests to make a differential assessment of the following:
- a. joint instability (e.g., valgus stress test, varus stress test)
 - b. inflammatory conditions (e.g., tests for lateral epicondylitis, tests for medial epicondylitis)
 - c. neuropathy (e.g., Tinel's sign, pronator teres syndrome, pinch grip test)
- 6-F1: Obtain the medical history of an ill or injured athlete or other physically active individual suffering a forearm, wrist, or hand pathology.
- 6-F2: Observe and identify the clinical signs and symptoms associated with the following:
- a. fracture (Colles' fracture, Bennett's fracture, carpal fracture ["boxer's fracture"], metacarpal fracture, phalanges fracture)
 - b. dislocation or subluxation
 - c. disease states (e.g., clubbed nails, spoon-shaped nails)
 - d. soft tissue pathology (e.g., sprain, flexor tendon avulsion [jersey finger sign], extensor tendon avulsion [mallet finger], extensor tendon rupture [boutonniere deformity], volar plate rupture [pseudo-boutonniere deformity], Dupuytren's contracture, ganglion, swan neck deformity, trigger finger)
 - e. neurovascular involvement (e.g., carpal tunnel syndrome, bishop's or benediction deformity, ape hand, claw fingers, drop-wrist deformity, Volkmann's contracture)
- 6-F3: Administer active and passive range-of-motion tests using standard goniometric techniques for the forearm, wrist, and hand.
- 6-F4: Use manual muscle-testing techniques for the forearm, wrist, and hand.
- 6-F5: Administer appropriate sensory, neurological, and circulatory tests for the forearm, wrist, and hand.
- 6-F6: Administer functional tests and activity-specific tests for the forearm, wrist, and hand.
- 6-F7: Identify, palpate, and interpret the integrity of bony landmarks for the forearm, wrist, and hand.

- 6-F8: Identify, palpate, and interpret the integrity of soft tissue for the forearm, wrist, and hand.
- 6-H1: Obtain the medical history of an ill or injured athlete or other physically active individual suffering from a head injury.
- 6-H2: Observe and identify the clinical signs and symptoms associated with head injury:
- a. amnesia (retrograde or post-traumatic)
 - b. levels of consciousness
 - c. orientation (person, time, place orientation)
 - d. intracranial hematoma
 - d. balance and coordination
 - f. pupil and eye movements
 - g. pulse
 - h. blood pressure
 - i. facial postures
- 6-H3: Observe and identify the clinical signs and symptoms associated with eye injuries and illnesses:
- a. orbital blowout fracture
 - b. conjunctivitis
 - c. corneal abrasion
 - d. corneal laceration
 - e. detached retina
 - f. hyphema
 - g. sty
- 6-H4: Observe and identify the clinical signs and symptoms associated with an ear injury or illness:
- a. pinna hematoma ("cauliflower ear")
 - b. impacted cerumen
 - c. otitis externa
 - d. otitis media
- 6-H5: Observe and identify the clinical signs and symptoms associated with nose injury:
- a. deviated septum
 - b. epistaxis
 - c. nasal fracture
- 6-H6: Observe and identify the clinical signs and symptoms associated with jaw, mouth, or tooth injury or illness:
- a. gingivitis
 - b. mandibular fracture
 - c. maxilla fracture
 - d. periodontitis
 - e. temporomandibular joint dislocation
 - f. temporomandibular joint dysfunction
 - g. tooth abscess
 - h. tooth extrusion
 - i. tooth fracture
 - j. tooth intrusion
 - k. tooth luxation
- 6-H7: Administer appropriate sensory, neurological, and circulatory tests for the head and face.
- 6-H8: Administer functional tests and activity-specific tests for head and face injuries.

- 6-H9: Identify, palpate, and assess the integrity of bony landmarks of the head and face.
- 6-H10: Identify, palpate, and assess the integrity of soft tissue of the head and face.
- 6-H11: Administer commonly used special tests to make a differential assessment of the following:
- a. cranial nerves (e.g., eye motion, facial muscles)
 - b. cognitive tests (e.g., recall, serial 7s, digit span)
 - c. cerebellar function (e.g., Romberg's test, finger-to-nose test, heel-toe walking, heel-to-knee standing)
 - d. spinal nerve roots (e.g., upper quarter screen)
- 6-S1: Obtain the medical history of an ill or injured athlete or other physically active individual suffering from a shoulder injury.
- 6-S2: Observe and identify the clinical signs and symptoms associated with common injuries, illnesses, and predisposing conditions:
- a. atrophy
 - b. bursitis
 - c. dislocation or subluxation
 - d. efficiency of movement
 - e. fracture
 - f. sprain
 - g. nerve injury
 - h. positioning (Sprengel's deformity)
 - i. strain
 - j. scapulohumeral rhythm
 - k. scapular winging
 - l. step deformity
 - m. symmetry
 - n. tenosynovitis and tendonitis
- 6-S3: Administer active and passive range-of-motion tests using standard goniometric techniques for the shoulder.
- 6-S4: Use manual muscle-testing techniques for the shoulder.
- 6-S5: Administer appropriate sensory, neurological, and circulatory tests for the shoulder.
- 6-S6: Administer functional tests and activity-specific tests for the shoulder.
- 6-S7: Identify and palpate bony landmarks of the shoulder.
- 6-S8: Identify and palpate soft tissue landmarks of the shoulder.
- 6-S9: Administer commonly used special tests to make a differential assessment of the following:
- a. glenohumeral instability (e.g., anterior drawer test, posterior drawer test, relocation test, apprehension test, clunk test, sulcus sign)
 - b. acromioclavicular instability (e.g., shear test, compression test)

- c. rotator cuff impingement/inflammation (e.g., Speed's test, drop arm test, empty can test, impingement test, Hawkins-Kennedy impingement test, Neer impingement test, pectoralis major contracture test)
- d. biceps and biceps tendon pathology (e.g., Yergason's test, Ludington's test)
- e. thoracic outlet syndrome (e.g., Adson's maneuver, Allen test, military brace position)

6-T1: Obtain the medical history of an ill or injured athlete or other physically active individual of the thorax and lumbar spine.

6-T2: Observe and identify the clinical signs and symptoms associated with common injuries, illnesses, and predisposing conditions:

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| a. café au lait macules (spots) | h. nerve root compression |
| b. dislocation or subluxation | i. sacroiliac dysfunction |
| c. spina bifida occulta | j. scoliosis |
| d. facet syndrome | l. sprain |
| e. intervertebral disc pathology | m. stenosis |
| f. spinal posture (kyphosis/ lordosis) | n. step deformity |
| g. leg length discrepancies | o. strain |
| k. vertebral pathology (e.g., spondylitis, spondylolysis, spondylolisthesis) | |

6-T3: Administer active and passive range-of-motion tests using standard qualitative and quantitative techniques for the thoracic and lumbar spine.

6-T4: Use manual muscle-testing techniques for the thoracic and lumbar spine.

6-T5: Administer appropriate sensory and neurological tests for the thoracic and lumbar spine.

6-T6: Administer functional tests and activity-specific tests for the thoracic and lumbar spine.

6-T7: Identify, palpate, and interpret the integrity of bony landmarks of the thoracic and lumbar spine.

6-T8: Identify, palpate, and interpret the integrity of soft tissue of the thoracic and lumbar spine.

6-T9: Administer commonly used special tests to make a differential assessment of the following:

- a. intervertebral disc herniation (e.g., Valsalva's maneuver)
- b. neuropathy (e.g., straight leg raise test, well straight leg test, Babinski's reflex test, Oppenheim's gait test, Kernig's sign, Brudzinski sign test, bowstring test, Hoover sign test)
- c. vertebral defects (e.g., stork standing test/spondylolisthesis test)
- d. joint instability (e.g., spring test)

Acute Care of Injuries and Illnesses

4-1: The student will evaluate and manage the following:

- a. heat exhaustion
- b. heat syncope
- c. heat stroke
- d. hypothermia

General Medical Conditions and Disabilities

1-4: Palpate the four abdominal quadrants to assess for the following:

- a. guarding and rigidity
- b. pain

1-5: Use a stethoscope to identify the following:

- a. normal breath sounds
- b. normal heart sounds
- c. normal bowel sounds

1-7: Demonstrate proficiency in the use of an otoscope to examine the nose and the outer and middle ear.

1-92: Recognize the signs, symptoms, and predisposing conditions associated with the following diseases and conditions:

The Eyes, Ears, Nose, and Throat

- a. common cold
- b. conjunctivitis
- c. laryngitis
- d. pharyngitis
- e. rhinitis
- f. sinusitis
- g. tetanus
- h. tonsillitis

Nutritional Aspects

1-3: The student will demonstrate the ability to access and assess the following nutritional intake values:

- a. RDA or equivalency
- b. protein intake
- c. fat intake
- d. carbohydrate intake
- e. vitamin intake
- f. mineral intake
- g. fluid intake