

SM 221
Clinical Education in Sports Medicine IV

PROFICIENCIES

EVALUATED

Risk Management and Injury Prevention

The student will assess the following:

- Height
- Weight
- blood pressure
- pulse
- vision using a Snellen eye chart
- body composition, using a manual skinfold caliper and appropriate formulas

The student will demonstrate the ability to perform and evaluate the results of the following tests:

- strength (repetition) testing

The student will

- use a sling psychrometer
- use a wet bulb globe index
- interpret and present environmental data for the following conditions: heat; wind; humidity; potential for lightning strike; cold; poor air quality
- check an activity setting for physical and/or environmental hazards
- use and interpret weight charts

The student will select and fit the following protective equipment:

- protective helmet and head gear
- protective shoulder pads
- footwear for physical activity
- mouth guard
- rib brace/guard
- prophylactic ankle brace
- prophylactic knee brace

The student will construct, apply, and remove the following protective devices:

- bony prominence pad
- friction pad ("doughnut" pad)
- muscle contusion pad
- checkrein device
- soft playing cast (e.g., silicone, thermofoam)
- hard, immobilization splint or cast (e.g., thermoplastic, plaster, fiberglass)

The student will demonstrate the ability to tape, splint, wrap, pad or brace the following joints to limit motions:

- cervical spine
- lumbar spine

The student will demonstrate the ability to tape, splint, wrap, pad or brace the following joints to limit motions:

- shoulder joint and girdle
- elbow
- wrist
- hand and fingers
- hip and pelvis
- knee
- leg
- ankle
- foot and toes

Assessment and Evaluation

The student will recognize the following postural deviations and predisposing conditions:

- kyphosis
- lordosis
- scoliosis
- pelvic obliquity
- hip anteversion and retroversion
- tibial torsion
- genu valgum, varum, and recurvatum
- rearfoot valgus and varus
- forefoot valgus and varus
- pes cavus and planus
- foot and toe posture

The student will perform a postural assessment of the following:

- cervical spine and head
- lumbo-thoracic region

The student will identify and classify body types as

- endomorph
- ectomorph
- mesomorph

The student will

- use standardized record keeping methods (e.g., SOAP, HIPS, HOPS)
- elect and use injury, rehabilitation, referral, and insurance documentation
- use progress notes

The student will identify and assess the following:

- cranial nerves
- deep tendon reflexes
- dermatomes
- pathological reflexes
- myotomes

The student will identify and assess the following:

- dermatomes
- deep tendon reflexes
- myotomes

- pathological reflexes

The student will obtain the medical history of an ill or injured athlete or other physically active individual suffering from a head injury.

The student will observe and identify the clinical signs and symptoms associated with head injury:

- amnesia (retrograde or post-traumatic)
- pupil and eye movements
- levels of consciousness
- pulse
- orientation (person, time, place orientation)
- blood pressure
- intracranial hematoma
- facial postures
- balance and coordination

The will observe and identify the clinical signs and symptoms associated with eye injuries and illnesses:

- orbital blowout fracture
- detached retina
- conjunctivitis
- hyphema
- corneal abrasion
- sty
- corneal laceration

The student will observe and identify the clinical signs and symptoms associated with an ear injury or illness:

- pinna hematoma ("cauliflower ear")
- otitis externa
- impacted cerumen
- otitis media

The student will observe and identify the clinical signs and symptoms associated with nose injury:

- deviated septum
- epistaxis
- nasal fracture

The student will observe and identify the clinical signs and symptoms associated with jaw, mouth, or tooth injury or illness:

- gingivitis
- tooth abscess
- mandibular fracture
- tooth extrusion
- maxilla fracture
- tooth fracture
- periodontitis
- tooth intrusion
- temporomandibular joint dislocation
- tooth luxation
- temporomandibular joint dysfunction

The student will administer appropriate sensory, neurological, and circulatory tests for the head and face

The student will administer functional tests and activity-specific tests for head and face injuries.

The student will identify, palpate, and assess the integrity of bony landmarks of the head and face.

The student will identify, palpate, and assess the integrity of soft tissue of the head and face.

The student will administer commonly used special tests to make a differential assessment of the following:

- cranial nerves (e.g., eye motion, facial muscles)
- cognitive tests (e.g., recall, serial 7s, digit span)
- cerebellar function (e.g., Romberg's test, finger-to-nose test, heel-toe walking, heel-to-knee standing)
- spinal nerve roots (e.g., upper quarter screen)

The student will obtain the medical history of an ill or injured athlete or other physically active individual suffering from a cervical spine injury.

The student will observe and identify the clinical signs and symptoms associated with common injuries, illnesses, and predisposing conditions:

- atrophy
- intervertebral disc herniation
- dislocation or subluxation
- nerve root compression or stretch
- vertebral fracture
- ischemia
- head and neck posture
- torticollis

The student will administer active and passive range-of-motion tests using quantifiable techniques (e.g., tape measure, goniometer, and inclinometer) for the cervical spine

The student will use manual muscle-testing techniques for the cervical spine.

The student will administer appropriate sensory, circulatory, and neurological tests for the cervical spine.

The student will administer functional tests and activity-specific tests for the cervical spine.

The student will identify, palpate, and assess the integrity of bony landmark of the cervical spine.

The student will administer commonly used special tests to make a differential assessment of the cervical spine:

- nerve root compression (e.g., distraction/compression test, Spurling's test, shoulder depression test)
- brachial plexus neuropathy (e.g., brachial tension test, Tinel's sign)
- cervical disc herniation (e.g., Valsalva's maneuver)
- neurovascular dysfunction (e.g., vertebral artery test)

The student will identify, palpate, and interpret the integrity of bony landmarks of the thoracic and lumbar spine.

Acute Care of Injuries and Illnesses

The student will demonstrate the ability to implement an EAP for an activity, setting, or event.

The student will correctly triage emergency situations.

The student will demonstrate the ability to

- manage open and closed wounds
- apply direct and indirect pressure to control bleeding
- clean, debride, and protect an open wound
- apply superficial skin closures
- properly apply and remove gloves and other personal protective equipment
- properly dispose of biohazardous waste
- apply appropriate dressings
- apply ice, compression, and elevation to an acute sprain, strain, or contusion

The student will demonstrate the ability to

- select and apply an appropriate splint to a sprain, strain, fracture, subluxation, and dislocation

The student will demonstrate the ability to

- stabilize and spine board or body splint an adult or child with a suspected spinal injury

The student will evaluate and manage the following:

- heat exhaustion
- heat stroke
- heat syncope
- hypothermia

The student will demonstrate the ability to

- establish and manage an airway
- establish and manage an airway in an athlete wearing protective headgear
- perform CPR on an adult or child with or without a spinal injury
- use a bag-valve-mask (BVM) on an adult or child for rescue breathing
- use a protective pocket mask/shield on an adult or child for rescue breathing

The student will demonstrate the ability to

- stabilize and transport an adult or child with a head and/or spinal injury
- stabilize and transport an adult or child with a fracture and/or dislocation

The student will demonstrate the ability to

- select, fit, and instruct the patient in the use of crutches
- select, fit, and instruct the patient in the use of a cane
- transport an injured adult or child using a manual conveyance technique

The student will demonstrate the ability to

- perform two-person CPR

Pharmacology

The student will use the PDR or another drug reference to search for information on the medications commonly prescribed to athletes and others involved in physical activity and to identify the following facts:

- generic and brand names
- dosing
- indications for use
- other notes (e.g., banned substance)
- contraindications
- side (adverse) effects

- warnings

The student will document, or simulate the documentation of, the tracking of medications by recording the following information about the medication:

- name
- dosage
- manufacturer
- lot number
- amount
- expiration date

The student will locate the policies-and-procedures manual, identify the section on medications, and replicate the procedures for administering medications to athletes and others involved in physical activity, which include the following:

- determine type of over-the-counter (OTC) medication to be used according to the physical ailment and established protocols
- identify the precautions, expiration date, lot number, and dosage for the medication as provided on the package and individual dose packets
- administer OTC medication by providing verbal and written instruction for its use to the patient and then recording and documenting the administration

The student will locate the phone number and address of the nearest poison control center and replicate the reporting of a drug overdose or poisoning situation. The report should state the following information:

- name and location of person making the call
- name and age of person who has taken the medication
- name and dosage of the drug taken
- time the drug was taken
- signs and symptoms associated with overdose or poison situation, including vital signs

The student will replicate the following procedures for using an emergency epinephrine injection to prevent anaphylaxis:

- identify indications for an epinephrine injection
- demonstrate proper use through verbal and nonverbal instruction
- identify signs and symptoms that might indicate an allergic reaction to or overdose of epinephrine
- demonstrate proper storage of epinephrine injectable
- demonstrate proper disposal of used injection system

The student will replicate the following procedures for using an emergency bronchodilator (inhaler) to prevent asthma attacks:

- identify indications for use of a bronchodilator
- demonstrate proper use through verbal and nonverbal instruction
- identify signs and symptoms that might indicate an allergic reaction to or overdose of a bronchodilator
- demonstrate proper storage of a bronchodilator

General Medical Conditions and Disabilities

The student will obtain a basic medical history that includes the following components:

- previous medical history
- current medication history
- previous surgical history
- relevant social history
- pertinent family medical history

- chief medical complaint

The student will ascertain body temperature via the following:

- oral temperature
- axillary temperature
- tympanic temperature

The student will ascertain the following vital signs:

- blood pressure
- pulse (rate and quality)
- respirations (rate and quality)

The student will palpate the four abdominal quadrants to assess for the following:

- guarding and rigidity
- pain

The student will use a stethoscope to identify the following:

- normal breath sounds
- normal heart sounds
- normal bowel sounds

The student will identify pathological breathing patterns to make a differential assessment for the following respiratory conditions:

- apnea
- bradypnea
- tachypnea
- dyspnea
- hyperventilation
- obstructed airway

The student will demonstrate proficiency in the use of an otoscope to examine the nose and the outer and middle ear.

The student will measure urine values with Chemstrips (dipsticks)

The student will recognize the signs, symptoms, and predisposing conditions associated with the following diseases and conditions:

- The Skin
 - Abscesses
 - Acne vulgaris
 - Carbuncle
 - Cellulites
 - Molluscum contagiosum
 - Dermatitis
 - Eczema
 - Folliculitis
 - Frostbite
 - Furnunculosis
 - Herpes simplex
 - Tinea versicolor
 - Pediculosis
 - Herpes zoster

- Hives
- Impetigo
- Psoriasis
- Ringworm
- Scabies
- Sebaceous cysts
- Tinea cruris
- Tinea pedis
- Verruca plantaris
- Cerruca vulgaris
- Tinea capitis
- The Eyes, Ears, Nose, and Throat
 - common cold
 - rhinitis
 - conjunctivitis
 - sinusitis
 - laryngitis
 - tetanus
 - pharyngitis
 - tonsillitis
- Respiratory System
 - asthma
 - influenza
 - bronchitis
 - pneumonia
 - hyperventilation
 - upper respiratory infection (URI)
 - hay fever
- Cardiovascular System
 - hypertension
 - migraine headache
 - hypertrophic cardiomyopathy
 - shock
 - hypotension
 - syncope
- Endocrine System
 - diabetes
 - hypothyroidism
 - hyperthyroidism
 - pancreatitis
- Gastrointestinal Tract
 - appendicitis
 - gastritis
 - colitis
 - gastroenteritis
 - constipation
 - indigestion
 - diarrhea
 - ulcer
 - esophageal reflux
 - irritable bowel syndrome
- Eating Disorders
 - Anorexia
 - Bulimia
 - Obesity

- Sexually Transmitted Diseases/Diseases Transmitted by Body Fluid
 - HIV/AIDS
 - genital warts
 - hepatitis
 - gonorrhea
 - chlamydia
 - syphilis
- Genitourinary Tract and Organs
 - kidney stones
 - urinary tract infection
 - spermatic cord torsion
 - hydrocele
 - candidiasis
 - varicocele
 - urethritis
- Gynecological Disorders
 - amenorrhea
 - pelvic inflammatory disease
 - dysmenorrhea
 - vaginitis
 - oligomenorrhea
- Viral Syndromes
- infectious mononucleosis
 - measles
- mumps
- Neurological Disorders
 - epilepsy
 - reflex sympathetic dystrophy
 - syncope
 - meningitis
- Systemic Diseases
 - iron-deficiency anemia
 - sickle cell anemia
 - Lyme disease

Nutritional Aspects

The student will demonstrate the ability to access and recommend nutritional guidelines for the following:

- fluid replacement

The student will simulate intervention with an individual who has the signs and symptoms of disordered eating.

The student will identify proper referral sources for disordered eating.

Psychosocial Intervention And Referral

The student will locate the available community-based resources for psychosocial intervention.

Health Care Administration

The student will demonstrate appropriate communication skills.

- effectively communicate and work with physicians, emergency medical technicians (EMTs), and other members of the allied health care community and sports medicine team
- appropriately communicate with athletic personnel and family members

The student will demonstrate appropriate communication skills.

- use ethnic and cultural sensitivity in all aspects of communication
- communicate with diverse community populations

The student will use contemporary multimedia, computer hardware, and software as related to the practice of athletic training.

The student will demonstrate the ability to perform record keeping skills with sensitivity to patient confidentiality.

Professional Development and Responsibilities

The student will develop a professional resume.