AHAT 479.01: Topics in Sports Medicine

Scott T. Richter

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AHAT 479 - Sports Medicine – 2 credits

MEETING TIMES: 6:00-8:30pm - Mondays

INSTRUCTOR: Professor Scott Richter

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PRE-REQUISITE: Prerequisites are MANDATORY:
1. HHP 377/378 - Physiology of Exercise
2. BIOH 201/202/211/212 or 365/370 - Human Anatomy and Physiology or equivalent.


INTERNET: Moodle (PPT and Quizzes)

COURSE CONTENT/OBJECTIVES:
1. Obtain a basic medical history that includes
   a. Previous medical history
   b. Previous medical surgical history
   c. Pertinent family medical history
   d. Current medication history
   e. Relevant social history
   f. Chief medical complaint
2. To identify the following:
   a. Cardiovascular conditions
3. To identify the importance of Pre-participation Physical Examination
   a. Limitations and exclusion from sport
   b. Liabilities (each student is required to originate physical exam form)
4. Identify pathological breathing patterns to make a differential assessment for the following respiratory conditions:
5. To identify the effects of medications used in - Good vs. Bad
   (i.e. Ergogenic, NSAIDS, Asthma Medications, etc.)
6. To identify and manage catastrophic situations:
   a. Head injuries
   b. Spinal Cord injuries
7. Assessment and Treatment of Specific Sports Injuries
8. Recognize the signs, symptoms, and predisposing conditions associated with General Medical conditions:

METHODS OF GRADING:
1. Class Participation and Attendance (Mandatory) 30 pts
2. Written Questions Submitted for Guest Speakers (2 questions for each speaker) 30 pts
3. Weekly quizzes 100 pts
4. Sports Medicine Topic Debate 100 pts
5. Debate Topic List 5 pts

Subtotal (undergrad students) 260 pts

*5. Supplemental Assignment for Graduate Students 100 pts

Total (graduate Students) 360 pts

American w/Disabilities Act (ADA): The University of Montana upholds the ADA by providing reasonable accommodations to individuals with disabilities. If any student requires reasonable accommodations to adequately perform the duties of the class, please see the instructor as soon as possible so that a plan can be made for specific modifications.

Student Conduct Code: All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at http://www.umt.edu/SA/VPSA/index.cfm/page/1321.
Sports Medicine

Tentative Schedule

Guest lectures & Labs; Dates and topics - spring 2013

Jan. 28    Professor Richter - Introduction to Sports Medicine – Moodle/Textbook

Feb. 03    Dr. Carla Fritz - The University of Montana Team Physician - Pre-participation Exam

Feb. 10    Dr. Lance Hinther – Dermatology
            Identify conditions of the skin

Feb. 17    President’s Day Holiday

Feb. 24    Dr. Phillip Gardner - Conditions of the Eyes, Ears, and Throat
            Conditions of the Eyes, Ears, Nose and Throat

Mar. 03    Dr. James Laskin – Athletes with Different Abilities/Paralympics

Mar. 10    Dave Mangold - Allergies and Exercise Induced Asthma
            Epinephrine, Bronchodilators, Respiratory Conditions/EIB

Mar. 17    Dr. Amrine – Sports Medicine and Family Practice
            Female Concerns/Conditions in Sports Medicine

Mar. 24    Dr. Karl Mangold – Foot and Ankle Conditions/Orthotics.

March 31 (lecture)    Spring Break

April 07   Dr. Vince Colucci - Pharm.D - Ergogenic Aids and Anti Inflammatory Medication in Sports

April 14   Dr. Bruce Hardy – Assessing Cardiovascular Conditions in Sports

April 21   Dr. John Schaeffer - Identifying and Managing Concussions and Other Common Neurological Conditions

April 28   Dr. Mark Elliot – Radiology
            Identifying injuries by examining MRI, X-ray, Bone Scan, CT Scan, etc.

May 06    Presentations/Debates
HHP 479 - Competencies/Proficiencies

MC-C1.0 Describe and know when to refer common congenital or acquired abnormalities, physical disabilities, and diseases affecting people who engage in physical activity throughout their life span (e.g., arthritis, diabetes).

MC-C2.0 Understand the effects of common illnesses and diseases in physical activity.

MC-C3.0 Describe common techniques and procedures for evaluating common medical conditions and disabilities including taking a history, inspection/observation, palpation, functional testing, special evaluation techniques (e.g., assessing heart, lung and bowel sounds), and neurological and circulatory tests.

MC-C4.0 Describe and know when to refer common eye pathologies from trauma and/or localized infection (e.g., conjunctivitis, hyphema, corneal injury, stye, scleral trauma).

MC-C5.0 Describe and know when refer common ear pathologies from trauma and/or localized infection (e.g., otitis, ruptured tympanic membrane, impacted cerumen).

MC-C6.0 Describe and know when to refer common pathologies of the mouth, sinus, oropharynx, and nasopharynx from trauma and/or localized infection (e.g., gingivitis, sinusitis, laryngitis, tonsillitis, pharyngitis).

MC-C7.0 Describe and know when to refer common and significant respiratory infections, thoracic trauma, and lung disorders. (e.g., influenza, pneumonia, bronchitis, rhinitis, sinusitis, upper-respiratory infection (URI), pneumothorax, hemothorax, pneumomediastinum, exercise-induced bronchospasm, exercise-induced anaphylaxis, asthma).

MC-C8.0 Explain the importance and proper use of a peak flowmeter or similar device in the evaluation and management of respiratory conditions.

MC-C9.0 Describe strategies for reducing the frequency and severity of asthma attacks.

MC-C10.0 Explain the possible causes of sudden death syndrome.

MC-C11.0 Describe and know when to refer common cardiovascular and hematological medical conditions from trauma, deformity, acquired disease, conduction disorder, and drug abuse (e.g., coronary artery disease, hypertrophic cardiomyopathy, heart murmur, mitral valve prolapse, commotion cords, Marfan’s syndrome, peripheral embolism, hypertension, arrhythmogenic right ventricular dysplasia, Wolf-Parkinson-White syndrome, anemias, sickle cell anemia and sickle cell trait [including rhabdomyolysis], hemophilia, deep vein thrombosis, migraine headache, syncope).

MC-C12.0 Describe and know when to refer common medical conditions that affect the gastrointestinal and hepatic-biliary systems from trauma, chemical and drug irritation, local and systemic infections, psychological stress, and anatomic defects (e.g., hepatitis, pancreatitis, dyspepsia, gastroesophageal reflux, peptic ulcer, gastritis and gastroenteritis, inflammatory bowel disease, irritable bowel syndrome, appendicitis, sports hernia, hemorrhoids, splenomegaly, liver trauma).

MC-C13.0 Describe and know when to refer common medical conditions of the endocrine and metabolic systems from acquired disease and acute and chronic nutritional disorders (e.g., diabetes mellitus and insipidus, hypothyroidism, Cushing’s syndrome, thermoregulatory disorders, gout, osteoporosis).

MC-C14.0 Describe and know when to refer common medical conditions of the renal and urogenital systems from trauma, local infection, congenital and acquired disease, nutritional imbalance, and hormone disorder (e.g., kidney stones, genital trauma, gynecomastia, monorchidism, scrotum and testicular trauma, ovarian and testicular cancer, breast cancer, testicular torsion, varicoceles, endometriosis, pregnancy and ectopic pregnancy, female athlete triad, primary amenorrhea, oligomenorrhea, dysmenorrhea, kidney laceration or contusion, cryptorchidism).
MC-C15.0 Describe and know when to refer common and/or contagious skin lesions from trauma, infection, stress, drug reaction, and immune responses (e.g., wounds, bacteria lesions, fungal lesions, viral lesions, bites, acne, eczema dermatitis, ringworm).

MC-C16.0 Describe and know when to refer common medical conditions of the immune system from infection, congenital and acquired disease, and unhealthy lifestyle. (e.g., arthritis, gout, upper respiratory tract infection [URTI], influenza, pneumonia, myocarditis, gastrointestinal infection, urinary tract infection [UTI], sexually transmitted diseases [STDs], pelvic inflammatory disease, meningitis, osteomyelitis, septic arthritis, chronic fatigue and overtraining, infectious mononucleosis, human immunodeficiency virus (HIV) infection and AIDS, hepatitis B virus infection, allergic reaction and anaphylaxis, childhood infectious diseases [measles, mumps, chickenpox]).

MC-C17.0 Describe and know when to refer common neurological medical disorders from trauma, anoxia, drug toxicity, infection, and congenital malformation (e.g., concussion, postconcussion syndrome, second-impact syndrome, subdural and epidural hematoma, epilepsy, seizure, convulsion disorder, meningitis, spina bifida, cerebral palsy, chronic regional pain syndrome [CRPS], cerebral aneurysm).

MC-C18.0 Describe and know when to refer common psychological medical disorders from drug toxicity, physical and emotional stress, and acquired disorders (e.g., substance abuse, eating disorders/disordered eating, depression, bipolar disorder, seasonal affective disorder, anxiety disorders, somatoform disorders, personality disorders, abusive disorders, and addiction).

MC-C20.0 Describe and know when to refer common cancers (e.g., testicular, breast).

MC-C21.0 Describe and know when to refer common injuries or conditions of the teeth (e.g., fractures, dislocations, caries).

MC-C22.0 Explain the importance and proper procedures for measuring body temperature (e.g., oral, axillary, rectal).

MC-P1.0 Obtain a medical history of the patient that includes a previous history and a history of the present condition.

MC-P2.0 Perform a visual observation of the clinical signs associated with common injuries and/or illnesses including deformity, edema/swelling, discoloration, and skin abnormalities.

MC-P3.0 Palpate the bones and soft tissues, including the abdomen, to determine normal or pathological characteristics.

MC-P4.0 Apply commonly used special tests and instruments (e.g., otoscope, stethoscope, ophthalmoscope, peak flowmeter, chemical "dipsticks" [or similar devices]) and document the results for the assessment of:

- MC-P4a.0 Vital signs including respiration (including asthma), pulse and circulation, and blood pressure
- MC-P4b.0 Heart, lung, and bowel sounds
- MC-P4c.0 Pupil response, size and shape, and ocular motor function
- MC-P4d.0 Body temperature
- MC-P4e.0 Ear, nose, throat and teeth
- MC-P4f.0 Urinalysis

RM-C3.0 Identify and explain the epidemiology data related to the risk of injury and illness related to participation in physical activity.

RM-C14.0 Explain the precautions and risks associated with exercise in special populations.