Athletic Training Educational Competencies
ATHP 2341 – Pharmacological Aspects

Student Learning Outcomes

Acute Care of Injuries and Illnesses

- AC 31 - Assist the patient in the use of a nebulizer treatment for an asthmatic attack.
- AC 32 - Determine when use of a metered-dose inhaler is warranted based on a patient’s condition.
- AC 33 - Instruct a patient in the use of a meter-dosed inhaler in the presence of asthma-related bronchospasm.
- AC 35 - Demonstrate the use of an auto-injectable epinephrine in the management of allergic anaphylaxis. Decide when auto-injectable epinephrine use is warranted based on a patient’s condition.
- AC 36 - Identify the signs, symptoms, interventions and, when appropriate, the return-to-participation criteria for: a. sudden cardiac arrest; b. brain injury including concussion, subdural and epidural hematomas, second impact syndrome and skull fracture; c. cervical, thoracic, and lumbar spine trauma; d. heat illness including heat cramps, heat exhaustion, exertional heat stroke, and hyponatremia; e. exertional sickling associated with sickle cell trait; f. rhabdomyolysis; g. internal hemorrhage; h. diabetic emergencies including hypoglycemia and ketoacidosis; i. asthma attacks; j. systemic allergic reaction, including anaphylactic shock; k. epileptic and non-epileptic seizures; l. shock; m. hypothermia, frostbite; n. toxic drug overdoses; and o. local allergic reaction

Prevention and Health Promotion

- PHP 48 - Explain the known usage patterns, general effects, and short- and long-term adverse effects for the commonly used dietary supplements, performance enhancing drugs, and recreational drugs.
- PHP 49 - Identify which therapeutic drugs, supplements, and performance-enhancing substances are banned by sport and/or workplace organizations in order to properly advise clients/patients about possible disqualification and other consequences.

Therapeutic Interventions

- TI 3 - Differentiate between palliative and primary pain-control interventions.
- TI 21 - Explain the federal, state, and local laws, regulations and procedures for the proper storage, disposal, transportation, dispensing (administering where appropriate), and documentation associated with commonly used prescription and nonprescription medications.
- TI 22 - Identify and use appropriate pharmaceutical terminology for management of medications, inventory control, and reporting of pharmacological agents commonly used in an athletic training facility.
- TI 23 - Use an electronic drug resource to locate and identify indications, contraindications, precautions, and adverse reactions for common prescription and nonprescription medications.
- TI 24 - Explain the major concepts of pharmacokinetics and the influence that exercise might have on these processes.
- TI 25 - Explain the concepts related to bioavailability, half-life, and bioequivalence (including the relationship between generic and brand name drugs) and their relevance to the patient, the choice of medication, and the dosing schedule.

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- TI 26 - Explain the pharmacodynamic principles of receptor theory, dose-response relationship, placebo effect, potency, and drug interactions as they relate to the mechanism of drug action and therapeutic effectiveness.
- TI 27 - Describe the common routes used to administer medications and their advantages and disadvantages.
- TI 28 - Properly assist and/or instruct the patient in the proper use, cleaning, and storage of drugs commonly delivered by metered dose inhalers, nebulizers, insulin pumps, or other parenteral routes as prescribed by the physician.
- TI 29 - Describe how common pharmacological agents influence pain and healing and their influence on various therapeutic interventions.
- TI 30 - Explain the general therapeutic strategy, including drug categories used for treatment, desired treatment outcomes, and typical duration of treatment, for the following common diseases and conditions: asthma, diabetes, hypertension, infections, depression, GERD, allergies, pain, inflammation, and the common cold.
- TI 31 - Optimize therapeutic outcomes by communicating with patients and/or appropriate healthcare professionals regarding compliance issues, drug interactions, adverse drug reactions, and sub-optimal therapy.