

SIM 390 Therapeutic Modalities

PATHOLOGY OF INJURIES AND ILLNESSES

Cognitive Domain

- 9 Describes the integration and coordination of cell function in response to injury (e.g., sources of cell injury, inflammation, healing, and repair).
- 11 Defines the inflammatory response to acute and chronic injury and illness.
- 17 Describes the healing process of bone.
- 19 Identifies the implications of various underlying pathologies and uses this knowledge to select appropriate therapeutic modalities and therapeutic exercise protocols.

ACUTE CARE OF INJURIES AND ILLNESSES

Cognitive Domain

- 18 Explains the application principles of cold application, elevation, and compression in treatment of acute non-limb-threatening pathologies.
- 38 Describes the signs, symptoms, and causes of allergic, thermal, and chemical reactions of the skin.
- 44 Recognizes the proper technique for using ambulatory aids, including selecting an aid appropriate for the injury and person.
- 45 Recommends ambulatory aids to coordinate movement on flat, slippery, or uneven terrain and to navigate steps, ramps, doors, or obstacles, and evaluates the patient's technique in using the aids.
- 46 Constructs and educates the patient regarding home care and self-treatment plans.

Psychomotor Domain

- 8 Administers cryotherapy, elevation, and compression to a limb and/or joint.
- 19 Demonstrates the proper techniques for using ambulatory aids to coordinate movement on flat, slippery, or uneven terrain and to navigate steps, ramps, doors, or obstacles.

Affective Domain

- 14 Supports the application of cryotherapy, elevation, and compression as primary care for a non-threatening injury.
- 15 Accepts the approved aseptic and sterile methods for cleaning, treating, and bandaging wounds and for disposing of biohazardous waste.

THERAPEUTIC MODALITIES

Cognitive Domain

- 1 Determines the appropriate modality according to the treatment goals and objectives as they relate to wound healing and tissue repair.
- 2 Describes methods of evaluating and recording progress of therapeutic modality treatments.
- 4 Identifies the body's physiological responses during and following the application of therapeutic modalities.

- 5 Describes the role and function of the common prescription and nonprescription pharmacological agents that are used in conjunction with therapeutic modalities (e.g., topical ointments, phonophoresis, iontophoresis).
- 6 Explains the principles of physics, including basic concepts associated with the electromagnetic and acoustic spectra (e.g., frequency, wavelength).
- 7 Interprets terminology, principles, and basic concepts of electrical units (e.g., amperes, volts, watts, ohms).
- 8 Compares and contrasts contemporary pain-control theories.
- 9 Assesses the selection and use of therapeutic modalities for the control of acute and chronic pain.
- 10 Describes the electrophysics, biophysics, set-up, indications, contraindications, and specific physiological effects associated with stimulating electrical currents.
- 11 Describes the electrophysics, biophysics, set-up, indications, contraindications, and specific physiological effects associated with short-wave diathermy.
- 12 Describes the physical properties, biophysics, set-up, indications, contraindications, and specific physiological effects associated with the application of superficial heat and cold.
- 13 Describes the physical properties, biophysics, set-up, indications, contraindications, and specific physiological effects associated with therapeutic ultrasound.
- 14 Describes the physical properties, biophysics, set-up, indications, contraindications, and specific physiological effects associated with the application of intermittent compression units.
- 16 Describes the physical properties, biophysics, set-up, indications, contraindications, and specific physiological effects associated with therapeutic LASER.
- 18 Describes the physical properties, biophysics, set-up, indications, contraindications, and specific physiological effects associated with therapeutic soft-tissue massage.
- 19 Illustrates the typical physiological and psychological responses to trauma as they relate to the use of therapeutic modalities.
- 20 Interprets local, state, and federal standards for the operation and safety standards of therapeutic modalities.
- 21 Describes the manufacturer's protocol for use to ensure safe and proper application.
- 22 Applies manufacturer's guidelines for the inspection and maintenance of therapeutic modalities.

Psychomotor Domain

- 1 Utilizes assessment skills to determine a patient's specific therapeutic modality indications, contraindications, and precautions.
- 3 Takes into account patient-specific indications, contraindications, and precautions when applying a specific therapeutic modality (e.g., age, underlying pathology, disease processes).
- 4 Performs appropriate patient preparation and positioning for therapeutic modality application.
- 5 Performs the appropriate set-up for therapeutic modalities.

- 6 Selects and applies appropriate therapeutic modality parameters (e.g., intensity, length of time, duration, frequency), and modifies them as required.
- 7 Operates and applies contemporary therapeutic modalities (electrical stimulating currents, thermotherapy, cryotherapy, diathermy, ultrasound, intermittent compression, cervical and lumbar traction, laser, EMG and biofeedback, soft tissue massage, and other contemporary therapeutic modalities) according to established guidelines.
- 8 Evaluates patient response to therapeutic modalities during and following the application of therapeutic modalities.
- 9 Formulates progress notes and treatment outcomes that are relevant to the selection and application of therapeutic modalities.
- 10 Inspects the therapeutic modalities and treatment area for potential safety hazards.

Affective Domain

- 1 Accepts the professional, ethical, and legal parameters that define the proper role of the certified athletic trainer in the use of therapeutic agents to treat, rehabilitate, and recondition athletes and others involved in physical activity.
- 2 Respects the role of attending physicians and other medical and allied health personnel in the use of therapeutic agents to treat, rehabilitate, and recondition athletes and others involved in physical activity.
- 3 Advocates the accepted medical protocol regarding the confidentiality of medical information relative to therapeutic modality treatments.
- 4 Initiates accepted medical protocol regarding therapeutic prescriptions.
- 5 Promotes the accepted medical protocol regarding health care referral in the rehabilitation and reconditioning process.

HEALTH CARE ADMINISTRATION

Cognitive Domain

- 30 Lists the components of a comprehensive risk management plan that addresses the issues of security, fire, electrical and equipment safety, emergency preparedness, and hazardous chemicals.

Psychomotor Domain

- 2 Develops a risk management plan that addresses issues of liability reduction, security, fire, facility hazards, electrical and equipment safety, emergency preparedness, and hazardous chemicals (manufacturer safety data sheets [MSDS]).