SPORTS MEDICINE AND REHABILITATION

51.0800.50

TECHNICAL STANDARDS

An Industry Technical Standards Validation Committee developed and validated these standards on February 13, 2018. Completion of the program prepares students to meet the requirements of one or more certification: Certified Personal Trainer, Certified Physical Therapy Aide, Emergency Medical Responder, and/or OSHA 10-Healthcare. The Arizona Career and Technical Education Quality Commission, the validating authority for the Arizona Skills Standards Assessment System, endorsed these standards on April 26, 2018.

Note: Arizona's Professional Skills are taught as an integral part of the Sports Medicine and Rehabilitation program.

The Technical Skills Assessment for Sports Medicine and Rehabilitation is available SY2018-2019.

Note: In this document i.e. explains or clarifies the content and e.g. provides examples of the content that must be taught.

STANDARD 1.0 USE MEDICAL TERMINOLOGY AS APPLIED IN HEALTHCARE

1.1 Use medical abbreviations and acronyms commonly used in sports medicine and rehabilitation services

1.2 Use anatomical terms commonly used in sports medicine and rehabilitation services (e.g., positions, planes locations, and joint motions)

1.3 Use root words, prefixes, and suffixes commonly used in sports medicine and rehabilitation services

STANDARD 2.0 DEMONSTRATE AN UNDERSTANDING OF BODY SYSTEMS AND HUMAN ANATOMY

2.1 Examine the structure and function of the cardiopulmonary system

2.2 Examine the structure and function of the musculoskeletal system (e.g., axial and upper and lower extremities)

2.3 Analyze the joints and their articular structures (i.e., joint types, synovial joint characteristics, etc.)

2.4 Examine the structure and function of the neurological system

STANDARD 3.0 EXAMINE HEALTH AND PERFORMANCE CONCEPTS

3.1 Describe nutritional concepts and physical composition of food (e.g., 6 basic nutrients, protein, carbohydrates, fats, vitamin, minerals, and water)

3.2 Calculate and analyze caloric intake in relation to dietary guidelines (e.g., RDA for protein, carbohydrates, and fat)

3.3 Explain nutrition and exercise considerations for diverse populations (i.e., patients with medical conditions, cultural considerations, food intolerances, weight management, etc.)

3.4 Describe general concepts of athletic hydration (e.g., pre-practice/competition, competition, and post-practice/competition)

3.5 Interpret tests used to determine fitness for cardiorespiratory endurance, strength, flexibility, and body composition

3.6 Evaluate dietary supplements and performance enhancement drugs (PEDs) for safety and efficacy

3.7 Explain general strength and conditioning training principles and how they apply to fitness regimens

STANDARD 4.0 DEMONSTRATE SAFETY AND INFECTION CONTROL

4.1 Describe maintaining a safe and sanitary treatment area including the use of disinfectants, antiseptics, and sanitization techniques

4.2 Use universal precautions (e.g., use and disposal of PPE equipment and biohazard materials)

4.3 Apply strategies of risk management according to OSHA compliance, SDS chemical management, and injury and illness compliance solutions

STANDARD 5.0 MANAGE ACUTE CARE EMERGENCY AND NON-EMERGENCY SITUATIONS

5.1 Assess vital signs (normal vs. abnormal) (i.e., temperature, pulse, respirations, skin, pupils, blood pressure, pulse oximetry, etc.)

5.2 Recognize sudden illnesses and describe their treatment (e.g., fainting, seizures, types of shock, poisoning, heart attack, stroke, and choking)

5.3 Recognize causes, signs, symptoms, and describe treatment of environmentally related emergencies (e.g., effects of heat and cold, and asthma)

5.4 Perform CPR (cardiopulmonary resuscitation) and AED (automated external defibrillator) procedures for infants, children, and adults

5.5 Demonstrate common taping, wrapping and bracing techniques that prevent, support, or treat injuries and conditions

5.6 Describe common open and closed wounds including bleeding control techniques (e.g., abrasions, incisions, lacerations, punctures, blisters, and contusions)

5.7 Demonstrate proper wound care to assess and prevent infection (e.g., signs and symptoms of infection, cleaning, bandaging, and dressing)

5.8 Demonstrate splinting techniques (e.g., soft, rigid, and anatomical)

5.9 Explain proper procedures for removing and transporting an injured patient including the use of proper body mechanics (e.g., logroll, spine board, and stretcher)

5.10 Describe key components of emergency action plans and conditions for activation

5.11 Differentiate between the appropriate first aid supplies for various types of allied health care settings

STANDARD 6.0 ASSESS THE IMPACT OF INJURIES, SPORTS TRAUMA, AND PHYSICAL DYSFUNCTIONS AND DISORDERS

6.1 Use information from H.I.P.S., H.O.P.S., or SOAP for an injury evaluation

6.2 Understand the etiology, signs, and symptoms related to injuries to the head

6.3 Understand the etiology, signs, and symptoms related to injuries to axial regions

6.4 Understand the etiology, signs, and symptoms related to injuries to upper body extremity

6.5 Understand the etiology, signs, and symptoms related to injuries to lower body extremity

6.6 Identify and describe common special tests used to evaluate joints (e.g., ligament, valgus and varus, anterior and posterior drawer, and apprehension)

6.7 Identify phases of tissues' healing injury

6.8 Investigate the cause of secondary injuries (i.e., gait, compensatory posture, etc.)

STANDARD 7.0 APPLY THERAPEUTIC EXERCISE, TRAINING, AND RECONDITIONING

7.1 Differentiate among various kinds of exercises (i.e., isometric, isotonic, manual resistance, isokinetic, circuit training, etc.)

7.2 Consider indications, contraindications, and safety precautions in strength and conditioning activities

7.3 Describe types of stretching and flexibility strategies (i.e., static, ballistic, dynamic, proprioceptive neuromuscular facilitation, etc.)

7.4 Explain strength, mobility, and balance as related to performance and injury prevention

7.5 Explain indications, contraindications, precautions, and proper fitting of devices for mobility, transfers and ambulation (e.g., weight-bearing assistive devices, prosthetics, orthotic devices, and protective equipment)

7.6 Determine appropriate rehabilitation progression [e.g., return- to-play, -work, and -daily activity criteria (full strength, free from pain, skill performance tests, and emotional readiness)]

STANDARD 8.0 DEMONSTRATE AN UNDERSTANDING OF THERAPEUTIC INTERVENTIONS AND PAIN MANAGEMENT

8.1 Explain treatment expectations, physiological changes, and special instructions for specific interventions (i.e., thermotherapy, cryotherapy, electric stimulation, ultrasound, hydrotherapy, compression, etc.)

8.2 Explain indications, contraindications, safety precautions, and applications related to interventions (i.e., thermotherapy, cryotherapy, electric stimulation, ultrasound, hydrotherapy, compression, etc.)

8.3 Recognize traditional and nontraditional approaches to pain management (i.e., pharmaceutical and complementary techniques, etc.)

8.4 Demonstrate the proper use of PRICE (protection, rest, ice, compression, and elevation)

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STANDARD 9.0 APPLY PSYCHOLOGICAL TECHNIQUES TO PHYSICAL PERFORMANCE, INJURY EVALUATION, AND REHABILITATION

9.1 Describe emotional/psychological responses to injury and rehabilitation (i.e., depression, anxiety, fear, etc.)

9.2 Explain motivational techniques for physical conditioning and rehabilitation (i.e., goal setting, positive reinforcement, celebrating successes, etc.)

9.3 Identify risk factors, signs, and symptoms for patients in need of interventional counseling (i.e., eating disorders, depression, head injury, substance abuse, etc.)

STANDARD 10.0 DEMONSTRATE HEALTHCARE ORGANIZATION AND ADMINISTRATION ACTIVITIES

10.1 Document the results of observations and treatments [e.g., EMR (electronic medical record); SOAP (subjective, objective, assessment, and plan); HOPS (History, Observation, Palpation, Special Tests); HIPS (History, Inspection, Palpation, Special Tests) and daily treatment records]

10.2 Describe the basic terminology of health insurance (e.g., co-pay, third-party payment, reimbursement, Explanation of Benefits (EOB), visit authorizations, referrals, and PPO/HMO)

10.3 Understand the process of maintenance and inventory of supplies and equipment

10.4 Utilize professional resources to stay current with advances in healthcare (i.e., CDC, professional journals, position statements, etc.)

10.5 Assess the benefits of active involvement in local, state, and national associations and organizations

10.6 Evaluate methods to protect patients' rights through legal, moral, and ethical measures (e.g., HIPAA legal liability, codes of ethics, and standards of care)

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