

## **Appendix III C**

### **Curriculum for Equine Veterinary Sports Medicine and Rehabilitation to be Tested in Equine Species Examination**

The goal of this curriculum is to develop the proper “knowledge of action” in relation to the:

Presenting injury, medical problem or performance issue

Breed and use of horse

Prior physical state

Type of activity

The veterinary sports medicine and rehabilitation practitioner should understand and deal with a particular athletic or working injury illness or performance issue using one or more acceptable procedures or processes (as defined by the specialty) while avoiding unacceptable practices. Therefore the basic goal of this curriculum is to establish a defined and predetermined level of proficiency in managing sports medicine or rehabilitation cases.

#### **Course Outline**

##### **Foundation of Sports Medicine**

List and understand equine athletic events and working horse tasks

Understand components of normal equine locomotion

Understand components of abnormal equine locomotion

Understand locomotion as it applies to athletic and working events

Equine energetics

Equine exercise physiology

Nutrition of the equine athlete and working horse

Musculoskeletal physiology and injury

Biology of tissue healing, disuse and remobilization

##### **Problem Identification**

Understanding the needs of the of the patient

Acquiring proper history in relation to the problem

Sports medicine and rehabilitation decision tree

Diagnostic techniques

Delineating primary problems from secondary or tertiary problems

## Therapeutic Decisions

Critical Level of Problem

Emergency Classifications

- Life threatening

- Not life threatening

Medical Problem

- Performance or activity related

Determine System Involvement

- System not identified

  - Refer to internal medicine

- System identified

  - Assess level of involvement

Determine Level of Involvement

- Severe system involvement

  - Refer to internal medicine

- Non severe involvement

Infectious Etiology

- Determine proper initial treatment

- Establish problem management

- Establish assessment of treatment success

- Develop alternative regimens

Metabolic Etiology

- Determine proper initial treatment

- Establish problem management

- Establish assessment of treatment success

- Develop alternative regimens

Musculoskeletal

- Surgical

  - Refer to surgeon

- Nonsurgical

  - Primary problem

- Determine proper initial treatment
- Establish problem management
- Establish assessment of treatment/rehabilitation success
- Develop alternative regimens
- Secondary/tertiary problems
  - Determine proper initial treatment
  - Establish problem management
  - Establish assessment of treatment/ rehabilitation success
  - Develop alternative regimens

## Rehabilitation

- Assess current condition
- Whole body
- Specific structure
- Establish client expectations
  - Best case scenario
  - Realistic scenario
- Primary problem
  - Determine proper initial rehabilitation program
  - Establish assessment of treatment/ rehabilitation success
  - Develop alternative regimens
- Secondary/tertiary problems
  - Determine proper initial rehabilitation program
  - Establish assessment of treatment/ rehabilitation success
  - Develop alternative regimens

## Sports Medicine and Rehabilitation Problems and Injuries, Treatment Methodologies and Procedures

### Systems

- Cardiovascular
  - Sports/Activity Specific
    - Cause/Prevention
    - Treatment Considerations
- Metabolic Pathologies

Affect on Performance  
Treatment Considerations

#### Respiratory

Sports/activity Specific  
Cause/Prevention  
Treatment Considerations

#### Metabolic Pathologies

Effect on Performance  
Treatment Considerations

#### Urogenital

Sports/Activity Specific  
Cause/Prevention  
Treatment Considerations

#### Metabolic Pathologies

Effect on Performance  
Treatment Considerations

#### Gastrointestinal

Sports/Activity Specific  
Cause/Prevention  
Treatment Considerations

#### Metabolic Pathologies

Effect on Performance  
Treatment Considerations

#### Integumentary (skin, hoof)

Sports/Activity Specific  
Cause/Prevention  
Treatment Considerations

#### Metabolic pathologies

Effect on Performance  
Treatment Considerations

#### Reproductive

Sports/Activity Specific  
Cause/Prevention

Treatment Considerations

Metabolic Pathologies

Effect on Performance

Treatment Considerations

Nutrition

Sports/Activity Specific

Cause/Prevention

Treatment Considerations

Metabolic Pathologies

Effect on Performance

Treatment Considerations

Fluids, Electrolytes, Hematology and Immunology

Sports/Activity Specific

Cause/Prevention

Treatment Considerations

Metabolic Pathologies

Effect on Performance

Treatment Considerations

## **Musculoskeletal**

Muscles

Grade 1 Injuries - Myositis

Grade 2 Muscle Tears/Sheath Tears

Grade 3 Torn Muscles

Commonly Affected Muscles in Different breeds and Types of Exercise

## **Axial skeleton**

Skull

Sports/Activity Specific Injuries

Cause/Prevention

Treatment Considerations

Rehabilitation

Cervical vertebrae

Sports/Activity Specific Injuries

Cause/Prevention

Treatment Considerations

Rehabilitation

Thoracic vertebrae

Sports/Activity Specific Injuries

Cause/Prevention

Treatment Considerations

Rehabilitation

Lumbar vertebrae

Sports/Activity Specific Injuries

Cause/Prevention

Treatment Considerations

Rehabilitation

Sacrum and coccygeal vertebrae

Sports/Activity Specific Injuries

Cause/Prevention

Treatment Considerations

Rehabilitation

## **Appendicular skeleton**

Scapula

Sports/Activity Specific Injuries

Cause/Prevention

Treatment Considerations

Rehabilitation

Glenohumeral Joint

Sports/Activity Specific Injuries

Cause/Prevention

Treatment Considerations

Rehabilitation

Humerus

Sports/activity Specific Injuries

Cause/Prevention

Treatment Considerations  
Rehabilitation

#### Scapula

Sports/Activity Specific Injuries  
Cause/Prevention  
Treatment Considerations  
Rehabilitation

#### Elbow

Sports/Activity Specific Injuries  
Cause/Prevention  
Treatment Considerations  
Rehabilitation

#### Radius/Ulna

Sports/Activity Specific Injuries  
Cause/Prevention  
Treatment Considerations  
Rehabilitation

#### Carpus

Sports/Activity Specific Injuries  
Cause/Prevention  
Treatment Considerations  
Rehabilitation

#### Metacarpal

Sports/Activity Specific Injuries  
Cause/Prevention  
Treatment Considerations  
Rehabilitation

#### Metacarpophalangeal

Sports/Activity Specific Injuries  
Cause/Prevention  
Treatment Considerations  
Rehabilitation

#### Phalangeal/Interphalangeal (Front and Rear)

Sports/Activity Specific Injuries  
Cause/Prevention  
Treatment Considerations  
Rehabilitation

#### Pelvis

Sports/Activity Specific Injuries  
Cause/Prevention  
Treatment Considerations  
Rehabilitation

#### Hip

Sports/Activity Specific Injuries  
Cause/Prevention  
Treatment Considerations  
Rehabilitation

#### Femur

Sports/Activity Specific Injuries  
Cause/Prevention  
Treatment Considerations  
Rehabilitation

#### Stifle

Sports/Activity Specific Injuries  
Cause/Prevention  
Treatment Considerations  
Rehabilitation

#### Tibia/Fibula

Sports/Activity Specific Injuries  
Cause/Prevention  
Treatment Considerations  
Rehabilitation

#### Tarsus

Sports/Activity Specific Injuries  
Cause/Prevention  
Treatment Considerations



Rehabilitation

Metatarsal

Sports/Activity Specific Injuries

Cause/Prevention

Treatment Considerations

Rehabilitation

Metatarsophalangeal

Sports/Activity Specific Injuries

Cause/Prevention

Treatment Considerations

Rehabilitation

### **Sports Medicine and Rehabilitation Related Topics**

Exercise and training

Pharmacology and withdrawal times

Therapeutic modalities

Competitive environments and surfaces