American Board of Physical Medicine and Rehabilitation

Brain Injury Medicine Examination Outline
Approximate Target Weights

Class I: Type of Problem/Organ System

A. Traumatic brain injury by severity (15%)
   1. Mild (concussion)
      a. Sports
      b. Nonsports
      c. Repetitive
   2. Moderate/severe
      a. Coma
      b. Minimally conscious
      c. Vegetative state (unresponsive wakefulness syndrome)
   3. Brain death

B. Traumatic brain injury by pattern (7%)
   1. Penetrating
   2. Nonpenetrating
      a. Focal
      b. Diffuse axonal injury
      c. Brainstem
   3. Blast injury

C. Other neurologic disorders (12%)
   1. Dual diagnosis – TBI and spinal cord injury
   2. Ischemia
   3. Hemorrhage
   4. Anoxia
   5. Infectious
   6. Autoimmune
   7. Endocrine/metabolic syndromes
   8. Tumor

D. Systemic manifestations (19%)
   1. Cardiovascular
      a. Cardiac disorders
      b. Vascular disorders/injury
      c. Hypertension/autonomic dysfunction
   2. Pulmonary
      a. Pneumonia
      b. Tracheostomy care
   3. GU/GI
      a. Bladder
      b. Bowel
      c. Sexuality/reproduction
   4. Soft tissue and orthopedic conditions
      a. Heterotopic ossification
      b. Fractures
      c. Soft tissue and nerve injuries
   5. Endocrine/metabolic/hormonal
   6. Nutrition issues

1. Neurological complications
   a. Spasticity
   b. Hydrocephalus
   c. Seizures
   d. Posture and balance disorders
   e. Movement disorders
   f. Gait disorders
   g. Dysphagia and aspiration
   h. Paralysis and weakness

2. Physical complications
   a. Contracture
   b. Pressure injuries
   c. Bed rest and deconditioning
   d. Fatigue

3. Cognitive and sensory dysfunction
   a. Executive function
   b. Speech and language
   c. Hearing impairment
   d. Anosmia
   e. Vestibular dysfunction
   f. Visual dysfunction
   g. Attention/memory/amnesia
   h. Agnosia
   i. Sleep disorders

4. Behavioral disorders
   a. Impulse control (inc sexuality, violence, aggression)
   b. Agitation/restlessness
   c. Lability
   d. Apathy

5. Psychiatric/psychological
   a. Mood disorders
   b. Substance abuse disorder
   c. Dementia or pseudodementia
   d. Posttraumatic stress disorder
   e. Other psych (inc suicide, personality disorders, anxiety)

6. Pain
   a. Headache
   b. Complex regional pain syndrome
   c. Myofascial pain

F. Basic science (7%)

E. Rehabilitation problems and outcomes (40%)
A. Patient evaluation and diagnosis (28%)
   1. Physical examination, signs, and symptoms
   2. Diagnosis and etiology
   3. Diagnostic procedures
      a. Gait analysis
      b. Lab studies
      c. Cerebrospinal fluid analysis
      d. Neuroimaging
      e. Musculoskeletal and other imaging
   4. Functional evaluation
      a. Assessment scales
      b. Outcome and functional scales
      c. Neuropsychological testing
   5. Electrodiagnosis
      a. Electroencephalogram
      b. Evoked potentials

B. Prognosis/risk factors (12%)
   1. Premorbid
   2. Injury-related
   3. Treatment-related (inc safety)

C. Patient management (50%)
   1. Clinical decision-making
   2. Therapeutic exercise
      a. Motor control
      b. Mobility and range of motion
      c. Strength and endurance
      d. Functional electrical stimulation
      e. Exercise/activity
   3. Pharmacologic interventions
      a. Analgesics
      b. Anticonvulsants
      c. Antispasticity agents (oral, IM)
      d. Antibiotics
      e. Sedatives/hypnotics
      f. Stimulants
      g. Antidepressants
      h. Antipsychotics
      i. Anxiolytics, mood stabilizers
      j. Cognitive enhancers
      k. Antifatigue agents
   4. Procedural/interventional
      a. Intracranial pressure monitoring
      b. Surgery
      c. Neuromodulation (inc intrathecal therapies and central/peripheral nervous system stimulation)

D. Applied science (10%)
   1. Anatomy
      a. Cortex
      b. Subcortical
      c. Brainstem/cranial nerves
      d. Cerebellum
      e. Peripheral nerves
   2. Physiology
   3. Pathology
   4. Kinesiology and biomechanics
   5. Genetics, biomarkers, and proteomics
   6. Epidemiology and public health/prevention
   7. Nutrition
   8. Research methods
   9. Growth, development, and aging

5. Equipment and assistive technology