

## Chapter 1. Clinical Decision Making

### Multiple Choice

- \_\_\_\_\_ 1. What is the **MOST** appropriate classification of patient impairments that are the result of inactivity and expanding multisystem dysfunction following a stroke?
- Direct impairments
  - Indirect impairments
  - Composite impairments
  - Comprehensive impairments
- \_\_\_\_\_ 2. Which one of the following statements **BEST** describes the difference between measurement and diagnosis?
- Measurement describes phenomena in terms that can be analyzed numerically, whereas diagnosis is the process that labels patients and classifies their illnesses, leading to the determination of prognoses.
  - Diagnosis describes phenomena in terms that can be analyzed numerically, whereas measurement is the process that labels patients and classifies their illnesses, leading to the determination of prognoses.
  - Diagnosis and measurement are part of the same process, and the terms can be used interchangeably.
  - Measurement requires the use of SOAP notes, whereas diagnosis is facilitated exclusively through the physical therapy guide.
- \_\_\_\_\_ 3. Which one of the following **BEST** describes the **FIRST** step that a physical therapist should take when integrating best evidence into clinical practice?
- Identify current best evidence on the most successful interventions for the patient's diagnosis.
  - Mine the available data and critically appraise the evidence for its validity, level of evidence, and applicability.
  - Integrate the best evidence into clinical decision making after discussing it with the patient.
  - Identify a clinically relevant question that is important for the patient.
- \_\_\_\_\_ 4. Which of the following questions is designed to assess capacity for functional activities and participation when interviewing a patient who suffered a stroke?
- How much of a problem do you have in walking long distances?
  - Is the problem of walking made worse or better by use of an assistive device?
  - How much difficulty do you have walking a quarter of a mile?
  - How much of a problem do you have going up and down stairs?
- \_\_\_\_\_ 5. Which one of the following disability standardized instruments is **MOST** specific for a patient recovering from a stroke?
- Functional Independence Measure
  - Fugl-Meyer Assessment of Physical Performance
  - Short Form-36
  - Berg Balance Scale

- \_\_\_\_\_ 6. If a clinical diagnostic test for patients with cervical radiculopathy is positive in 95% of patients who truly have the disease, but it is also positive in a large number of healthy individuals, what is this test most useful for?
- a. Ruling out cervical radiculopathy
  - b. Ruling in cervical radiculopathy
  - c. Neither ruling in nor ruling out cervical radiculopathy
  - d. Both ruling in and ruling out cervical radiculopathy

## Chapter 1. Clinical Decision Making

### Answer Section

#### MULTIPLE CHOICE

1. ANS: B  
Explanation: These impairments are best classified as indirect impairments because they result from inactivity and expanding multisystem dysfunction.  
  
PTS: 1 REF: From: Chapter 1 TOP: Content: Examination
2. ANS: A  
Explanation: Measurement describes phenomena in terms that can be analyzed numerically, whereas diagnosis is the process that labels patients and classifies their illnesses, leading to the determination of prognoses. The test-taker will need to know and understand the differences between the two concepts.  
  
PTS: 1 REF: From: Chapter 1 TOP: Content: Examination
3. ANS: D  
Explanation: The importance of starting with a clinically relevant question that integrates patient values is commonly overlooked, even though it is necessary for integrating best evidence into clinical practice.  
  
PTS: 1 REF: From: Chapter 1 TOP: Content: Examination
4. ANS: C  
Explanation: Asking whether the individual has difficulty walking a quarter of a mile is both specific to capacity and quantifiable.  
  
PTS: 1 REF: From: Chapter 1 TOP: Content: Examination
5. ANS: B  
Explanation: The test-taker needs to know that the Fugl-Meyer scale is specific to stroke, whereas the other instruments are used in a variety of diagnoses.  
  
PTS: 1 REF: From: Chapter 1 TOP: Content: Examination
6. ANS: A  
Explanation: The test-taker will need to understand the concepts of sensitivity and specificity and understand their clinical utility in this example. This test is highly sensitive but has low specificity; thus, it is more useful for ruling out the disease.  
  
PTS: 1 REF: From: Chapter 1 TOP: Content: Examination

## Chapter 2. Examination of Vital Signs

### Multiple Choice

*Identify the choice that best completes the statement or answers the question.*

- \_\_\_\_\_ 1. In which location of the cardiovascular system is the highest concentration of baroreceptors?
- a. The aorta and carotid veins
  - b. The aorta and supraclavicular arteries

- c. The aorta and carotid arteries
- d. The aorta and femoral arteries

- \_\_\_\_\_ 2. Which one of the following positions is recommended for obtaining consistent blood pressure measurements?
- a. Sitting with the arm in a horizontal, supported position at heart level
  - b. Supine position with arm resting comfortably on the chest
  - c. Sitting on the couch with arm resting comfortably by the side
  - d. Standing with arm by side and cuff positioned at heart level
- \_\_\_\_\_ 3. Which one of the following population groups should be consistently tested for underlying hypertension because of its higher incidence?
- a. Caucasians
  - b. African Americans
  - c. Asians
  - d. Males over the age of 64
- \_\_\_\_\_ 4. When are the Korotkoff's sounds audible while measuring blood pressure?
- a. Upon full inflation of the cuff
  - b. Upon placement of the stethoscope over the artery
  - c. Upon beginning to lower the pressure of the inflated cuff
  - d. During the diastolic phase of the reading
- \_\_\_\_\_ 5. A 67-year-old female smoker with a family history of high blood pressure and heart disease presents with acute onset neck pain, headache, and a blood pressure of 175/100 mm Hg. What should the physical therapist do **FIRST**?
- a. Refer the patient for assessment by a physician.
  - b. Assume that this is a "white coat" effect and continue with the usual examination.
  - c. Continue the examination but modify the order and extent of the tests.
  - d. Modify the examination to avoid manual therapy and offer simple exercises.
- \_\_\_\_\_ 6. Upon taking the popliteal blood pressure of a patient with unilateral distal limb pain, the physical therapist notes that the popliteal pulse is easily palpable (compared to the nonsymptomatic side) and that the blood pressure is 95/65 mm Hg (upper limb reading 145/90 mm Hg). Which one of the following pathologies should be ruled out before proceeding with the rest of the physical examination?
- a. Deep venous thrombosis
  - b. Restless leg syndrome
  - c. Popliteal aneurysm
  - d. Femoral artery occlusion

## Chapter 2. Examination of Vital Signs

### Answer Section

#### MULTIPLE CHOICE

1. ANS: C

Explanation: These receptors have a high concentration in the walls of the internal carotid arteries above the carotid bifurcation and in the walls of the arch of the aorta.

PTS: 1

REF: From: Chapter 2

TOP: Content: Examination

2. ANS: A

Explanation: Blood pressure may vary as much as 20 mm Hg by altering arm position. For consistency of measures, the patient should be sitting with the arm in a horizontal, supported position at heart level.

PTS: 1

REF: From: Chapter 2

TOP: Content: Blood Pressure

3. ANS: B

Explanation: African Americans are at greater risk for high blood pressure as compared to Caucasians. The rate of hypertension among this group is 44%, which is among the highest in the world. Between 45 and 64 years of age, the percentage of men and women is comparable; after that, a much higher percentage of women than men have high blood pressure.

PTS: 1

REF: From: Chapter 2

TOP: Content: Examination

4. ANS: C

Explanation: Initially, when pressure is applied through the cuff around the patient's arm, the blood flow is occluded and no sound is heard through the stethoscope. As the pressure is gradually released, a series of five phases of sounds can be identified. These sounds are present from the first systolic reading to the end-diastolic reading.

PTS: 1

REF: From: Chapter 2

TOP: Content: Examination

5. ANS: A

Explanation: This patient is at risk for a vascular event (i.e., stroke), based on the following: A larger percentage of females than males over the age of 64 are known to have hypertension. Heredity (parental history of high BP) also places the individual at greater risk. Globally, high systolic BP is seen in 51% of stroke victims and 45% of those with ischemic heart disease. Having a family history and being a smoker are also risk factors to consider in this decision-making process.

PTS: 1

REF: From: Chapter 2

TOP: Content: Evaluation, Differential Diagnosis, and Prognosis

6. ANS: C

Explanation: Popliteal aneurysm is the only one of the options consistent with the findings of easily palpable pulse and low lower extremity blood pressure

PTS: 1

REF: From: Chapter 2

TOP: Content: Evaluation, Differential Diagnosis, and Prognosis

## Chapter 3. Examination of Sensory Function

## Multiple Choice

Identify the choice that best completes the statement or answers the question.

- \_\_\_\_\_ 1. Which of the following **BEST** describes the appropriate application of algometry assessment as a tool in Quantitative Sensory Testing?
- A small rounded 1 cm<sup>2</sup> tip is used, which preferentially stimulates cutaneous receptors.
  - Applying the instrument repeatedly can sensitize the tested tissues; waiting 5 seconds between applications will prevent this issue.
  - Consistent rate of application is important for reliable measurements.
  - The direction of application to the target tissue has no effect on results.
- \_\_\_\_\_ 2. Which of the following statements about hyperalgesia is true?
- Hyperalgesia is defined as decreased pain sensitivity to an applied stimulus.
  - Spread of pain sensitivity that occurs outside the area of damaged tissue due to neurophysiological mechanisms is called secondary hyperalgesia.
  - Pressure pain threshold is a measure of how much pain an individual can tolerate during application of the algometer.
  - Nociception and hyperalgesia are equivalent terms.
- \_\_\_\_\_ 3. Which of the following statements about allodynia is true?
- It is measured by applying a cutaneous noxious stimulus.
  - It is defined as the experience of pain when a nonnoxious stimulus is applied.
  - Static cutaneous allodynia is measured by applying a light brushing stimulus on the skin.
  - It should not be tested with the application of a vibrating tuning fork.
- \_\_\_\_\_ 4. In a patient with low back pain that radiates to the knee, what areas of decreased mechanical detection indicate true radiculopathy?
- Dermatomal distribution
  - Nondermatomal distribution
  - Sclerotomal distribution
  - Myotomal distribution
- \_\_\_\_\_ 5. Which of the following statements regarding thermal quantitative sensory testing is true?
- Deficits in heat detection threshold are common and deficits in cold detection threshold are uncommon.
  - Altered thermal quantitative sensory testing may be associated with neuropathic pain conditions.
  - Heat pain threshold testing elicits a withdrawal response because alpha-delta fibers are stimulated.
  - Thermal deficits occur exclusively in the distribution of the affected nerve.
- \_\_\_\_\_ 6. Which of the following statements about joint proprioception is true?
- Deficits in joint reposition sense are correlated to deficits in threshold to detection of passive movement.
  - Both joint reposition sense and threshold to detection of passive movement are mediated in large part by the muscle spindle.

- c. While functional deficits and postural instability have been reported in individuals with knee osteoarthritis, joint proprioception is unaffected.
- d. Deficits in joint reposition sense following whiplash resolve as pain diminishes.

## Chapter 3. Examination of Sensory Function

### Answer Section

#### MULTIPLE CHOICE

1. ANS: C

Explanation: Algometry preferentially stimulates deep tissue receptors, not cutaneous receptors. The appropriate wait period between applications is 20 to 30 seconds, not 5 seconds. Different afferents are stimulated depending on the direction of application.

PTS: 1

REF: From: Chapter 3

TOP: Content: Examination

2. ANS: B

Explanation: Hypoalgesia is defined as decreased pain sensitivity to an applied stimulus. Pain tolerance is a measure of how much pain an individual can tolerate during application of the algometer. Nociception is the neural process of encoding noxious stimuli, whereas hyperalgesia is associated with increased pain from a stimulus that normally provokes pain (IASP taxonomy).

PTS: 1

REF: From: Chapter 3

TOP: Content: Examination

3. ANS: B

Applying a cutaneous noxious stimulus describes the measurement of pain. Applying a light brushing stimulus on the skin describes dynamic allodynia. Allodynia can be tested with a vibrating stimulus that is considered nonnoxious.

PTS: 1

REF: From: Chapter 3

TOP: Content: Evaluation

4. ANS: A

Explanation: True radiculopathy is consistent with symptoms in a dermatomal pattern. Nondermatomal distribution symptoms are consistent with pseudoradiculopathy. The other two options are not consistent with nerve root compression.

PTS: 1

REF: From: Chapter 3

TOP: Content: Evaluation

5. ANS: B

Explanation: There are reports associating thermal testing with neuropathic pain. Both heat and cold deficits have been reported. There is no evidence that heat testing elicits a withdrawal response. Thermal deficits can present in an extrasegmental pattern.

PTS: 1

REF: From: Chapter 3

TOP: Content: Evaluation

6. ANS: B

Explanation: The muscle spindle is responsible for proprioceptive detection. There is no good correlation between reposition sense and kinesthesia. Joint proprioception is affected in patients with knee osteoarthritis. Longitudinal studies of patients with whiplash report continuing proprioceptive deficits even after pain diminishes.

PTS: 1

REF: From: Chapter 3

TOP: Content: Evaluation

## Chapter 4. Musculoskeletal Examination

### Multiple Choice

*Identify the choice that best completes the statement or answers the question.*



- \_\_\_\_\_ 1. To assist the selection and application of examination and treatment procedures in the physical examination, what information is critical to gather **FIRST** during the patient interview?
- Impairments that are limiting the patient
  - Gender of the patient
  - Medical history of the patient
  - Functional limitations of the patient
- \_\_\_\_\_ 2. Which of the following statements gathered during history taking is characteristic of a chronic biomechanical etiology?
- "I fell off my bike and landed on my bottom."
  - "I started training for a marathon and started to hurt."
  - "I was in a motor vehicle accident recently."
  - "I was born with a curve in my spine."
- \_\_\_\_\_ 3. During the patient interview, the physical therapist notes the possibility of decreased mental ability. The patient seems to have difficulty understanding what is going on and looks around the rehabilitation gym when the physical therapist is trying to explain the exercises. Which of the following would improve the patient's ability to understand the instructions?
- Explain in detail the tissues that are the source of the patient's symptoms.
  - Sit to the side of the patient and explain the cause of the pain.
  - Explain the cause of pain in simple terms in a quiet room.
  - Stand above and face the patient while describing the source of the problems.
- \_\_\_\_\_ 4. During the physical examination, the patient reports pain and demonstrates 85 degrees of right shoulder abduction active range of motion compared to 170 degrees in the left shoulder. During passive range of motion testing, the therapist notes 170 degrees of pain-free right shoulder abduction. What tissue in the right shoulder is **MOST** likely responsible for the limitation in active range of motion?
- Glenohumeral joint capsule
  - Supraspinatus tendon
  - Infraspinatus tendon
  - Humeral deformity
- \_\_\_\_\_ 5. A patient with a diagnosis of ankle sprain that occurred 4 weeks ago demonstrates significant loss of range of motion, an absence of redness or warmth, and no significant swelling. In which stage of healing is the patient?
- Acute stage
  - Granulation stage
  - Subacute stage
  - Chronic stage
- \_\_\_\_\_ 6. What tissue is **MOST** likely implicated in a patient with limited passive and active shoulder abduction, firm end feel, 5/5 strength, no signs of instability, and limited inferior glide passive accessory mobility of the glenohumeral joint?
- Muscle
  - Tendon
  - Capsule

d. Ligament

- \_\_\_\_\_ 7. What arthrokinematic motion is occurring in the tibiofemoral joint during open chain knee flexion?
- a. Femoral condyles slide and roll anteriorly.
  - b. Femoral condyles slide anteriorly and roll posteriorly.
  - c. Tibial plateau slides and rolls posteriorly.
  - d. Tibial plateau slides posteriorly and rolls anteriorly.