

The purpose of this quiz is to provide a convenient means for osteopathic physicians to assess their understanding of the scientific content in the December 2012 issue of *JAOA—The Journal of the American Osteopathic Association*.

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Alternatively, osteopathic physicians can complete the quiz below and mail it to the following address by June 30, 2014:

American Osteopathic Association
Division of CME
142 E Ontario St
Chicago, IL 60611-2864
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AOA No. _____

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If you mail or fax this form to the Division of CME, the AOA will record the fact that you have submitted this form for Category 1-B CME credit.

For each of the questions below, place a checkmark in the box provided next to your answer so that you can easily verify your answers against the correct answers, which will be published in the January 2013 issue of the *JAOA*.

Establishing the Content Validity of Palpatory Examination for the Assessment of the Lumbar Spine Using Ultrasonography: A Pilot Study by K. Aaron Shaw, OMS IV; John J. Dougherty, DO; Kevin D. Treffer, DO; and Alan G. Glaros, PhD

1. Content validity is best defined as which of the following:

- (a) a reference standard that is used to compare results from one cohort to another
- (b) a measure that adequately assesses what it claims to by using the best-known reference standard
- (c) a result that exceeds the best-known reference standard

- (d) a score that confirms that the statistical analysis of the data has been completed correctly
- (e) a measure that represents the validation of the null hypothesis

2. Ultrasonography was shown to be a valid measuring tool for somatic dysfunction of the lumbar spine because of which of the following:

- (a) documentation of a change in the distance from the spinous process depths
- (b) Zink common compensatory pattern accounting for unilateral asymmetry
- (c) palpatory documentation of transverse process depths directly correlated with the ultrasonographic measurements

- (d) bias within palpation findings and numerical measurements are nonexistent
- (e) use of new ultrasonographic technology allows more precise measurements of asymmetry

Depression, Somatization, and Somatic Dysfunction in Patients With Nonspecific Chronic Low Back Pain: Results From the OSTEOPATHIC Trial

by John C. Licciardone, DO, MS, MBA; Robert J. Gatchel, PhD; Cathleen M. Kearns, BA; and Dennis E. Minotti, DO

3. Self-reported depression was most strongly correlated with which of the following among patients at baseline:

- (a) somatization
- (b) number of key osteopathic lesions
- (c) duration of chronic low back pain
- (d) severity of low back pain
- (e) general health

4. Which of the following was statistically significantly associated with the number of key osteopathic lesions among patients at baseline:

- (a) self-reported depression
- (b) Modified Zung Depression Index score
- (c) Modified Somatic Perception Questionnaire score
- (d) none of the above

5. The Modified Somatic Perception Questionnaire score best explained the overall variance in which of the following scores among patients at baseline:

- (a) visual analog scale score for low back pain
- (b) Roland-Morris Disability Questionnaire score for back-specific functioning
- (c) Medical Outcomes Study Short Form-36 Health Survey score for general health

Pharmacology of Kratom: An Emerging Botanical Agent With Analgesic, Opioid-Like, and Stimulant Effects by Walter C. Prozialeck, PhD, Jateen K. Jivan, BS, and Shridhar V. Andurkar, PhD

6. The primary active pharmaceutical constituents of kratom are analogs of which of the following:

- (a) mitragynine
- (b) ephedrine
- (c) acetylsalicylic acid
- (d) β -endorphin
- (e) atropine

7. Kratom products are most commonly taken by which of the following methods:

- (a) snorting
- (b) smoking
- (c) oral ingestion
- (d) intravenous injection

8. The analgesic effects of kratom primarily involve which of the following processes:

- (a) stimulation of benzodiazepine receptors
- (b) activation of μ -type opioid receptors
- (c) inhibition of monoamine oxidase
- (d) inhibition of lipoxygenase
- (e) blockade of sodium channels in nociceptors

9. Which of the following adverse effects of kratom have been reported:

- (a) central nervous system stimulation and tremor
- (b) sedation
- (c) constipation
- (d) physical dependence with chronic use
- (e) all of the above

International Health Electives: Strengthening Graduate Medical Education by Sidney Coupet, DO, MPH

10. What are the benefits of an International Health Elective (IHE) for physicians-in-training?

- (a) cultural humility
- (b) increased exposure to global burden of diseases
- (c) exposure to public health crisis
- (d) all of the above

11. What is the most important practice when participating in an IHE?

- (a) see as many patients as possible
- (b) capacity building
- (c) distribute medication
- (d) photograph patients and procedures

12. What is the most important step before participating in an IHE?

- (a) obtain immunizations
- (b) learn about the culture of the host nation
- (c) review all ethical issues
- (d) all of the above

Manipulation of the Coccyx With Anesthesia for the Management of Coccydynia by Scott S. Emerson, DO, and Arthur J. Speece III, DO

13. What percentage of people in Postacchini and Massobrio's study had a coccyx that curved in a forward direction?

- (a) 89%
- (b) 75%
- (c) 68%
- (d) 54%
- (e) 42%

14. Which sex tends to have a more posteriorly displaced coccyx?

- (a) men
- (b) women
- (c) no substantial difference

15. Which of the following activities can exacerbate pain in the coccyx:

- (a) prolonged sitting
- (b) moving to a standing position
- (c) defecation
- (d) sexual intercourse
- (e) all of the above

16. Which of the following treatment options are available for a patient suffering with coccydynia:

- (a) ice packs
- (b) cushions
- (c) acupuncture
- (d) gabapentin and nonsteroidal anti-inflammatory drugs
- (e) all of the above

Answers to November 2012 JAOA CME Quiz

Discussion answers to JAOA continuing medical education quizzes appear only when authors have included discussions with the quiz questions and answers they must provide to meet the requirement for submission to and publication in the JAOA.

Management of Primary Knee Osteoarthritis and Indications for Total Knee Arthroplasty for General Practitioners by Mike D. Van Manen, DO, James Nace, DO, and Michael A. Mont, MD

1. (a) The American Academy of Orthopaedic Surgeons assigned diet and exercise the highest evidence-based recommendation for the treatment of patients with osteoarthritis of the knee.

2. (d) Symptoms of persistent pain either at night or with weight-bearing activity that is refractory to conservative treatments are indications for total knee arthroplasty.

Bibliometric Measures and National Institutes of Health Funding at Colleges of Osteopathic Medicine, 2006-2010 by Richard R. Suminski, PhD, MPH; Dean Hendrix, MLIS; Linda E. May, PhD; Jason A. Wasserman, PhD; and V. James Guillory, DO, MPH

3. (a) The number of citations from peer-reviewed publications was a bibliometric measure that was significantly associated with the amount of National Institutes of Health funding obtained at colleges of osteopathic medicine.

CME QUIZ ANSWERS

Other significant measures included number of publications, citations per publications, and impact indices.

Self-Reported Physical Health, Mental Health, and Comorbid Diseases Among Women With Irritable Bowel Syndrome, Fibromyalgia, or Both Compared With Healthy Control Participants by Peter Przekop Jr, DO, PhD; Mark G. Haviland, PhD; Yan Zhao, MD, PhD; Keiji Oda, MPH; Kelly R. Morton, PhD; and Gary E. Fraser, MD, PhD

4. (d) Osteoarthritis is not considered a functional pain disorder.
5. (d) Rheumatoid arthritis does not increase substantially in frequency in control participants compared with patients with irritable bowel syndrome,

patients with fibromyalgia, and patients with irritable bowel syndrome plus fibromyalgia.

6. (d) Patients with comorbid fibromyalgia and irritable bowel syndrome have more psychiatric complaints, medical complaints, and more illness overall than those with either disease alone.
7. (c) Both fibromyalgia and irritable bowel syndrome are diagnosed by means of self report.

A Novel Approach to the Diagnosis of Stress-Induced Cardiomyopathy by CPT Jered Haynor, DO, MC, USA; LTC Christopher Colombo, MD, MC, USA; and LTC Sean Javaheri, DO, MC, USA

8. (d) A combination of ST-segment depression in lead aVR and the absence

of ST-segment elevation in lead V1 is both sensitive and specific for stress-induced cardiomyopathy.

9. (b) Approximately 2% to 3% of patients presenting with signs or symptoms of acute anterior wall myocardial infarction have an alternative diagnosis of stress-induced cardiomyopathy.
10. (e) Angiotensin-converting enzyme inhibitor, β -blocker, inotropic support, and anticoagulation treatments are indicated for stress-induced cardiomyopathy. ♦

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