

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

To apply for 2 Category 1-B continuing medical education (CME) credits, AOA members may take this quiz online at <http://www.osteopathic.org/quiz>, where this and other *JAOA* quizzes can be accessed. Quizzes that are completed online will be graded and credited to members' CME activity reports.

Alternatively, osteopathic physicians can complete the quiz below and mail it to the following address by May 31, 2014:

**American Osteopathic Association**  
**Division of CME**  
**142 E Ontario St**  
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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 December 2012 issue of 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 Mont, MD

1. The American Academy of Orthopaedic Surgeons assigned which of the following options the highest evidence-based recommendation for the treatment of patients with osteoarthritis of the knee:

- (a) diet and exercise
- (b) corticosteroid injections
- (c) glucosamine or chondroitin sulfate
- (d) nonsteroidal anti-inflammatory medications or acetaminophen

2. Which of the following is an indication for total knee arthroplasty:

- (a) failure of nonoperative treatment after 6 weeks
- (b) narrowed joint space on initial radiographs

- (c) history of osteoarthritis lasting more than 24 months, obesity, medial tibial osteophytes, medial joint space less than 5 mm, and smoking.

- (d) symptoms of persistent pain either at night or with weight-bearing activities that is refractory to conservative treatments.

**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. Which of the following bibliometric measures was significantly associated with obtaining National Institutes of Health funding at colleges of osteopathic medicine:

- (a) number of citations from peer-reviewed publications
- (b) number of manuscripts submitted to journals
- (c) number of grant proposals submitted to other funding agencies
- (d) faculty salaries

**Perceived Physical and Mental Health and Comorbid Diseases Among Women With Irritable Bowel Syndrome, Fibromyalgia, Neither, or Both** by Peter Przekop, DO, PhD; Mark G. Haviland, PhD; Yan Zhao, MD, PhD; Keiji Oda, MPH; Kelly R. Morton, PhD; Gary E. Fraser, MD, PhD

4. Which of the following is not considered a functional pain disorder:

- (a) irritable bowel syndrome
- (b) fibromyalgia
- (c) tension-type headache
- (d) osteoarthritis

5. Which of the following pain diagnoses 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:

- (a) degenerative arthritis
- (b) degenerative disk disease
- (c) sciatica or arthritic back
- (d) rheumatoid arthritis

6. Patients with comorbid fibromyalgia and irritable bowel syndrome have which of the following qualities:

- (a) more psychiatric complaints than those with either disease alone
- (b) more medical complaints than those with either disease alone
- (c) more illness overall than those with either disease alone
- (d) all of the above

7. Both fibromyalgia and irritable bowel syndrome are diagnosed by means of which of the following:

- (a) magnetic resonance imaging
- (b) blood tests
- (c) self report
- (d) muscle biopsy

(continued)

### 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. What combination of electrocardiography findings is both sensitive and specific for stress-induced cardiomyopathy?

- (a) ST-segment elevation in lead aVR and presence of ST-segment elevation in lead V<sub>1</sub>
- (b) ST-segment depression in lead aVR and presence of ST-segment elevation in lead V<sub>1</sub>
- (c) ST-segment elevation in lead aVR and absence of ST-segment elevation in lead V<sub>1</sub>
- (d) ST-segment depression in lead aVR and absence of ST-segment elevation in lead V<sub>1</sub>

9. What percentage of patients presenting with signs or symptoms of acute anterior wall myocardial infarction have an alternative diagnosis of stress-induced cardiomyopathy?

- (a) <1%
- (b) 2% to 3%
- (c) 5% to 10%
- (d) 10% to 20%
- (e) unknown

10. Which of the following treatments are potentially indicated for stress-induced cardiomyopathy?

- (a) angiotensin-converting enzyme inhibitor
- (b)  $\beta$ -blocker
- (c) inotropic support
- (d) anticoagulation
- (e) all of the above

### Answers to October 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*.

### C-Reactive Protein as a Predictor of Chorioamnionitis

by Erik J. Smith, DO; Corinna L. Muller, DO; Jennifer A. Sartorius, MS; David R. White, DO; and Arthur S. Maslow, MS, DO

1. (c) Studies evaluating the long-term outcomes in neonates born with intraamniotic infection have shown a relative risk of both cerebral palsy cystic periventricular leukomalacia.

2. (c) Although the rise in serial C-reactive protein values was observed before delivery, a larger study population size would be needed to demonstrate whether rising serial C-reactive protein levels could be used as a predictor of impending chorioamnionitis.

### Research Funding at Colleges of Osteopathic Medicine in the United States

by Richard R. Suminski, PhD, MPH; Linda E. May, PhD; and V. James Guillory, DO, MPH

3. (c) Colleges of osteopathic medicine (COMs) would be in a better position to obtain extramural funding for research if they spent more dollars on research. Statistical analysis (multiple linear regression) showed that the amount of dollars expended on research at COMs is a significant predictor of the total amount of dollars received by COMs for research in 2009.

4. (d) Building infrastructure at COMs that supports research will be necessary to enhance the procurement of extramural funding for osteopathic manipulative medicine and to address the growing use of complementary and alternative medicine therapies. Several studies—including the current study—provide evidence supporting the contention that the ability of an institution to secure extramural funding is predicated on its infrastructure that supports research, such as the existence of intramural grant programs, adequate start-up packages, and sufficient numbers of faculty to cover non-research-related responsibilities.

### The Role of Social Networking Web Sites in Influencing Residency Decisions

by Justin Schweitzer, DO; Alexander Hannan, OMS III; and Joshua Coren, DO

5. (c) Approximately 10% of respondents believed that the social network Web site presence of the residencies they have

applied to influenced their choice of graduate medical education (GME) program. 6. (d) The use of social networking Web sites for recruiting into GME is complicated because of differing structures and priorities of the most popular social networking Web sites, differences in popularity among existing social networking Web sites, and difficulties in making applicants aware of the social networking presence of GME programs.

7. (d) Graduate medical education programs can recruit successfully if they create a presence on multiple social networking Web sites, make a program's social networking presence known to applicants outside of social networks, and use one social networking Web site to advertise a program's presence on another one.

### Combined Manual Therapy Techniques for the Treatment of Women With Infertility: A Case Series

by Mary Ellen Kramp, DPT, CLT-LANA

8. (c) Worldwide, 15% of couples are infertile.

9. (b) Fifty-seven percent of fertile couples will conceive within a 3-month period.

### Carbon Monoxide Poisoning Secondary to Hookah Smoking

by John V. Ashurst, DO; Megan Urquhart, DO; and Matthew D. Cook, DO

10. (b) A college student presents to the emergency department with syncope following hookah smoking. During examination, he responds only to painful stimuli. The patient's carboxyhemoglobin level is 35%. The definitive treatment for this patient is hyperbaric oxygen therapy. The Undersea and Hyperbaric Medical Society recommends hyperbaric oxygen therapy for patients who are aged 36 years or older, were exposed to carbon monoxide for more than 24 hours, have a carboxyhemoglobin level greater than 25%, or are experiencing symptoms such as severe acidosis, cardiovascular dysfunction, or transient or prolonged unconsciousness.

11. (a) A 26-year-old man presenting with dizziness, headache, and shortness of breath after a hookah-smoking session would likely receive a diagnosis of carbon monoxide poisoning. Carbon monoxide is a cellular toxin that can cause tissue hypoxia. ♦