



THE JOURNAL *of the* AMERICAN OSTEOPATHIC ASSOCIATION

The purpose of this quiz is to provide a convenient means for osteopathic physicians to assess their understanding of the scientific content in the August 2013 issue of *The Journal of the American Osteopathic Association (JAOA)*.

To apply for 2 Category 1-B continuing medical education (CME) credits, AOA members may take this quiz online at <http://www.osteopathic.org/docmeonline>, 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 February 28, 2015:

American Osteopathic Association
Division of CME
142 E Ontario St
Chicago, IL 60611-2864
Fax: (312) 202-8202

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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. Osteopathic physicians who are not members of the AOA and who forward hard copies of completed JAOA quizzes to the Division of CME will be charged a fee of \$25 per quiz for staff time to grade the quiz, record the credits, and provide a letter to the osteopathic physician as documentation.

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 September 2013 issue of the JAOA.

Mathematical Analysis of the Flow of Hyaluronic Acid Around Fascia During Manual Therapy Motions

Max Roman, PhD; Hans Chaudhry, PhD; Bruce Bukiet, PhD; Antonio Stecco, MD; and Thomas W. Findley, MD, PhD

1. Which of the following manual therapy motions will result in the greatest amount of sliding between muscle and fascial layers:
- (a) constant sliding
 - (b) perpendicular vibration
 - (c) tangential oscillation
 - (d) all produce equal amount of lubrication
 - (e) none

Exercise During Pregnancy: The Role of Health Care Providers

Linda E. May, MS, PhD; Richard R. Suminski, PhD, MPH; Emily R. Linklater, DO; Sara Jahnke, PhD; and Alan G. Glaros, PhD

2. Which of the following characteristics of pregnant women was statistically significantly associated with the likelihood that they met the recommended levels of aerobic activity:
- (a) age
 - (b) ethnicity
 - (c) number of other behavior changes discussed with their health care providers
 - (d) being careful about eating healthy

3. Compared with health care providers who did not discuss exercise with their patients, health care providers who discussed exercise with their patients were significantly more likely to:
- (a) have more pregnant patients with private insurance
 - (b) have more pregnant patients with complications
 - (c) see fewer pregnant patients per month
 - (d) discuss fewer health behaviors with their pregnant patients

Caring for Patients With Chronic Pain: Pearls and Pitfalls

David J. Debono, MD; Laura J. Hoeksema, MD, MPH; and Raymond D. Hobbs, MD

4. From 1999 to 2008, more overdose deaths involved opioid analgesics than those from which of the following drugs:
- (a) heroin
 - (b) cocaine
 - (c) heroin and cocaine combined
 - (d) ecstasy
5. The 2011 Canadian guideline for the safe use of opioids in patients with chronic noncancer pain suggested that clinicians use a maximum threshold of which of the following oral morphine equivalent dosages:
- (a) 200 mg/d
 - (b) 400 mg/d
 - (c) 600 mg/d
 - (d) 800 mg/d
- ## Incorporating Simulation Technology Into a Neurology Clerkship
- David Matthew Ermak, DO; Douglas W. Bower, MD; Jody Wood, BS; Elizabeth H. Sinz, MD; and Milind J. Kothari, DO
6. Many forms of simulation-based medical education exist. Which of the following best describes a high-fidelity simulation:
- (a) standardized patients
 - (b) part-task training devices
 - (c) mannequins capable of displaying vital signs and life-like respirations

- (d) online interactive tutorials
- (e) shadowing a physician
7. In simulation-based medical education, high-fidelity mannequins can emulate many clinical signs except for which of the following:
- (a) palpable pulses
- (b) facial droop
- (c) visible respirations
- (d) pupillary reactivity
- (e) vital signs

Conservative Approach to Tardive Dyskinesia—Induced Neck and Upper Back Pain

Jeremy W. Reifsnyder, DC, OMS IV, and Melicien A. Tettambel, DO

8. Which of the following is the typical age range for the onset of schizophrenia:
- (a) 5 to 14 years
- (b) 15 to 35 years
- (c) 36 to 45 years
- (d) 46 to 60 years
9. Which of the following is a potential adverse effect of "typical" antipsychotics such as haloperidol:
- (a) cough
- (b) hysteria
- (c) tardive dyskinesia
- (d) diarrhea
10. Which of the following osteopathic manipulative treatment techniques were used to relieve neck and upper back pain in a patient with tardive dyskinesia:
- (a) high-velocity, low-amplitude
- (b) counterstrain and muscle energy
- (c) soft tissue and high-velocity, low-amplitude
- (d) counterstrain and balanced ligamentous tension

Answers to July 2013 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.

The Short-Term Effect of a Lymphatic Pump Protocol on Blood Cell Counts in Nursing Home Residents With Limited Mobility: A Pilot Study

Donald R. Noll, DO

1. (c) The results of the exploratory pilot study suggest that an increase in serum platelet counts is most likely to be observed.

Effects of Concurrent Low Back Conditions on Depression Outcomes

Kurt B. Angstman, MD; Shalu Bansal, MD; Daniel H. Chappell, DO; F. Andrew Bock, DO; and Norman H. Rasmussen, EdD

2. (e) Regression modeling for clinical remission or persistent depressive symptoms 6 months after enrollment (with controlling for age, sex, marital status, race, and clinical site) demonstrated that low back conditions were not an independent factor for clinical remission at 6 months ($P = .24$) but were associated with persistent depressive symptoms (odds ratio, 1.559; 95% confidence interval, 1.065-2.282; $P = .02$). Prior studies have demonstrated the impact of depression severity, anxiety, and abnormal Mood Disorder Questionnaire score on clinical outcomes of depression.

Training Mothers in Infant Cardiopulmonary Resuscitation With an Instructional DVD and Manikin

Gavin C. Barr Jr, MD; Valerie A. Rupp, MSN, CRNP; Kimberly M. Hamilton, BA; Charles C. Worriow, MD; James F. Reed III, PhD; Kristin S. Friel, MD; Stephen W. Duszka, DrPH; and Marna Rayl Greenberg, DO, MPH

3. (c) The majority of the mothers reported they had not been offered infant

cardiopulmonary resuscitation training during their pregnancy or current hospital stay (prevalence ranging from 8% to 12% for both study groups).

Recent Advances in the Management of Hereditary Angioedema

Stephen E. Hemperly, DO; Niti Sardana Agarwal, MD; Ying-Yang Xu, MS; Yu-Xiang Zhi, MD; and Timothy J. Craig, DO

4. (d) Icatibant is approved by the US Food and Drug Administration for subcutaneous self-administration in the management of acute hereditary angioedema attacks in patients aged 18 years or older. Icatibant, a bradykinin receptor antagonism, is a potent selective competitive antagonist of the bradykinin B_2 receptor. It is a synthetic decapeptide that is structurally similar to bradykinin.

A Research Primer: Basic Guidelines for the Novice Researcher

Grace D. Brannan, PhD; Jane Z. Dumsha, PhD; and Davis P. Yens, PhD

5. (d) The function of an institutional review board is to protect medical records, to protect personal and identifiable information related to human subjects, and to evaluate a study's risks and benefits to participants.

Osteopathic Manipulative Treatment for Facial Numbness and Pain After Whiplash Injury

Josephine Sun Genese, DO, MS

6. (c) Typically, the thoracic spine should be treated before the cervical spine is treated.