



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 July 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 January 31, 2015:

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

AOA No. _____

Full name _____

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 August 2013 issue of 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. An elderly bedbound nursing home resident receives a lymphatic pump protocol treatment consisting of myofascial release to the thoracic inlet, splenic pump, and pedal pump. The results of the exploratory pilot study suggest that which of the following effects is most likely to be observed:

- (a) an increase in serum white blood cell counts
- (b) a decrease in serum white blood cell counts
- (c) an increase in serum platelet counts

- (d) a decrease in serum platelet counts
- (e) an increase in absolute lymphocyte cell counts

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. The odds of a patient having persistent depression symptoms 6 months after enrollment into collaborative care management are increased by which of the following:

- (a) increased initial depression severity
- (b) an abnormal score on the Mood Disorder Questionnaire
- (c) severe anxiety symptoms at enrollment

- (d) low back pain within 3 months of the depression diagnosis
- (e) all of the above

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. Dusza, DrPH; and Marna Rayl Greenberg, DO, MPH

3. Which of the following statements is false:

- (a) Training in infant cardiopulmonary resuscitation (CPR) is important for new parents and should be offered as part of prenatal or perinatal care.
- (b) Using a kit with a 22-minute instructional DVD and infant manikin is an effective and convenient way to teach new mothers infant CPR.
- (c) The majority of mothers in this study reported being offered CPR training either during their pregnancy or during their current hospital stay.
- (d) Mothers believe that learning CPR is extremely important and increases their confidence.

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. Which of the following medications is approved by the US Food and Drug Administration for subcutaneous self-administration in the management of acute attacks of hereditary angioedema:

- (a) Rhucin (recombinant human C1 INH)
- (b) Cinryze (nanofiltered C1 INH)
- (c) Berinert or Ceter (nanofiltered C1 INH)
- (d) Icatibant (kinin modulator)

(continued)

Answers to June 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.

A Research Primer: Basic Guidelines for the Novice Researcher

Grace D. Brannan, PhD; Jane Z.

Dumsha, PhD; and Davis P. Yens, PhD

5. What is the function of an institutional review board?

- (a) to protect medical records
- (b) to protect personal and identifiable information related to human subjects
- (c) to evaluate a study's risks and benefits to participants
- (d) all of the above

Osteopathic Manipulative Treatment for Facial Numbness and Pain After Whiplash Injury

Josephine Sun Genese, DO, MS

6. Which of the following body areas should typically be treated before the cervical spine is treated:

- (a) sacrum
- (b) lumbar spine
- (c) thoracic spine
- (d) cranium

Osteopathic Evaluation of Somatic Dysfunction and Craniosacral Strain Pattern Among Preterm and Term Newborns

by Gianfranco Pizzolorusso, DO [Italy]; Francesco Cerritelli, DO [Italy], MS, MPH; Marianna D'Orazio, DO [Italy]; Vincenzo Cozzolino, MD, DO [Italy]; Patrizia Turi, DO [Italy]; Gina Barlafante, DO [Italy], MD; and Carmine D'Incecco, MD

1. (c) The middle thoracic spinal segment demonstrated the highest numbers of somatic dysfunction.

Osteopathic Manual Treatment in Patients With Diabetes Mellitus and Comorbid Chronic Low Back Pain: Subgroup Results From the OSTEOPATHIC Trial

by John C. Licciardone, DO, MS, MBA; Cathleen M. Kearns, BA; Lisa M. Hodge, PhD; Dennis E. Minotti, DO

2. (b) The 2×2 factorial design of the OSTEOPATHIC Health Outcomes In Chronic Low Back Pain (OSTEOPATHIC) Trial was used to test the effects of osteopathic manual treatment and ultrasound therapy in patients with chronic low back pain.
3. (a) The *P* value for reduction in low back pain severity with osteopathic manual treatment was statistically significant (*P* = .04), and the corresponding effect size (Cohen *d* = 0.7) was considered to be clinically relevant.
4. (d) The effect size for the reduction in tumor necrosis factor- α serum concentration during 12 weeks when osteopathic manual treatment was provided was Cohen *d* = 2.7, which is classified as a large effect according to the Cochrane Back Review Group guidelines.

An International Health Elective in Haiti: A Case for Osteopathic Medicine

by Sidney Coupet, DO, MPH, MSc; Joel D. Howell, MD, PhD; and Barbara Ross-Lee, DO

5. (c) The fact that osteopathic physicians are able to provide osteopathic manipulative treatment makes them potential key players in the delivery of quality health care in Haiti. The laying of the hands (high touch) approach of osteopathic physicians is similar to the approach of Haiti's traditional ethnomedical practitioners, particularly the *doctes zo*, or bonesetters. By using osteopathic manipulative treatment, osteopathic physicians can earn the trust of Haitians and increase Haitians' willingness to work with a westernized medical practitioner.

A Challenging Case of Hypercalcemia

by Patricia M. Luceri, DO, and Louis C. Haenel IV, DO

6. (b) Markers of osteoblastic activity, and therefore bone formation, include osteocalcin, alkaline phosphatase, and increased uptake of bone-scanning agents. Markers of osteoclastic activity, and therefore osteolysis, include urinary hydroxyproline, deoxypyridinoline, and pyridinoline cross-links.
7. (d) Sarcoidosis and tuberculosis, as well as lymphoma, have been shown to produce 1- α hydroxylase. This enzyme is responsible for the conversion of 25-hydroxyvitamin D to its active form, 1,25 dihydroxyvitamin D. Activated vitamin D increases gastrointestinal absorption of calcium, leading to hypercalcemia.