JAOA CME QUIZ

The purpose of this quiz is to provide a convenient means for osteopathic physicians to assess their understanding of the scientific content in the September 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 March 31, 2014:

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.

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 October 2012 issue of the *JAOA*.

Associations of Cytokine Concentrations With Key Osteopathic Lesions and Clinical Outcomes in Patients With Nonspecific Chronic Low Back Pain: Results From the OSTEOPATHIC Trial by John C. Licciardone, DO, MS, MBA; Cathleen M. Kearns, BA; Lisa M. Hodge, PhD; and Michael V.W. Bergamini, PhD

1. Which of the following pairs of cytokine concentrations was most strongly correlated at baseline among patients in the OSTEOPATHIC Trial:

☐ (a) interleukin-1β/interleukin-6
☐ (b) interleukin-6/interleukin-8
☐ (c) interleukin-8/interleukin-10
☐ (d) interleukin-10/tumor necrosis factor-α
☐ (e) tumor necrosis factor-α/interleukin-1β

2. Which of the following cytokine concentrations was most strongly correlated with the number of key osteopathic lesions at baseline among patients in the OSTEOPATHIC Trial:

☐ (a) interleukin-1β
☐ (b) interleukin-6
☐ (c) interleukin-8
☐ (d) interleukin-10
☐ (e) tumor necrosis factor-α

3. Which of the following cytokine concentrations was most strongly correlated with low back pain severity at baseline among patients in the OSTEOPATHIC Trial:

☐ (a) interleukin-1β
☐ (b) interleukin-6
☐ (c) interleukin-8
☐ (d) interleukin-10
☐ (e) tumor necrosis factor-α

4. In the OSTEOPATHIC Trial, patients in the osteopathic manual treatment (OMT) group and patients in the sham OMT group differed significantly after 12 weeks with regard to serum concentration change in which of the following:

☐ (a) interleukin-1β
☐ (b) interleukin-6
☐ (c) interleukin-8
☐ (d) interleukin-10
☐ (e) tumor necrosis factor-α

Precompetition Osteopathic Manipulative Treatment and Performance Among Virginia Tech Athletes During 2 Consecutive Football Seasons: A Preliminary, Retrospective Report by Per Gunnar Brolinson, DO; Michael Smolka, DO; Mark Rogers, DO, MA; Suporn Sukpraprut, PhD, MA, MSc; Michael W. Goforth, MS, ATC; Greg Tilley, DC; and Keith P. Doolan, MS, ATC

5. Athletes may seek precompetition manipulative treatment for which of the following reasons:

☐ (a) It improves heat tolerance.
☐ (b) It enhances adenosine triphosphate production.
☐ (c) It controls pain.
☐ (d) It enhances glycogen utilization.

6. Precompetition manipulation may enhance musculoskeletal function by...

☐ (a) enhancing mitochondrial function.
☐ (b) warming up soft tissue and optimizing joint function.
☐ (c) enhancing cellular glucose uptake.
☐ (d) enhancing motor end plate function.

The Biology of Manual Therapies by Brian C. Clark, PhD; James S. Thomas, PT, PhD; Stevan A. Walkowski, DO; and John N. Howell, PhD

7. Muscle spindles relay sensory information about which of the following:

☐ (a) length of a muscle
☐ (b) tension being displaced through a tendon
☐ (c) change in length of a muscle
☐ (d) change in tension being displaced through a tendon
☐ (e) both a and c

8. Excitation in γ-efferent fibers...

☐ (a) is transmitted across synapses located in the dorsal root ganglia to second order afferent.
☐ (b) increases the sensitivity of the muscle spindle to stretch.
☐ (c) occurs in response to isometric muscle contraction.
☐ (d) provides information to the central nervous system about the length of muscles.
☐ (e) excites α-motoneurons innervating to the Golgi tendon organ.

Answers to August 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*.

Preventative Osteopathic Manipulative Treatment and the Elderly Nursing Home Resident: A Pilot Study by Karen T. Snider, MS, DO; Eric J. Snider, DO; Jane C. Johnson, MA; Celia Hagan, RN, BSN, CCRC; and Conrad Schoenwald, DO

1. **(b)** The use of adjunctive osteopathic manipulative treatment as part of the inpatient care of elderly patients with pneumonia has shown to decrease total intravenous antibiotic usage.
2. **(d)** Less than 2% of residents are independent on all of their activities of daily living.
3. **(b)** Osteopathic manipulative treatment used as part of a regular treatment plan for elderly nursing home residents resulted in decreased total medication usage.

Validation of the Triage Algorithm for Psychiatric Screening (TAPS) for Patients With Psychiatric Chief Complaints by Andrew C. Miller, DO; Steven P. Frei, MD; Valerie A. Rupp, RN, BSN; Brian S. Joho, RN; Kerry M. Miller, RN; and William F. Bond, MD

4. **(d)** The key feature of the Triage Algorithm for Psychiatric Screening (TAPS) psychiatric chief complaint tool is that it provides a way to screen for the absence of concomitant medical conditions.
5. **(d)** The TAPS tool may curb increased use of clinical resources such as laboratory testing, clinical staff time, and acute care beds.
6. **(a)** The "medical clearance examination" requires a physician to identify emergency medical conditions suggested by presenting signs and symptoms.
7. **(b)** The biggest potential advantage of the TAPS tool is that it makes triage of psychiatric patients more efficient and cost effective.

Frequency of Specific Osteopathic Manipulative Treatment Modalities Used by Candidates While Taking COMLEX-USA Level 2-PE by Erik E. Langenau, DO; Dennis J. Dowling, MA, DO; Caitlin Dyer, MA; and William L. Roberts, EdD

8. **(e)** The most frequently used osteopathic manipulative treatment (OMT) technique on the Comprehensive Osteopathic Licensing Examination-USA Level 2-Performance Evaluation (COMLEX-USA Level 2-PE) for the 2010-2011 testing cycle overall was myofascial/soft tissue.
9. **(d)** The most frequently used OMT technique on COMLEX-USA Level 2-PE for the 2010-2011 testing cycle for respiratory presentation was sinus drainage.
10. **(a)** High-velocity, low-amplitude/articulatory thrust techniques are prohibited from use on the COMLEX-USA Level 2-PE because individual standardized patients may be treated multiple times by several candidates with a thrust technique to the same segment during a single testing session.

Psoas Syndrome: A Frequently Missed Diagnosis by Andrea Tufo, OMS IV; Guatam J. Desai, DO; and W. Joshua Cox, DO

11. **(a)** For a 45-year-old man with low back pain with a diagnosis of right psoas syndrome, the best patient position for performing the muscle energy technique is prone with the osteopathic physician standing on the right side of the table, lifting the patient's right leg, and asking the patient to push with a downward force.
12. **(c)** The lesser trochanter is the final insertion point for the psoas major muscle. The psoas major muscle originates on the T12-L4 vertebral bodies and the L1-L5 transverse processes. It then joins with the iliacus muscle (forming the iliopsoas), which continues over the superior ramus of the pubic bone to have its final insertion on the lesser trochanter. ♦