



## 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 May 2015 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 <https://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 November 30, 2016:

American Osteopathic Association

Division of CME

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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 June 2015 issue of the JAOA.

### Variations in the Diagnosis and Treatment of Somatic Dysfunction Between

#### 4 Osteopathic Residency Programs

Gregory A. Hon, DO; Karen T. Snider, DO;  
and Jane C. Johnson, MA

1. During outpatient clinical encounters for spinal pain, residents from which of the following residency programs documented the most non-somatic dysfunction assessments:

- (a) family practice/osteopathic manipulative treatment
- (b) integrated family practice/neuromusculoskeletal medicine
- (c) integrated internal medicine/neuromusculoskeletal medicine
- (d) neuromusculoskeletal medicine/osteopathic manipulative medicine

2. Which of the following osteopathic manipulative treatment techniques was most commonly used by the residents:

- (a) articulatory
- (b) balanced ligamentous tension
- (c) counterstrain
- (d) high-velocity, low-amplitude
- (e) muscle energy

### Lymphatic Pump Treatment as an Adjunct to Antibiotics for Pneumonia in a Rat Model

Lisa M. Hodge, PhD; Caitlin Creasy, MS; KiahRae Carter, MS; Ashley Orłowski, BS; Artur Schander, DO; and Hollis H. King, DO, PhD

3. How many applications of lymphatic pump treatment were shown to be effective when combined with levofloxacin to reduce pulmonary *Streptococcus pneumoniae*?

- (a) 1
- (b) 2
- (c) 3
- (d) 4
- (e) 5

4. At 96 hours after infection with *S pneumoniae*, how many of the 8 rats treated with the combination of levofloxacin and lymphatic pump treatment were cured?

- (a) 8
- (b) 2
- (c) 3
- (d) 4
- (e) 5

5. Lymphatic pump treatment may protect against pneumonia by which of the following mechanisms:

- (a) removing bacteria from the lung
- (b) enhancing the effect of levofloxacin
- (c) increasing leukocytosis
- (d) a and b only
- (e) all of the above

### Research Dissemination: Guiding the Novice Researcher on the Publication Path

Karen A. Collins, MPA; Grace D. Brannan, PhD;  
and Godwin Y. Dogbey, PhD

6. Do quality improvement projects need institutional review board approval?

- (a) No. Quality improvement project results are for internal purposes only.
- (b) Yes. All quality improvement projects involve human subjects.
- (c) It depends. If the results of quality improvement projects are going to be disseminated outside the institution, then institutional review board approval is required.

7. Which of the following statements about the impact factor is true:

- (a) It is the sole measure of the quality of a journal.
- (b) It reflects the number of times a journal's articles have been cited during a given period.
- (c) It is the only consideration when selecting a target journal.

### **Pulmonary Lymphangitic Carcinomatosis From Metastatic Gastric**

#### **Adenocarcinoma: Case Report**

Arsineh Khachekian, DO; Sean Shargh, DO; and Sarkis Arabian, DO

8. Diagnosis of pulmonary lymphangitic carcinomatosis requires which of the following:

- (a) high-resolution computed tomography of the chest
- (b) transbronchial or open-lung biopsy
- (c) clinical suspicion
- (d) testing for tumor markers

9. Which of the following pathophysiologic processes has been postulated to be associated with pulmonary lymphangitic carcinomatosis:

- (a) involvement of vascular endothelial growth factor C (VEGF-C) in promoting the lymphatic spread of the tumor
- (b) downregulation of endothelial proliferation and tissue factor by VEGF-C
- (c) inhibition of 5-hydroxytryptamine release from the granules of platelets
- (d) hematologic spread of the tumor and ultimate transfer to the lymphatic system

10. Pulmonary lymphangitic carcinomatosis is most commonly associated with which of the following cancers:

- (a) pancreas
- (b) lung
- (c) gastric
- (d) breast
- (e) prostate

### **Spontaneous Pneumomediastinum in a Pediatric Patient After a 1600-m Run: Case Report and Literature Review**

CPT Zachary C. Booms, DO, and MAJ George A. Barbee, PA-C

11. What percentage of patients with spontaneous pneumomediastinum have a concomitant pneumothorax?

- (a) 0%
- (b) up to 30%
- (c) 50% or more
- (d) 60%

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