

## Continuing Medical Education

You now have an opportunity to earn CME credits by reading articles in *The American Journal of Psychiatry*. Three articles in this issue each comprise a short course for up to 1 hour category 1 CME credit each. The course consists of reading the article and answering three multiple-choice questions with a single correct answer. CME credit is issued only online. Readers who want credit must subscribe to the AJP Continuing Medical Education Course Program ([cme.psychiatryonline.org](http://cme.psychiatryonline.org)), select *The American Journal of Psychiatry* at that site, take the course(s) of their choosing, complete the evaluation form, and submit their answers for CME credit. There is no minimum threshold score necessary for the credit. A link from the question to the correct answer in context will be highlighted in the associated article. A certificate for each course will be generated upon successful completion. This activity is sponsored by the American Psychiatric Association.

### Information for Participants

**Objectives:** After evaluating a specific journal article, participants should be able to demonstrate an increase in their knowledge of clinical medicine. Participants should be able to understand the contents of a selected research or review article and to apply the new findings to their clinical practice.

**Participants:** This program is designed for all psychiatrists in clinical practice, residents in Graduate Medical Education programs, medical students interested in psychiatry, and other physicians who wish to advance their current knowledge of clinical medicine.

**Explanation of How Physicians Can Participate and Earn Credit:** In order to earn CME credit, subscribers should read through the material presented in the article. After reading the article, complete the CME quiz online at [cme.psychiatryonline.org](http://cme.psychiatryonline.org) and submit your evaluation and study hours (up to 1 AMA PRA Category 1 Credit™).

**Credits:** The American Psychiatric Association designates this educational activity for a maximum of 1 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity. The American Psychiatric Association is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

### Information on Courses

**Title:** Sudden Death and Use of Stimulant Medications in Youths

**Faculty:** Madelyn S. Gould, Ph.D., M.P.H., B. Timothy Walsh, M.D., Jimmie Lou Munfakh, B.A., Marjorie Kleinman, M.S., Naihua Duan, Ph.D., Mark Olfson, M.D., M.P.H., Laurence Greenhill, M.D., Thomas Cooper, M.A.

**Affiliations:** Division of Clinical Therapeutics (T.W.), Division of Biostatistics and Data Coordination (N.D.), and Division of Clinical and Genetic Epidemiology (M.O.), New York State Psychiatric Institute, New York; the Department of Psychiatry (T.W., N.D., M.O.) and Division of Child and Adolescent Psychiatry (M.S.G., J.L.M., M.K., L.G.), Columbia University College of Physicians & Surgeons, New York; the Department of Epidemiology (M.S.G.) and Department of Biostatistics (N.D.), Columbia University School of Public Health, New York; and the Analytical Psychopharmacology Laboratory, Nathan Kline Institute, Orangeburg, N.Y. (T.C.)

**Disclosures:** Dr. Walsh has received research support from AstraZeneca. Dr. Duan has received research support from Pfizer. Dr. Olfson has received research funding from Eli Lilly and AstraZeneca and has worked as a consultant for AstraZeneca and Pfizer and as a speaker for Janssen. Dr. Greenhill has received research support from Johnson & Johnson, Otsuka, and Forest. The remaining authors report no competing interests.

**Discussion of unapproved or investigational use of products\*:** No

**Title:** Association of Substance Use Disorders With Childhood Trauma but not African Genetic Heritage in an African American Cohort

**Faculty:** Francesca Ducci, M.D., Ph.D., Alec Roy, M.D., Pei-Hong Shen, M.S., Qiaoping Yuan, Ph.D., Nicole P. Yuan, Ph.D., Colin A. Hodgkinson, Ph.D., Lynn R. Goldman, M.D., M.P.H., David Goldman, M.D.

**Affiliation:** Laboratory of Neurogenetics, National Institute on Alcohol Abuse and Alcoholism, Bethesda, Md. (P.-H.S., Q.Y., C.A.H., D.G.); the Social, Genetic, and Developmental Psychiatry Centre, Division of Psychological Medicine, Institute of Psychiatry (F.D.); the Psychiatry Service, Department of Veterans Affairs, New Jersey VA Health Care System, East Orange (A.R.); the Mel and Enid Zuckerman College of Public Health, University of Arizona, Tucson (N.P.Y.); and the Department of Environmental Health Sciences, Johns Hopkins Bloomberg School of Public Health, Baltimore (L.G.).

**Disclosures:** All authors report no competing interests.

**Discussion of unapproved or investigational use of products\*:** No

**Title:** The Cognitive Cost of Anticholinergic Burden: Decreased Response to Cognitive Training in Schizophrenia

**Faculty:** Sophia Vinogradov, M.D., Melissa Fisher, Ph.D., Heather Warm, B.A., Christine Holland, B.A., Margaret A. Kirshner, B.A., Bruce G. Pollock, M.D., Ph.D.

**Affiliations:** Department of Psychiatry, Langley Porter Psychiatric Institute, University of California, San Francisco (S.V., M.F.); Mental Health Service, San Francisco Veterans Affairs Medical Center (S.V., M.F., H.W., C.H.); Geriatric Psychopharmacology Laboratory, Department of Psychiatry, University of Pittsburgh School of Medicine, Pittsburgh (M.A.K., B.G.P.); Geriatric Mental Health Program, Centre for Addiction and Mental Health, Toronto (B.G.P.); Department of Psychiatry, University of Toronto (B.G.P.); Rotman Research Institute, Toronto (B.G.P.).

**Disclosures:** Dr. Pollock has received research support from NIH, has been a member of speakers bureaus and advisory boards of Lundbeck and Forest Laboratories, has been a faculty member of the Lundbeck Institute, and has served as a consultant to Takeda and Wyeth. All other authors report no competing interests.

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\* American Psychiatric Association policy requires disclosure by CME authors of unapproved or investigational use of products discussed in CME programs. Off-label use of medications by individual physicians is permitted and common. Decisions about off-label use can be guided by scientific literature and clinical experience.

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**Estimated Time to Complete: 1 Hour**

Begin date September 1, 2009 – End date August 31, 2011

## EXAMINATION QUESTIONS

Select the single best answer for each question below.

### Sudden Death and Use of Stimulant Medications in Youths

Madelyn S. Gould et al.

Am J Psychiatry 2009; 166:992–1001

**QUESTION 1.** Which of the following best characterizes the results of this study?

- A. Stimulant treatment may potentially increase the risk of sudden death in youth
- B. Gross structural cardiac abnormalities increase the risk of sudden death in youth
- C. Pediatric stroke and myocardial infarction are particularly associated with stimulant treatment
- D. All of the above

**QUESTION 2.** Which of the following best describes why young people who died as passengers in motor vehicle traffic accidents were selected as controls for this study?

- A. Passenger deaths are not at increased risk of hyperactivity or inattention and are likely to be representative of the general population of young people
- B. A comparison group of deceased youngsters was necessary to avoid differential recall biases
- C. Parents of both sudden unexplained death and motor vehicle accident victims had experienced a sudden, traumatic loss of their children.
- D. All of the above

**QUESTION 3.** What are the estimates for rates of sudden death in children and adolescents per year?

- A. Between 0.5 and 1 percent
- B. Less than 0.1 per 100,000
- C. Between 0.8 and 8.5 per 100,000
- D. None of the above

## EVALUATION QUESTIONS

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This evaluation will appear online at the end of each CME course. Participants must complete this evaluation in order to receive credit. Select the response which best indicates your reaction to the following statements about this activity.

**STATEMENT 1.** The activity achieved its stated objectives.

- 1. Strongly agree
- 2. Agree
- 3. Neutral
- 4. Disagree
- 5. Strongly disagree

**STATEMENT 2.** The activity was relevant to my practice.

- 1. Strongly agree
- 2. Agree
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**STATEMENT 3.** I plan to change my current practice based on what I learned in the activity.

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**STATEMENT 4.** The activity validated my current practice.

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**STATEMENT 5.** The activity provided sufficient scientific evidence to support the content presented.

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**STATEMENT 6.** The activity was free of commercial bias toward a particular product or company.

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#### Association of Substance Use Disorders With Childhood Trauma but not African Genetic Heritage in an African American Cohort

Francesca Ducci et al.

Am J Psychiatry 2009; 166:1031–1040

**QUESTION 1.** What is the main advantage of measuring ethnicity using ancestry informative markers as compared to self-identified ethnicity?

- A. It does not correlate with environmental factors
- B. It is a continuous measure that can capture gradations of genetic ancestry
- C. All of the above
- D. None of the above

**QUESTION 2.** Which is the proportion of genetic differences between individuals that is explained by inter-population differences?

- A. 5%-7%
- B. 80-90%
- C. 50%
- D. 0

**QUESTION 3.** Which of the following are possible mechanisms that maintain the correlation between genetically measured ancestry and environmental factors within societies?

- A. Assortative mating
- B. Gene flow
- C. All of the above
- D. None of the above

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Sophia Vinogradov et al.

Am J Psychiatry 2009; 166:1055–1062

**QUESTION 1.** Serum anticholinergic activity is thought to reflect the cumulative muscarinic anticholinergic effect of all exogenous substances the person has taken and their metabolites. In this study it was quantified in which of the following ways?

- A. competitive radioreceptor binding assay
- B. cumulative estimation based on complete pharmacy history
- C. measurement of patient tolerance to acute administration of physostigmine
- D. all of the above

**QUESTION 2.** In examining the relation of anticholinergic effects to baseline neurocognitive performance, anticholinergic activity showed a significant negative correlation with performance in which of the following domains at study entry?

- A. visual learning
- B. verbal working memory
- C. speed of processing
- D. problem solving

**QUESTION 3.** When the effects of anticholinergic activity on response to cognitive training were examined, which of the following findings was observed among the auditory training participants?

- A. anticholinergic activity was positively correlated with improvement in global cognition
- B. there was no relationship between anticholinergic activity and response to cognitive training
- C. anticholinergic activity was negatively correlated with improvement in global cognition
- D. none of the above

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