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 *AMA PRA Category 1 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), 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. 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 to 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 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 Credit*™. 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: Blood Pressure and Heart Rate Over 10 Years in the Multimodal Treatment Study of Children with ADHD

Faculty: Benedetto Vitiello, M.D., Glen R. Elliott, M.D., Ph.D., James M. Swanson, Ph.D., L. Eugene Arnold, M.D., Lily Hechtman, M.D., Howard Abikoff, Ph.D., Brooke S.G. Molina, Ph.D., Karen Wells, Ph.D., Timothy Wigal, Ph.D., Peter S. Jensen, M.D., Laurence L. Greenhill, M.D., Jonathan R. Kaltman, M.D., Joanne B. Severe, M.S., Carol Odbert, B.S., Kwan Hur, Ph.D., Robert Gibbons, Ph.D.

Affiliations: From NIMH, Bethesda, Md. (B.V., J.B.S., C.O.); Psychiatry Department, Children's Health Council, Palo Alto, Calif. (G.R.E.); Child Development Center, University of California, Irvine (J.M.S., T.W.); Department of Psychiatry, Ohio State University, Columbus (L.E.A.); Department of Psychiatry, McGill University, Montreal L.H.); Department of Child and Adolescent Psychiatry, New York University (H.A.); Department of Psychiatry, University of Pittsburgh, Pittsburgh (B.S.G.M.); Family Studies Clinic, Duke University Medical Center, Durham, N.C. (K.W.); REACH Institute, New York (P.S.J.); Research Unit of Pediatric Psychopharmacology, Columbia University and New York State Psychiatric Institute, New York (L.L.G.); Division of Cardiovascular Sciences, National Heart, Lung, and Blood Institute, Bethesda, Md. (J.R.K.); Center for Health Statistics, University of Illinois at Chicago (K.H.); and Center for Health Statistics, University of Chicago (R.G.).

Disclosures: Dr. Elliott has received investigator-initiated research support from BioMarin Pharmaceuticals. Dr. Swanson has received research support from Alza, Celgene, Cephalon, ICB, McNeil, Novartis, and Shire. Dr. Arnold has received research funding or consulting, advisory, or speaking fees from AstraZeneca, CureMark, Lilly, Neuropharm, Novartis, Organon, Shire, and Targacept. Dr. Hechtman has received research support or advisory or speaking fees from Eli Lilly, GlaxoSmithKline, Ortho-Janssen, Purdue, and Shire. Dr. Abikoff has received research funding or consulting or speaking fees from Bristol-Myers-Squibb, Celltech, Cephalon, Eli Lilly, McNeil, Novartis, Pfizer, and Shire. Dr. Wells receives royalty income from Multi-Health Systems and conducts workshop training in psychosocial treatments for the REACH Institute and the State of New York. Dr. Wigal has received research support or consulting or speaking fees from Addernex, Eli Lilly, McNeil, Otsuka, Shionogi, and Shire. Dr. Jensen has received advisory board or speaking fees from Janssen-Ortho and Shire. Dr. Greenhill has received research support from Johnson & Johnson, Rhodes Pharmaceutical, and Shire. The other authors report no financial relationships with commercial interests.

Discussion of unapproved or investigational use of products*: No

Title: Methylphenidate and Risk of Serious Cardiovascular Events in Adults

Faculty: Hedi Schelleman, Ph.D., Warren B. Bilker, Ph.D., Stephen E. Kimmel, M.D., M.S.C.E., Gregory W. Daniel, R.Ph., Ph.D., Craig Newcomb, M.S., James P. Guevara, M.D., M.P.H., Mark J. Cziraky, Pharm.D., C.L.S., Brian L. Strom, M.D., M.P.H., Sean Hennessy, Pharm.D., Ph.D.

Affiliations: From the Center for Clinical Epidemiology and Biostatistics, the Department of Biostatistics and Epidemiology, and the Department of Medicine, Perelman School of Medicine at the University of Pennsylvania, Philadelphia (H.S., W.B.B., S.E.K., C.N., J.P.G., B.L.S., S.H.); HealthCore, Inc., Wilmington, Del. (G.W.D., M.J.C.); and Policy Lab: Center to Bridge Research, Practice, and Policy, Children's Hospital of Philadelphia (J.P.G.).

Disclosures: All authors received salary support from Shire through their employer. Dr. Schelleman has had travel to scientific conferences paid for by University of Pennsylvania's pharmacoepidemiology training program through funds contributed by Abbott, Amgen, Hoffman LaRoche, Novartis, Pfizer, Sanofi Pasteur, and Wyeth. Dr. Bilker has consulted for Johnson & Johnson. Dr. Kimmel has received grant funding or consulting fees from the Aetna Foundation, AstraZeneca, Bristol-Myers Squibb, Centocor, Johnson & Johnson, Novartis, Merck, and Pfizer. Drs. Daniel and Cziraky are employed by HealthCore, Inc., which conducts research for and receives funding from pharmaceutical manufacturers for research services. Dr. Strom has received research support from or consulted for Abbott, Amgen, AstraZeneca, BMS, Boehringer Ingelheim, GlaxoSmithKline, Novartis, NPS Pharma, Nuvo Research, Orexigen, Pfizer, Shire, Takeda, Teva, and Vivus and has received contributions to University of Pennsylvania's pharmacoepidemiology training program from Abbott, Amgen, Hoffman, LaRoche, Novartis, Pfizer, Sanofi Pasteur, and Wyeth. Dr. Hennessy has received grant funding from Abbott and has consulted for Abbott and Teva.

Discussion of unapproved or investigational use of products*: No

Title: Attention Bias Modification Treatment for Pediatric Anxiety Disorders: A Randomized Controlled Trial **Faculty:** Sharon Eldar, Ph.D., Alan Apter, M.D., Daniel Lotan, M.A., Koraly Perez Edgar, Ph.D., Reut Naim, M.A., Nathan A. Fox, Ph.D., Daniel S. Pine, M.D., Yair Bar-Haim, Ph.D. **Affiliations:** From the Adler Center for Research in Child Development and Psychopathology, Departments of Psychology, Tel Aviv University, Tel Aviv, Israel (S.E., K.P.E., R.N., N.A.F., D.S.P., Y.B-H.), with cooperation of the Feinberg Child Study Center, Schneider Children's Medical Center of Israel, Petach-Tikva, Israel (A.A., D.L.). **Disclosures:** The authors report no financial relationships with commercial interests. **Discussion of unapproved or investigational use of products*:** No

* APA 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.

Continuing Medical Education

Exams are available online only at psychiatryonline.org/cme.aspx

INFORMATION TO 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 psychiatryonline.org/cme.aspx 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 Credit*™. 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.

Estimated Time to Complete: 1 Hour

Begin date February 1, 2012 – End date January 31, 2014

EXAMINATION QUESTIONS

Select the single best answer for each question below.

Blood Pressure and Heart Rate Over 10 Years in the Multimodal Treatment Study of Children with ADHD

Benedetto Vitiello, M.D., et al. • Am J Psychiatry 2012; 169:167–177

Learning Objective. The participant will be able to understand the long-term cardiovascular effects of stimulant medications used for the treatment of children with ADHD.

1. Which statement best reflects the long-term effects of stimulant treatment on blood pressure in youths as suggested by the intent-to-treat analysis in this study?

A. Stimulants significantly increase both systolic and diastolic blood pressure.
B. Stimulants do not appear to increase systolic or diastolic blood pressure.
C. Stimulants appear to increase systolic but not diastolic blood pressure.
D. Stimulants significantly decrease both systolic and diastolic blood pressure.

2. How did the prevalence of prehypertension or hypertension differ among youth after 10 years of observation following the initial controlled treatment trial?

A. Prehypertension was higher only among youth currently on a stimulant
B. Both prehypertension and hypertension were lower for those never on a stimulant
C. Hypertension was most prevalent for youth previously but not currently on a stimulant
D. The prevalence of prehypertension and hypertension did not differ by treatment status.

3. With respect to heart rate, which of the following was observed in this study?

A. Stimulant treatment increased heart rate and the effect continued with chronic treatment.
B. Stimulants increased heart rate but complete tolerance to the effect developed by 8 years.
C. Tachycardia was most prevalent in the group treated with the highest dose of stimulants.
D. Heart rate increased in all the subjects over time irrespective of treatment.

EVALUATION QUESTIONS

This evaluation form is adapted from the MedBiquitous Journal-Based Continuing Education Guidelines 28 November 2005. 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
3. Neutral
4. Disagree
5. Strongly disagree

STATEMENT 3. I plan to change my current practice based on what I learned in the activity.
1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

STATEMENT 4. The activity validated my current practice.
1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

STATEMENT 5. The activity provided sufficient scientific evidence to support the content presented.
1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

STATEMENT 6. The activity was free of commercial bias toward a particular product or company.
1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

Continuing Medical Education

Exams are available online only at psychiatryonline.org/cme.aspx

INFORMATION TO 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 psychiatryonline.org/cme.aspx 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 Credit™*. 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.

Estimated Time to Complete: 1 Hour

Begin date February 1, 2012 – End date January 31, 2014

EXAMINATION QUESTIONS

Select the single best answer for each question below.

Methylphenidate and Risk of Serious Cardiovascular Events in Adults

Hedi Schelleman, Ph.D., et al.

Am J Psychiatry 2012; 169:178–185

Learning Objective. The participant will recognize the potential adverse events associated with the use of stimulant medications in adults.

1. Which of the following have led to regulatory concerns about the cardiovascular safety of ADHD medications?

A. Biological effects of increased blood pressure and heart rate
B. Case reports of sudden death, stroke, and myocardial infarction
C. Biological effects plus case reports of sudden death, stroke, and myocardial infarction
D. None of the above; there are no regulatory concerns about ADHD medications

2. For which of the following outcomes was the risk increased during exposure to methylphenidate?

A. Myocardial infarction
B. Stroke
C. Sudden death / ventricular arrhythmia
D. Sudden death / ventricular arrhythmia, and all-cause death

3. Which of the following reasons could potentially explain the inverse dose-response relationship and the rates of stroke, myocardial infarction, and all-cause death?

A. Lower dosages are prescribed to the frailest patients.
B. The elderly patients were less likely to take the prescribed medication.
C. Those taking lower dosages were more likely to participate in the study.
D. None of the above

EVALUATION QUESTIONS

This evaluation form is adapted from the MedBiquitous Journal-Based Continuing Education Guidelines 28 November 2005. 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
3. Neutral
4. Disagree
5. Strongly disagree

STATEMENT 3. I plan to change my current practice based on what I learned in the activity.
1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

STATEMENT 4. The activity validated my current practice.
1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

STATEMENT 5. The activity provided sufficient scientific evidence to support the content presented.
1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

STATEMENT 6. The activity was free of commercial bias toward a particular product or company.
1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

Continuing Medical Education

Exams are available online only at psychiatryonline.org/cme.aspx

INFORMATION TO 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 psychiatryonline.org/cme.aspx 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 Credit*™. 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.

Estimated Time to Complete: 1 Hour

Begin date February 1, 2012 – End date January 31, 2014

EXAMINATION QUESTIONS

Select the single best answer for each question below.

Attention Bias Modification Treatment for Pediatric Anxiety Disorders: A Randomized Controlled Trial

Sharon Eldar, Ph.D., et al.

Am J Psychiatry 2012; 169:213–220

Learning Objective. The learner will be exposed to a novel treatment for anxiety disorders using a computerized program that aids in reducing attention to anxiety-provoking stimuli.

1. How does the treatment effect size of attention bias modification (ABM) compare with those observed in randomized controlled trials with anxious adults such as cognitive-behavioral therapy (CBT) and selective serotonin reuptake inhibitors (SSRIs)?

A. Lower than other treatments such as CBT and SSRIs
B. Higher than CBT and SSRIs
C. Comparable to other treatments such as CBT and SSRIs
D. Lower than CBT but higher than SSRIs

2. This study added a neutral-neutral training condition to test whether change in attention bias from different training conditions may influence the treatment outcome. What previous findings prompted this addition?

A. Adult studies found no significant difference between the ABM and placebo training.
B. Some reductions in anxiety were noted during placebo training in adult ABM studies.
C. Pediatric studies require a control condition only with neutral faces.
D. Training with neutral stimuli has previously been shown to reduce anxiety in children.

3. Anxiety-reducing effects of ABM could arise from increases in general attentional control regardless of emotional valence. How can future studies test this issue?

A. Use nonaffective stimuli (e.g., geometric forms) in larger ABM trials
B. Test ABM in trials with attention deficit hyperactivity disorder patients
C. Use mixed stimuli of words and faces in each ABM trial
D. General attentional control cannot be examined in isolation in patients with anxiety.

EVALUATION QUESTIONS

This evaluation form is adapted from the MedBiquitous Journal-Based Continuing Education Guidelines 28 November 2005. 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
3. Neutral
4. Disagree
5. Strongly disagree

STATEMENT 3. I plan to change my current practice based on what I learned in the activity.
1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

STATEMENT 4. The activity validated my current practice.
1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

STATEMENT 5. The activity provided sufficient scientific evidence to support the content presented.
1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

STATEMENT 6. The activity was free of commercial bias toward a particular product or company.
1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree