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. 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 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: How the Neurocircuitry and Genetics of Fear Inhibition May Inform Our Understanding of PTSD
Faculty: Tanja Jovanovic, Ph.D., Kerry J. Ressler, M.D., Ph.D.
Affiliations: Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine, Atlanta (T.J., K.J.R.); the Howard Hughes Medical Institute, Chevy Chase, Md. (K.J.R.); the Yerkes Primate Research Center, Atlanta (K.J.R.); and the Center for Behavioral Neuroscience, Atlanta (T.J., K.J.R.).
Disclosures: Dr. Ressler has received awards and/or funding support from the Burroughs Wellcome Foundation, NARSAD, NIMH, the National Institute on Drug Abuse, and Lundbeck, was a co-founder of SyneuRX/Therapade, and has a patent pending with Extinction Pharmaceuticals for D-cycloserine-based therapeutics. Dr. Jovanovic reports no financial relationships with commercial interests.
Discussion of unapproved or investigational use of products*: Yes

Title: International Consensus Study of Antipsychotic Dosing
Faculty: David M. Gardner, Pharm.D., M.Sc., Andrea L. Murphy, Pharm.D., Heather O'Donnell, B.Sc. Pharm., Franca Centorrino, M.D., Ross J. Baldessarini, M.D.
Affiliation: Department of Psychiatry (D.M.G., A.L.M.), College of Pharmacy (D.M.G., H.O.), and School of Nursing (A.L.M.), Dalhousie University, Halifax, Nova Scotia; Department of Psychiatry, Harvard Medical School and International Bipolar & Psychotic Disorders Research Consortium, McLean Division of Massachusetts General Hospital, Boston (F.C., R.J.B.).
Disclosures: Dr. Gardner has provided training to employees of AstraZeneca; has participated in advisory boards with Eli Lilly, Janssen-Ortho, and Pfizer Corporations; and leads a project funded by Pfizer. He is not a member of any speakers bureaus. Dr. Centorrino was an advisor to Janssen and was a member of speakers bureaus for AstraZeneca, Bristol-Myers Squibb, Eli Lilly, Janssen, Johnson & Johnson, and Pfizer Corporations until December 2009. Dr. Baldessarini has recently been a consultant or investigator-initiated research collaborator with AstraZeneca, Auritec, Biotrofix, Janssen, JDS-Noven, Lilly, Luitpold, NeuroHealing, Novartis, Pfizer, and SK-BioPharmaceutical Corporations; he is not a member of pharmaceutical speakers bureaus. Dr. Murphy and Ms. O'Donnell report no financial relationships with commercial interests. None of the authors or their immediate family members holds equity positions in biomedical or pharmaceutical corporations.
Discussion of unapproved or investigational use of products*: Yes

Title: Reward/Punishment Reversal Learning in Older Suicide Attempters
Faculty: Alexandre Y. Dombrovski, M.D., Luke Clark, D.Phil., Greg J. Siegle, Ph.D., Meryl A. Butters, Ph.D., Naho Ichikawa, M.S., Barbara J. Sahakian, Ph.D., Katalin Szanto, M.D.
Affiliations: Western Psychiatric Institute and Clinic and the Department of Psychiatry, University of Pittsburgh School of Medicine (A.Y.D., G.J.S., M.A.B., N.I., K.S.); the Departments of Psychiatry (B.S.) and Experimental Psychology (L.C.) and the Behavioural and Clinical Neuroscience Institute (L.C., B.S.), University of Cambridge, England; and the Department of Psychology, University of Nagoya, Japan (N.I.).
Disclosures: Dr. Clark has served as a consultant to Cambridge Cognition. Dr. Butters has served as a consultant to Medtronic. Dr. Sahakian has served as a consultant to Boehringer-Ingelheim, Cambridge Cognition, GlaxoSmithKline, Eli Lilly, Novartis, and Shire. The other authors report no financial relationships with commercial interests.
Discussion of unapproved or investigational use of products*: No

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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 June 1, 2010 – End date May 31, 2012

EXAMINATION QUESTIONS

Select the single best answer for each question below.

How the Neurocircuitry and Genetics of Fear Inhibition May Inform Our Understanding of PTSD
Tanja Jovanovic and Kerry J. Ressler
Am J Psychiatry 2010; 167:648-662

QUESTION 1. Which amygdala nucleus regulates many aspects of the fear response, including the release of cortisol?

A. central nucleus
B. basolateral nucleus
C. intercalated nucleus
D. bed nucleus of the stria terminalis

QUESTION 2. Which of the following neurotransmitters may be altered differentially in the acquisition of fear versus extinction?

A. dopamine
B. 5-hydroxytryptamine
C. acetylcholine
D. γ-aminobutyric acid

QUESTION 3. Which of the following represents the action of D-cycloserine?

A. NMDA antagonist
B. beta-adrenergic antagonist
C. partial NMDA agonist
D. γ-aminobutyric acid agonist

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
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4. Disagree
5. Strongly disagree

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

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

1. Strongly agree
2. Agree
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Exams are available online only at cme.psychiatryonline.org

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Begin date June 1, 2010 – End date May 31, 2012

EXAMINATION QUESTIONS

Select the single best answer for each question below.

International Consensus Study of Antipsychotic Dosing
David M. Gardner et al.
Am J Psychiatry 2010; 167:686-693

QUESTION 1. The survey in this study inquired about treatment of psychotic disorders in terms of clinically equivalent antipsychotic doses, dosing recommendations, and which of the following?

A. Dosing changes for specific defined factors
B. Recommendations for duration of treatment
C. Suggestions for concomitant antidepressant use
D. Drug holiday guidelines

QUESTION 2. Which of the following did NOT affect dosing recommendations?

A. Asian (vs. Caucasian)
B. First episode (<6 months treatment)
C. Age group of the patient
D. Comorbid anxiety or substance use.

QUESTION 3. According to the results of this study, which of the following factors merits the greatest adjustment in dose compared to the reference case?

A. Obesity
B. Female
C. Adolescent
D. Hospital treatment setting

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EXAMINATION QUESTIONS

Select the single best answer for each question below.

Reward/Punishment Reversal Learning in Older Suicide Attempters
Alexandre Y. Dombrovski et al.
Am J Psychiatry 2010; 167:699-707

QUESTION 1. Suicide attempters differed from the comparison groups in this study in which of the following ways?

A. Impaired acquisition on the probabilistic reversal learning task
B. Impaired forward planning and spatial working memory
C. Impaired reward/punishment-based learning evidenced by probabilistic switch errors
D. Increased visuo-spatial construction deficits

QUESTION 2. Perseverative responses to a probabilistic reversal learning task resulting from a mental representation of the environment that is overly static in time is an example of:

A. slow reinforcement learning
B. impaired acquisition
C. unstable reinforcement learning
D. all of the above

QUESTION 3. Which of the following best describes the cognitive deficit described by this study in association with suicide attempters?

A. Unstable decision-making with discounting of reinforcement history.
B. Lower global cognitive function resulting in poor executive function
C. Poor decision-making with disregard of most recent reward/punishment
D. Poor planning due to impaired working memory

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