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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: In Vivo Evidence for Low Striatal Vesicular Monoamine Transporter 2 (VMAT2) Availability in Cocaine Abusers
Faculty: Rajesh Narendran, M.D., Brian J. Lopresti, B.S., Diana Martinez, M.D., Neale Scott Mason, Ph.D., Michael Himes, B.S., Maureen A. May, B.S., Dennis C. Daley, Ph.D., Julie C. Price, Ph.D., Chester A. Mathis, Ph.D., W. Gordon Frankle, M.D.
Affiliations: From the Departments of Radiology and Psychiatry, University of Pittsburgh (D.M.); and the Department of Psychiatry, Columbia University Medical Center, New York (R.N., B.J.L., N.S.M., M.H., M.A.M., D.C.D., J.C.P., C.A.M., W.G.F.).
Disclosures: Dr. Narendran's research group at the University of Pittsburgh has contractual research agreements with Sunovion and GlaxoSmithKline. Dr. Daley receives grant support from NIH/NIDA for research, receives royalties for written materials for professionals and individuals in recovery from several publishers (Oxford University Press; Hazelden Educational Materials; Daley Publications, and Independence Press), and receives royalties from Distance Learning for an online course based on his work. Dr. Mathis reports royalties from a license agreement between the University of Pittsburgh and GE Healthcare for amyloid imaging technology not related to this work; he has been a consultant for Elan, GE Healthcare, IBA, Janssen, and Wyeth/Pfizer. Dr. Frankle has been a consultant for Ono and Sunovion. The remaining authors report no financial relationships with commercial interests.
Discussion of unapproved or investigational use of products*: No

Title: Risk of Death From Accidental Overdose Associated with Psychiatric and Substance Use Disorders
Faculty: Amy S.B. Bohnert, Ph.D., Mark A. Ilgen, Ph.D., Rosalinda V. Ignacio, M.S., John F. McCarthy, Ph.D., Marcia Valenstein, M.D., Frederic C. Blow, Ph.D.
Affiliations: From the Serious Mental Illness Treatment Resource and Evaluation Center, Center for Clinical Management Research, Health Services Research and Development, VA, Ann Arbor, Mich. (M.A.I., R.V.I., J.F.M., F.C.B.); and the Department of Psychiatry, University of Michigan, Ann Arbor (A.S.B.B., M.V.).
Disclosures: Dr. Blow has received research support or consulting fees from JBS International, Flinn Family Foundation, and Hazelden Foundation. The other authors report no financial relationships with commercial interests.
Discussion of unapproved or investigational use of products*: No

Title: Religiosity and Major Depression in Adults at High Risk: A Ten-Year Prospective Study
Faculty: Lisa Miller, Ph.D., Priya Wickramaratne, Ph.D., Marc J. Gameroff, Ph.D., Mia Sage, M.A., Craig E. Tenke, Ph.D., Myrna M. Weissman, Ph.D.
Affiliations: From the Clinical Psychology Program, Teachers College, Columbia University, New York (L.M., M.S.); the Mailman School of Public Health, Columbia University (P.W., M.M.W.); the Division of Epidemiology, New York State Psychiatric Institute, New York (P.W., M.J.G., C.E.T.); and the Department of Psychiatry, College of Physicians and Surgeons, Columbia University (L.M., P.W., M.J.G., C.E.T., M.M.W.).
Disclosures: Dr. Miller has received funding from the Templeton Foundation, the Klingenstein Fund, and the Pritchard Foundation and received payment from Oxford University Press. Dr. Weissman has received funding from NIMH, the National Institute on Drug Abuse (NIDA), NARSAD, the Sackler Foundation, the Templeton Foundation, and the Interstitial Cystitis Association and receives royalties from Oxford University Press, Perseus Books, American Psychiatric Association Press, and MultiHealth Systems.
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.

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Estimated Time to Complete: 1 Hour

Begin date January 1, 2012 – End date December 31, 2013

EXAMINATION QUESTIONS

Select the single best answer for each question below.

In Vivo Evidence for Low Striatal Vesicular Monoamine Transporter 2 (VMAT2) Availability in Cocaine Abusers

Rajesh Narendran, M.D., et al.
Am J Psychiatry 2012; 169:55–63

Learning Objective. The participant will identify mechanisms by which chronic cocaine abuse affects the brain.

1. In this study, which of the following mechanisms are discussed as the possible cause for the lower VMAT2 availability in cocaine abusers?

A. Compensatory down-regulation and a loss of dopaminergic terminals
B. Vesicular depletion and "sensitization"
C. Compensatory up-regulation and vesicular depletion
D. Loss of dopaminergic terminals and "sensitization"

2. VMAT2 was the marker of dopaminergic terminals chosen to be investigated in cocaine abusers for this study. Which of the following sentences concerning the choice of using VMAT2 is *true*?

A. VMAT2 is specific to dopamine and serotonin transport only.
B. VMAT2 is active at postsynaptic dopamine receptors.
C. VMAT2 in the striatum largely represents storage vesicles in the dopaminergic terminals.
D. Postmortem studies consistently show elevated VMAT2 density in the striatum of cocaine abusers

3. Which functional subdivision of the striatum displayed the greatest group difference between cocaine abusers and their matched comparison subjects?

A. Limbic
B. Associative
C. Sensorimotor
D. Ventral

EVALUATION QUESTIONS

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

STATEMENT 6. The activity was free of commercial bias toward a particular product or company.
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Risk of Death From Accidental Overdose Associated with Psychiatric and Substance Use Disorders

Amy S.B. Bohnert, Ph.D., et al.

Am J Psychiatry 2012; 169:64–70

Learning Objective. The participant will be able to evaluate the risk of unintentional overdose mortality associated with specific psychiatric disorders.

1. Among the following psychiatric disorder(s), which had the greatest hazard ratio for accidental overdose mortality (all substances included), unadjusted for patient characteristics?

A. Bipolar disorders
B. Major depressive disorder
C. Opioid use disorders
D. Alcohol use disorders

2. Of the 4,485 accidental overdose deaths in this study, the most frequent type of overdose was which of the following?

A. Medication-related
B. Alcohol-related
C. Illegal drug-related
D. Both medication and alcohol-related

3. Which disorders have a stronger association with risk of medication-related overdoses than with alcohol/illegal drug related overdoses?

A. Alcohol use disorders
B. Depressive disorders and non-PTSD anxiety disorders
C. Schizophrenia and bipolar disorder
D. Cannabis and stimulant use disorders

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Religiosity and Major Depression in Adults at High Risk: A Ten-Year Prospective Study

Lisa Miller, Ph.D., et al.

Am J Psychiatry 2012; 169:89–94

Learning Objective. The participant will learn about the role of religious/spiritual beliefs in families at high risk for major depression.

1. Participants were categorized as high risk for depression based on the presence of parental depression. How did the rates of depression differ between the high- and low-risk groups?

A. Lifetime and study period rates of depression were twice as great in the high-risk group.
B. The lifetime rate was twice as great in the high-risk group, but study period rates did not differ.
C. Lifetime and study period rates were three times greater in the high-risk group.
D. Lifetime rate and study period rates were higher in the high-risk group, but not significantly.

2. Which of the following religiosity variables at the year 10 assessment was associated with the lowest odds ratio for major depressive disorder at the year 20 assessment?

A. Belief in the importance of religion/spirituality
B. Frequency of church attendance
C. Catholic denomination
D. Exposure to spiritually integrated psychotherapy

3. Among the offspring in this study who had a previous episode of depression, greater personal importance of religion was associated with a significantly lower *recurrence* of depression in which of the following groups?

A. Those at low risk based on absence of parental depression
B. Those at high risk based on presence of parental depression
C. Both high- and low-risk groups showed reduced recurrence of depression.
D. Neither high- nor low-risk groups showed a reduced recurrence of depression.

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