Stahl’s Self-Assessment Examination in Psychiatry
Multiple Choice Questions for Clinicians

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INTRODUCTION/PREFACE

Joining the Essential Psychopharmacology series is another new idea – namely, a book of questions. As many readers know, Essential Psychopharmacology started in 1996 as a textbook (currently in its third edition) on how psychotropic drugs work and then expanded to a companion Prescriber’s Guide in 2005 (currently in its fourth edition) on how to prescribe psychotropic drugs. In 2008, a website was added (stahlonline.org) with both of these books available online in combination with several more, including an Illustrated series of several books covering specialty topics in psychopharmacology. In 2011 a case book was added, called Case Studies: Stahl's Essential Psychopharmacology that shows how to apply the concepts presented in these previous books to real patients in a clinical practice setting. Now comes a comprehensive set of questions and answers that we call Stahl’s Self-Assessment Examination (SAE) in Psychiatry: Designed to be integrated into the suite of our mental health/psychopharmacology books and products in the manner that I will explain here.

Why a question book?

Classically, test questions are used to measure learning, and the questions in this new book can certainly be used in this traditional manner, both by teachers and by students, and especially in combination with the companion textbook in this suite of educational products, Stahl’s Essential Psychopharmacology. That is, teachers may wish to test student learning following their lectures on these topics by utilizing these questions and answers as part of a final examination. Also, readers not taking a formal course may wish to quiz themselves after studying specific topics in the specific chapters of the textbook. The reader will note that Stahl’s Self-Assessment Examination (SAE) in Psychiatry is organized to follow the textbook; namely the first chapter of the SAE book covers basic neurosciences, corresponding to the first eight chapters of the textbook; the next chapter of the SAE book covers psychosis and antipsychotics, corresponding to chapters 9 and 10.
in the textbook, and so on. The reader will also note that documentation of the answers to each question in the SAE book refers the reader back to the specific section of the textbook where that answer can be found and explained in great detail; outside references for the answers to the questions in the SAE book are also provided.

Do questions just document learning?

For the modern self-directed learner, questions do much more than just document learning; they can also provide beacons for what needs to be studied and the motivation for doing that even before you read a textbook. Thus, questions are also tools for pre-study self-assessment. If you want to know whether you have already mastered a certain area of psychopharmacology, you can ask yourself these SAE questions BEFORE you review any specific area in the field. Many reading a textbook of psychopharmacology are not novices, but lifelong learners, and are likely to have areas of strength as well as areas of weakness. Getting correct answers will show you that a specific area is already well understood. On the other hand, getting lots of incorrect answers not only informs the self-motivated learner that a specific area needs further study, but can provide the motivation for that learner to fill in the gaps. Failure can be a powerful focuser for what to study and an energizing motivator for why to study.

“Adults don’t want answers to questions they have not asked.”

The truth of this old saying is that taking a test AFTER study tends to feel like being forced to answer questions that the teacher has asked. However, modern readers with the mind-set of a self-directed learner want to focus on gaps in their knowledge, so looking at these same questions PRIOR to study is a way of asking the questions of yourself and thus owning them and their answers.

What is a “knowledge sandwich?”

Ideally, self-directed learners organize their study as a “knowledge sandwich” of meaty information lying between two slices of questions. The questions in this SAE book can be the first slice of questioning, followed by consuming the “meat” of the subject material in any textbook, including *Stahl’s Essential Psychopharmacology*, or if you prefer, from a lecture, course (such as the integrated Neuroscience Education Institute’s annual
Psychopharmacology Congress), journal article, whatever. At the end of studying, another slice of testing shows whether learning has occurred, and whether performance has improved. You can utilize, for example, the continuing medical education (CME) tests that accompany either *Stahl’s Essential Psychopharmacology* (for up to 90 hours of CME credits) or *Case Studies: Stahl’s Essential Psychopharmacology* (for up to 67 hours of CME credits) as two options to test yourself after studying and document your learning (available at neiglobal.com). The rationale for this instructional design is also discussed in another relative newcomer to our suite of books, *Best Practices in Medical Teaching*, published in 2011. The SAE questions, additional “meaty” content on all the subject areas, plus posttests are also available as the “Master Psychopharmacology Program” at neiglobal.com for those who prefer online learning rather than a textbook.

**Recertification/Maintenance of Certification by the American Board of Psychiatry and Neurology (ABPN).**

Utilizing SAE questions as the first “slice” of the learning “sandwich” is not just theoretical, but is gaining prominence among expert educators these days, and indeed is now part of the requirements for maintenance of certification (MOC) in a medical specialty in the USA, including by the ABPN, which has accepted the questions in this SAE book not only for ABPN CME requirements but also for their SA/self-assessment activity requirement, a sort of pretest. For those of you familiar with the Case Studies book in our series, you will know that the Case Studies book also incorporates these educational ideas from the recent changes in MOC by the ABPN for those of you interested in recertification in psychiatry. That is, in the Case Studies book, there is not only a pretest self-assessment question at the beginning of every case, and a posttest knowledge-documenting question at the end of every case, but also practice for the first step of the newly required section from MOC called Performance in Practice (Clinical Module), a short analysis at the end of every case, looking back and seeing what could have been done better in retrospect, another sort of posttest.

**Is your learning unforgettable?**

Finally, and perhaps most importantly, tests prevent forgetting. Thus, the SAE questions here actually create long-term remembering, and do not just document that initial learning has occurred. It is a sorry fact that learning that occurs following one exposure/
reading of material is rapidly forgotten. We have discussed this in the accompanying book in this series Best Practices in Medical Teaching. Perhaps 50% of what you learn after a single exposure to new, complex information is forgotten in 3 to 8 days, with some studies suggesting that little or nothing is remembered in 2 months! Exposing yourself to new material over time in bite-sized chunks and encountering the material again at a later time, leads to more retention of information than does learning in a large bolus in a single setting, a concept sometimes called interval learning or spaced learning. Research has shown that when the re-exposure is done not as a review of the same material in the same manner, but as a test, retention is much enhanced. This results in the most efficient way of learning because the initial encoding (reading the material or hearing the lecture the first time) is consolidated for long-term retention much more effectively and completely if the re-exposure is in the form of questions. Thus, questions help you remember, and we hope that you utilize this SAE book to maximize the efficiency of your learning to leverage the time you are able to put into your professional development.

How do you use this book?

To use this book, simply look on every right hand page where you will see the question appear with a multiple choice format for the answer. Read the question, answer the question either in your head, on the page, or on another piece of paper. Then, turn the page and on the left hand will appear not only the correct answer, but also an explanation of why the correct answer is correct, why the incorrect answers are incorrect, and references that document the correct answers, both in the companion textbook Stahl’s Essential Psychopharmacology and elsewhere. The reader will also see at this time what several hundred peers who have already taken this test thought was the correct answer. While taking a test, the examinee is usually curious about how (s)he is doing, how many peers get a question right, and, if the wrong answer was selected, how many peers also selected that answer wrongly. Such information can provide motivation, either as reinforcement for correct answers (yes!) or to drive the reader to understand the correct answer and never to feel the sting of missing that question again (ouch!).

So, it is with the greatest wishes for your successful journey throughout psychiatry and psychopharmacology that I present this question book to you as one of the tools for your professional development, as well as for your fascination, learning, and remembering!
Stephen M. Stahl, M.D, Ph.D.

In memory of Daniel X. Freedman, mentor, colleague, and scientific father.

To Cindy, my wife, best friend, and tireless supporter.

To Jennifer and Victoria, my daughters, for their patience and understanding of the demands of authorship.
CME INFORMATION

Release/Expiration Dates

Original release date: April 1, 2012

CME credit expiration date: March 31, 2015. If this date has passed, please contact NEI for updated information.

Overview

This book offers 150 self-assessment questions, divided into ten chapters, reflecting the core areas of psychiatry. The case-based questions, which require applied knowledge of neurobiology, clinical psychiatry, and pharmacology, are designed to help the reader identify areas of competence or the need for further study. In addition, the questions themselves are learning exercises: each question is followed by a thorough explanation of the correct and incorrect answer choices, and a list of references.

Readers can work through the questions to prepare for formal tests, and to earn CME credits towards ongoing ABPN maintenance of certification (MOC). The questions are also ideal training tools for those working in related clinical fields.

Target Audience

This activity has been developed for psychiatrists specializing in psychopharmacology. There are no prerequisites. All other health care providers who are interested in psychopharmacology are welcome for advanced study, especially primary care physicians, nurse practitioners, psychologists, and pharmacists.

Statement of Need

The following unmet needs and professional practice gaps regarding mental illness were revealed following a critical analysis of activity feedback, expert faculty assessment, literature review, and through new medical knowledge:
Mental disorders are highly prevalent and carry substantial burden that can be alleviated through treatment; unfortunately, many patients with mental disorders do not receive treatment or receive suboptimal treatment.

There is a documented gap between evidence-based practice guidelines and actual care in clinical practice for patients with mental illnesses.

This gap is due at least in part to lack of clinician confidence and knowledge in terms of appropriate usage of the diagnostic and treatment tools available to them.

To help address clinician performance deficits with respect to diagnosis and treatment of mental disorders, quality improvement efforts need to provide education on the following:

- Diagnostic strategies that can aid in the identification and differential diagnosis of patients with psychiatric illness
- Effective clinical strategies for monitoring and treating psychiatric patients
- New scientific evidence that is most likely to affect clinical practice, neurobiological and pharmacological research
- Strategies to optimize functional outcomes for patients with psychiatric illnesses, including strategies to monitor and maximize adherence and working with patients to set and track recovery-oriented goals

Learning Objectives

After completing the entire book, Stahl’s Self-Assessment Examination in Psychiatry: Multiple Choice Questions for Clinicians, participants should be better able to:

- Diagnose patients presenting with psychiatric symptoms using accepted diagnostic standards and practices
- Implement evidence-based psychiatric treatment strategies that are aligned with the patient’s recovery goals
- Integrate neurobiologic and pharmacologic research into clinical practice according to best practice guidelines
- Modify treatment in order to improve patient outcomes
Accreditation and Credit Designation Statements

The Neuroscience Education Institute is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The Neuroscience Education Institute designates this enduring material for a maximum of 12.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The American Society for the Advancement of Pharmacotherapy is approved by the American Psychological Association to sponsor continuing education for psychologists. The American Society for the Advancement of Pharmacotherapy maintains responsibility for this program and its content.

The American Society for the Advancement of Pharmacotherapy designates this program for 12.75 CE credits for psychologists. Nurses: for all of your CE requirements for recertification, the ANCC will accept category 1 credits from organizations accredited by the ACCME.

Physician Assistants: the NCCPA accepts AMA PRA Category 1 Credit™ from organizations accredited by the ACCME.

A certificate of participation for completing this activity will also be available.

Please note: the content of this print monograph also exists as an online learning activity under the title “Master Psychopharmacology Program Self-Assessment Exams, 2012 edition”. If you received CME credit for that activity, you will not be able to receive credit again for completing this print monograph.

ABPN—Maintenance of Certification (MOC)

The American Board of Psychiatry and Neurology (ABPN) has reviewed Stahl’s Self-Assessment Examination in Psychiatry: Multiple Choice Questions for Clinicians and has approved this program as part of a comprehensive lifelong learning and self-assessment program, which is mandated by the American Board of Medical Specialties (ABMS) as a necessary component of maintenance of certification.

Activity Instructions
This CME activity is in the form of a printed monograph and incorporates instructional design to enhance your retention of the information and pharmacological concepts that are being presented. The chapters of this book can be completed in any order. You are advised to read each question carefully, formulate an answer, and then review the answer/explanation on the following page. After you finish each chapter, you are advised to complete the corresponding posttest and evaluation. The estimated time for completion of the entire activity is 12.75 hours.

Instructions for CME Credit
For participant ease, each chapter has its own posttest and certificate. NOTE: the book as a whole is considered a single activity and credits earned must be totaled and submitted as such to other organizations. To receive your certificate of CME credit or participation, please complete the posttest and evaluation, available only online at www.neiglobal.com/CME (under "Book"). If a passing score of 70% or more is attained (required to receive credit), you can immediately print your certificate. There is a fee for the posttest for this activity (waived for NEI members). If you have questions, please call 888-535-5600, or email customerservice@neiglobal.com.

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This educational activity may include discussion of products or devices that are not currently labeled for such use by the FDA. Please consult the product prescribing information for full disclosure of labeled uses.

Disclaimer

Participants have an implied responsibility to use the newly acquired information from this activity to enhance patient outcomes and their own professional development. The information presented in this educational activity is not meant to serve as a guideline for patient management. Any procedures, medications, or other courses of diagnosis or treatment discussed or suggested in this educational activity should not be used by clinicians without evaluation of their patients’ conditions and possible contraindications or dangers in use, review of any applicable manufacturer’s product information, and comparison with recommendations of other authorities. Primary references and full prescribing information should be consulted.
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