

# Attention-Deficit/Hyperactivity Disorder: Review Questions

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## QUESTIONS

Choose the single best answer for each question.

- 1. A 25-year-old man with adult attention-deficit/hyperactivity disorder (ADHD) presents to the psychiatrist for a follow-up appointment. Over the course of 6 months, several nonstimulant and stimulant pharmacologic treatments have been tried, but these were only partially effective or resulted in intolerable side effects. Currently, the patient is taking the maximum dose of a form of long-acting methylphenidate. He is responding to this regimen better than the previous options tried. However, he is still having breakthrough symptoms (ie, forgetfulness, difficulty with organization, and inability to sustain attention). Neurologic examinations at each visit have been normal. What is the most appropriate treatment for this patient?**

(A) Continue current medication and refer for cognitive behavioral therapy (CBT)  
(B) Continue current medication and refer to a neurologist  
(C) Continue current medication and refer for psychological testing  
(D) Continue medication management only
- 2. A 19-year-old female college freshman reports problems with attention that are interfering with her school performance. During the visit, the physician notices that the patient is fidgeting with her hands and is restless. Based on the patient's history and results of the 25-item Wender Utah Rating Scale administered in the office, the primary care physician determines that she has ADHD. A careful psychiatric review of symptoms reveals no evidence of a past or current mood disorder, and results from toxicology screening tests are normal, helping to rule out a substance use disorder. She does not have any psychiatric comorbidity or current medical conditions. Which of the following would be the most appropriate initial intervention for this patient?**

(A) Reassurance and clinical monitoring  
(B) Trial of an immediate-release amphetamine given 3 times/day  
(C) Trial of a long-acting amphetamine given once in the morning  
(D) Trial of a selective serotonin reuptake inhibitor (SSRI) given once in the morning
- 3. A 28-year-old woman with ADHD presents for a follow-up appointment reporting that she is unable to tolerate her current stimulant treatment because of side effects, including headache, upset stomach, and insomnia. She has no significant past or present medical history, and she is not pregnant or nursing. She has no history of substance misuse and denies symptoms suggestive of psychiatric comorbidity. Which of the following agents should be tried next?**

(A) Alprazolam (C) Lithium  
(B) Bupropion (D) Quetiapine
- 4. A 13-year-old girl is evaluated by her primary care physician and found to meet diagnostic criteria for ADHD. The evaluation reveals that the patient has had lifelong mild symptoms, but she has not experienced significant impairment until recently. In the last few months, the patient started having behavioral problems in school and her grades have fallen. There is no evidence of problems in the home, use of substances by the patient, or physical or sexual abuse. Which of the following comorbid conditions must be ruled out before initiating treatment for this patient?**

(A) Delusional disorder  
(B) Generalized anxiety disorder  
(C) Major depression  
(D) Schizophrenia
- 5. A 16-year-old girl presents to her pediatrician with her mother reporting severe problems with attention and concentration. Both the patient and mother state that these symptoms interfere with the patient's ability to function in school and wonder if ADHD is the cause.**

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The mother states that her daughter's inattention and difficulty concentrating are intermittent and seem to vary with her mood. The patient says she gets "down" and "blue" easily. The mother agrees but adds that the patient often has times in which she is "on top of the world," during which she is very cheerful and full of energy. The patient's friends tease her about being "the energizer bunny." Episodes of being "down" usually last several weeks to over a month, and periods of high energy occasionally last for over a week. The mother states that the patient's symptoms have worsened over the past year; she also reports that the patient has had temperament problems, even as an infant. What is this patient's most likely diagnosis?

- (A) ADHD with comorbid major depression
- (B) ADHD with comorbid oppositional defiant disorder
- (C) Pediatric bipolar disorder
- (D) Recurrent major depression

6. A 22-year-old woman previously diagnosed with ADHD presents to a psychiatrist requesting alternative treatment. She reports that she has tried multiple medications but has either experienced significant side effects or had minimal response. She has also tried CBT, but it was not helpful. She is a student and works part-time and feels that she is not able to function at her full potential because of inability to maintain focus and attention. Which of the following would be the most appropriate treatment recommendation?

- (A) Biofeedback
- (B) Organization and planning skills training
- (C) Psychodynamic psychotherapy
- (D) Social skills training

7. A 15-year-old boy presents to the pediatrician with his mother for evaluation of possible ADHD. The mother states that she does not think her son has ADHD because he is not hyperactive at home. However, the patient's teacher recommended an evaluation for ADHD because of poor school performance. The patient states he doesn't always pay attention but could focus more in class if he wanted. Which of the following should be included in the evaluation of this patient?

- (A) Chemistry panel
- (B) Evaluation forms completed by the patient's teachers
- (C) Magnetic resonance imaging of the brain
- (D) Thyroid function tests

8. A primary care physician evaluates a 10-year-old boy with autism and determines that he has comorbid ADHD. The patient's mother reports that his hyperactivity is disruptive at school and requests pharmacologic treatment for her child. Which of the following is correct regarding the initiation of medication in patients with autism and comorbid ADHD?

- (A) Medication is not indicated for comorbid autism and ADHD
- (B) Poor response to standard ADHD treatments is possible
- (C) Stimulants should not be used in this patient
- (D) Treatment should only be initiated by a child psychiatrist

#### ANSWERS AND EXPLANATIONS

1. (A) **Continue current medication and refer for CBT.** Safren and colleagues<sup>1</sup> have demonstrated that CBT may be beneficial in adults with ADHD who have been stabilized on medications but still show clinically significant symptoms. Psychological testing would be indicated only if the diagnosis was uncertain. Referral to a neurologist would only be indicated in the case of an abnormal neurologic examination. Because the patient is experiencing breakthrough symptoms, medical management only is not appropriate. Breakthrough symptoms should be addressed, if possible.
2. (C) **Trial of a long-acting amphetamine given once in the morning.** A long-acting stimulant should be initiated first because of the advantage of a simpler dosing regimen as compared with immediate-release stimulant formulations.<sup>2</sup> SSRIs are not indicated for ADHD. Because this patient's symptoms are interfering with her day-to-day activities, reassurance and clinical monitoring is not appropriate. The patient should be advised about potential side effects of stimulant treatment, including anorexia, dry mouth, insomnia, and headache.<sup>3,4</sup>
3. (B) **Bupropion.** Bupropion is effective for the treatment of adult ADHD.<sup>5</sup> In an 8-week, multisite, placebo-controlled study of 162 adults with ADHD, more patients responded to bupropion XL than placebo by week 8 (53% versus 31%;  $P=0.004$ ), with a significantly greater proportion of patients responding as early as week 2 ( $P=0.01$ ).<sup>6</sup> Alprazolam is a benzodiazepine used in the treatment of anxiety disorders, panic disorders, and depression-related anxiety. Lithium is used to treat manic episodes of manic-depressive illness, and quetiapine is an atypical antipsychotic agent used to treat bipolar disorder.

4. **(C) Major depression.** A recent study found that adolescent and young women with ADHD had a 2.5 times higher risk for major depression compared with women without ADHD.<sup>7</sup> Major depression in females with ADHD was associated with an earlier age at onset, increased duration of depression (by more than 2 times), more severe depression-associated impairment, a higher rate of suicidality, and a greater likelihood of requiring psychiatric hospitalization than major depression in females without ADHD.<sup>7</sup> In this case, the recent worsening of symptoms could indicate an episode of major depression comorbid with ADHD. Delusional disorder, generalized anxiety disorder, and schizophrenia are less likely. A thorough psychiatric evaluation should include screening questions to rule out other possible conditions, including potential comorbid conditions. Of note, evaluation of suicide risk should be included for any patient experiencing psychiatric symptoms.
5. **(C) Pediatric bipolar disorder.** ADHD with comorbid major depression or comorbid oppositional defiant disorder as well as recurrent major depression should be considered in the differential diagnosis. However, this patient's history of mood symptoms, including elevated and depressed episodes, is strongly suggestive of pediatric bipolar disorder.<sup>8</sup> The fact that the patient's attention and concentration symptoms are related to mood episodes is inconsistent with ADHD, as impairments of attention in ADHD are chronic and relatively consistent over time. A recent study found that children with pediatric bipolar disorder had greater problems with difficult temperament in both infancy and toddlerhood compared with children with ADHD.<sup>9</sup>
6. **(B) Organization and planning skills training.** Psychoeducation and training in concrete skills such as organization and planning strategies, with emphasis on practicing and maintaining these strategies in daily life, have been effective in patients with ADHD and would be appropriate for this patient.<sup>10</sup> Psychodynamic psychotherapy and biofeedback have not been effective for patients with ADHD. Social skills training would focus on interpersonal interactions with others rather than organizational and planning skills.
7. **(B) Evaluation forms completed by the patient's teachers.** ADHD can be challenging to diagnose in adolescents.<sup>11</sup> One problem is that obvious symptoms of hyperactivity and impulsivity are displayed less frequently in adolescents as compared with younger children.<sup>11</sup> Adolescents also spend less time with their parents, and parent perceptions of symptoms may be inaccurate.<sup>11</sup> Thus, a careful and comprehensive assessment that includes parent-, teacher-, and self-reported measures of ADHD symptoms and functioning must be conducted.<sup>11</sup> Chemistry panel, magnetic resonance imaging of the brain, and thyroid function tests would not be helpful in establishing a definitive diagnosis.
8. **(B) Poor response to standard ADHD treatments is possible.** Children with autistic spectrum disorders and ADHD symptoms may respond poorly to standard ADHD treatments or have increased side effects.<sup>12</sup> However, it is appropriate to try standard treatments, including stimulants. Referral to a child psychiatrist may be considered if the patient does not respond adequately, but this is not necessary as the first step.

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