

# Balancing Therapeutic Safety and Efficacy to Improve Clinical and Economic Outcomes in Schizophrenia

## Physician Credit

*Instructions for Receiving Continuing Physician Education (CME) Credit: Testing and Grading Information*

This activity is free online at [www.ajmc.com/ce](http://www.ajmc.com/ce) and at [www.arcmesa.org](http://www.arcmesa.org), where you will be directed to the activity including the online posttest, activity evaluation, and request for credit. Instant online grading is available, along with a downloadable CME certificate.

## Testing and Grading Directions

1. Each participant evaluating the activity and achieving a passing grade of 70% or higher on the online posttest will be eligible to receive a CME certificate.
2. Participants receiving a failing grade on the exam will be notified and permitted to take 1 reexamination at no cost.
3. To receive credit, go to [www.ajmc.com/ce](http://www.ajmc.com/ce) or [www.arcmesa.org](http://www.arcmesa.org), locate this activity in the CE course list, click on the online posttest link, and complete the online posttest and activity evaluation form to receive your certificate.

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## Pharmacy Credit

*Instructions for Receiving Continuing Pharmacy Education (CPE) Credit: Testing and Grading Information*



This lesson is free online; receive instant grading and download your CE statement of credit at [www.PharmacyTimes.org](http://www.PharmacyTimes.org).

## Testing and Grading Directions

1. Each participant evaluating the activity and achieving a passing grade of 70% or higher on the online posttest will receive a CE statement of credit stating the number of credits earned.
2. Participants receiving a failing grade on the exam will be notified and permitted to take 1 reexamination at no cost.
3. To receive credit and an immediate CE statement of credit online, go to [www.PharmacyTimes.org](http://www.PharmacyTimes.org), complete the online posttest (achieving a passing grade of 70% or better) and the online activity evaluation form and you will be able to print your CE statement of credit.

## Sample of Online CPE Posttest

Choose the best answer for each of the following:

1. Patients with schizophrenia can present with which of the following symptoms?
  - A. Avolition
  - B. Delusion
  - C. Memory impairment
  - D. All of the above
2. Which of the following statements is true regarding the diagnostic criteria for schizophrenia?
  - A. Patient should exhibit at least 1 symptom in Criterion A
  - B. Symptoms should present for at least a 2-week period
  - C. Symptoms should not be attributable to the physiological effects of a substance
  - D. Patient should have the same level of functioning compared with the level of functioning at the onset of symptoms
3. Which of the following is a risk factor for development of cardiovascular disease in schizophrenia patients?
  - A. Sedentary lifestyle
  - B. Smoking
  - C. Use of antipsychotic
  - D. All of the above

4. Which of the following statements is true regarding medication nonadherence in schizophrenia?
- A. Treatment nonadherence has been associated with higher risk of suicide
  - B. Female patients are more likely to be nonadherent
  - C. Positive attitude toward treatment can decrease treatment adherence
  - D. Long-acting injectable antipsychotics should not be used in patients with a history of nonadherence
5. Which of the following statements is true?
- A. Female patients tend to have an earlier onset of symptoms compared with male patients
  - B. The lifetime prevalence of schizophrenia is approximately 3% to 7%
  - C. The cause of schizophrenia is likely to be heterogeneous and multifactorial
  - D. Patients with very early onset schizophrenia often have better overall prognosis
6. Which of the following brain structural changes have been shown in patients with schizophrenia?
- A. Decreased whole brain volume
  - B. Increased gray matter volume
  - C. Reduced size of ventricles
  - D. Development of cerebral asymmetry
7. Which of the following has been associated with increased risk of schizophrenia?
- A. Younger paternal age
  - B. Maternal infection during pregnancy
  - C. Birth during late summer
  - D. Suburban setting
8. Which of the following antipsychotics has the highest risk of causing extrapyramidal side effects?
- A. Perphenazine
  - B. Fluphenazine
  - C. Chlorpromazine
  - D. Loxapine
9. Which of the following antipsychotics has the highest risk of causing weight gain and metabolic adverse effects?
- A. Lurasidone
  - B. Ziprasidone
  - C. Olanzapine
  - D. Quetiapine
10. Which of the following medication options is available in a long-acting injectable formulation?
- A. Clozapine
  - B. Chlorpromazine
  - C. Quetiapine
  - D. Aripiprazole
11. Which of the following statements is true?
- A. In the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) phase 1 trial, perphenazine was found to be statistically significantly superior to olanzapine
  - B. In the Cost Utility of the Latest Antipsychotic Drugs in Schizophrenia Study (CUtLASS 1), a higher rate of extrapyramidal side effects was experienced by patients taking first-generation antipsychotics compared with second-generation antipsychotics
  - C. In the Comparison of Atypicals for First Episode Schizophrenia (CAFE) trial, 80% of patients treated with olanzapine experienced clinically significant weight gain
  - D. In the European First Episode Schizophrenia Trial (EUFEST), 86% of patients treated with ziprasidone experienced clinically significant weight gain
12. Which of the following populations is at higher risk for metabolic adverse effects from antipsychotic medication?
- A. Patients with a lower baseline body mass index
  - B. The elderly
  - C. Cigarette smokers
  - D. Caucasians

13. Aside from treatment-resistant patients, for which patient population is clozapine recommended by treatment guidelines such as the Texas Medication Algorithm Project guidelines?
- Children and adolescents
  - Persistently suicidal patients
  - The elderly
  - First-episode patients
14. Which of the following statements is correct regarding metabolic monitoring with antipsychotic medications?
- An echocardiogram should be performed every 6 months to monitor for cardiac abnormalities
  - Metabolic parameters should be evaluated more frequently in older individuals
  - Patients who gain 7% or more of their baseline body weight should have their lipids and blood glucose monitored regularly
  - Patients who gain 7% or more of their baseline body weight should be evaluated for a change in antipsychotic medication
15. Which of the following is a significant contributor to hospital readmissions for patients with schizophrenia?
- Substance abuse
  - Loss of neuroleptic efficacy
  - Medication nonadherence
  - All of the above
16. Which of the following statements regarding the costs of medical treatment for schizophrenia is false?
- Drug treatment accounts for approximately 11% to 19% of spending
  - Hospitalization accounts for approximately 12% to 27% of spending
  - Long-term or full-day programs account for approximately 28% to 35% of spending
  - Outpatient care/professional fees account for approximately 23% to 30% of spending
17. It has been estimated that a weight gain of 2.5 kg due to the use of antipsychotics would be associated with \_\_\_\_\_ additional diabetic persons (per 100,000 persons) over 10 years.
- 366
  - 937
  - 1547
  - 100,000
18. Which of the following is not a HEDIS measure for schizophrenia?
- Adherence to antipsychotic medications for patients with schizophrenia
  - Cardiovascular monitoring for patients with schizophrenia
  - Subjective well-being tool administration for patients with schizophrenia
  - Diabetes monitoring for patients with diabetes and schizophrenia
19. HEDIS measures are meant to accomplish all of the following, except:
- Aid physicians in quality improvement
  - Streamline patient flow in a healthcare organization
  - Measure quality at the health plan level
  - Establish accountability in healthcare
20. According to an analysis of the CATIE study by Goff et al, compared with controls, the 10-year coronary heart disease risk of male and female patients with schizophrenia was significantly elevated at \_\_\_% and \_\_\_%, respectively.
- 6.4; 3.3
  - 7.4; 4.3
  - 8.4; 5.3
  - 9.4; 6.3