

## The Case for Early Initiation of Monotherapies and Delayed Dopaminergic Therapy in Parkinson's Disease

### Instructions

After reading "The Case for Early Initiation of Monotherapies and Delayed Dopaminergic Therapy in Parkinson's Disease," complete the program evaluation and select the 1 best answer to each of the posttest questions.

A statement of continuing education hours will be provided to those physicians and pharmacists who successfully complete and return the answer form and program evaluation and receive a passing grade of 70% or higher.

### Physician Credit

#### Accreditation Statement

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the University of Cincinnati. The University of Cincinnati is accredited by the ACCME to provide continuing medical education for physicians.

#### Credit Designation

The University of Cincinnati designates this journal-based CME activity for a maximum of 3.0 AMA PRA Category 1 Credit(s)<sup>™</sup>. Physicians should only claim credit commensurate with the extent of their participation in the activity.

### Pharmacist Credit

Pharmacy Times Office of Continuing Professional Education is accredited by the Accreditation Council for Pharmacy Education (ACPE) as a provider of continuing pharmacy education. This program is approved for 3.0 contact hours (0.30 CEUs) under the ACPE universal program number of 0290-9999-11-044-H01-P. This program is available for CE credit through October 10, 2012.



Type of activity: Knowledge.

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### Posttest Questions

1. Which of the following represents a catechol-O-methyltransferase inhibitor?
  - a. Carbidopa
  - b. Entacapone
  - c. Rasagiline
  - d. Ropinirole
  
2. Which of the following represents a dopamine agonist?
  - a. Carbidopa
  - b. Entacapone
  - c. Rasagiline
  - d. Ropinirole

3. Which of the following represents a monoamine oxidase type-B inhibitor?
  - a. Carbidopa
  - b. Entacapone
  - c. Rasagiline
  - d. Ropinirole
  
4. Which of the following scales is most commonly used to assess nonmotor symptoms of Parkinson's disease?
  - a. The Hamilton Depression Rating Scale
  - b. The Nonmotor Symptoms Scale
  - c. The Alzheimer's Disease Assessment Scale
  - d. The Unified Parkinson's Disease Rating Scale
  
5. Which of the following is not a nonmotor symptom of Parkinson's disease?
  - a. Nausea
  - b. Constipation
  - c. Orthostatic hypotension
  - d. Dyskinesia
  
6. Studies have shown that the dopamine agonist pramipexole may improve depression in some patients with Parkinson's disease.
  - a. True
  - b. False
  
7. Which of the following should be avoided when cognitive impairment is present?
  - a. Anticholinergic agents
  - b. Amantadine
  - c. Dopamine agonists
  - d. All of the above
  
8. Which of the following has been associated with an increased risk of myocardial infarction?
  - a. Carbidopa
  - b. Entacapone
  - c. Rasagiline
  - d. Ropinirole
  
9. Which of the following scales is most commonly used to determine effectiveness of drug therapy in Parkinson's disease trials?
  - a. The Hamilton Depression Rating Scale
  - b. The Nonmotor Symptoms Scale
  - c. The Alzheimer's Disease Assessment Scale
  - d. The Unified Parkinson's Disease Rating Scale
  
10. Which of the following is true regarding early treatment of Parkinson's disease?
  - a. It is cost-effective
  - b. It may delay the time to disability
  - c. Daily or twice-daily regimens are associated with better compliance versus more complicated regimens
  - d. All of the above
  
11. The ELLDOPA trial demonstrated which of the following?
  - a. Imaging results did not correlate with clinical variables
  - b. Entacapone increases mortality
  - c. Delayed treatment was superior to early treatment
  - d. A dopamine agonist was superior to levodopa
  
12. STRIDE-PD showed which of the following?
  - a. Entacapone potentially increased the risk of myocardial infarction
  - b. Entacapone lowered the time to dyskinesia
  - c. UPDRS score was similar between groups with and without entacapone
  - d. All of the above
  
13. The REAL-PET study demonstrated which of the following?
  - a. Less reduction of putamen dopamine uptake with ropinirole
  - b. Worse progression of Parkinson's disease with ropinirole
  - c. Better UPDRS score with ropinirole than levodopa
  - d. Higher incidence of dyskinesia in the ropinirole group
  
14. DATATOP demonstrated which of the following?
  - a. Tocopherol improved motor symptoms
  - b. Tocopherol improved nonmotor symptoms
  - c. Selegiline delayed the time to use of levodopa
  - d. All of the above

15. In the ADAGIO trial, rasagiline 1 mg did not improve UPDRS score in the early treatment group.
  - a. True
  - b. False
  
16. Post hoc analysis of the ADAGIO trial demonstrated which of the following in the placebo group?
  - a. UPDRS scores steadily worsened at a constant rate
  - b. UPDRS scores declined more rapidly in patients with worse baseline scores
  - c. UPDRS scores declined more rapidly in patients with better baseline scores
  - d. The effect of UPDRS score was non-linear
  
17. Which of the following did the TEMPO and ADAGIO studies have in common?
  - a. Long-term follow-up demonstrated a more significant effect of treatment on activities of daily living versus motor function
  - b. Both trials involved rasagiline
  - c. Both trials evaluated early versus delayed therapy
  - d. All of the above
  
18. Direct medical costs associated with Parkinson's disease are influenced by:
  - a. Disability
  - b. Drug costs
  - c. Provider services
  - d. All of the above
  
19. Management of Parkinson's disease is patient-specific due to variability of individual response to therapy and drug-related adverse events, as well as disability.
  - a. True
  - b. False
  
20. Levodopa, which is available as a generic and is very efficacious for Parkinson's disease, is not associated with the development of dyskinesias.
  - a. True
  - b. False
  
21. Neuroimaging of striatal dopamine transporters can differentiate idiopathic Parkinson's disease from atypical parkinsonisms.
  - a. True
  - b. False
  
22. In addition to pharmacotherapy, comprehensive management of Parkinson's disease often includes:
  - a. Physical therapy
  - b. Speech therapy
  - c. Patient and caregiver education
  - d. All of the above
  
23. Specific objectives that should be considered when selecting an intervention for Parkinson's disease include putative disease modification; improvement of mobility, gait, and balance; and minimization of adverse effects and treatment complications.
  - a. True
  - b. False
  
24. A patient is on levodopa/carbidopa and is experiencing motor fluctuations. If an adjunctive agent is added, the American Academy of Neurology practice parameter indicates which of the following should be considered, based on a high level of evidence?
  - a. Entacapone
  - b. Rasagiline
  - c. A and B
  - d. None of the above
  
25. Based on the treatment approach discussed, which of the following agents is/are less preferable in Parkinson's disease patients over 65 years of age?
  - a. Rasagiline
  - b. Dopamine agonist
  - c. Carbidopa/levodopa
  - d. Entacapone

## Physician Credits

(PLEASE PRINT CLEARLY)

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Release Date: **October 10, 2011**

Expiration Date: **October 10, 2012**

### CME Test Form

#### The Case for Early Initiation of Monotherapies and Delayed Dopaminergic Therapy in Parkinson's Disease

1.	a	b	c	d
2.	a	b	c	d
3.	a	b	c	d
4.	a	b	c	d
5.	a	b	c	d
6.	a	b		
7.	a	b	c	d
8.	a	b	c	d
9.	a	b	c	d
10.	a	b	c	d
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13.	a	b	c	d
14.	a	b	c	d
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16.	a	b	c	d
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18.	a	b	c	d
19.	a	b		
20.	a	b		
21.	a	b		
22.	a	b	c	d
23.	a	b		
24.	a	b	c	d
25.	a	b	c	d

### Answer Form Instructions: Testing and Grading Procedures

- Each participant evaluating the activity and achieving a passing grade of 70% or higher on any examination will receive an official computer form stating the number of CME credits earned. This form should be safeguarded and may be used as documentation of credits earned.
- Participants receiving a failing grade on any exam will be notified and permitted to take 1 reexamination at no cost.
- All answers should be recorded on the answer form.
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Please print clearly to ensure receipt of CME credit.
- To receive credit and an immediate certificate, register at <http://ccpd.uc.edu/lms/> and complete the posttest and evaluation. If you have previously registered, click on **Member Login**, and enter your user name and password to log in. Otherwise, click **Sign-up Today!** and complete the registration process. Once you log in, click **Browse Activities** and do an Activity Search to locate this supplement.

ACE001

### CME Activity Evaluation

How long did it take you to complete this activity?

\_\_\_\_\_ minutes

How well did this activity achieve its educational objectives?

Very well     Well     Somewhat     Not at all

What overall grade would you assign this activity?

A     B     C     D

Did this activity exhibit promotional bias for any pharmaceutical agents?

Yes     No

Will you make changes in your practice as a result of information presented in this lesson?

Yes     No

## Pharmacy Credits

### Instructions

#### Scoring Options

1. This lesson is FREE online; receive instant grading and download your certificate at **www.PharmacyTimes.com**
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Evaluation form follows.

ACE001

CE Answer Form: October 2011 • THE CASE FOR EARLY INITIATION OF MONOTHERAPIES AND DELAYED DOPAMINERGIC THERAPY IN PARKINSON'S DISEASE				
<b>PROGRAM 0290-9999-11-044-H01-P</b> (TEST VALID THROUGH OCTOBER 10, 2012. NO CREDIT WILL BE GIVEN AFTER THIS DATE.)				
1. a b c d	6. a b	11. a b c d	16. a b c d	21. a b
2. a b c d	7. a b c d	12. a b c d	17. a b c d	22. a b c d
3. a b c d	8. a b c d	13. a b c d	18. a b c d	23. a b
4. a b c d	9. a b c d	14. a b c d	19. a b	24. a b c d
5. a b c d	10. a b c d	15. a b	20. a b	25. a b c d
<input type="checkbox"/> Presently Enrolled in CE Program		<input type="checkbox"/> Nonsubscriber Participant Pharmacist		
Name:		E-mail:		
Address:				
City:		State:	Zip:	Daytime Phone:
Specialty: <input type="checkbox"/> Pharmacist <input type="checkbox"/> Pharmacy Technician <input type="checkbox"/> Other (Specify)				

CE Evaluation Form: October 2011 • THE CASE FOR EARLY INITIATION OF MONOTHERAPIES AND DELAYED DOPAMINERGIC THERAPY IN PARKINSON'S DISEASE					
Please rate the effectiveness of this activity. Your input and comments are encouraged and appreciated.					
	<b>Poor</b>		<b>Average</b>		<b>Excellent</b>
1. Overall, how would you rate this activity?	1	2	3	4	5
2. Overall, how would you rate the work of the instructor(s)?	1	2	3	4	5
3. How would you rate the quality of the instructional materials?	1	2	3	4	5
4. Were the learning objectives of this activity met?	<b>Not at all</b>		<b>Partially</b>		<b>Completely</b>
(Objective 1)	1	2	3	4	5
(Objective 2)	1	2	3	4	5
(Objective 3)	1	2	3	4	5
(Objective 4)	1	2	3	4	5
5. Was the activity useful and relevant to your practice?	1	2	3	4	5
6. Do you believe the subject matter was presented objectively? <b>Yes No</b> If no, please explain: _____					
<p>7. Do you intend to make any changes to your practice based on learnings from this program?</p> <p>a. Yes b. No</p> <p>If <b>yes</b>, which of the following changes do you intend to implement? <i>(Please select all that apply)</i></p> <p>a. Provide more in-depth counseling to patients b. Proactively talk to patients with this disease/problem/issue c. Educate staff to better help patients d. Seek more resources to provide to patients e. Implement disease management program f. Improve monitoring for adherence/persistence g. Other _____ h. None</p>	<p>8. Do you anticipate any barriers in trying to implement changes in your practice?</p> <p>a. Yes b. No c. Don't know</p> <p>If <b>yes</b>, what barriers do you anticipate? <i>(Please select all that apply)</i></p> <p>a. Lack of time b. Lack of resources c. Lack of pharmacy technician help d. Corporate focus is elsewhere e. Legal issues f. Insurance issues/restrictions g. Patients don't want this service or have no time h. Other _____ i. None</p>	<p>9. Based on the learning from this activity, overall how confident are you in your ability to counsel/educate/manage the disease/condition/problem <i>(1 being NOT confident and 5 being VERY confident)?</i></p> <p>a. 1 (Not confident) b. 2 c. 3 (Somewhat confident) d. 4 e. 5 (Very confident)</p> <p>10. What other topics related to this topic would you like to explore in future CE activities?</p> <p>_____</p> <p>_____</p> <p>_____</p>			

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