



## **CME INSTRUCTIONS: REGADENOSON PHARMACOLOGIC STRESS FOR MYOCARDIAL PERFUSION IMAGING: A THREE-WAY COMPARISON BETWEEN REGADENOSON ADMINISTERED AT PEAK EXERCISE, DURING WALK RECOVERY, OR NO-EXERCISE**

### **STATEMENT OF NEED**

The following educational gaps have been identified to demonstrate need for this journal continuing education activity:

- The ASNC imaging guidelines include specific protocols that should be followed for nuclear cardiology procedures. Nuclear Cardiology Healthcare providers need to increase their competence in applying these protocols to every day practice (**competence change**) in order to appropriately treat patients (**performance change**).
- Utilize the latest protocols for gated myocardial perfusion SPECT, including instrumentation, software, and pharmacologic stress agents.

### **TARGET AUDIENCE**

This activity is targeted at imaging professionals and is intended to provide the latest information on clinical practice and cutting-edge scientific advances in nuclear cardiology and cardiac imaging.

### **OBJECTIVES**

After reading and reflecting upon an article in the Journal of Nuclear Cardiology, the learner should be able to:

1. Identify the limitations associated with this single-center retrospective study.
2. Identify specific examples when regadenoson would have an advantage over adenosine or dipyridamole.

3. Discuss the advantages and disadvantages of administering regadenoson at rest, peak exercise, and during walk-recovery.
4. To understand the effects of the timing of regadenoson injection to changes in hemodynamics.
5. To understand the effects of the timing of regadenoson injection to the incidence of vasodilator side effects.

### **ACCREDITATION AND CONTINUING EDUCATION CREDIT**

#### **Physicians**

The American Society of Nuclear Cardiology is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The American Society of Nuclear Cardiology designates this Journal-based CME activity for a maximum of 1 *AMA PRA Category 1 Credits*<sup>TM</sup>. Physicians should only claim credit commensurate with the extent of their participation in the activity.

#### **Technologists**

The American Society of Nuclear Cardiology is a recognized provider of continuing education credit for technologists. ASNC's Continuing Education (ACE) credit is accepted by both NMTCB and ARRT. This Journal-based activity has been approved for a maximum of 1 ACE credits for Technologists.

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The following authors reported no financial relationships: **Harshal Patil, MD; Elaine C. Thompson, BA; Mohammed Al-Amoodi, MD; Kevin F. Kennedy, MS; Kevin A. Bybee, MD; A. Iain McGhie, MD; James H. O'Keefe, Jr., MD; Lisa Oakes, BSN.**

The following authors reported a financial relationship: **Randall C. Thompson, MD**, Speakers' Bureau, Astellas Pharma; **Timothy M. Bateman, MD**, Grant Support and Advisory Board Astellas Pharma; and **Gregory S. Thomas, MD, MPHT** Consultant, Speakers' Bureau, and Advisory Board, Astellas Pharma.

The following members of the JNC Editorial Staff reported no financial relationships: **George A. Beller, MD, FASNC and Wendy Passerell.**

The following ASNC staff and article reviewers who were involved in the planning and development of this activity reported no financial relationships: **Cathlin Bowman; Jamieson Bourque, MD; Nancy McDonald DeLoatch; J. Askew Wells.**

The following article reviewer who was involved in the planning and development of this activity reported a financial relationship **Sharmila Dorbala, MD**, Grant Research Support, Astellas, Advisory Board, Astellas.

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## CONTINUING EDUCATION TERM OF APPROVAL

Release Date: March 15, 2013  
Date of Last Review:  
Expiration Date: March 15, 2014.

## METHOD OF PARTICIPATION

To receive a statement of credit, participants must successfully complete the quiz and evaluation

questions after reading and reflecting on the article. The participant selects the single most appropriate answer for each question. A score of 80% or higher is needed to pass the quiz. If less than 80% of the questions were correct, the participant will be notified and may resubmit the quiz with modified answers up to three times. Tests will be graded by ASNC staff members.

Estimated time of completion is 1 hour.

Send your completed post-test and evaluation by mail, fax, or e-mail to:

American Society of Nuclear Cardiology  
Attn: JNC Continuing Education  
4340 East-West Highway, Suite 1120  
Bethesda, MD 20814-4578  
Fax: (301) 215-7113  
E-mail: JournalCredit@asn.org.

## PROCESSING FEES

ASNC members may claim continuing education credits at no charge. Non-members will be charged \$25 per activity. Please fill out the payment area included on the evaluation form.

## ACKNOWLEDGEMENT OF COMMERCIAL SUPPORT

This activity is not supported by commercial support.

## PRIVACY & CONFIDENTIALITY STATEMENT

ASNC will record learner's personal information as provided on CME evaluations to allow for issuance and tracking of CME certificates. ASNC may also track aggregate responses to questions in activities and evaluations and use these data to inform the ongoing evaluation and improvement of its CME program. No individual performance data or any other personal information collected from evaluations will be shared with third parties.

For questions regarding CME content or obtaining CME credit, please contact ASNC at 301.215.7575 or info@asn.org.

**CME QUIZ & REGISTRATION FORM**

In order to earn CME credit for this journal activity, you must read the article and successfully pass the post-test. A passing grade of 80% is required to earn credit.

CME/ACE certificates will be sent within ten (10) business days.

**Please mail or fax this form to:**

American Society of Nuclear Cardiology

Attn: JNC CME

4340 East-West Highway, Suite 1120

Bethesda, MD 20814

Fax: (301) 215-7113

Email: [Journalcredit@asnc.org](mailto:Journalcredit@asnc.org)

*Please circle one response per question.*

**CME QUIZ**

1. According to the authors, which of the following is not considered a limitation to this study?
  - a. Exercise hemodynamics were not captured following rigid time intervals.
  - b. Data regarding the intensity of patient symptoms was limited
  - c. Blood pressure differences among the groups may not be accurate
  - d. Individuals in each group were age-sex-BMI matched in only two groups
2. When combined with exercise, regadenoson may be easier to administer than other vasodilator stress agents because
  - a. It can be administered in either a 4- or 6-minute infusion.
  - b. It is administered as a bolus rather than as a weight-based, timed infusion
  - c. It has a slower onset of action and longer duration of effect.
  - d. It does not alter image quality when compared to administration of regadenoson without exercise
3. Based on their study, the authors concluded that exaggerated blood pressure response occurs less frequently when regadenoson is administered during:
  - a. Walk-recovery
  - b. Peak exercise
  - c. Rest
4. Surveillance data has identified which of the following excessive hemodynamic responses to Regadenoson administration?
  - a. Hypotension
  - b. Tachycardia
  - c. Bradycardia
  - d. Hypertension
5. Administration of Regadenoson after exercise had which of the following effects on imaging results and quality compared with resting Regadenoson?
  - a. An increased summed stress score
  - b. Fewer equivocal scans
  - c. Increased abdominal radiotracer activity
  - d. An increased summed difference score
6. Administration of Regadenoson at peak exercise or during exercise recovery had which of the following effects on side effects compared with resting Regadenoson?
  - a. Decreased nausea
  - b. Increased dizziness
  - c. Decreased shortness of breath
  - d. No difference in chest pain

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See CME article, pp. 214–221

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## CE Registration Form

*In order to process the post-test, please complete the registration information below. A CME/ACE certificate will be issued once the test is processed.*

### PLEASE PRINT

I am requesting:  CME  ACE

\_\_\_\_\_  
Last Name                      First Name                      Degree

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Phone Number                      Fax Number

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Member ID (If Applicable)

### BILLING

Member (\$0 fee)     Non-Member (\$50 fee)

*Non-Members please fill out the information below:*

Type of Card:  Visa     MasterCard     Amex

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Exp Date                      Security Code

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Billing Address

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City                      State                      Zip Code

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Cardholder Signature

### EVALUATION FORM

#### Regadenoson Pharmacologic Stress for Myocardial Perfusion Imaging: A Three-way Comparison Between Regadenoson Administered at Peak Exercise, During Walk Recovery, or No-Exercise

*The American Society of Nuclear Cardiology appreciates and values your opinions. In order to assist us in evaluating the effectiveness of this program and to make recommendations for future online educational offerings, please take a moment to complete this evaluation form.*

**Directions:** Please select your responses to complete this evaluation form.  
Your comments and suggestions will aid in planning future activities.

Please rate how strongly you agree or disagree with these statements:

Strongly Agree 5      Agree 4      Neutral 3      Disagree 2      Strongly Disagree 1

Please rate how strongly you agree or disagree with these statements:	Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
1. The following stated learning objectives were achieved:					
Identify the limitations associated with this single-center retrospective study.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify specific examples when regadenoson would have an advantage over adenosine or dipyridamole.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discuss the advantages and disadvantages of administering regadenoson at rest, peak exercise, and during recovery.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To understand the effects of the timing of Regadenoson injection to changes in hemodynamics.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To understand the effects of the timing of Regadenoson injection to the incidence of vasodilator side effects.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Disclosure was made to the participants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Did you perceive any commercial bias throughout the article? If so, please list the author(s) and the perceived bias(es):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Will any of the topics presented in the article improve the quality of care in your practice? If so, in what way?					
5. Do you feel future activities on this subject matter are necessary or important to your practice?					
6. Please list any comments/suggestions for future activities:	<input type="radio"/> Yes <input type="radio"/> No				