

CONTINUING EDUCATION TEST

Newer Agents for Brain Imaging: The Technologist's Perspective

For each of the following questions, select the best answer. Then circle the number on the CE Tests Answer Sheet that corresponds to the answer you have selected. Keep a record of your responses so that you can compare them with the correct answers, which will be published in the next issue of the *Journal*. Answers to these test questions should be returned on the Answer Sheet no later than September 1, 1993. Supply your name, address, and VOICE number in the spaces provided on the Answer Sheet. Your VOICE number appears on the upper left hand corner of your *Journal* mailing label. No credit can be recorded without it. A 70% correct response rate is required to receive 0.1 CEU credit for this article. Members participating in the continuing education activity will receive documentation on their VOICE transcript, which is issued in March of each year. Nonmembers may request verification of their participation but do not receive transcripts.

A. Neuroimaging can be performed for _____.

101. specific brain receptors
102. rCBF
103. peripheral nervous system
104. all of the above
105. 101 and 102
106. 101 and 103

B. The first FDA-approved agent for brain perfusion was _____.

107. ^{99m}Tc -exametazine
108. ^{123}I iodoamphetamine
109. ^{99m}Tc -ethyl cysteinate dimer

C. ^{99m}Tc -exametazine, ^{123}I iodoamphetamine, and ^{99m}Tc -ethyl cysteinate dimer are all lipophilic.

110. true
111. false

D. Uptake of ^{123}I iodoamphetamine occurs _____.

112. immediately after injection and remains stable over 6–8 hr
113. 5-min postinjection and slowly drops over 4 hr
114. immediately after injection and sharply increases over a short period
115. 45–50 min postinjection

E. The clinical significance of "redistribution" of ^{123}I iodoamphetamine is _____.

116. that it is a prognostic indicator for stroke recovery
117. controversial
118. nonexistent

F. A ^{123}I iodoamphetamine brain scan patient is premedicated with _____ and dosed with _____ mCi.

119. Lugol's solution, 3–6
120. Lugol's solution, 10–30
121. potassium perchlorate, 3–6
122. potassium perchlorate, 10–30

G. ^{99m}Tc -exametazine is available in kit form and requires preparation by the nuclear medicine technologist.

123. true
124. false

H. ^{99m}Tc -exametazine is _____.

125. trapped within 5-min postinjection and washes out over 4 hr
126. trapped within 45–50 min postinjection
127. rapidly trapped in gray matter and remains stable for 6–8 hr

I. For reconstitution of ^{99m}Tc -exametazine, the package insert recommends _____.

128. injection <30 min postreconstitution
129. a maximum of 30 mCi of pertechnetate for reconstitution
130. fresh eluate (≤ 2 -hr old) from a generator that has been eluted within 24 hr
131. all of the above

J. The quickest essential radiochemical purity testing for ^{99m}Tc -exametazine can be done with _____.

132. ethyl acetate and Gelman pads
133. three strips and three solvents
134. sodium chloride and Whatman paper

K. Normal brain uptake of ^{99m}Tc -exametazine is not affected by sensory input.

135. true
136. false