

CE ARTICLE TEST

For each of the following twelve questions, select the best answer. Then circle the number on the reader service card 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.

A. *Gold-195m is an alternative radiotracer to technetium-99m for _____.*

- 91. first-pass angiocardiology.
- 92. equilibrium cardiac function testing.
- 93. myocardial imaging.
- 94. both 91 and 93.

B. *The radiation burden to the patient is limited by _____ breakthrough when using the Au-195m generator.*

- 95. gold-195.
- 96. platinum-195.
- 97. mercury-195.
- 98. mercury-195m.

C. *What is the most significant limiting factor regarding total patient dosage with Au-195m?*

- 99. the gonadal radiation exposure.
- 100. radiation dose to the kidneys.
- 101. whole body radiation exposure.
- 102. radiation exposure to the thyroid gland.

D. *The time between elution of the Au-195m generator and injection should be within _____.*

- 103. 10 seconds.
- 104. 30 seconds.
- 105. 60 seconds.
- 106. 10 min.

E. *Which of the following characteristics make radiolabeled amines promising as compounds to measure regional cerebral physiology?*

- 107. They cross the normal blood-brain barrier.
- 108. They cross the abnormal blood-brain barrier.
- 109. They are retained in the brain parenchyma.
- 110. All of the above.

F. *In cases of cerebral infarction, how long after the onset of symptoms will decreased perfusion be apparent with I-123 iodoamphetamines?*

- 111. immediately.
- 112. 24 hours.
- 113. 3-4 days.
- 114. 7-10 days.

G. *When using radiolabeled amines, imaging can be started at what time after administration?*

- 115. immediately.
- 116. 10-20 min.
- 117. 1 hr.
- 118. 2 hr.

H. *The most formidable problem encountered when using I-123 radioamines is:*

- 119. radiochemical purity.
- 120. radionuclide purity.
- 121. toxicity due to the large injection dose.
- 122. radiosensitivity of amines as a group.

I. *Technetium-99m-DTPA aerosol imaging has been proposed as an alternative for _____ imaging.*

- 123. Tc-99m-MAA perfusion.
- 124. Tc-99m-human albumin microsphere perfusion.
- 125. xenon-133 ventilation.
- 126. krypton-81m ventilation.

J. *Aerosolization of 45 mCi of Tc-99m-DTPA in 3 ml results in a maximum dose of _____ delivered to the lungs.*

- 127. 200 μ Ci.
- 128. 2 mCi.
- 129. 4.5 mCi.
- 130. 20 mCi.

K. *The most significant factor limiting the use of Tc-99m-aerosol preparations has been:*

- 131. their cost.
- 132. their availability.
- 133. the control of particle size.
- 134. both 131 and 133 are correct.

L. *The half-life clearance of inhaled Tc-99m-DTPA from the lungs of smokers was _____ when compared to nonsmokers.*

- 135. increased (slower).
- 136. decreased (faster).
- 137. about the same.

Your answers to the above questions should be returned on a reader service card (found in the back of the Journal) no later than Sept. 1, 1984. Remember to supply your name and address in the space provided on the card; also write your VOICE number following your name. Your VOICE number appears on the upper left hand corner of your Journal mailing label. No credit can be recorded without it.