

CONTINUING EDUCATION TEST #1

Radiopharmaceuticals in PET Imaging

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. Complete the answer sheet. 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 *JNMT*. Answers to these test questions should be returned on the Answer Sheet no later than **February 15, 1999**. An 80% correct response rate is required to receive 1.0 CEH (Continuing Education Hour) credit for each article. SNM Technologist Section members can find their VOICE number on the upper left-hand corner of their *JNMT* mailing labels. If you've joined our Nonmember VOICE Tracking Program, please write **NMVTP** on the Answer Sheet (no extra fee is required). Documentation will appear on your VOICE transcript. Nonmembers who have not joined our Nonmember VOICE Tracking Program must mail a \$10.00 check or money order, made payable to SNM, for each completed quiz. You will receive a certificate of completion indicating credit awarded for receiving a passing score of 80% or better.

A. *PET center expenses include the costs of:*

101. a cyclotron and/or radiopharmaceuticals.
102. a PET scanner and maintenance.
103. laboratory equipment.
104. space and upkeep.
105. all of the above.

B. *Unit dose PET radiopharmaceutical vendors _____.*

106. supply personnel to set up and operate an in-house cyclotron
107. prepare, synthesize and package unit dose PET isotopes for delivery to surrounding hospitals
108. are not responsible for assuring quality control specifications are met for each dose administered
109. instruct the hospital staff on correct procedures for performing quality control on the products before injection
110. all of the above

C. *Sodium iodide crystals in conventional SPECT cameras are insufficient for PET imaging because _____.*

111. the high-energy photons pass through the crystal without interaction
112. the time for scintillations to occur within the crystal is too long, causing inaccurate detection at high count rates
113. the crystals cannot be manufactured in quantity
114. 111 and 112
115. none of the above

D. *Characteristics of PET isotopes include:*

116. release of two 511-keV photons in 180° angles.
117. have long half-lives.
118. have multiple energy peaks.
119. 116 and 117.
120. none of the above.

E. *Positron emitters are available in a generator form.*

121. true
122. false

F. *The physical half-life of ^{15}O is _____.*

123. 20 sec
124. 2 min
125. 10 min
126. 20 min
127. 2 hr

G. *Although ^{15}O is clinically useful, it has limited applications in the traditional nuclear medicine department because _____.*

128. the department lacks the appropriate equipment for imaging
129. the short half-life of ^{15}O limits it from being used unless there is an on-site cyclotron
130. ^{15}O has been shown to not image well on SPECT cameras
131. ^{15}O is too expensive to use except in research institutes
132. 128 and 130

H. *Nitrogen-13 ammonia is used for _____.*

133. myocardial blood flow studies
134. myocardial metabolism
135. cerebral oxygen consumption
136. blood-pool studies
137. 135 and 136

I. *Carbon-11 fatty acids can be used to study myocardial metabolism.*

138. true
139. false

J. *Fluorine-18-labeled FDG can be used for which of the following imaging studies?*

140. Localization of seizure focus.
141. Localization of active tumors throughout the body.
142. Myocardial metabolism.
143. 141 and 142 only.
144. 140, 141 and 142.

K. *Minimizing exposure when handling PET isotopes can be done by _____.*

145. increasing the amount of shielding
146. increasing the amount of time during which the dose is handled
147. leaving the dose unshielded for extended periods of time
148. allowing patients to wait in a busy waiting room between the injection and the scan
149. 145 and 148

L. *PET isotopes can interfere with image acquisition on other cameras.*

150. true
151. false

M. *Approximately how long must ^{18}F waste be held for decay?*

152. 2 hr
153. 2 wk
154. 24 hr
155. 24 days
156. 2 mo

CONTINUING EDUCATION TEST #2

Patient Education: A Mandate for Health Care in the 21st Century

N. *When was the Patient's Bill of Rights, mandating patient education, passed by the American Hospital Association?*

- 157. 1912
- 158. 1957
- 159. 1972
- 160. 1992
- 161. 1997

O. *Patient and family education was mandated by JCAHO in _____.*

- 162. 1904
- 163. 1954
- 164. 1974
- 165. 1994
- 166. 1997

P. *100% of all U.S. hospitals provide formal patient education programs.*

- 167. true
- 168. false

Q. *Which of the following are reasons used by hospitals to implement patient education programs?*

- 169. Accreditation mandates.
- 170. State mandates.
- 171. Attract patients.
- 172. 169 and 170.
- 173. 169, 170 and 171.

R. *Which of the following is a means of care that uses patient education as a central aspect of the treatment process?*

- 174. Patient-focused care.
- 175. Total quality management.
- 176. Clinical pathways.
- 177. 174 and 175.
- 178. 174, 175 and 176.

S. *When is the motivation to learn typically greatest?*

- 179. When the patient identifies a need.
- 180. When the information will appear to fill a need.
- 181. When the teacher indicates the need to learn.
- 182. 179 and 180 only.
- 183. 180 and 181 only.
- 184. 179, 180 and 181.

T. *People with an internal locus of control generally _____.*

- 185. attribute success or failure to their own abilities
- 186. attribute success to luck
- 187. attribute failure to task difficulty
- 188. see little need to engage in health care interventions
- 189. 186 and 187

U. *What do most patients want to know before a procedure?*

- I. How much radiation they will receive.
- II. Whether the technologist is competent.
- III. What exactly will be done to them.
- 190. I and II only.
- 191. I and III only.
- 192. II and III only.
- 193. I, II, and III.

V. *Which of the following cultures might find too much space inappropriate to conversation?*

- 194. Anglo-Saxon.
- 195. Asian.
- 196. African-American.
- 197. Middle Eastern.
- 198. 195 and 197.

W. *Miller's study indicated that most people can understand up to the number _____ in concrete terms.*

- 199. 3
- 200. 5
- 201. 7
- 202. 9
- 203. 11

X. *Most illiterate or semiliterate patients will ask for clarification of written patient education material they do not understand.*

- 204. true
- 205. false

Answers to CE Article Test #1, September 1998

The continuing education article "Indium-111 Satumomab Pendetide" by Bohdiewicz was accompanied by a CE test. The correct answers are as follows.

- | | | | | |
|--------|--------|--------|--------|--------|
| A. 101 | D. 111 | G. 120 | J. 127 | M. 137 |
| B. 104 | E. 113 | H. 123 | K. 130 | N. 142 |
| C. 109 | F. 116 | I. 126 | L. 134 | O. 146 |

Answers to CE Article Test #2, September 1998

The continuing education article "Nuclear Cardiology, Part III" by Everaert, et al. was accompanied by a CE test. The correct answers are as follows.

- | | | | | |
|--------|--------|--------|--------|--------|
| P. 148 | R. 160 | T. 170 | V. 181 | X. 189 |
| Q. 154 | S. 165 | U. 177 | W. 187 | Y. 191 |

**Nonmembers
\$10 Fee per Test**

CONTINUING EDUCATION TESTS #1 and #2

Answer Sheet

101	111	121	131	141	151	161	171	181	191	201	211	221	231	241
102	112	122	132	142	152	162	172	182	192	202	212	222	232	242
103	113	123	133	143	153	163	173	183	193	203	213	223	233	243
104	114	124	134	144	154	164	174	184	194	204	214	224	234	244
105	115	125	135	145	155	165	175	185	195	205	215	225	235	245
106	116	126	136	146	156	166	176	186	196	206	216	226	236	246
107	117	127	137	147	157	167	177	187	197	207	217	227	237	247
108	118	128	138	148	158	168	178	188	198	208	218	228	238	248
109	119	129	139	149	159	169	179	189	199	209	219	229	239	249
110	120	130	140	150	160	170	180	190	200	210	220	230	240	250

Name _____ Title _____

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VOICE/Membership No. _____ Or Check: Nonmember—check for \$10 per test enclosed

Today's Date _____

Return a copy of this answer sheet no later than **February 15, 1999** to:
 Continuing Education Coordinator, *Journal of Nuclear Medicine Technology*
 Marcia Ferg, The Society of Nuclear Medicine, 1850 Samuel Morse Dr., Reston, VA 20190.
 FAX: 703-708-9015.