CONTINUING EDUCATION TEST #1

Nuclear Cardiology, Part I

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 **May 15, 1998**. 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. *The wall of the heart consists of how many layers in both the atria and the ventricles?*

101. 1
102. 2
103. 3
104. 4
105. 5

B. *The aorta, superior vena cava, pulmonary artery and pulmonary veins lie posterior to the heart.*

106. true
107. false

C. *The four pulmonary veins empty their contents into the right atrium of the heart.*

108. true
109. false

D. *How many leaflets does the tricuspid valve have?*

110. 1
111. 2
112. 3
113. 4
114. 5

E. *The major portion of the external surface of the left ventricle lies posterolateral to the rest of the heart.*

115. true
116. false

F. *The right and the left ventricle each have three papillary muscles.*

117. true
118. false

G. *The left ventricular wall is approximately three times as thick as the right because the left ventricle must generate three times as much pressure as does the right ventricle.*

119. true
120. false

H. *The left ventricle delivers deoxygenated blood from the body to the lungs.*

121. true
122. false

I. *Four valves control the one-way flow through the atria and ventricles and into the pulmonary and systemic circulations.*

123 true
124. false

J. *Which coronary artery supplies the right atrium, the right ventricle, the posterior part of the interventricular septum, and most of the inferior wall of the left ventricle?*

125. the left coronary artery
126. the right coronary artery

K. *The right mainstem coronary artery bifurcates into two branches: the right anterior descending artery and the right circumflex artery.*

127. true
128. false

L. *Which of the following is the cardiac pacemaker?*

129. the left ventricular apex
130. the sinus node
131. the atrioventricular node
132. the atrioventricular bundle
133. the tricuspid valve

M. *The ventricular wave of contraction begins at the base of the heart and forces blood into both the pulmonary artery and the aorta, which leave the heart near its apex.*

134. true
135. false

N. *After complete cardiac diastole the cycle begins again with ventricular systole.*

136. true
137. false

Scintillation Camera Quality Control, Part I

O. *Quality control should be performed _____.*

138. weekly
139. whenever the camera is not performing properly
140. daily, weekly and periodically
141. daily

P. *Which of the following is not a reason for performing scintillation camera quality control?*

142. required by regulatory and accreditation authorities
143. satisfy referring physicians
144. minimize camera downtime
145. so the camera is operating at or near the performance level achieved when the camera was initially installed

Q. *The performance criteria for the scintillation camera and limits of acceptable operation are determined by _____.*

146. manufacturer's published specifications
147. the results of the initial quality control data
148. acceptance test data
149. 147 and 148

R. *Which of the following is not a mandatory component of daily quality control?*

150. energy calibration
151. linearity and resolution check
152. background check
153. low-count qualitative flood-field uniformity

S. *Which of the following is correct?*

154. Quality control procedures are independent of the scintillation camera.
155. The quality control procedure should take into account the procedures performed on the camera.
156. Quantitative floods for radionuclides other than ^{99m}Tc must be performed weekly.
157. There is no need to review quality control data, it is just performed to satisfy regulatory authorities.

T. *For cameras being used for SPECT imaging, which of the following quality control procedures are not mandatory?*

158. COR
159. collimator sensitivity
160. high-count (quantitative flood)
161. pixel calibration

U. *Scintillation camera quality control should be performed _____.*

162. as required
163. sometime during the day
164. before imaging any patient each day
165. at the direction of the nuclear medicine physician

V. *Which of the following is* not *a component of a quality control procedure?*

166. performing the procedure
167. having the regulatory authorities review the quality control data each quarter
168. daily and weekly review of the quality control data
169. taking action when the results of the quality control procedure exceed the performance limits

W. *Which of the following is not true with respect to scheduling the quality control procedures?*

170. The responsibility for performing quality control should be rotated among the nuclear medicine technologists.
171. The daily quality control procedures should be fitted into the procedure and technologist schedule during the day.
172. To save time, schedule procedures that require special sources or phantoms to be performed in the same block of time, if possible.
173. Weekly and periodic quality control procedures can be scheduled at the most convenient time during the week.

X. *To obtain an adequate budget for the quality control program, which of the following steps should be taken?*

174. Make sure the administration is aware of the benefits of the quality control program.
175. Prepare a cost analysis for performing quality control and incorporate these costs into the cost of performing the nuclear medicine procedures with the hope of recovering the cost of quality control.
176. Make sure the administration is aware of the regulatory and accreditation requirements of the quality control program.
177. All of the above are correct.

Y. *The laboratory's scintillation camera quality control procedure manual should contain all* but *which one of the following items?*

178. detailed description of how to perform each quality control procedure
179. the cost of performing each quality control procedure
180. the necessary forms to record the results of the quality control procedures
181. the frequency with which periodic quality control procedures should be performed

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Z. *Which of the following is/are true?*

182. Performing quality control on scintillation cameras is purely voluntary.
183. For quality control to have any value, the results must be reviewed and action taken if the results are outside the performance limits.
184. Daily quality control must be performed before imaging any patients.
185. 183 and 184 are true

Answers to CE Article Test #1, December 1997

The continuing education article "Caring for the Older Patient, Part IV" by Steves and Dowd was accompanied by a CE test. The correct answers are as follows:

A. 103	C. 112	E. 118	G. 123	I. 132	K. 135
B. 107	D. 114	F. 121	H. 128	J. 134	L. 139

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

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Today's Date _____

Return a copy of this answer sheet no later than **May 15, 1998** to:
Continuing Education Coordinator, *Journal of Nuclear Medicine Technology*
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