

CONTINUING EDUCATION TEST #1

The Declared Pregnant Woman in Nuclear Medicine

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 **August 15, 1996**. 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 check the **NMVT** box on the Answer Sheet (no extra fee is required). Documentation will appear on your VOICE transcript which is issued in March of each year. Nonmembers who have not joined our Nonmember VOICE Tracking Program must mail a \$10.00 check or money order, made payable to SNM, along with the completed quiz. You will receive a certificate of completion indicating credit awarded for receiving a passing score of 80% or better.

A. *The revised Standards for Protection Against Radiation, 10 CFR 20 limits the radiation dose limit for the declared pregnant woman to _____.*

- 101. 5 mSv (0.5 rem)
- 102. 15 mSv (1.5 rem)
- 103. 25 mSv (2.5 rem)
- 104. 50 mSv (5.0 rem)
- 105. 100 mSv (10.0 rem)

B. *Higher sensitivity to radiation injury is exhibited by which of the following?*

- 106. highly differentiated cells
- 107. fetal cells
- 108. undifferentiated cells
- 109. dividing cells
- 110. 107, 108 and 109

C. *The embryo is more insensitive to radiation injury than the fetus.*

- 111. true
- 112. false

D. *The linear no threshold dose response model assumes that _____.*

- 113. the probability of radiation injury is inversely proportional to the magnitude of radiation exposure
- 114. the magnitude of the radiation exposure is not related to the severity of radiation injury
- 115. the probability of radiation injury is proportional to the magnitude of radiation exposure
- 116. there is a high probability of biological effect associated with low radiation exposure
- 117. none of the above

E. *Nonstochastic effects of radiation exposure to the embryo include which of the following?*

- 118. congenital malformations
- 119. growth retardation
- 120. mental retardation
- 121. leukemia
- 122. 118, 119 and 120

F. *Draft Regulatory Guide DG-8014 specifies which of the following?*

- 123. the duration of time during which a pregnant woman may work as an occupational worker
- 124. the NRC's policy on declared pregnant women and when they can work
- 125. how instruction to occupational workers is to be provided
- 126. when the employer should place the pregnant worker on medical leave
- 127. all of the above

G. *A declared pregnant woman is one who has voluntarily elected to declare her pregnancy verbally to her employer.*

- 128. true
- 129. false

H. *A dose estimate of the approximate radiation dose to the fetus prior to declaration can be based on which of the following?*

- 130. previous dosimetry reports
- 131. air monitoring
- 132. bioassay
- 133. area monitoring records
- 134. all of the above

I. *A declared pregnant woman may revoke her declaration of pregnancy.*

- 135. true
- 136. false

J. *Personal monitoring may not be necessary for some workers who are not likely to exceed _____ of the annual TEDE limit.*

- 137. 1%
- 138. 10%
- 139. 20%
- 140. 40%
- 141. 50%

K. *The annual TEDE limit is _____.*

- 142. 5 mSv
- 143. 10 mSv
- 144. 20 mSv
- 145. 40 mSv
- 146. 50 mSv

L. *A declared pregnant woman should not average more than _____ per month.*

- 147. 0.1 mSv
- 148. 0.2 mSv
- 149. 0.3 mSv
- 150. 0.4 mSv
- 151. 0.5 mSv

M. *The dose to an embryo/fetus is equivalent to the _____ of the mother.*

- 152. TEDE
- 153. LDE
- 154. SDE
- 155. LCT
- 156. DDE

(continued)

CONTINUING EDUCATION TEST #1 (continued)

N. Data required for the determination of an embryonic/fetal internal dose includes which of the following?

- 157. mother's intake of radioactive material prior to pregnancy
- 158. transfer kinetics from the mother to the embryo/fetus
- 159. route of intake by the mother
- 160. 157 and 159
- 161. all of the above

O. Intake of radioactive material is the value of the calculated uptake divided by the intake retention factor (IRF).

- 162. true
- 163. false

P. An acceptable inhouse policy for declared pregnant workers should contain which of the following provisions?

- 164. allowance for voluntary declaration of pregnancy
- 165. fetal dose limit
- 166. reassignment of the pregnant worker to a non-occupational job
- 167. appropriate training for all occupational workers
- 168. 164, 165 and 167

CONTINUING EDUCATION TEST #2

Effectively Interacting with the Terminally Ill Patient

Q. The universal emotion shared by all terminally ill patients is _____.

- 169. fear
- 170. anger
- 171. depression
- 172. resignation

R. The terminally ill patient may express anger about which of the following?

- 173. at the unfairness of the situation
- 174. at those that reinforce the terminal diagnosis
- 175. at those enjoying the benefits of good health
- 176. all of the above

S. In dealing with the terminally ill patient, the technologist's ultimate goals should be which of the following?

- 177. quality patient care
- 178. a diagnostic imaging result
- 179. to remain emotionally intact
- 180. all of the above

T. Erratic emotions are normal for a terminally ill patient.

- 181. true
- 182. false

U. Signs of physical deterioration in the terminally ill patient include all of the following except _____.

- 183. weight loss
- 184. decreased pain
- 185. bloating
- 186. loss of motor skills

V. Signs of chronic stress which may be observed in a terminal patient's family or friends include which of the following?

- 187. excessive use of alcohol
- 188. excessive dependence on drugs
- 189. excessive eating
- 190. cessation of eating
- 191. all of the above

W. If the technologist observes extreme dysfunctional behavior by the terminally ill patient's family, she should _____.

- 192. involve another technologist
- 193. ignore the behavior
- 194. notify the patient's physician
- 195. notify the family member's employer
- 196. none of the above

X. Chronic pain causes negative emotions such as anxiety, anger and depression.

- 197. true
- 198. false

Y. Patients who are in pain may exhibit which of the following behaviors?

- 199. gruffness
- 200. short attention span
- 201. low level of comprehension
- 202. high frustration level
- 203. all of the above

Z. Grief, a natural response to an important loss, results in which of the following behaviors?

- 204. anger
- 205. denial
- 206. bargaining
- 207. depression
- 208. all of the above

AA. Clear communication techniques include all of the following except _____.

- 209. speaking slowly and clearly
- 210. putting instructions in writing
- 211. explaining in detail
- 212. always using medical terminology
- 213. practicing WEG

BB. Long-term coping mechanisms for dealing with stress include reading, exercising and hobbies.

- 214. true
- 215. false

CC. A supportive network allows the individual to _____.

- 216. replenish emotional reserves
- 217. perform negative activities
- 218. have others bear the stress
- 219. ignore their emotional well-being

Answers to CE Article Test #1, March 1996

The Continuing Education article "The Clean Air Act and Nuclear Medicine" by Daniel F. Kane was accompanied by a CE test. The correct answers are as follows.

- A. 105 D. 115 G. 128 J. 141 M. 151
 B. 106 E. 118 H. 133 K. 145
 C. 109 F. 125 I. 136 L. 147

Answers to CE Article Test #2, March 1996

The Continuing Education article "An Introduction to the Internet, Part #4" by Jerry V. Glowniak was accompanied by a CE test. The correct answers are as follows.

- N. 157 Q. 167 T. 181 W. 196 Z. 212
 O. 160 R. 170 U. 183 X. 202 AA. 216
 P. 161 S. 174 V. 192 Y. 206 BB. 218

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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VOICE No. _____ Or please check one: NMVTP participant (no fee required) Nonmember—\$10 check or money order enclosed

Return a copy of this answer sheet no later than August 15, 1996 to:
 Continuing Education Coordinator, *Journal of Nuclear Medicine Technology*
 Marcia Ferg, The Society of Nuclear Medicine, 1850 Samuel Morse Dr., Reston, VA 22090-5316.
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