

CONTINUING EDUCATION TEST

Strontium-89 Therapy in Painful Bony Metastases

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 December 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. *Strontium-89 treatment can be performed on an outpatient basis, repeated at three month intervals, and there is no limit on the number of injections allowable.*

- 101. true
- 102. false

B. *Besides mild myelosuppression, an additional side effect of ⁸⁹Sr therapy, which has been noted by most investigators, is _____.*

- 103. nausea
- 104. diarrhea
- 105. flare response
- 106. decreased appetite

C. *Strontium-89 has a half-life of _____.*

- 107. 50.6 min
- 108. 12 hr
- 109. 50.6 days
- 110. 2 mo

D. *Uptake of ⁸⁹Sr by bone occurs preferentially in sites of _____.*

- 111. necrotic tumor
- 112. avascular bone
- 113. active osteogenesis
- 114. dormant osteoblasts

E. *Bone pain from metastatic disease is usually caused by _____.*

- 115. infiltration and expansion of periosteal membranes by tumor
- 116. encroachment on hematopoietic tissue in the marrow
- 117. compression of the spinal cord or nerve roots
- 118. pathologic fractures
- 119. all of the above

F. *At later stages of the disease; metastases to the skeleton occur in greater than 50% of patients with breast, lung, or prostate cancer.*

- 120. true
- 121. false

G. *Bony metastases are usually multiple and often widespread. Which of the following may extend more long-lasting relief?*

- 122. surgical procedures
- 123. external beam radiotherapy
- 124. chemotherapies
- 125. systemic radiation with use of radiopharmaceuticals

H. *The average percent reduction in platelet counts post ⁸⁹Sr radiotherapy is _____.*

- 126. 10%–20%
- 127. 20%–30%
- 128. 30%–40%
- 129. 40%–50%

I. *Shielding strontium-89 with _____ is preferable.*

- 130. lead
- 131. glass
- 132. plastic
- 133. 130 or 131
- 134. 131 or 132
- 135. all of the above

J. *Strontium-89 selectively irradiates sites of normal bone more than metastatic bone.*

- 136. true
- 137. false

K. *Radiation dosimetry of ⁸⁹Sr to the bone marrow is _____.*

- 138. complicated due to inhomogeneity of deposition
- 139. negligible due to beta emissions
- 140. negligible due to gamma emissions
- 141. very high due to 1.46 MeV beta emissions