

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 of Nuclear Medicine Technology*.

A. *In order to produce a white blood cell (WBC) button for radiolabeling, the technologist must initially:*

1. wash the cells with saline.
2. centrifuge blood sample.
3. express leukocyte rich plasma from blood sample.
4. filter blood sample.

B. *Using the Indium-111-oxine labeling technique, the activity associated with the white blood cells and that of the wash was 267 and 33 microcuries, respectively. The labeling efficiency is:*

5. 27%.
6. 78%.
7. 89%.
8. 95%.

C. *When labeling autologous WBCs with In-111-oxine, the activity of the final product should be limited to:*

9. 0.20 mCi.
10. 0.50 mCi.
11. 1.0 mCi.
12. 1.5 mCi.

D. *The gamma camera photopeaks for Indium imaging should be set at:*

13. 150, 173.
14. 175, 280.
15. 173, 247.
16. 200, 373.

E. *Approximately 24 hours post injection, the greatest concentration of In-111-leukocyte activity would be in the:*

17. spleen.
18. liver.
19. bone marrow.
20. blood pool.

F. *When labeling WBCs with In-111-tropolone, a settling agent (6% Hetastarch) is used to:*

21. increase RBC sedimentation.
22. decrease RBC sedimentation.
23. prevent coagulation.
24. induce coagulation.

G. *Which if the following factors are affected by cell washing: (a) labeling efficiency, (b) cell clumping, (c) protective plasma coating, (d) incubation time?*

25. a only.
26. c only.
27. a, b, and c.
28. a and d only.

H. *When labeling autologous WBCs with In-111-oxine, washing the cells with saline will:*

29. decrease in vitro cell clumping.
30. increase labeling efficiency.
31. decrease lung uptake.
32. increase In-111 labeling of transferrin.

I. *The mortality rate for untreated intra-abdominal abscesses is between:*

33. 0-10%.
34. 10-20%.
35. 20-30%.
36. 30-40%.

J. *Quality control procedures performed prior to intravenous injection:*

37. are very good predictors of clinical utility.
38. have not yet been developed.
39. are not as reliable as measurements of recovery and survival after intravenous injection.
40. are uniformly valid for every laboratory.

K. The collimator of choice for Indium imaging is:

- 41. low energy high sensitivity.
- 42. low energy high resolution.
- 43. medium energy parallel hole.
- 44. high energy parallel hole.

L. In the diagnosis of upper abdominal abscesses, which of the following radiopharmaceuticals may be helpful in conjunction with *In-111* leukocytes?

- 45. Tc-99m red blood cells.
- 46. Tc-99m sulfur colloid.
- 47. Tc-99m MDP.
- 48. Tc-99m DTPA.

Your answers to the above questions should be returned on a reader service card (found in the back of the *Journal*) no later than December 1, 1984. Remember to supply your name and address in the space provided on the card. 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.

Answers to CE Article Test, June 1984

The continuing education article in the June 1984 issue, "Developing Radiopharmaceuticals" by Michael W. Plankey, Sharon Lind, Robert J. English, and B. Leonard Holman was accompanied by a CE article test. These are the correct answers to the questions:

A.	91	G.	116
B.	98	H.	120
C.	100	I.	125
D.	103	J.	127
E.	107	K.	133
F.	111	L.	136

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Manuscripts should be prepared according to the *JNMT* style manual instructions. An abstract should be submitted with the paper on the official form, which may be obtained from the November issue of the *JNM* or by following the instructions in the "Call for Abstracts" on pg. 152. Send completed manuscripts and the accompanying abstract form to:

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Deadline for submissions is January 10, 1984.