

Answers to the Questions on Pages 204 and 205

Question 1

Answer = D

- A. Incorrect. Potassium analogs, such as ^{201}Tl , are actively transported into cells, for example, myocytes, via the Na-K pump.
- B. Incorrect. ^{67}Ga citrate is an iron analog that binds to and is circulated by transferrins, ceruloplasmins, and serum-binding proteins. Ultimately, ^{67}Ga preferentially binds to chelates, such as lactoferrin, which are present in higher concentrations at sites of inflammation and infection.
- C. Incorrect. Diphosphonates (e.g., methylene diphosphonate used in bone scans) localize to bone and osteoblast surfaces on the basis of ion exchange.
- D. Correct. Heat denaturing of red blood cells converts them into rigid spherocytes, which are then sequestered in the spleen via its normal filtering physiology. Additionally, like $^{99\text{m}}\text{Tc}$ -colloids, $^{99\text{m}}\text{Tc}$ -DRBCs are phagocytized by the reticuloendothelial system. However, DRBCs and colloids have different levels of overlapping biodistributions, as is described in the case discussion.

Question 2

Answer = A

CT and MRI are not sensitive or specific in the detection of splenosis due to the broad differential of soft-tissue masses, including the evaluation of pulmonary nodules (e.g., metastases, mesothelioma, lymphoma, invasive thymoma, primary neoplasm, and pleural plaques). $^{99\text{m}}\text{Tc}$ -DRBCs have a higher ratio of target uptake (splenic tissue) to background uptake, contributing to a higher sensitivity and specificity than are obtained with radiolabeled sulfur colloid scans (1,2).

Errata

The continuing education test for “Breast Imaging Devices for Nuclear Medicine,” by Prekeges (*J Nucl Med Technol.* 2012;40:71–78), contained some errors. The correct test is available on the SNMMI Web site at <http://interactive.snmmi.org/index.cfm?PageID=11769>. We regret the error.

On page 213 of the article “SNM Practice Guideline for Hepatobiliary Scintigraphy 4.0,” by Tulchinsky et al. (*J Nucl Med Technol.* 2010;38:210–218), a sincalide infusion dose was listed incorrectly (0.15 $\mu\text{g}/\text{kg}$). The correct statement follows: “A dataset with infusion of 0.015 $\mu\text{g}/\text{kg}$ over 45 min and GBEF measured at 60 min showed acceptable variability.” The authors regret the error.