

Four sample questions taken from the Board's annual In-Service examination are presented to illustrate the type of questions used in the Certifying and Re-certifying examinations, as well as the In-Service examination. These questions were selected because they performed well as determined by a rigorous statistical analysis of all examination questions. These examples are not meant to illustrate the range of material covered by these tests. Further information about the knowledge expected of candidates is presented in a recent article in the *Journal of Nuclear Medicine* (*J Nucl Med* 2003;44:988-990)

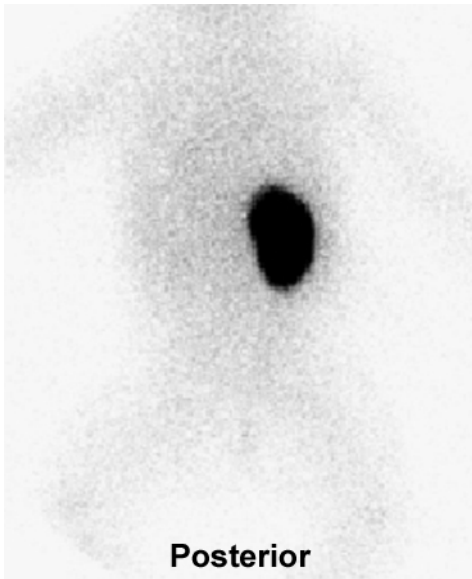
The correct answers are listed after the questions.

1. In a 20 min ^{99m}Tc -MAG3 study, which is the best time interval to calculate renal function:
 - (1) 1-3 min
 - (2) 1-5 min
 - (3) 1-10 min
 - (4) 1-20 min

2. One hundred patients underwent angiotensin converting enzyme-inhibition (ACEI) renography. Twenty had high probability studies for renovascular hypertension and all were revascularized. Eighteen out of 20 revascularized patients had improvement or normalization of their blood pressure. An additional 20 patients underwent angiography because of a high index of clinical suspicion; 10 had renal artery stenosis, all were revascularized and 6 had improvement or normalization of their blood pressure. Based on the data presented, what is the positive predictive value of a high-probability ACEI renogram:
 - (1) 90%
 - (2) 80%
 - (3) 60%
 - (4) cannot be determined from the data presented

3. A ^{99m}Tc -DMSA scan of a 2 month old boy is shown below. The most likely diagnosis is:

- (1) left hydronephrosis
- (2) multicystic dysplastic left kidney
- (3) cross-fused renal ectopia
- (4) renal infarct



4. A 24-hour ^{111}In -leukocyte scan was obtained in a 73 year old woman with stage IV giant cell lymphoma, high white cell count and fever. She had negative blood cell cultures. The most likely diagnosis is:

- (1) pelvic lymphoma
- (2) pelvic abscess
- (3) uterine fibroid
- (4) normal bladder activity



Answers:

- 1. answer = 1
- 2. answer = 1
- 3. answer = 2
- 4. answer = 2