

NUCLEAR MEDICINE BOARD EXAM 2 LATEST VERSIONS AND STUDY GUIDE (VERSION A AND B) 2023-2024 ACTUAL EXAM QUESTIONS AND CORRECT DETAILED ANSWERS WITH RATIONALES (VERIFIED ANSWERS) | ALREADY GRADED A+||COMPLETE STUDY MATERIAL

VERSION A

which procedure is the RP administered orally?

- a. vesicoureteral reflux
- b. GI bleed
- c. salivary gland imaging
- d. gastric emptying
- e. GBEF - ANSWER- d. gastric emptying

static renal imaging is performed how long after administration of Tc99m succimer? - ANSWER- 2 hours

patient prep for Ga67 citrate imaging includes? - ANSWER- laxatives

a normal biodistribution of In111-labeled leukocytes will demonstrate the greatest tracer uptake at 24 hours after injection in which site? - ANSWER- the spleen

hypoglycemic patient will exhibit what symptoms? - ANSWER- weakness, shakiness, confusion, irritability, and low blood sugar

counting cotton gauze that has been placed in a patients nose after intrathecal tracer administration is most useful when which condition is suspected? - ANSWER- **rhinorrhea**

colloidal (³² chromic phosphate is administered by which route? - ANSWER- **intraperitoneal**

on the basis of blood flow, what is visualized as an area of high tracer concentration on a brain image performed with Tc99m exametazime? - ANSWER- **gray matter**

LeVeen shunt patency may be demonstrated with which RP? - ANSWER- **Tc99m MAA or Tc99m sulfur colloid**

learnexams

what is common to imaging gastroesophageal reflux in both adults and children? - ANSWER- **tc99m sulfur colloid is the tracer of choice**

ROI for detection of a left-to-right cardiac shunt are drawn around which structures? - ANSWER- **one or both lungs**

common antecubital vein used for IV administration of a RP is the: - ANSWER- **cephalic**

acceptable flow rate is how many drops per minute? - ANSWER- **10-20**

after a ^{99m}Tc generator is eluted, it takes how many hours for the ^{99m}Tc activity to build up to a maximum level? - ANSWER- 24 hours

a wet column generator is equipped with all of the following parts: - ANSWER- alumina column, lead shield, saline supply, and collection port

which ingredients in a sulfur colloid kit are combine and heated? - ANSWER- ^{99m}Tc pertechnetate, thiosulfate mixture, and acid

what is the average CT number for the lung in Hounsfield units? - ANSWER- -500

what equipment is needed to verify the size and number of MAA particles in a ^{99m}Tc MAA preparation? - ANSWER- hemocytometer, light microscope

records of patient dosage determinations must be retained for how long? - ANSWER- 3 years

upon visual inspection, a vial of ^{99m}Tc MAA has a white, slightly cloudy appearance. what should the tech do next? - ANSWER- prepare unit doses from the vial

The NRC defines an unrestricted area as one in which an individual will receive less than how many millirems in an hour: A)2mrem B)5mrem C)50mrem D)100mrem - ANSWER- 2 mrem

the NRC requires that all of the following information be included in unit dosage measurement records except the: - ANSWER- **dose calibrator make and model number**

if the distance between a radiation point source and a survey meter is doubled, the measured radiation exposure rate is reduced: - ANSWER- **to one-quarter of the original exposure rate**

example of a radiopharmaceutical misadministration error that must be reported to the NRC: - ANSWER- **a patient receives a whole-body scan dosage of I131 instead of I123 for a thyroid uptake and scan**

a written directive for the administration of Sr89 chloride must include all of the following: - ANSWER- **radiopharmaceutical name, route of administration, signature of an authorized user, and patients name**

radiation dose to the fetus of a declared pregnant worker must not exceed how many Rems during the pregnancy? - ANSWER- **0.5 Rem**

packages with which of the following DOT labels must be checked for contamination using a wipe test? - ANSWER- **White I, Yellow II, and Yellow III**

10 millisieverts is equivalent to how many milliRems? - ANSWER- **1,000**