General Reference:
SNMMI Procedure Standard Practice Guideline for Bone Scintigraphy 4.0.pdf

Common Indications:
Evaluation of reparative bone formation in circumstances of benign or malignant neoplasm, infection, trauma, complications related to presence internal prosthetic device (including plates, rods, or joints), or skeletal/extremity pain.

Pre-scan Clinical History:
Determine history related to stated clinical concern. Locate any pertinent imaging results which describe related findings.

Patient Preparation:
None

Relative Contraindications (if present, consult with nuclear medicine physician prior to scan):
1. Recent nuclear medicine studies
2. Recent barium radiographic contrast
3. Pregnancy

Radiopharmaceutical and Route of Administration:
15 to 25 mCi Tc99m MDP (or HDP), IV. For pediatric doses, use the following formula: (0.25)(weight in kg); for calculated doses less than 1.0 mCi, consult with nuclear medicine physician prior to injection.

Procedure:

NOTE: The patient's right side must be marked in all flow, immediate, and delay images, using a radioactive marker placed by the patient's side in the imaging field of view.

Phase I - Flow:
Appropriately position the patient and acquire a dynamic flow acquisition during the injection of the radiopharmaceutical, 128x128 matrix, 60 frames at 3 seconds per frame

A. If region of interest is wrists or hands, start an IV in the OPPOSITE antecubital fossa, remove the tourniquet, and **wait 5 minutes** for blood flow to normalize, then inject.
B. If region of interest is hands, flow with both **palms on the camera face**
C. If region of interest is feet flow with both **plantar feet on the camera face**

Phase II - Immediate Blood Pool:
1. Positioning the patient as with Phase I, acquire multiple static images completely covering the region of interest, 128x128 matrix, 180 seconds per image. Add other projections (for instance, laterals) as appropriate.
2. Instruct the patient to consume 32 – 64 ounces of liquids, and return for delayed imaging at 3 hours post injection.

Phase III - Delayed:
1. Positioning the patient as with Phase II, acquire multiple static images completely covering the region of interest, 128x128 matrix, 300 seconds per image.
2. Check with a nuclear medicine physician to determine need additional static imaging, or for nuclear SPECT(/CT)

Review:
Prepare images and documents for clinical review as per **Nuclear Imaging Acquisition and Presentation Guidelines**.

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