TCK 30

KIT FOR THE PREPARATION OF $^{99m}$Tc-MDP
(DIAGNOSTIC- FOR INTRAVENOUS USE)

The kit for $^{99m}$Tc-MDP (Methylene Diphosphonate) is a single component kit. On reconstituting the kit, as per specified recipe, $^{99m}$Tc-MDP solution formed is sterile, pyrogen free and suitable for i.v. administration.

$^{99m}$Tc-MDP (Methylene Diphosphonate) is a skeletal (bone) imaging agent which incorporates into the bony skeleton, 50-60%. The advantages of this kit are its rapid distribution into extra vascular space; the high rate of incorporation in the bony skeleton and low retention in soft tissues.

- $^{99m}$Tc-MDP is used as a skeletal imaging agent
  - To demonstrate early involvement of bone metastases from primary malignancies in prostate, lung, breast etc.
  - In staging primary malignancy.
  - For detection and evaluation of infective bone diseases like osteomyelitis.
  - For detection and evaluation of avascular necrosis.
  - For diagnosis of metabolic diseases of skeletal system.
  - For localisation of Paget’s disease.

DESCRIPTION OF THE KIT

Each kit consists of a single vial.

Each vial contains 10 mg of methylene diphosphonic acid, 0.6 mg of stannous chloride dihydrate, 0.5 mg gentisic acid and 5 mg of NaCl in freeze-dried form.
**99mTc-MDP Formulation**

1. Allow the kit vials to attain ambient temperature.
2. Add 1-3 ml of sterile sodium pertechnetate (Na99mTcO4) in 0.9% sodium chloride solution containing required activity and mix well.
3. Allow it to stand for 10 min.
4. The preparation is now ready for use.

(*For actual formulation, follow Product Recipe)

**DOSAGE AND ADMINISTRATION**

The suggested dose range per patient for i.v. administration of 99mTc-MDP is 15 - 20 mCi (555 MBq to 740 MBq) for skeletal imaging.