MEDI-MIBI 500µgmicrograms
Kit for radiopharmaceutical preparation

PACKAGE LEAFLET: INFORMATION FOR THE USER
Medi-MIBI 500µg micrograms, Kit for radiopharmaceutical preparation

1. WHAT Medi-MIBI is and what it is used for
This medicine is for diagnostic use only. Medi-MIBI kit is a sterile preparation for diagnostic studies of coronary artery disease and also useful for establishment of risk for heart attacks and heart disease. Medi-MIBI belongs to a group of medicines called radiopharmaceutical agents. After labelling with $^{99m}$Tc-sestamibi the doctor injects you intravenously for visualisation under a special camera the blood flow inside your heart during exercise and rest. Medi-MIBI can be used to investigate overactivity of the parathyroid (a gland in the neck which controls calcium balance). In addition it can be used also to show the presence and size of breast cancer.

2. BEFORE YOU USE Medi-MIBI
Do not use Medi-MIBI
- if you are allergic (hypersensitive) to the active substance or any of the other ingredients of Medi-MIBI.

Take special care with Medi-MIBI
- if you are under 18 years of age, please consult your doctor
- when it has been applied to you by the physician, you have to drink a lot of fluids (e.g. water, juice) and frequently urinate in order reduce bladder irradiation.

Please read also the information under pregnancy and lactation. Before treatment with Medi-MIBI your doctor will explain to you the procedure you are about to undergo, and the use of the medicine you will be given. The use of technetium ($^{99m}$Tc)-perecthene the doctor injects you intravenously for visualisation under a special camera the blood flow inside your heart during exercise and rest. Medi-MIBI can be used to investigate overactivity of the parathyroid (a gland in the neck which controls calcium balance). In addition it can be used also to show the presence and size of breast cancer.

3. HOW TO USE Medi-MIBI
Always your doctor will decide on the amount of radioactive technetium ($^{99m}$Tc) sestamibi [radioactive Medi-MIBI] to be used. This will be the minimum amount necessary to given a scan clear enough to supply the required information. Medi-MIBI is given as an injection into a vein. Medi-MIBI should only be given by a qualified personal. If you are receiving Medi-MIBI by your doctor for heart imaging you may receive two injections, one at rest and one with exercise. If you are receiving Medi-MIBI by your doctor for breast imaging you will receive only one injection. Single doses may be from 185 MBq up to a maximum of 2000 MBq (Megabequerel - the unit in which radioactivity is measured). When two injections are necessary, not more than a total of 1800 MBq should be administered. Your doctor will use Medi-MIBI in paediatric children and adolescent carefully, based upon clinical needs. If technetium ($^{99m}$Tc) sestamibi is being used to study blood flow in your heart, you should not eat for at least four hours prior to the study. Your doctor may ask you to have a light fatty meal or drink a glass of two of milk after each injection, prior to imaging.

When you have received Medi-MIBI from your doctor
- You have to drink about two litres of fluid and void urine frequently immediately after the procedure for help to remove the radioactivity from your body.
- After your doctor has given you Medi-MIBI
- Do not take any other medicines until advised by your doctor.
- If you use more Medi-MIBI as you should
When your doctor has administered you an overdose with Technetium ($^{99m}$Tc) Sestamibi, the absorbed dose, which you have received, should be reduced where possible by increasing the elimination of the radionuclide from the body by frequent micturition and defecation. No case of overdose has been reported, to date. If you have any further questions on the use of this product, ask your doctor.

4. POSSIBLE SIDE EFFECTS
Take all medicines, Medi-MIBI can cause side effects, although not everybody gets them.

Tell your doctor immediately if you notice any of the following side effects:
The following terms are used to describe how often side effects have been reported.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Side Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common:</td>
<td>1 to 10 users in 10</td>
</tr>
<tr>
<td>Uncommon:</td>
<td>1 to 10 users in 1,000</td>
</tr>
<tr>
<td>Rare:</td>
<td>1 to 10 users in 10,000</td>
</tr>
<tr>
<td>Very rare:</td>
<td>less than 1 user in 10,000</td>
</tr>
<tr>
<td>Very rare:</td>
<td>frequency cannot be estimated from the available data</td>
</tr>
</tbody>
</table>

General disorders and administration site conditions:

- Common: Immediately after injection, a metallic or bitter taste, partly in combination with dry mouth and an alteration in the sense of smell may be observed.
- Rare: Fever, fatigue, dizziness, transient arthritic-like pain.

Cardiac disorders

- Uncommon: Chest pain/angina pectoris, abnormal ECG.
- Rare: Arrhythmia.

Gastrointestinal disorders:

- Uncommon: Nausea.
- Rare: Abdominal pain.

Nervous system disorders:

- Uncommon: Headache.
- Rare: Seizures (shortly after administration of Medi-Mibi), syncope.

Immune system disorders:

- Rare: Severe hypersensitivity reactions such as dyspnoea, hypotension, bradycardia, asthma and vomiting (usually within two hours of administration of Medi-MIBI), angioedema.

Skin and subcutaneous tissue disorders:

- Rare: Allergic skin and mucosa reactions with exanthema (pruritus, urticaria, oedema), vasodilatation, local reactions at the injection site, hypoaeesthesia and paraesesthesia, flushing.

Very rare: Other hypersensitivity reactions have been described in predisposed patients. If hypersensitivity reactions occur, the administration of the medicinal product must be discontinued immediately and, if necessary, intravenous treatment initiated. Respective medicinal products and equipment (e.g. endotracheal tube and ventilator) have to be readily available.

Other disorders

- Exposure to ionising radiation is linked with cancer induction and a potential for development of hereditary defects. As most diagnostic nuclear medicinal product investigations are done with low radiation doses of less than 20 mSv these adverse events are expected to occur with a low probability. The effective dose is 3.8 mSv when the maximal recommended activity of 925 MBq is administered. If any of the side effects gets serious, or if you notice any side effects not listed in this leaflet, please tell your doctor or pharmacist.

5. HOW TO STORE Medi-MIBI
Keep out of the reach and sight of children. Do not use Medi-MIBI after the expiry date which is stated on the carton and label after [abbreviation used for expiry date]. The expiry date refers to the last day of that month. Store below 25°C. After reconstitution of Medi-MIBI with Sodium Tc $^{99m}$Tc pertechnetate: Store below 25°C. Store in the original package in order to protect from light. Medicines should not be disposed of via wastewater or household waste. Ask your pharmacist how to dispose of medicines no longer required. These measures will help to protect the environment.

6. FURTHER INFORMATION
What Medi-MIBI contains

- Medi-MIBI is a sterile preparation for diagnostic studies of coronary artery disease and also useful for establishment of risk for heart attacks and heart disease. Medi-MIBI belongs to a group of medicines called radiopharmaceutical agents. After labelling with $^{99m}$Tc-sestamibi the doctor injects you intravenously for visualisation under a special camera the blood flow inside your heart during exercise and rest. Medi-MIBI can be used to investigate overactivity of the parathyroid (a gland in the neck which controls calcium balance). In addition it can be used also to show the presence and size of breast cancer.
INSTRUCTIONS FOR PREPARATION OF RADIOPHARMACEUTICALS

The contents of the kit before preparation are not radioactive. However, after Sodium Pertechnetate Tc-99m Injection, Ph. Eur. is added; adequate shielding of the final preparation must be maintained. The administration of radiopharmaceuticals creates risks for other persons from external radiation or contamination from spill of urine, vomiting etc. Radiation protection precautions in accordance with national regulations must therefore be taken. The preparation contains no bacteriostatic preservative. Technetium Tc-99m Sestamibi is to be used within eight (8) hours of reconstitution. The vial is reconstituted with a maximum 15 GBq of oxidant-free sterile Tc-99m-Sodium pertechnetate. As with any radiopharmaceuticals, if at any time in the preparation of this product the integrity of this vial is compromised it should not be used. Use only eluate from a Te-99m generator previously eluted within 24 hours. Use only eluate taken from generator less than 2 hours before reconstitution. The labelling of the kit should be made according to either method A or method B.

Instructions for Preparation of Technetium Tc-99m Sestamibi

A Boiling procedure: Preparation of Technetium Tc-99m Sestamibi from the Medi-MIBI 500 micrograms Kit is to be done according to the following aseptic procedure:

1. Waterproof gloves should be worn during the preparation procedure. Remove the flip off disc from the Medi-MIBI 500micrograms Kit vial and swab with sanitising wipe the top of the vial closure to disinfect the surface.
2. Place the vial in a suitable radiation shield appropriately labelled with date, time of preparation, volume and activity.
3. With a sterile shielded syringe, aseptically obtain additive-free, sterile, non-pyrogenic Sodium Pertechnetate Tc-99m solution (max. 15 GBq) in volume of 1 to 5 ml.
4. Aseptically add the Sodium Pertechnetate Tc-99m solution to the vial in the lead shield. Without withdrawing the needle, remove an equal volume of headspace to maintain atmospheric pressure within the vial.
5. Shake vigorously, about 5 to 10 quick upward-downward motions.
6. Place the vial in the dry block heaters. While slightly pressing downwards, be sure that there is a firm fit between the vial and the sample block.
7. Press the button to initiate the heating program. After 10 minutes boiling put vials into vial shield and allows cooling down the room temperature.
8. Inspect visually by using lead glasses for the absence of particulate matter and discoloration prior to administration.
9. Aseptically withdraw all the doses with a sterile shielded syringe. Use within 8 hours of preparation.

NOTE: The potential for cracking and significant contamination exists whenever vials containing radioactive material are heated.

Method "B" - Dry Heating procedure

Preparation of Technetium Tc-99m Sestamibi from the Medi-MIBI 500micrograms Kit is to be done according to the following aseptic procedure:

1. Waterproof gloves should be worn during the preparation procedure. Remove the flip off disc from the Medi-MIBI 500micrograms Kit vial and swab with sanitising wipe the top of the vial closure to disinfect the surface.
2. Place the vial in a suitable radiation shield appropriately labelled with date, time of preparation, volume and activity.
3. With a sterile shielded syringe, aseptically obtain additive-free, sterile, non- pyrogenic Sodium Pertechnetate Tc-99m solution (max. 15 GBq) in volume of 1 to 5 ml.
4. Aseptically add the Sodium Pertechnetate Tc-99m solution to the vial in the lead shield. Without withdrawing the needle, remove an equal volume of headspace to maintain atmospheric pressure within the vial.
5. Shake vigorously, about 5 to 10 quick upward-downward motions.
6. Place the vial in the dry block heaters. While slightly pressing downwards, be sure that there is a firm fit between the vial and the sample block.
7. Press the button to initiate the heating program. After 10 minutes boiling put vials into vial shield and allows cooling down the room temperature.
8. Inspect visually by using lead glasses for the absence of particulate matter and discoloration prior to administration.
9. Aseptically withdraw all the doses with a sterile shielded syringe. Use within 8 hours of preparation.
10. Radiochemical purity should be checked prior to patient administration according to the radio TLC method and organic solvent extraction method as detailed below.

Calculation
Calculate the percentage of % $^{99mTc}$-Medi-MIBI:

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\text{Activity of chloroform fraction} \times 100
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The percentage of radiochemical purity should be not less than 94% within 8 hour