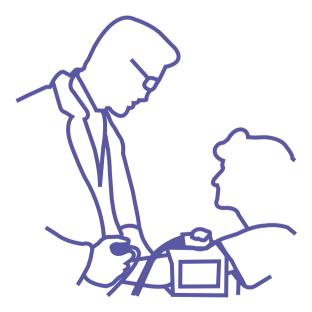


## **Vasodilators**



#### WHAT ARE VASODILATORS USED FOR?

Vasodilators act directly on blood vessels and lower blood pressure by causing the blood vessels to widen.

## WHAT ARE THE POSSIBLE SIDE EFFECTS OF VASODILATORS?

This medicine may give rise to an increase in heart rate, water retention, flushing and headaches. Minoxidil may cause excessive hair growth on the face and body. Hydralazine may, rarely, cause skin rash, joint pain and fever.

#### WHAT PRECAUTIONS SHOULD I TAKE?

This medicine may cause the blood pressure to fall excessively when you are taking it for the first time.

#### WHAT IS THE COMMONLY USED VASODILATOR?

\* Hydralazine

#### WHAT SHOULD I DO IF I FORGET A DOSE?

• If you miss a dose, take the missed dose as soon as you remember. If it is almost time for your next dose, take only the usual dose. Do not double the dosage.

- Unless instructed otherwise, store your medicines in a cool, dry place and protect them from moisture, heat and direct sunlight.
- Store medicine in the original labeled container. Do not keep different types of medicine together in one container.





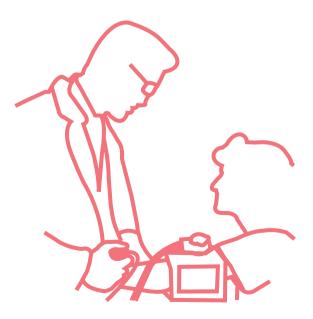


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# Medicine To Treat: ypertension

Alpha - Adrenergic Blocker

🗅 Prazosin



#### WHAT ARE ALPHA1-ADRENERGIC BLOCKERS USED FOR?

These agents counter the action of substances, which cause blood vessel narrowing. As a result, blood vessels are able to widen and hence lower the blood pressure.

#### WHAT ARE THE POSSIBLE SIDE EFFECTS OF ALPHA1-ADRENERGIC BLOCKERS?

This medicine can cause significant lowering of blood pressure with change in posture. Change of posture, especially from lying down to standing up, can cause giddiness or fainting. However, symptoms are usually mild and transient. Other side effects may be headaches and irregular heart beat. They may cause urinary incontinence in patients.

#### WHAT PRECAUTIONS SHOULD I TAKE?

You should avoid sudden postural changes to minimise the side effect of giddiness, especially after the first dose.

#### WHAT SHOULD I DO IF I FORGET A DOSE?

• If you miss a dose, take the missed dose as soon as you remember. If it is almost time for your next dose, take only the usual dose. Do not double the dosage.

- Unless instructed otherwise, store your medicines in a cool, dry place and protect them from moisture, heat and direct sunlight.
- Store medicine in the original labelled container. Do not keep different types of medicine together in one container.







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# Medicine To Treat: ypertension

### Patient Awareness and Self-Care



#### WHAT IS BLOOD PRESSURE AND HIGH BLOOD PRESSURE?

Blood pressure is the force generated as your heart pumps blood and moves it through the blood vessels in your body. It is made up of two numbers called the systolic and diastolic blood pressure.

Systolic blood pressure represents the pressure while the heart is beating. A normal systolic blood pressure is 140 mmHg or below. Diastolic blood pressure represents the pressure when the heart is resting between beats. A normal diastolic blood pressure is 90 mm Hg or below.

Blood pressure that stays persistently above this level is considered high and the person is said to have high blood pressure or hypertension.

#### WHAT CAUSES HYPERTENSION?

In most patients, the cause for high blood pressure is not clear. However, we know that you are at risk of getting high blood pressure if you:

- are overweight
- eat too much salt
- regularly consume large quantities of alcohol
- do not have enough exercise
- are constantly under stress
- have a family history of high blood pressure
- are 40 years or older
- · have certain medical problems such as kidney diseases

#### WHAT ARE THE SYMPTOMS OF HYPERTENSION?

People with high blood pressure usually do not feel unwell. Many people are found to have high blood pressure during routine medical examination. So if you have not had it checked in a while, make an appointment now.

#### WHAT CAN HYPERTENSION CAUSE?

High blood pressure can be dangerous and can hurt your body in many ways. These include:

- heart attack
- heart failure
- stroke
- kidney failure

#### **SELF CARE**

High blood pressure is a lifelong disease. It can be controlled but not cured. You can help your blood pressure control by:

- eating sensibly
- reducing your salt and fat intake
- reducing your calorie and sugar intake
- reducing your alcohol intake
- exercising regularly and losing weight
- quitting your smoking habit
- keeping stress under control
- taking your medicines regularly
- keeping up with your doctor's appointment
- monitoring your blood pressure regularly

## WHY IS IT IMPORTANT TO KEEP UP WITH MY APPOINTMENTS?

High blood pressure is a silent killer. It is important for you to follow the plan that your doctor has drawn up for you. Remember to keep up with your appointments so that your doctor can assess and monitor your condition and recommend any other actions when necessary.

Discard all medication that is outdated or no longer required.

#### WHY IS IT IMPORTANT TO TAKE MY HIGH BLOOD PRESSURE MEDICATIONS REGULARLY?

High blood pressure medication only works when it is taken regularly as directed. Therefore, you have to follow the instructions and take your medication at the same time of the day. Never stop taking your medications without your doctor's consent. Stopping your medication can cause a sudden, life-threatening increase in your blood pressure.

#### **BLOOD PRESSURE MONITORING**

Blood pressure monitoring can be easily learnt and done conveniently at home. There are several home blood pressure monitoring devices available on the market. These devices are battery-operated and are relatively easy to use. Your pharmacist can help you choose a device that best suit your needs and advise you on the appropriate techniques for taking your blood pressure at home.

#### How to Measure My Blood Pressure

- 1. Be seated comfortably in a chair with your elbow and forearm resting on a flat surface.
- 2. Attach the blood pressure monitor cuff to your upper arm. Be careful that there is no difference in height between the cuff and your heart. Place a cushion or pillow to adjust to the correct height should there be a difference.
- 3. Switch on the power to the blood pressure monitor.
- 4. Inflate the monitor cuff manually or by pressing the "ON" button on the blood pressure monitor.
- 5. Read the blood pressure reading from the monitor screen and

record the readings in your blood pressure monitoring diary. Make sure you enter the dates when the readings are taken.

6. Show your doctor your blood pressure readings at your next appointment.

#### POINTS TO NOTE WHILE TAKING MY BLOOD PRESSURE:

- Your blood pressure readings may be higher than normal under the following conditions:
- After an exercise or after performing a physically strenuous activity
- After a heavy meal, after drinking coffee or cigarette smoking
- When you are anxious, nervous or upset about something
- When you are in a hurry

Therefore, always try to take your blood pressure when you are relaxed or when you have rested for approximately 15 minutes after any strenuous physical activities. Be sure to note down any reason which you think may affect your blood pressure reading.

- Try to take your blood pressure at around the same time everyday as blood pressure readings may be slightly different at different times of the day.
- Blood pressure readings are lower when taken in an upright position compared to when you are lying down. So, be sure that you measure your blood pressure in the correct posture.
- Different blood pressure monitors may give slightly different readings. They may not be the same as those taken by your doctor.







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### **Overview of Hypertension Medicine**



#### **INTRODUCTION**

There are many types of medicines available to lower high blood pressure. It may be necessary to take more than one medicine to control your blood pressure. It is important to take your medicine the right way. Otherwise the medicine may not work, or it could also cause side effects that may be mild, or sometimes harmful. You may also counteract one medicine by taking it with another without knowing it.

Here are some information on the common groups of high blood pressure medicines:

- **DIURETICS** get rid of excess water and salt (sodium) from the body.
- **BETA BLOCKERS** reduce heart rate and the heart's output of blood.
- **CALCIUM CHANNEL BLOCKERS** keep calcium from entering the muscles cells of the heart and blood vessels. This causes the blood vessels to relax.
- **ALPHA BLOCKERS** work on the nervous system to relax the blood vessels, allowing the blood to pass more easily.
- ACE (ANGIOTENSIN CONVERTING ENZYME) INHIBITORS prevent the formation of a substance called angiotensin II, which normally causes blood vessels to narrow.
- ANGIOTENSIN II RECEPTOR BLOCKERS block the action of a substance called angiotensin II at the blood vessel walls and thereby prevent the narrowing of blood vessels.
- **VASODILATORS** open blood vessels by relaxing the muscle in the vessel walls.

#### Keep all medication out of reach of children.

## WHAT SHOULD I TAKE NOTE OF IF I AM ON HYPERTENSION MEDICINE?

- Know the names and doses of the medicines you are taking.
- Take it regularly as directed by your doctor.
- Never stop taking the medicine even if you feel better. It helps to lower your blood pressure and keeps it under control, which in turn helps to prevent other complications like stroke and heart attacks. You may need to take the medicine for a lifetime.
- Ask the doctor's or pharmacist's advice before crushing or splitting tablets; some should only be swallowed whole.
- Avoid taking alcohol.
- Check with your doctor or pharmacist if there are any food or other medicines that you need to avoid while taking this medicine.
- Take the medicine before food or after food as indicated on the medicine label, or according to the doctor's or pharmacist's instructions.
- Never take someone else's prescribed medicine or share yours with someone else
- Inform the doctor if you are pregnant, intend to become pregnant or are breast-feeding.
- Like all medicines, patient may be allergic to hypertension medicine. If you develop rashes, difficulty in breathing or swallowing after taking the medicine, stop the medicine and seek medical attention immediately.

#### Discard all medication that is outdated or no longer required.

#### HOW CAN I REMEMBER TO TAKE MY MEDICINE?

• Take your medicine at the same time each day so that it becomes a habit.

#### WHAT SHOULD I DO IF I FORGET A DOSE?

• If you miss a dose, take the missed dose as soon as you remember. If it is almost time for your next dose, take only the usual dose. Do not double the dosage.

- Follow any specific instructions for the storage of your medicines (e.g. some medicines require refrigeration, others do not).
- Unless instructed otherwise, store your medicines in a cool, dry place and protect them from moisture, heat and direct sunlight.
- Store medicine in the original labelled container. Do not keep different types of medicine together in one container.









**Diuretics** 



#### WHAT ARE DIURETICS USED FOR?

This medicine acts on the kidneys to get rid of excess water and salts in the body. This will reduce the amount of water in the body and so decreases the pressure on the walls of the blood vessels and the workload of the heart. It is also used to reduce fluids from the lungs in the management of heart failure.

#### WHAT ARE THE POSSIBLE SIDE EFFECTS OF DIURETICS?

- Because diuretics work by increasing salt loss through the kidneys, you may urinate more often and in larger amounts.
- You may experience giddiness, lightheadedness, especially when you get up from a lying or sitting position. This is more likely to occur in the morning.
- You may become weak, tired, unusually thirsty, have muscle cramps or loss of appetite. These are signs of too much potassium loss.
- You may develop skin rash or become sensitive to sunlight.

#### WHAT PRECAUTIONS SHOULD I TAKE?

• Your medicine may cause you to lose potassium. If your doctor has prescribed a potassium supplement such as potassium chloride, be sure to take it with your medicine.

#### Keep all medication out of reach of children.

• If you are not taking a potassium supplement, you should increase your intake of potassium rich food. Examples of these are fresh orange juice, bananas, pineapples and raisins.

#### WHAT ARE THE COMMONLY USED DIURETICS?

- Hydrochlorothiazide
- Frusemide

#### WHAT SHOULD I DO IF I FORGET A DOSE?

• If you miss a dose, take the missed dose as soon as you remember. If it is almost time for your next dose, take only the usual dose. Do not double the dosage.

- Unless instructed otherwise, store your medicines in a cool, dry place and protect them from moisture, heat and direct sunlight.
- Store medicine in the original labelled container. Do not keep different types of medicine together in one container.



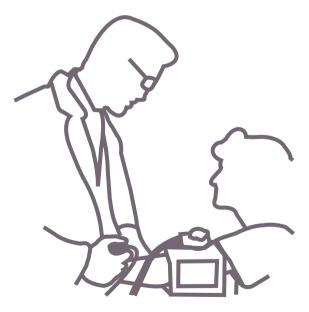




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#### **Calcium Channel Blockers (Calcium Antagonists)**



#### WHAT ARE CALCIUM CHANNEL BLOCKERS USED FOR?

These medicines relax smooth muscle cells in blood vessels causing the blood vessels to widen and hence lower blood pressure.

## WHAT ARE THE POSSIBLE SIDE EFFECTS OF CALCIUM CHANNEL BLOCKERS?

Constipation is the commonest side effect of this group of drugs. Some of these drugs can cause the heart rate to be slower. Leg swelling, flushing and headache are the less common side effects.

#### WHAT PRECAUTIONS SHOULD I TAKE?

As there is no adequate and controlled studies of their use in pregnancy, these medicines should be used only when clearly indicated. They should not be used during breastfeeding. As some of these drugs can cause the heart rate to be slower, they should be used with great caution with other drugs that slow the heart rate e.g. digoxin, beta blockers and amiodarone. Combination therapy should be regularly monitored by your doctor.

There may be significant interactions with both Western and traditional medicines. Always inform any doctor you consult if you are on any of

#### Keep all medication out of reach of children.

#### these medicines. WHAT ARE THE COMMONLY USED CALCIUM CHANNEL BLOCKERS?

- Nifedipine
- Verapamil
- Diltiazem

Long acting preparations of the above are available.

• Amlodipine

#### WHAT SHOULD I DO IF I FORGET A DOSE?

• If you miss a dose, take the missed dose as soon as you remember. If it is almost time for your next dose, take only the usual dose. Do not double the dosage.

- Unless instructed otherwise, store your medicines in a cool, dry place and protect them from moisture, heat and direct sunlight.
- Store medicine in the original labeled container. Do not keep different types of medicine together in one container.







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**Beta Blockers** 



#### WHAT ARE BETA BLOCKERS USED FOR?

Beta blockers are used to control high blood pressure and treat certain heart conditions such as irregular heart beats and heart attack. It is also used to manage migraine and some thyroid disorders. It slows down the heartbeat and reduces the need for oxygen by the heart.

## WHAT ARE THE POSSIBLE SIDE EFFECTS OF BETA BLOCKERS?

Patients taking beta blockers may experience fatigue, dizziness, numbness or tingling of fingers and toes. Some men may experience a certain degree of impotence.

#### WHAT PRECAUTIONS SHOULD I TAKE?

If you have a history of asthma, you should inform your doctor because the medicine may precipitate an asthmatic attack . If you are pregnant or planning to conceive, you should also consult your doctor before using this medicine.

#### WHAT ARE THE COMMONLY USED BETA BLOCKERS?

- Atenolol
- Propranolol
- Metoprolol
- Carvedilol

#### WHAT SHOULD I DO IF I FORGET A DOSE?

• If you miss a dose, take the missed dose as soon as you remember. If it is almost time for your next dose, take only the usual dose. Do not double the dosage.

- Unless instructed otherwise, store your medicines in a cool, dry place and protect them from moisture, heat and direct sunlight.
- Store medicine in the original labelled container. Do not keep different types of medicine together in one container.



**Angiotensin II Receptor Blockers** 



## WHAT ARE ANGIOTENSIN II RECEPTOR BLOCKERS USED FOR?

This is a new class of blood pressure lowering drugs. They act by blocking the action of a substance called angiotensin II at the blood vessel walls and thereby prevent the narrowing of blood vessels.

#### WHAT ARE THE POSSIBLE SIDE EFFECTS OF ANGIOTENSIN II RECEPTOR BLOCKERS?

The side effects are rare and include dizziness and lightheadedness on getting up.

#### WHAT PRECAUTIONS SHOULD I TAKE?

If you are pregnant or planning to conceive, you should inform your doctor. It should not be taken together with high doses of diuretics as this may give rise to low blood pressure.

## WHAT ARE THE COMMONLY USED ANGIOTENSIN II RECEPTOR BLOCKERS?

- Losartan
- Irbesartan
- Valsartan

#### WHAT SHOULD I DO IF I FORGET A DOSE?

• If you miss a dose, take the missed dose as soon as you remember. If it is almost time for your next dose, take only the usual dose. Do not double the dosage.

- Unless instructed otherwise, store your medicines in a cool, dry place and protect them from moisture, heat and direct sunlight.
- Store medicine in the original labeled container. Do not keep different types of medicine together in one container.



#### ACE (Angiotensin Converting Enzyme) Inhibitors



#### WHAT ARE ACE-INHIBITORS USED FOR?

The ACE-inhibitors are used to reduce the production of a substance called angiotensin II that causes the blood vessels to narrow.

#### WHAT ARE THE POSSIBLE SIDE EFFECTS OF ACE-INHIBITORS?

The most common side effect is a dry hacking cough that is persistent and annoying. Other side effects are rare and include rash, loss of taste and lightheadedness on getting up.

#### WHAT PRECAUTIONS SHOULD I TAKE?

If you are pregnant or planning to conceive, you should inform your doctor. The medicine should not be taken together with high doses of diuretics as this may give rise to low blood pressure. Your doctor may need to monitor you for electrolyte imbalances when you are on this medicine.

#### WHAT ARE THE COMMONLY USED ACE-INHIBITORS?

- \* Captopril
- \* Enalapril
- \* Lisinopril

#### WHAT SHOULD I DO IF I FORGET A DOSE?

• If you miss a dose, take the missed dose as soon as you remember. If it is almost time for your next dose, take only the usual dose. Do not double the dosage.

#### HOW SHOULD I STORE MY MEDICINE?

- Unless instructed otherwise, store your medicines in a cool, dry place and protect them from moisture, heat and direct sunlight.
- Store medicine in the original labelled container. Do not keep different types of medicine together in one container.







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# Medicine To Treat:

- Sulphonylureas
- Meglitinides
- Biguanides
- Thiazolidinediones
- **α- glucosidase inhibitors**



#### **ABOUT YOUR MEDICINE**

Your doctor has just prescribed for you:

MEDICINE	HOW DOES MY MEDICINE WORK?	HOW SHOULD I TAKE MY MEDICINE?
Sulphonylureas eg: Chlorpropamide Glibenclamide Gliclazide Glipizide Tolbutamide Glimepiride	Helps the pancreas to release more insulin.	Take the tablet(s) everyday half an hour before meal(s). Do not miss or delay meals.
<b>Meglitinides</b> eg: Repaglinide Nateglinide	Helps the pancreas to release more insulin.	Take the tablet(s) immediately before each main meal.
<b>Biguanides</b> eg: Metformin	Helps the body to use insulin more efficiently.	Take the tablet(s) with meal(s) or after meal(s).
<b>Thiazolidinediones</b> eg: Rosiglitazone	Helps the body to use insulin more efficiently.	May be taken with or without food.
α- <b>glucosidase inhibitors</b> e.g Acarbose	Helps to stop the quick rise of blood glucose after a meal	Take the tablet(s) with the first mouthful or immediately before each of the 3 main meals.

#### WHAT ARE THE POSSIBLE SIDE EFFECTS OF THE MEDICINE?

#### 1. Low blood sugar (Hypoglycaemia)

If you take your medicine but do not eat on time, your blood sugar may become too low. You may experience weakness, dizziness, hunger, sweating, trembling, blurred vision, unsteady walk or fast heartbeat.

If you have any of these symptoms, take glucose tablets or half a glass of fruit juice or 2 - 4 teaspoons of sugar, honey or syrup immediately and you should feel better in about 15 minutes. Get to your doctor or a hospital immediately if the symptoms do not improve.

#### 2. Stomach discomfort / Bloated feeling or gas / Diarrhoea

These symptoms may occur. Consult your doctor if any of these symptoms are severe or do not go away.

#### 3. Nausea or vomiting / Loss of appetite

You may experience these symptoms if you are taking metformin, repaglinide, nateglinide or rosiglitazone. The medicine should be taken after food or with food to help reduce these symptoms. Consult your doctor if any of these symptoms are severe or do not go away.

#### 4. Skin rash

Rashes may occur when you are taking these medicines. If rashes are experienced, inform your doctor immediately.

#### WHAT PRECAUTION SHOULD I FOLLOW?

Before taking your medicine, inform your doctor if:

- □ you are allergic to this medicine or any other medicines.
- **u** you are taking other prescription and non-prescription medicines.
- □ you have a heart condition, kidney or liver problem.

- □ you are going for any surgery.
- □ you are pregnant or planning to get pregnant.
- □ you are breast-feeding.

#### WHAT MUST I DO WHILE TAKING THE MEDICINE?

- □ Learn the name and dose of your medicine.
- □ Take your medicine regularly and exactly as prescribed by your doctor.
- Do not stop taking your medicine without consulting your doctor.
- □ If you miss a dose, take the missed dose as soon as you remember. If it is almost time for your next dose, take only the usual dose. Do not double the dosage.
- Drinking alcohol without taking food may lead to a very low blood sugar level.
- □ Test your blood sugar as directed by your doctor.
- □ If you visit another doctor, be sure to tell him you are taking this medicine.
- □ If you are taking metformin, let your doctor know before any scan or x-ray procedure. You may need to stop taking it for a few days.

#### **HOW SHOULD I STORE MY MEDICINE?**

- □ Store in a cool, dry place.
- □ Do not keep different types of medicines together in one container. Keep each medicine separately in its original labelled container.









What You Need to Know About Insulin



#### **INTRODUCTION**

The insulin preparations currently available in Singapore are mostly from human origin; pork or bovine insulin preparations are hardly used nowadays.

Because insulin is digested and destroyed by the stomach, it cannot be taken orally. Currently, the only way to receive insulin is by injection.

Insulin should only be used when prescribed by a doctor and dose adjustments should be supervised.

There are several types of insulin preparations available: they differ mainly in their onset and duration of action. The rapid and short-acting ones are used mainly to control high blood sugar levels after each meal whilst the intermediate and long-acting ones provide the patients with a smoother daylong glucose control.

Types of	<b>Onset of Action</b>	Duration of Action
Rapid-acting	15 min	4 hours
Short-acting	1/2 - 1 hour	6 - 8 hours
Intermediate-acting	2 - 4 hours	16 - 18 hours
Long-acting	4 - 8 hours	24 hours
Premixed insulin	1/2 - 1 hour	16 - 18 hours

Insulin should be given as instructed by the nurse or the pharmacist. The insulin preparations are available in vials, cartridges or penfills and disposable pens.

The main precaution the patient needs to be aware of is the risk of developing low blood sugar levels. Low blood sugar levels may happen when the patient is not eating well, taking alcohol on an empty stomach or due to some drug interactions.

#### HOW SHOULD I GIVE INJECTION WITH SYRINGE?



- Select a clean injection site. Insulin is absorbed most evenly from the abdomen. Pick a spot at least 1 inch from the place you gave your last shot.
- Firmly pinch up a large area of skin in the abdomen with thumb and forefinger. Hold the syringe with the other hand. Push the needle at an angle of 90 degrees to the skin, all the way in.





- 3. Inject insulin by pushing the plunger all the way down with index finger and release the pinched skin. Place the swab over the injection site and press down on it lightly as the needle is removed.
- 4. If slight bleeding occurs, gently press over the injection site for a few seconds.
- 5. Do not rub the injection areas as this may cause insulin to be absorbed too quickly.
- 6. Dispose of syringe safely.



7. Turn the vial and syringe upside down. Slowly pull the plunger down about 5 units past the required dose. If there are no bubbles, push the top of the plunger tip up to the line, which marks the exact dose. If air bubbles are in the syringe, remove them by flicking or tapping the syringe at the bubble with your finger. When the air bubbles rise to the top of the syringe, push the plunger tip up to the exact dose. It is important to get the air bubbles out of the syringe so that you have an accurate dose of insulin.



8. Remove the syringe from the vial. You are now ready to give the injection.

#### HOW SHOULD I DRAW TWO TYPES OF INSULIN?



1. Wash and dry your hands.



2. Clean the rubber stopper on the insulin vial with an alcohol swab.



3. Roll the insulin vial gently between the palms of your hand. This provides the dual benefit of mixing the insulin and warming it to body temperature to reduce pain when injecting.



4. Remove the coloured cap of a new vial. Take the syringe from the packet and remove the cap.



5. Draw in air equal to the dose of the **cloudy** insulin.



 Insert the needle in the cloudy insulin and inject air into the vial. Do not draw out the cloudy insulin yet. Take the empty syringe out of the cloudy insulin vial.



7. Draw in air equal to the dose of **clear** insulin.



8. Insert needle into the **clear** insulin and inject air.



9. Insert the vial of **clear** insulin and draw out exact dose.



10. Insert the needle into the vial of **cloudy** insulin. (Do not push in plunger as this would inject clear insulin into cloudy insulin vial.) To avoid air bubbles, slowly pull back plunger to the exact unit marker for the total dose of clear and cloudy insulin units prescribed.



11. Remove the syringe from the vial. You are now ready to give the injection.

#### HOW SHOULD I SELECT A SITE FOR INJECTION?

- 1. Insulin is injected into the subcutaneous tissue (between the skin and the muscle layer).
- 2. The site for injection is important as insulin absorption rate varies from site to site.

Eg.	Abdomen	-	the fastest
	Arm	-	intermediate
	Thigh and buttock	-	the slowest

- 3. Rotate the injection site within one area to avoid development of "fatty lumps" or "hollow".
- 4. Avoid injections into areas that will be exercised, e.g. arm or thigh when playing tennis.
- 5. Clean the injection site with soap and water. It is not necessary to swab the skin area with methylated spirit 70% at home, as this can lead to thickening of the skin.

#### HOW SHOULD I DRAW A SINGLE TYPE OF INSULIN?

- 1. Wash and dry your hands.



2. Clean the rubber stopper on the insulin vial with an alcohol swab.



3. Roll the insulin vial gently between the palms your hand. This provides the dual benefit of mixing the insulin and warming it to body temperature to reduce pain when injecting.



4. Take the syringe from the packet and remove the cap.



5. Draw in air equal to the dose of insulin by pulling the plunger down.



6. With the vial standing upright, insert the needle into the rubber stopper on the vial and push the plunger down. This pushes air into the vial, which makes it easier when withdrawing the insulin out of the vial.

#### HOW SHOULD I STORE INSULIN VIALS?

- 1. Unopened insulin vials should be stored in the lower compartment of the refrigerator away from the freezer. Frozen insulin should never be used.
- 2. The current vial in use can be kept at room temperature or the coolest possible place for up to 4 weeks.
- 3. Do not keep insulin in a hot place (eg. in a hot, closed vehicle, on top of a television set) or expose it to heat or sunlight. Long exposure to direct sunlight will gradually degrade insulin and give it a yellowbrown colour. Do not use the insulin if this happens.

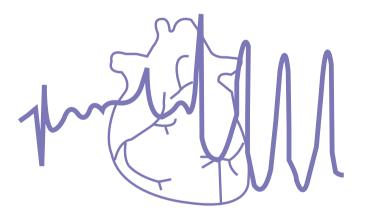








Warfarin



#### WHAT IS WARFARIN USED FOR?

Warfarin is an anticoagulant, sometimes called a blood thinner. However, it does not thin the blood or dissolve clots that have already formed. Instead it prevents clot formation and existing clots from getting bigger, while letting the body's natural processes dissolve the clots. Warfarin helps to treat or prevent clots in the veins, arteries, lungs or the heart.

You should find out from your doctor or pharmacist why you need this medicine to prevent blood from clotting more easily, and how long you would need to take warfarin for your condition.

There are different brands of warfarin available in the market (e.g. Marevan<sup>®</sup>, Coumadin<sup>®</sup>). Do not switch brands because they may have slightly different effectiveness.

#### HOW SHOULD I TAKE THE MEDICINE?

Take warfarin tablets by mouth with a drink of water. Follow the directions on the prescription label. Take your doses at a regular time, once a day. Always take the medicine in the same manner either before or after meals.

#### WHAT SHOULD I DO IF I FORGET A DOSE?

Try not to miss doses. **If you do miss a dose, take it as soon as you can if it is within 8 hours of your usual time to take the warfarin.** If it is after 8 hours, do not take that dose. Just continue to take your warfarin at the usual time the next day. **Do not take double doses**, and do not take two doses in one day unless the doctor tells you to; this can cause excessive bleeding.

Please record all missed doses and inform your doctor at your next appointment.

#### WHAT SIDE EFFECTS CAN THIS MEDICINE CAUSE?

Serious effects of the medicine overdose include:

- blood in urine, cloudy or dark urine
- black, sticky/gluey stools
- heavy menstrual bleeding
- unusual bruising or bleeding from gums, nose and when you cough; red spots on the skin

Inform your doctor as soon as you can if you notice any of these symptoms.

#### WHAT PRECAUTIONS SHOULD I FOLLOW?

Visit your doctor for regular checks on your blood. Frequent blood tests may be necessary initially in order to determine a suitable dose for you. While you are taking warfarin, carry an identification card/book with your name, name and dose of medicine(s) being used, and name and phone number of your doctor or person to contact in an emergency. If you are taking warfarin long term, you should apply for a Medic Awas card. This will inform any healthcare professional that you are on warfarin, especially in case of an emergency.

Do not start or stop taking any medicine without first consulting your doctor or pharmacist as certain medicines (e.g. Aspirin, certain antibiotics and painkillers) may have an effect on warfarin.

#### WHAT FOODS/DRUGS SHOULD I AVOID?

Eat a normal balanced diet while you are taking warfarin. Avoid making any major changes to your diet (e.g. becoming a vegetarian) without first consulting your doctor or pharmacist.

Avoid a sudden drastic increase in intake of soybean products (e.g. tauhu), green tea and the following vegetables: broccoli, spinach, brussel sprouts, cauliflower and chickpeas.

Avoid excessive alcohol consumption. It is advisable not to take more than 5 cans of beer or more than 1 bottle of wine per week.

Avoid any form of traditional and herbal remedies (e.g. gingko) as the effect of these medicines on warfarin is unpredictable.

#### DO I NEED TO MAKE ANY MAJOR LIFESTYLE CHANGES?

No. However, be extra cautious when handling razors or other sharp objects. Try to avoid contact sports or other activities, which may cause you to be injured. When you have a cut, you will need to apply pressure for a longer period to stop the bleeding.

#### HOW SHOULD I STORE MY MEDICINE?

You should keep your medication in a tight, light resistant container at room temperature. Protect from light.



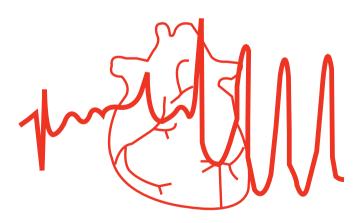








Anti-anginal Agents (I) **Nitrates** 



#### **ABOUT YOUR MEDICINE**

Your doctor has just prescribed for you a nitrate, e.g. Isosorbide dinitrate (Isobin<sup>®</sup>, Isordil<sup>®</sup>, Sorbitrate<sup>®</sup>), Isosorbide mononitrate (Imdex CR<sup>®</sup>, Imdur<sup>®</sup>, Ismo 20<sup>®</sup>), Glyceryl trinitrate (GTN) (Angised<sup>®</sup>, Deponit<sup>®</sup>).

#### WHAT ARE NITRATES USED FOR?

Nitrates are used to prevent and treat the symptoms of angina (chest pain). Angina is usually caused by insufficient blood supply and oxygen to your heart. Nitrates work by relaxing the blood vessels to the heart, so that the blood and oxygen supply to the heart is increased.

Nitrates come in several forms, including regular, extended-release or sublingual tablets, transdermal (stick-on) patch and oral spray.

Depending on the type of dosage form and how it is taken, nitrates are used to treat angina in 3 ways:

- To relieve an attack that is occurring by using the medicine when the attack begins;
- To prevent attacks from occurring by using the medicine just before an attack is expected to occur; or
- To reduce the number of attacks that occur by using the medicine regularly on a long-term basis.

#### HOW SHOULD I TAKE THE MEDICINE?

#### **Oral Tablets**

- Isosorbide dinitrate and mononitrate are the oral forms of nitrate.
- When taken orally by swallowing, nitrates are used to reduce the number of angina attacks that occur. They do not act fast enough to relieve the pain of an angina attack.
- Nitrate tablets are usually taken on an empty stomach (at least 1 hour before or 2 hours after meals) with a full glass of water.
- The regular release tablet is usually taken every 6 to 8 hours.

• The extended-release tablet allows the medicine to be taken less frequently: 1 to 2 times a day is sufficient. Do not crush or chew the tablets.

#### Sublingual tablet / Mouth spray

- The sublingual form of nitrates are isosorbide dinitrate and glyceryl trinitrate (GTN). GTN is also used in the form of an oral spray, which is currently a non-formulary medicine.
- Isosorbide dinitrate or GTN sublingual tablet or GTN mouth spray is used either to relieve the pain of angina attacks or to prevent an expected angina attack, such as when you are about to exercise.
- The tablet or spray should be used at the first sign of an attack of angina. Do not wait until severe pain develops.
- This medicine usually gives relief in less than 5 minutes. However, if the pain is not relieved, use a second tablet or spray. If the pain continues for another 5 minutes, a third tablet or spray may be used. If you still have the chest pains after a total of 3 tablets or sprays in a 15-minute period, contact your doctor or go to the nearest hospital's Accident and Emergency Department.
- If you are using GTN to prevent an anticipated anginal attack, dissolve the tablet under your tongue or spray 5 to 10 minutes before engaging in the activities that you know will cause an attack.

#### • How to take sublingual tablets:

Place a tablet under your tongue and allow it to dissolve completely. You may chew the tablet to small pieces to facilitate absorption.

#### • How to use GTN mouth spray:

- □ Remove the plastic cover. Do not shake the container.
- Hold the container upright. With the container close to your mouth, press the button to spray onto or under your tongue. Do

not inhale the spray.

□ Release the button and close your mouth. Avoid swallowing immediately after using the spray.

#### Topical (Transdermal Patches)

- When applied to the skin, nitrates are used to reduce the number of angina attacks that can occur. The only nitrate product available for this purpose is topical glyceryl trinitrate patch.
- Do not try to trim or cut the adhesive patch to adjust the dosage. Check with your doctor if you think the medicine is not working as it should.
- Apply the patch to a clean, dry skin area with little or no hair and free of scars, cuts or irritation. Remove the previous patch before applying a new one.
- Apply a new patch if the first one becomes loose or falls off.
- Apply each dose to a different area of skin to prevent skin irritation or other problems.
- The dose of GTN will be different for different patients. Follow your doctor's instructions for when to put on and take off the skin patch. The patch is usually left on for 12 to 18 hours a day and then taken off.

#### WHAT SHOULD I DO IF I FORGET A DOSE?

Take the missed dose as soon as you remember it. However, if it is almost time for the next dose, skip the missed dose and continue your regular dosing schedule. Do not take a double dose to make up for a missed one.

#### WHAT SIDE EFFECTS CAN THIS MEDICINE CAUSE?

Headache, flushing or redness of the skin, dizziness, weakness or fainting,

rapid heart beat, nausea or vomiting are the common side effects. Usually the side-effects are temporary and will disappear by themselves. Contact your doctor or pharmacist if the medicine causes you discomfort or if the symptoms persist.

#### WHAT PRECAUTIONS SHOULD I FOLLOW?

**Allergies** - Tell your doctor if you have ever had any unusual or allergic reactions to nitrates or nitrites. Also tell your doctor or pharmacist if you are allergic to any other substances, such as certain foods, preservatives or dyes.

**Pregnancy** - Inform your doctor and pharmacist if you are pregnant, plan to become pregnant or are breast-feeding. If you become pregnant while taking nitrates, inform your doctor.

**Older adults** - Dizziness or lightheadedness may be more likely to occur in the elderly, who may be more sensitive to the effects of nitrates.

**Other medicines** - Tell your doctor or pharmacist if you are taking any high blood pressure medicine, other heart medicine or sildenafil (Viagra<sup>®</sup>).

#### **HOW SHOULD I STORE THIS MEDICINE?**

Keep this medicine in the container it came in, tightly closed. Store it in a cool and dry place, away from excessive heat and moisture. Consult your pharmacist about the proper disposal of your medication.

*GTN tablets:* The active drug evaporates quickly from the tablet. Therefore, the following conditions should be observed to ensure continual potency of the tablets.

- Keep the tablets in the brown glass container and close tightly. Never transfer the tablets into other containers.
- Store in a cool dry place. Do not store in the refrigerator. Carry them with you wherever you go but try not to carry them close to your body. Carry them in a purse or bag.

• Date the bottle once it is opened. If you do not use the tablets within 2 months of opening, obtain a fresh supply and discard the old tablets.

#### WHAT ELSE SHOULD I KNOW?

- Do NOT take sildenafil (Viagra<sup>®</sup>) if you are taking this medicine. When sildenafil is taken with nitrates, blood pressure can lower drastically resulting in dizziness, lightheadedness or fainting. In some cases, death has been reported when sildenafil was taken with nitrates.
- If you have been taking this medicine regularly for several weeks or more, do not suddenly stop using it. Sudden discontinuation may bring on attacks of angina. Check with your doctor for the best way to reduce the amount gradually before stopping completely.
- After taking a dose of this medicine you may get a headache that lasts for a short time. This is a common side effect, which should become less noticeable after you have taken the medicine for a while. Initially, you may want to use a painkiller, such as paracetamol, to relieve the symptom. If this effect continues, or if the headache is severe, check with your doctor.
- Dizziness, lightheadedness or faintness may occur, especially when you get up quickly from a lying or sitting position. Getting up slowly may help. If you feel dizzy, sit or lie down.
- The dizziness, lightheadedness or fainting is also more likely to occur if you drink alcohol, stand for a long period of time, exercise or if the weather is hot. While you are taking this medicine, be careful to limit the amount of alcohol you drink. Also, extra care has to be taken during exercise, hot weather or if you must stand for long periods of time.



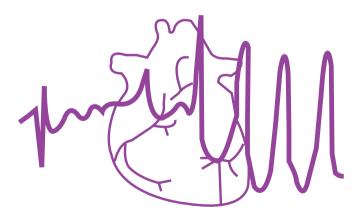
Ministry Of Health



# Medicine To Treat: Cardiac Diseases

### Lipid-Lowering Medicines

- Statins
- Fibrates
- Fat Binding Agents
- Nicotinic Acid Group



#### **ABOUT YOUR MEDICINE**

Your doctor has just prescribed for you:

Medicine Group	Examples of Medicine in the Group	
Statins	<ul> <li>Lovastatin</li> <li>Pravastatin (Pravachol®)</li> <li>Simvastatin (Zocor®)</li> </ul>	
	<ul> <li>Atorvastatin (Lipitor<sup>®</sup>)</li> <li>Fluvastatin (Lescol<sup>®</sup>)</li> </ul>	
Fibrate	<ul> <li>Gemfibrozil (Lopid<sup>®</sup>)</li> <li>Bezafibrate (Bezalip<sup>®</sup>, Bezalip Retard<sup>®</sup>)</li> <li>Ciprofibrate (Modalim<sup>®</sup>)</li> <li>Clofibrate (Atromid-S<sup>®</sup>)</li> </ul>	
Fat-Binding Agents	<ul> <li>Fenofibrate (Lipanthyl<sup>®</sup>, Lipanthyl Micro<sup>®</sup>)</li> <li>Cholestyramine (Questran Light<sup>®</sup>)</li> </ul>	
Nicotinic Acid Group	<ul> <li>Nicotinic Acid</li> <li>Acipimox (Olbetam<sup>®</sup>)</li> </ul>	

#### WHAT ARE LIPID-LOWERING MEDICINES USED FOR?

This group of medicine helps to improve the blood lipid profile and may reduce your risk for heart attack and stroke as well as the need for procedures to improve blood flow to the heart, such as balloon angioplasty or heart bypass surgery. Depending on your health status and lipid level, your doctor will decide when to start treatment.

The medicines lower your blood cholesterol levels by reducing the amount of 'bad cholesterol' (low density lipoprotein or LDL-cholesterol) and 'fat' (triglyceride) and also raise the amount of 'good cholesterol' (high density lipoprotein or HDL-cholesterol). High cholesterol levels can cause coronary heart disease by gradually clogging up the blood vessels that supply the heart muscle. This process, called atherosclerosis, can eventually lead to chest pain (angina), heart attack or stroke. Lastly, the medicines may also help to prolong life.

#### HOW SHOULD I TAKE THE MEDICINE?

Except for cholestyramine, the other medicines in this group come in the form of tablets or capsules. They should be taken by mouth with a drink of water. Please follow the directions on the prescription label. Statins are generally best taken after evening meals.

Fat-Binding Agent is a powder packaged in a packet, to be taken with water. Please follow the directions on the prescription label. Other drugs should be taken at least 1 hour before or 4 hours after taking this medicine. This is to reduce possible interference with absorption of the other medicines.

You should continue taking your medicine unless your doctor tells you to stop. If you stop taking your medicine, your cholesterol level may rise again. Please inform your doctor if you plan to stop taking this medicine indefinitely, in case the dosage of some of your other medicines may need to be adjusted.

#### WHAT SHOULD I DO IF I FORGET A DOSE?

If you happen to miss your usual dose, do not take an extra dose. Instead, continue taking your next usual prescribed dose.

# WHAT ARE THE POSSIBLE SIDE EFFECTS OF THE MEDICINE?

All medicines potentially have side effects. The common reactions from using these medicines are summarised in the table below. Rarely, the medicines may cause liver dysfunction. Your doctor will monitor the status.

Medicine Group	Side Effects
Statins	<ul> <li>Digestive disturbances, e.g stomach pain, constipation, diarrhoea.</li> <li>Tiredness</li> <li>Headache, muscle ache</li> </ul>
Fibrates	<ul> <li>Nausea, vomiting</li> <li>Digestive disturbances, e.g. heartburn, diarrhoea</li> <li>Skin rashes</li> <li>Headache, muscle ache</li> </ul>
Fat-Binding Agents	<ul> <li>Digestive symptoms, e.g. constipation, diarrhoea</li> <li>Nausea, vomiting</li> </ul>
Nicotinic Acid Group	<ul> <li>Skin flushing or rashes, itching</li> <li>Headache</li> <li>Digestive symptoms, e.g. heartburn, diarrhoea</li> </ul>

If you notice any of the above side effects or do not feel well after taking the medicines, please inform your doctor immediately.

#### WHAT PRECAUTIONS SHOULD I TAKE?

The table guides you on the precautions you should take:

If You Are:	You Should Not Take :
Allergic to any component     of the medicine	Statins, Fibrates, Fat Binding Agent
Diagnosed with active liver disease	Statins, Fibrates
Pregnant or breast-feeding	Statins, Fibrates, Fat Binding Agent, Nicotinic Acid Group
• Diagnosed to have complete obstruction of the bile duct system	Fat Binding Agents

Please tell your doctor about all other medicines that you usually take. This is important as certain medicines (e.g. warfarin) may interact with this medicine group and may affect their efficacy or increase the risk of side-effects.

#### HOW SHOULD I STORE MY MEDICINE?

You should keep your medication in the original container or packaging, tightly closed or sealed. Store tablets in a cool and dry environment.



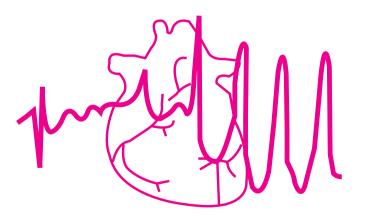








Digoxin



#### WHAT IS THE MEDICINE USED FOR?

Digoxin is used primarily to suppress rapid heart rhythm. It is also used in heart failure to improve heart function.

#### **HOW SHOULD I TAKE THE MEDICINE?**

Take digoxin by mouth with a drink of water. Follow the directions on the prescription label. Take your doses at a regular time. Always take the medicine either before or after meals.

#### WHAT SHOULD I DO IF I FORGET A DOSE?

Try not to miss doses. If you do miss a dose, take it as soon as you can within 12 hours. If it is after the 12 hours, do not take that dose. If it is almost time for the next dose, do not take the missed dose and do not double your next dose for the missed one.

#### WHAT ARE THE POSSIBLE SIDE EFFECTS OF THE MEDICINE?

Digoxin can worsen existing abnormal heart rhythm or can cause new abnormal heart rhythm.

Common adverse reactions that you may experience include:

- diarrhoea, nausea and vomiting
- headache, dizziness
- visual disturbances

Inform your doctor as soon as you can if you notice any of these symptoms.

#### WHAT PRECAUTION SHOULD I TAKE?

There are several drugs that affect the level of digoxin in your body. As such it is not advisable to take it concurrently with traditional medications. When consulting for any illness, please inform doctors that you are taking this medicine.

There is not enough information on the use of digoxin in pregnant women. Therefore, the medicine should be used during pregnancy only when it is clearly needed.

Digoxin is distributed into milk. Due to the potential for serious adverse effects in nursing infants, a decision has to be made whether to discontinue breast-feeding or the medicine, taking into account the importance of the medicine to the patient.

Your doctor may examine the blood level of digoxin at intervals to determine adequacy of the treatment.

#### HOW SHOULD I STORE MY MEDICINE?

You should keep your medication in a tight, light resistant container at cool dry places.







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# Medicine To Treat: ardiac Diseases

## Antiplatelet Agents

- Aspirin
- Dipyridamole
- Thienopyridine



#### **ABOUT YOUR MEDICINE**

Your doctor has just prescribed for you:

MEDICINE	WHAT IS THE MEDICINE USED FOR?	OTHER NAMES
Aspirin	To make the blood less sticky. By doing so, it reduces the chance of a stroke or heart attack.	Cardiprin <sup>®</sup> , Disprin <sup>®</sup>
Dipyridamole	To make the blood less sticky. Often used with Aspirin to reduce the chance of getting stroke.	Persantin <sup>®</sup>
Thienopyridine group	To make the blood less sticky. It can be taken alone to prevent heart attack or with aspirin.	Ticlopidine (Ticlid®), Clopidogrel (Plavix®)

#### HOW SHOULD I TAKE THE MEDICINE?

You should take your medicine after a meal to prevent stomach upset. Do not stop taking your medicine without first checking with your doctor.

Depending on the preparation you are taking, some aspirin tablets are to be chewed or sucked before swallowing. You might also be asked to swallow the tablet as a whole without chewing or dissolve it in a glass of water before taking. Consult your pharmacist if you are not sure of the correct way of taking your aspirin tablets.

#### WHAT SHOULD I DO IF I FORGET A DOSE?

Try not to miss doses. If you do miss a dose, take it as soon as you remember and resume the prescribed schedule. However, if it is almost time for the next dose, do not take the missed dose and do not double your next dose for the missed one.

#### WHAT ARE THE POSSIBLE SIDE EFFECTS OF THE MEDICINE?

MEDICINE	POSSIBLE SIDE EFFECTS
Aspirin	<ul> <li>Allergic reaction (sneezing, respiratory congestion, swelling of throat, breathlessness, itching or skin rashes).</li> <li>Nausea, indigestion or stomach irritation. This can be minimised by taking enteric coated tablets or aspirin with stomach protecting pill.</li> <li>Unusual bleeding or bruising, ringing noise in ears or bloody urine.</li> </ul>
Dipyridamole	<ul> <li>Dizziness or headache</li> <li>Indigestion and stomach discomfort</li> <li>Rashes</li> </ul>
Thienopyridine	<ul> <li>Stomach irritation</li> <li>Diarrhoea</li> <li>Rashes</li> <li>Low white blood cell or platelet count. If you are taking ticlopidine, your doctor may require you to visit him for regular blood tests.</li> </ul>

Please check with your doctor if you experience any unusual side effects when taking your medicine.

#### WHAT PRECAUTION SHOULD I TAKE?

Inform your doctor if you are pregnant, planning to conceive or if you are breast-feeding.

You should also consult your doctor or pharmacist before taking any other medication (either prescription or over-the-counter), nutritional supplements or herbal remedies. Some of these substances can interact with your medicine.

If you are going for a surgical operation, including dental procedures, please inform your doctor as the medicine may need to be discontinued prior to the procedure to prevent excessive bleeding.

#### HOW SHOULD I STORE MY MEDICINE?

You should keep your medication in the container it came in, tightly closed. Store them away from heat and direct sunlight, in a cool and dry environment.







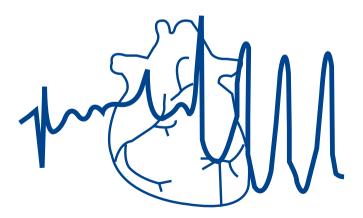
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## PATTIENT INFORMATION

# Medicine To Treat: Cardiac Diseases

#### Antiarrhythmic Agents

- Sotalol
- Flecainide Acetate
- Propafenone
- Amiodarone



#### **ABOUT YOUR MEDICINE**

Your doctor has just prescribed for you an antiarrhythmic agent, such as sotalol, flecainide acetate, propafenone and amiodarone.

#### WHAT ARE THE MEDICINES USED FOR?

These medicines are used primarily to suppress and prevent the recurrence of abnormal heart rhythm.

#### **HOW SHOULD I TAKE THE MEDICINE?**

Take your medicine by mouth with a drink of water. Follow the directions on the drug label. Take your doses at regular times. Always take the medicine either before or after meals.

#### WHAT SHOULD I DO IF I FORGET A DOSE?

Try not to miss doses. If you do miss a dose, take it as soon as you can within 4 hours, 6 hours and 12 hours if your dosing schedule is thrice, twice and once daily, respectively. If it is after the 4 hours, 6 hours and 12 hours for the respective dosing intervals, do not take that missed dose. Just continue to take at the usual time for the next dosing interval. Do not double your dose at the next interval unless instructed by your doctor.

#### WHAT ARE THE POSSIBLE SIDE EFFECTS OF THE MEDICINE?

Uncommonly, this group of medicines may worsen existing abnormal heart rhythm or cause new abnormal heart rhythm including those, which can potentially be fatal. You may either experience severe slowing or irregular heart beat, severe giddiness or fainting spells.

#### Keep all medication out of reach of children.

MEDICINE	OTHER POSSIBLE SIDE EFFECTS
Sotalol	<ul> <li>Fatigue, dizziness, nausea, vomiting and breathlessness</li> <li>Urinary disturbances</li> <li>Sexual dysfunction</li> <li>Back pain, rashes, bleeding and visual disorder</li> </ul>
Flecainide acetate	<ul> <li>Dizziness, headache, fatigue</li> <li>Visual disturbances</li> <li>Nausea</li> <li>Rashes</li> <li>Breathlessness</li> </ul>
Propafenone	<ul> <li>Constipation, diarrhoea, abdominal pain, nausea and vomiting</li> <li>Taste changes</li> <li>Headache, dizziness, fatigue, fainting spell</li> <li>Dry mouth</li> <li>Blurred vision</li> <li>Chest pain, breathlessness</li> </ul>
Amiodarone	Amiodarone exhibits several systemic side-effects. Thus it is essential that you are on regular follow-up with your doctor. Amiodarone can impair lung function, and early symptoms include breathlessness on exertion, dry cough, fever, chest pain, lethargy and weakness. Amiodarone can impair liver function whose symptoms may include nausea, vomiting, abdominal pain, weight loss, jaundice and swelling of the abdomen. Amiodarone can impair thyroid function. Early symptoms include weight loss, anxiety, tremor and heat intolerance for those with increased thyroid function or cold intolerance, lethargy and slow heart rate if it is due to reduced thyroid function.

Please inform your doctor as soon as you can if you notice any of the symptoms.

Discard all medication that is outdated or no longer required.

#### WHAT PRECAUTION SHOULD I TAKE?

There are several drugs that interact with this group of medicines. As such it is not advisable to take it concurrently with traditional medications. You should inform the doctor that you are taking these medicines when consulting for any other illness.

There is currently no adequate information on using these medicines in pregnant women, and they should be used during pregnancy only when they are clearly needed.

This medicine is distributed into milk. Due to its potential for serious adverse effects in nursing infants, breast-feeding should be discontinued when taking this medicine.

#### HOW SHOULD I STORE MY MEDICINE?

You should keep your medication in an airtight container in cool dry places.







## PATIENT INFORMATION



Anti-anginal Agents (II) Trimetazidine



#### **ABOUT YOUR MEDICINE**

Your doctor has just prescribed for you Trimetazidine. The brand available in the market is Vastarel<sup>®</sup>.

#### WHAT IS TRIMETAZIDINE USED FOR?

Trimetazidine is used for long term treatment of angina. Angina is pain arising from the heart muscle when it does not receive enough oxygen. You may have the feeling of indigestion, fullness, squeezing pressure, tightness in the chest spreading to your arms or neck. Trimetazidine increases coronary reserve, prevents sudden rises in blood pressure and reduces the frequency of angina attacks.

#### **HOW SHOULD I TAKE THE MEDICINE?**

Trimetazidine comes in the form of tablet. It should be taken by mouth with a drink of water. Follow the directions on the prescription label. Always take the medicine with meals.

#### WHAT SHOULD I DO IF I FORGET A DOSE?

Try not to miss doses. If you do miss a dose, take it as soon as you remember it. Take the remaining doses for that day at evenly spaced intervals. Do not take a double dose to make up for the missed one.

#### WHAT SIDE EFFECTS CAN THIS MEDICINE CAUSE?

Gastrointestinal discomfort may occur infrequently and it is usually mild.

#### WHAT PRECAUTIONS SHOULD I FOLLOW?

Inform your doctor and pharmacist if you are

- Allergic to Trimetazidine or any other drugs.
- Pregnant or breast-feeding.
- Taking a monoamine-oxidase inhibitor (MAOI) type of medication, for example, moclobemide (Aurorix ®)

#### HOW SHOULD I STORE THIS MEDICINE?

Keep this medication in the container it came in, tightly closed. Store it in a cool and dry place. Consult your pharmacist about the proper disposal of your medication.







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### An Overview



#### WHAT IS POLYPHARMACY?

Polypharmacy is defined as the concurrent use of multiple medicines either dispensed according to a prescription or bought over-the-counter.

## WHAT ARE THE PROBLEMS THAT CAN ARISE DUE TO POLYPHARMACY?

Using multiple medicines concurrently can lead to problems such as the occurrence of unnecessary adverse drug reactions, wastage, improper use, under-use or over-use of medicines.

#### WHO IS AT RISK?

If you are aged 65 or older, you may be taking one or more medicines prescribed to you by your doctor, as well as products that you can buy over-the-counter (OTC) without a prescription. While such medicines can help maintain health and prevent further illness, taking combinations of drugs means that you can be at risk for unwanted drug interactions, which may result in adverse drug reactions. If you take medicines prescribed by doctors and answer 'yes' to any of the questions below, you can be at increased risk.

- Do you take herbs, vitamins or OTC products?
- Do you have to take medicine more than once a day?
- Do you see different doctors for different conditions?
- Do you use different pharmacies to fill your prescriptions?
- Do you have poor eyesight or hearing?
- Do you live alone?
- Do you sometimes forget to take your medication?

#### Keep all medication out of reach of children.

#### WHAT SHOULD I DO IF I AM AT RISK?

As long as your doctor monitors your medicines carefully, the benefits can far outweigh the risks. However, if you feel that you are taking too many drugs, talk to your doctor or pharmacist. There are many ways that you and your health care providers can work together to reduce or avoid the risks. Follow the instructions given by your doctor or pharmacist carefully.

#### **SOME SIMPLE TIPS:**

- Talk to your doctor about your medicines.
- Tell your doctor if you are taking **any other medication** prescribed by other doctors.
- Tell your doctor or pharmacist if you are consuming **non-prescription medicines, OTC medicines or dietary supplements** (herbs, vitamins, etc.).
- Keep a **written record** of your medicines. You can show the record to your doctor at each visit. You should also note any new symptoms or possible side effects you experience as these can help pinpoint the cause of any problems.
- **Consult your doctor or pharmacist** if you have any questions with respect to your medicines.
- **Do not share** your medicines with others or consume medicines belonging to others. They may not be suitable for you.
- Remember you should **always know what you are taking** and **why you are taking them**.

#### I AM TAKING SEVERAL MEDICINES. HOW CAN I REMEMBER TO TAKE THEM ALL?

If you take several medications daily you need to have a **medication schedule**. This will allow you to take your medicines at **regular intervals** 

Discard all medication that is outdated or no longer required.

so that the amount of medicine in your body is maintained appropriately. Ask your pharmacist to help you to prepare a medication schedule and update it whenever your medicines change.

It is helpful to have a **memory aid**, for example, a pill-box with easy-toopen compartments for each day of the week and time it has to be taken. You may want to purchase a product that uses an electronic alarm such as a buzzer, flashing light or that vibrates when it is time to take your medicine. Ask your pharmacist for help in choosing the appropriate type of device for your needs.

#### HOW SHOULD I STORE MY MEDICINES?

You should keep your medicines in their original containers where possible and store them in a cool and dry place.