

PHARMACY

Drug Information

Medications to Prevent Ischaemic Strokes



What is an Ischaemic Stroke?

- Ischaemic strokes occur when blood flow to the brain is obstructed due to the narrowing or blockage of blood vessels. When this happens, the brain will be deprived of nutrients and oxygen, resulting in irreversible damage.
- The blockage may be caused by blood clots or cholesterol deposits, by a process called atherosclerosis. These blood clots can also be formed elsewhere in the body such as the heart, and subsequently lodge in the arteries supplying blood to the brain.
- High blood pressure, diabetes mellitus, high cholesterol, cigarette smoking, obesity, physical inactivity and irregular heartbeat have been shown to increase the risk of suffering from an ischaemic stroke.

What are the Possible Symptoms of Ischaemic Stroke?

- When you experience a stroke, your brain may not be able to send signals to other parts of your body.
- The acronym F.A.S.T. helps you to remember the important signs of a stroke, and how to respond if you or someone is having a stroke.
- F.A.S.T. stands for:
 - Face drooping
 - Arm weakness
 - Speech difficulty
 - Time to call 995
- Other signs and symptoms include:
 - Visual disturbances
 - Unsteadiness in walking or uncoordinated movements
 - Dizziness, often in combination with one or more of the above symptoms
 - Drowsiness
- This may also be preceded by a “Transient Ischaemic Attack” (TIA) which is a brief episode (usually lasting a few minutes and no longer than 24 hours) of stroke-like symptoms with no lasting damage.

What are the Medications Used in the Management of Stroke Prevention?

Medication Class	Medication Name	
Antithrombotics	Antiplatelets <ul style="list-style-type: none"> • Aspirin (Cardiprin®) • Dipyridamole (Persantin®) 	<ul style="list-style-type: none"> • Ticlopidine (Ticlid®) • Clopidogrel (Plavix®)
	Anticoagulants <ul style="list-style-type: none"> • Warfarin (Marevan®) • Rivaroxaban (Xarelto®) 	<ul style="list-style-type: none"> • Apixaban (Eliquis®) • Dabigatran (Pradaxa®)
Statins	<ul style="list-style-type: none"> • Atorvastatin • Lovastatin • Pravastatin 	<ul style="list-style-type: none"> • Rosuvastatin • Simvastatin
Fibrates	<ul style="list-style-type: none"> • Bezafibrate • Gemfibrozil 	<ul style="list-style-type: none"> • Fenofibrate
Proton Pump Inhibitors	<ul style="list-style-type: none"> • Esomeprazole • Lansoprazole 	<ul style="list-style-type: none"> • Omeprazole • Rabeprazole
H ₂ Receptor Antagonists	<ul style="list-style-type: none"> • Cimetidine • Famotidine 	<ul style="list-style-type: none"> • Ranitidine

How do the Medications Work?

- Antiplatelets (commonly known as 'blood thinners') reduce the formation of clots by preventing blood platelets from sticking together.
- Anticoagulants (commonly known as 'blood thinners') delay the clotting of blood. They make it harder for new blood clots to form or prevent existing clots from growing bigger.
- Statins and fibrates lower cholesterol and other fats in the bloodstream. Hence, they reduce fatty deposits, preventing the narrowing and hardening of arteries.
- H₂ Receptor Antagonists protect your stomach and prevent gastric problems that sometimes arise with the use of antiplatelets.

- Proton Pump Inhibitors are slightly more effective than H₂ Receptor Antagonists.

How are the Medications Administered / Taken?

- You should take your blood thinners after food to prevent gastric problems. However, Dipyridamole should be taken before food and Warfarin should be taken at a stipulated timing set by your primary physician.
- Proton pump inhibitors are preferably taken before food.
- Take your medications regularly and do not stop taking them unless instructed by your doctor. This helps to minimise your risk of stroke.
- You can use cues to remind yourself to take your medication, for example, after a meal or after brushing your teeth. If necessary, use a pill box to separate each dose of the day.
- 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. Never take a double dosage to make up for the missed dose.
- If you are unsure of how to take your tablets, please consult your pharmacist.

Can the Medications be Administered / Taken With Other Medications?

- Please inform your doctor or pharmacist if you are taking other medications, including supplements, traditional or herbal remedies. Some of these products can interact with your medications and increase the chances of unwanted side effects.

What are the Important Side Effects?

- Medications prescribed by your doctor should be beneficial for your condition although they may also result in side effects.
- It is important that you recognise the side effects of your medications and understand how to manage them.
- Inform your doctor or pharmacist if you experience any side effects which you are concerned about.

Medicine Class	Side Effect	Management
Aspirin (Cardiprin®)	Breathlessness, itching or skin rashes Nausea, indigestion or stomach irritation	<ul style="list-style-type: none"> • Inform your doctor if you are asthmatic and taking this medication. • Inform your doctor if you observe any of the following symptoms: <ul style="list-style-type: none"> ○ Unusual bleeding or bruising ○ Black & tarry or bloody stools
Dipyridamole (Persantin®)	Dizziness, headache, hot flushes, indigestion, stomach discomfort, nausea, vomiting	<ul style="list-style-type: none"> • You can take paracetamol if you experience a headache. Inform your doctor if the headache does not resolve.
Ticlopidine (Ticlid®) Clopidogrel (Plavix®)	Stomach irritation, diarrhoea	<ul style="list-style-type: none"> • If you experience unexplained sore throat, fever, mouth ulcers, bruising or bleeding, consult your doctor immediately. • If you are taking ticlopidine, you may require regular blood tests. • Inform your doctor if you observe any of the following symptoms: <ul style="list-style-type: none"> ○ Unusual bleeding or bruising ○ Black & tarry or bloody stools

Medicine Class	Side Effect	Management
Apixaban (Eliquis®) Dabigatran (Pradaxa®) Rivaroxaban (Xarelto®)	Low blood pressure, nausea Abdominal pain, nausea Dizziness, headache Refer to Non-Vitamin K Antagonist Oral Anticoagulation leaflet for more information	<ul style="list-style-type: none"> • Inform your doctor if you observe any of the following symptoms: <ul style="list-style-type: none"> ○ Unusual bleeding or bruising ○ Black & tarry or bloody stools
Warfarin (Marevan®)	Bruises Dizziness Refer to Warfarin leaflet for more information	<ul style="list-style-type: none"> • Inform your doctor if you observe any of the following symptoms: <ul style="list-style-type: none"> ○ Unusual bleeding or bruising ○ Black & tarry or bloody stools
Statins	Muscle ache, constipation, flatulence, abdominal pain, headache	<ul style="list-style-type: none"> • If you experience dark urine, sudden unexplained muscle pain and weakness, or notice yellowing of skin and whites of eyes (jaundice), consult your doctor immediately.
Fibrates	Stomach upset, rash, itchiness, headache, muscle ache	<ul style="list-style-type: none"> • If you experience dark urine, sudden unexplained muscle pain and weakness, or notice yellowing of skin and whites of eyes (jaundice), consult your doctor immediately.

Medicine Class	Side Effect	Management
H2 Receptor Antagonists	These medications are generally well tolerated and rarely causes the following side effects: Diarrhoea, stomach upset, headache, dizziness, rash, tiredness	-
Proton Pump Inhibitors	These medications may cause the following side effects but are generally well tolerated. Nausea, vomiting, stomach upset, headache, dizziness, dry mouth	-

If you develop rashes, facial swelling or shortness of breath after taking the medication, you could be allergic to the medication. Please seek medical attention immediately.

Do I Need Regular Monitoring When Taking These Medicines?

- If you are taking warfarin, you will need regular monitoring of your International Normalized Ratio (INR), which measures how long your blood takes to clot. Your doctor or anticoagulation pharmacist will advise on the frequency of monitoring.

Are There any Special Precautions That I Need to Take?

- It is important to inform your doctor if you intend to conceive or breastfeed while taking these medications.
- You should also consult your doctor or pharmacist before taking any other medication (either prescription or over-the-counter), nutritional

supplements or herbal remedies, as some of these substances can interact with your medicine.

- Always inform other healthcare providers if you are taking antiplatelets or anticoagulants.
- If you are taking warfarin, you will need to maintain a consistent amount of vitamin K intake. Vitamin K is found in leafy, green vegetables, fish, liver, lentils, soybeans, and some vegetable oils. Hence, a regular and consistent amount of these foods should be consumed.

What Else can I do to Help My Condition?

- Maintain a healthy lifestyle and diet by eating foods low in saturated fat, trans fat, sodium and added sugars.
- Quit smoking. Inform your doctor or pharmacist if you require help to quit smoking.
- Minimise your alcohol intake.
- Exercise regularly.
- Achieve or maintain a healthy weight.

How do I Store These Medications?

- Store your medication in a cool, dry place away from heat, moisture and direct sunlight.

If you have any problem with your treatment, please contact your doctor, pharmacist or nurse clinician.

Please keep all medications out of reach of children.



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