



Endothelin receptor antagonists for treating pulmonary arterial hypertension

WHAT DOES THE GUIDANCE SAY?

Ambrisentan is recommended for listing on the Medication Assistance Fund (MAF) for government subsidy for adults with pulmonary arterial hypertension (PAH). Bosentan and macitentan are not recommended for subsidy.

WHAT IS PULMONARY ARTERIAL HYPERTENSION (PAH)?

Pulmonary arterial hypertension (PAH) is characterised by narrowing of blood vessels from the heart to the lungs, which leads to abnormally high blood pressure (hypertension) and eventually heart failure. Most forms of PAH develop in adults, and women are twice as likely to be affected as men. Symptoms include fatigue, shortness of breath, fainting spells, chest pain and a rapid heart rate.

There are 4 WHO functional classes (1 is lowest, 4 is highest) that are used to describe the severity of PAH and the level of urgency for treatment.

WHAT IS AMBRISENTAN?

You may know ambrisentan as Volibris[®], a medicine used to treat PAH that belongs to a class of drugs known as endothelin receptor antagonists (ERAs).

ERAs can slow the progression of PAH and relieve some symptoms, by reducing the amount of a substance called endothelin in the blood. Endothelin causes blood vessels to constrict (become narrower) which increases blood pressure. ERAs therefore can reduce the harm an excess of endothelin can cause.

HOW MUCH AMBRISENTAN CAN I TAKE?

Your doctor will usually prescribe one ambrisentan 5 mg or 10 mg tablet once a day.





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HOW LONG SHOULD I TAKE IT?

Your doctor will advise you on how long you will need to take ambrisentan. Treatments for PAH are usually required life-long.

WHO CAN HAVE AMBRISENTAN?

Adults can apply for ambrisentan through the MAF if they have a confirmed diagnosis of WHO Functional Class II or III PAH and one of the following types of PAH:

- Idiopathic PAH;
- Heritable or familial PAH;
- PAH associated with connective tissue disease;
- Anorexigen-induced PAH; or
- PAH associated with HIV infection.

WHY WAS AMBRISENTAN RECOMMENDED FOR SUBSIDY?

ACE evaluates how well a treatment works in relation to how much it costs compared to other treatments. Ambrisentan was recommended for subsidy because its benefit in slowing disease progression and improving quality of life for certain patients with PAH justifies its cost. The other ERAs (bosentan and macitentan) were not recommended for subsidy because their benefits did not justify their costs compared to ambrisentan.

WHAT DOES LISTING ON THE MAF MEAN FOR ME?

The MAF helps people pay for expensive treatments that are clinically necessary. If your doctor prescribes ambrisentan for you, and you meet the MAF criteria, your treatment cost will be subsidised by 40% to 75%.

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ACE is the national health technology assessment agency under the Ministry of Health (Singapore). It publishes guidances on diagnosing, treating, and preventing different medical conditions based on the latest research information available worldwide.

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