

Understanding Severe Asthma



Created by:



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1. It's time to rethink what you know about asthma.

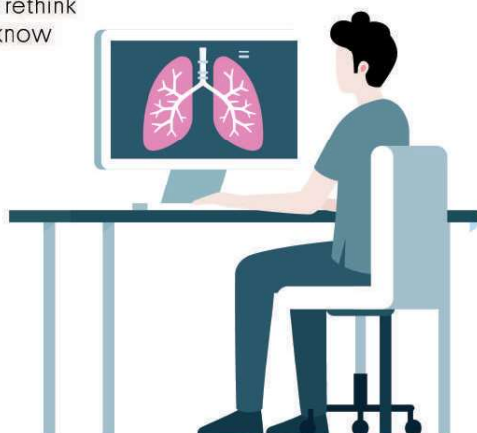


Millions live with asthma symptoms as part of everyday life and have accepted it as “normal.”

And because you may have experienced this condition for many years, you might think you've got your asthma under control. But if your symptoms keep you from doing the things you want to do – and even worse, keep coming back – it may be time to seriously rethink everything you know about asthma.

Because here's the truth: asthma is always there and can lead to permanent long-term lung damage.

That's why it's so important to talk to your doctor/healthcare professional and learn more about the new understanding of asthma control.



2. What is Severe Asthma?

Around 5 - 10% of asthma patients have Severe Asthma, that is, they have **persistent asthma symptoms**, or **frequent asthma flare-ups** ["attacks"] despite being adherent to high doses of inhaled preventer medications and sometimes oral steroids.

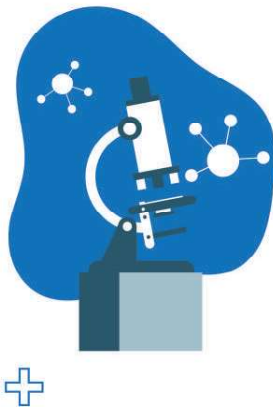
3. Different types of asthma

New advances in asthma science confirm there are many types of asthma – and it's important to know your type. A specific kind of inflammation found deep within your lungs called **Type 2 inflammation** can cause two of the most common asthma types: “**eosinophilic**” and “**allergic**.”

4. Biologic treatment for Severe Asthma +

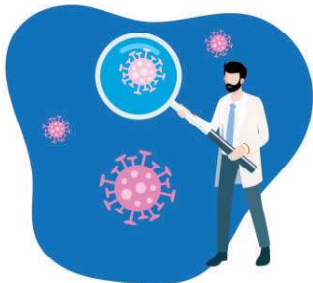
4.1. What are biologics?

Biologics are relatively new medications that are not made from chemicals but are made from the cells of a living organism, such as bacteria or mice. They are then modified to target specific molecules, antibodies, or cells in the human body. They are therefore highly precise and specific. In asthma, by acting on these targets in the body, they block pathways that lead to inflammation that causes asthma symptoms.



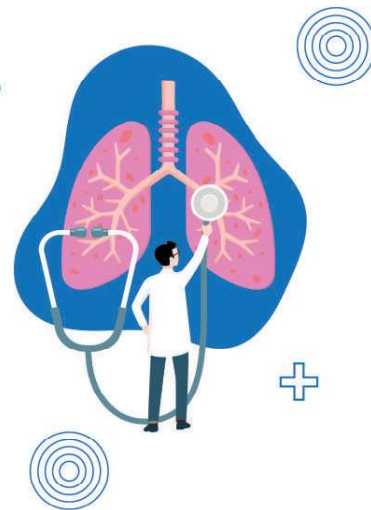
4.2. Who should receive a biologic?

A biologic may be useful for patients who continue to have uncontrolled Severe Asthma despite being on optimal daily preventer medications.



4.3. Poor asthma control is indicated by the presence of any of the following:

- Frequent symptoms such as shortness of breath, wheezing, coughing, waking up at night with difficulty breathing, and/or limitation of daytime activities
- Use of fast-acting reliever medications such as Salbutamol inhaler or additional doses of Budesonide-Formoterol several times a week
- Recurrent hospital admissions, emergency room visits, and/or visits to a doctor requiring oral steroids for flare-ups +
- Impaired lung function



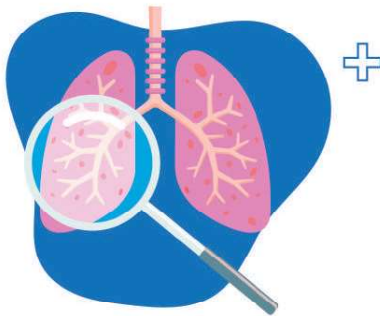
4.4. Before considering starting on a biologic, your healthcare provider would work with you to ensure that:

- You are taking your preventer medications as intended, and are using your inhaler devices correctly
- You are avoiding triggers for your asthma, wherever possible
- You do not have other medical conditions that are contributing to your poor asthma control



4.5. What are the benefits of a biologic?

- Reduce frequency of asthma attacks and symptoms
- Reduce healthcare visits i.e hospital admission, emergency room visits that require oral steroids
- For patients on regular oral steroids, the dose required to control asthma may be reduced
- Reduce the need for other add-on medications [and hence reduce side effects]
- Fewer missed work/school days
- Improve quality of life
- Some biologics may even improve lung function and other conditions which are caused by abnormal inflammation, similar to the asthma that is affecting you



5. What biologics are available for Severe Asthma?

Currently, in 2021, there are four asthma biologics approved by Health Sciences Authority in Singapore.

- Omalizumab,
- Mepolizumab,
- Benralizumab, and
- Dupilumab

There are many others in development and undergoing clinical trials.

6. How is a biologic chosen?

Different biologics target different inflammatory and allergic pathways in asthma. Your doctor will obtain screening tests, such as blood, lung function tests and allergy skin testing, to help decide which biologic is most likely to benefit you.

7. How are biologics given?

- Injection under the skin [Subcutaneous]
- Patient will be observed between 30mins to 2 hours
- Re-administer bi-weekly [every 2 weeks] or monthly [every 4 weeks] or bi-monthly [every 8 weeks] depending on the biologics





8. What are the possible side effects?

Overall, studies have shown that biologics are generally very safe.

However, some common side effects include:

- Soreness at the injection site
- Headache
- Sore throat
- Fatigue

Rarely, but possibly:

- Swelling of eyes
- Hives
- Rashes
- Fainting or dizziness
- Difficulty breathing

9. How long do I need to be on a biologic?

Up to 6 months may be needed to monitor for improvement.

Your doctor and healthcare team will work with you to decide how long to keep the treatment if the biologic helps keep your asthma under good control. Good response can be sustained, and the biologic may be used long-term.

10. How much do biologics cost?

They may cost thousands of dollars per year. However, for some patients, the cost of symptoms and asthma flare-ups may already be more than the cost of the biologic. Given the high cost, you and your doctor should work together to see if they are the best medications for you.



11. Other management of Severe Asthma

11.1 Taking regular preventer medications

Do not stop the medications on your own, even when you feel better with the biologic. Please discuss with your doctor before changing your medications.



11.2 Exercise

There is a lot of research showing that physical activity for people with severe asthma helps improve their quality of life.

11.3 Eating well

A healthy diet and staying active is good for the heart and lungs even if you have severe asthma.



11.4 Do not smoke

If you find it hard to stop smoking, we can refer you to a smoking cessation counsellor.

11.5 Vaccination

Individuals with severe asthma are more likely to get complications from flu. This can be reduced by an annual influenza vaccination.





Being proactive about managing your asthma can lead to better outcomes and improved quality of life. This includes creating an asthma management plan with your doctor, monitoring your symptoms, and taking all medications as prescribed by your doctor.

It's also important to be honest with your doctor, and here's why: an open conversation may positively influence the management of your asthma and help improve how you feel on a daily basis.



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