



When children cannot breathe

If your child suffers from asthma or pneumonia, know that your medical scheme is obliged to help them breathe.

This edition of CMScript aims to clarify your child's entitlements under the prescribed minimum benefits (PMBs) for the following conditions listed in the Medical Schemes Act:

- an acute (sudden) asthmatic attack;
- pneumonia due to the respiratory syncytial virus (RSV) in persons under the age of three; and
- asthma (as a chronic, life-long condition), as included in the Chronic Diseases List (CDL) under the PMBs.

Although asthma and pneumonia affect both adults and children, this CMScript focuses on children younger than three.

What is asthma?

Asthma is a condition caused by the inflammation of air passages in the lungs.

The condition is characterised by repeated attacks of breathlessness and wheezing. The severity and frequency of attacks varies from one person to the next.

“Coughing may be the only symptom of asthma present.”

An asthma attack is frequently triggered by an external factor, including dust and pollen.

Asthmatic attacks are sudden and unexpected, and can be life-threatening in instances where quick-relief medicine (inhaled drugs called bronchodilators) are insufficient to treat the attack. Asthma attacks which do not respond to treatment with an inhaler are emergencies and must be treated as such.

Asthma can be acute or chronic.

What are the signs and symptoms of asthma?

The signs and symptoms include:

- frequent coughing episodes – during play, at night, or while laughing (where coughing may be the only symptom of asthma present)
- less energy during play
- rapid breathing
- complaints of chest tightness or chest hurting
- whistling sound (wheezing) when breathing
- see-saw motions in the chest caused by difficult breathing
- shortness of breath, loss of breath
- tightened neck and chest muscles
- feelings of weakness and/or tiredness
- dark circles under the eyes
- frequent headaches
- loss of appetite

Symptoms can change from one asthma episode to the next in the same child. But not all wheezing or coughing is caused by asthma. In children younger than five, the most common cause of asthma-like symptoms is upper respiratory viral infections such as the common cold or the respiratory syncytial virus (RSV).

What triggers an asthma attack?

Common triggers of asthma attacks include:

- viral infections such as flu or RSV
- bacterial infections such as sinus infections
- allergic rhinitis, commonly called “hay fever” (symptoms which affect mostly the nose and eyes and which occur when you inhale something you are allergic to, like dust or pollen)
- irritants such as pollution, cigarette smoke, perfume, dust or other chemicals
- allergies such as food and preservatives
- sudden changes in temperature or humidity
- exposure to cold air
- emotional stress or trauma
- exercise (in children this includes playing)
- heartburn (gastro-oesophageal reflux disease or GORD)
- medication, specifically aspirin or other non-inflammatory drugs such as ibuprofen

Any one of the above can trigger an asthma attack.

How is asthma diagnosed in children?

Diagnosing asthma in small children is not easy as they may not be able to “perform” some of the tests that may be required. Their persistent coughing and/or wheezing may also be the only symptom they exhibit.

Your doctor may request one or more of the following tests:

- lung function test (to see how well your child breathes)
- peak flow measurement (the fastest speed at which your child can exhale)
- chest X-ray
- skin or blood test for allergies
- arterial blood gas (to determine the pH of the blood, the partial pressure of carbon dioxide and oxygen, and the bicarbonate level)
- eosinophil count (a type of white blood cell)

How is asthma treated?

The prescribed algorithm for asthma may not necessarily always be clinically appropriate for children. Alternative paediatric management is included in this benefit if it is supported by evidence-based medicine, taking into account cost-effectiveness and affordability.

The treating provider should create an asthma action plan with you. The plan must include advice on how to:

- avoid asthma triggers
- monitor symptoms
- use the medicines
- handle emergency situations

Two classes of medicine are used to treat asthma:

- long-term control medicine, which prevents attacks
- quick-relief medicine, which is also used during an attack

Long-term control medications must be used on a regular basis to prevent both symptoms and attacks even when you do not have symptoms. This class of medicine is not used for treatment during an attack; quick-relief medicines are used to relieve symptoms during an attack.

“Not all wheezing or coughing is caused by asthma.”

The same medicines are used to treat adults and children, but the method of administration may differ. Children may use a nebulizer rather than an inhaler because they can find it difficult to use an inhaler correctly. Children who use an inhaler should also use a spacer device which helps them to get the medicine into the lungs properly.

Children suffering from asthma (and other respiratory infections) may need to see additional healthcare providers such as a physiotherapist and dietician. Physiotherapists assist in the treatment of the condition and help with the development of a respiratory exercise plan.

Dietary advice is required when a food allergy proves to be one of the triggers of asthma. Certain food types, such as milk products, may worsen the symptoms of a respiratory infection. Correct eating plans should be developed and reviewed regularly to ensure that the child gets all the required nutrients.

What is pneumonia?

Pneumonia is an infection of the lungs (a lower respiratory tract infection) that can be caused by nearly any class of organism known to cause infections in humans, including viruses and bacteria.

What are the signs and symptoms on pneumonia?

The signs and symptoms of pneumonia include:

- the symptoms and signs which are also present in upper respiratory infections, e.g. sneezing, sore throat, cough
- high fever (up to 40°C)
- shaking chills
- cough with sputum
- shortness of breath
- lethargy

How is pneumonia diagnosed in children?

Your child’s doctor may suspect pneumonia if they examine your child and hear coarse breathing and cracking noises in the chest, and wheezing. A chest x-ray may be ordered to confirm the diagnosis.

Sputum samples can be tested for traces of the organisms that cause pneumonia. The severity of the condition can be determined using a white blood cell count test.

How is RSV pneumonia treated?

The treatment for pneumonia caused by the respiratory syncytial virus (RSV) in children under three is medical management as prescribed by the PMB Regulations. Medical management includes medicines, oxygen and ventilation if needed.

What are your child’s PMB entitlements?

Both asthma and pneumonia are included in the PMB Regulations in the Medical Schemes Act 131 of 1998.

Minimum treatment for both is prescribed in the Diagnosis and Treatment Pairs (DTPs) section of the Act: it is “medical management”. Medical management includes oxygen therapy and ventilation if needed.

In addition to the treatment described in DTPs, asthma is also included in the PMB Regulations as a chronic disease with a specific medicine algorithm. The algorithm only specifies the medicine to be used, but the Regulation extends to the diagnosis, treatment and care of the condition.

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information@medicalschemes.com

Hotline: 0861 123 267

Fax: 012 430 7644

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Prescribed minimum benefits (PMBs) are defined by law. They are the minimum level of diagnosis, treatment and care that your medical scheme must cover – and it must pay for your PMB condition/s from its risk pool and in full. There are medical interventions available over and above those prescribed for PMB conditions but your scheme may choose not to pay for them.

A designated service provider (DSP) is a healthcare provider (e.g. doctor, pharmacist, hospital) that is your medical scheme's first choice when you need treatment or care for a PMB condition. You can use a non-DSP voluntarily or involuntarily but be aware that when you choose to use a non-DSP, you may have to pay a portion of the bill as a co-payment.

PMBs include 270 serious health conditions, any emergency condition and 25 chronic diseases; they can be found on our website by accessing the link provided (www.medicalschemes.com/medical_schemes_pmb/index.htm).

References

World Health Organisation (<http://www.who.int/respiratory/asthma/definition/en/>)

PubMed Health

(http://www.ncbi.nlm.nih.gov/pubmedhealth/?cmd=link&linkname=pubmedhealth_pubmedhealth_adam_ahfs&uid=1985 and <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001985/>)

Medicinenet.com (http://www.medicinenet.com/asthma_in_children/article.htm and <http://www.medicinenet.com/pneumonia/article.htm>)

To access other editions of CMScript please click on this link <http://www.medicalschemes.com/Publications.aspx>

Obtain the medicine list (formulary) of your medical scheme so that your doctor can prescribe medicine from this list. This will prevent the scheme from charging you a co-payment on your asthma medicine.