

Bronchial asthma therapy / PGS (VPL)

The **basic goal** of therapy is to **achieve and maintain control of asthma**.

Keeping control of asthma

In the clinic, **fulfilment of all** the following conditions means:

- **no or minimal** (up to a maximum of twice per week) **daily symptoms**
- **no restrictions on daily activities,**
- **no nocturnal symptoms,**
- **no or minimal** (up to 2× per week) **need for relief drugs,**
- **normal lung function**
- **no exacerbations.**

Difficulty in treating asthma

About 5% of asthmatics do not achieve and maintain asthma under control, which we refer to as **difficult-to-treat asthma (OIA)**.

Complex treatment of asthma

In addition to medication, it also includes:

- **education and training of patients** with a written **elaboration of an individual treatment action plan explaining the importance and goals** of individual steps.

Regular outpatient visits

Pneumologist/allergist at regular check-ups:

- physical examination and examination of the lung function,
- control and consolidation of acquired habits and knowledge.
- The specialist also verifies the diagnosis at the beginning of the disease.

The ongoing care and supervision of the treatment plans may also be carried out by a general practitioner.

Non-pharmacological prevention or regimen measures

Limiting exposure to risk factors (**inducers** of asthma, **triggers** of exacerbations) is essential.

Pharmacotherapy

Two groups of drugs:

1. **Relief anti-asthmatics** (rapid-acting bronchodilators) – are given in case of acute problems:
 - **β₂-agonists with rapid onset of action** (RABA = rapid-acting beta agonists):
 - **phenoterol, salbutamol and terbutaline** (short-acting inhaled β₂-agonists (SABA),
 - **formoterol** (LABA = long-acting inhaled β₂-agonists).
2. **Controlling, preventive anti-asthmatics** – against inflammation of the airways, are taken regularly, on the daily and for a long-term basis (even when the problem is reduced or resolved).
 - **inhaled corticosteroids (ICS)** – have the most pronounced anti-inflammatory effect, being the basis and first-line drug
 - **antileukotrienes, methylxanthines (theophyllines) and partly LABA** (salmeterol and formoterol) – supporting anti-inflammatory effect,
 - systemic (p.o.) corticosteroid use – in some patients with severe forms (OIA) is necessary – such asthma is known as **cortico-dependent asthma**.

Equipotent doses of inhaled steroids used in the Czech Republic

Dose IKS (µg)	Short adults	Short children	Medium adults	Medium children	Tall adults	Tall children
BDP (beclomethasone dipropionate)	200-500	100-200	> 500-1000	> 200-400	> 1000-2000	> 400
BUD (budesonide)	200-400	100-200	> 400-800	> 200-400	> 800-1600	> 400
CIC (ciclesonide)	80-160	80-160	> 160-320	> 160-320	> 320-1280	> 320
FP (flutikasone propionate)	100-250	100-200	> 250-500	> 200-500	> 500-1000	> 500

BUD and CIC can be administered in a single daily dose.

Dosage and combination of drugs

We choose them according to the severity and response to the previous treatment - we step up.

Tiered pharmacotherapy of asthma - Children over 5 years of age, adolescents and adults.

Stage	specifications	the first choice therapy	alternative therapy
1	monotherapy	RABA	SAMA after SABA after LABA after theophyllines with short-term effect
2	monotherapy	ICS (low dose)	Antileukotrien
3	Combination - choose one combination	ICS (low dose) + LABA	ICS (medium/high dose) ICS (low dose) + theophylline SR ICS (low dose) + Antileukotrien
4	Combination - add other 1/more drugs	ICS (medium/high dose) + LABA	+ Antileukotrien + theophylline SR
5	Combination - add one/both drugs	Like stage 4	+ Corticosteroids p.o. (low dose) + Anti-IgE

Once asthma control is **achieved, the dose and intensity should not decrease to** a lower level of pharmacotherapy **until at least 3 months after control.**

Specific allergen immunotherapy or vaccination (SAIT)

The indication and implementation is handled by an allergist - indicated by asthmatics that are:

- defined trigger allergen,
- lacking clinical link to multiple allergens,
- asthma has been under control for a long time

This induces **tolerance** to the **causative allergen**.

References

Related articles

- Asthma bronchiale
- Asthma bronchiale therapy

In Wikiscript:

- Asthma
- Bronchial asthma / case report
- Asthmatic status
- Bronchial asthma therapy

External references

www.svl.cz/...astma-2008.pdf (https://www.svl.cz/Files/nastenka/page_4771/Version1/astma-2008.pdf)

Literature

- SALAJKA, František. *Asthma bronchiale : Doporučený diagnostický a léčebný postup pro všeobecné praktické lékaře* [online] . 1. vydání. Praha : Společnost všeobecného lékařství ČLS JEP, 2008. Dostupné také z <<https://www.svl.cz/default.aspx/cz/spol/svl/default/menu/doporucenepostu/doporucenepostu5>>. ISBN 978-80-86998-26-8.
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