Treatment levels for adults and adolescents

Table

Targeted intensive asthma treatment

Treatment strategy	Role
Monoclonal antibody therapies ('biologic' agents)	Targeted anti-inflammatory treatment according to allergic status and inflammatory phenotype, for patients under specialist care
Maintenance high-dose ICS-LABA plus as-needed SABA	Short-term (3–6 months) treatment trial while investigating causes of persistent symptoms/severe exacerbations, or pending eligibility for monoclonal antibody therapy Under specialist care when symptoms and exacerbations cannot be controlled with medium-dose ICS-LABA
Maintenance ICS-LABA-LAMA plus as-needed SABA (ICS dose medium or high)	Treatment trial in patients with blood eosinophil count/FeNO within normal range, while investigating causes of persistent symptoms/severe exacerbations, or pending eligibility for monoclonal antibody therapy Long-term treatment for selected patients with demonstrated benefit, including those not eligible for monoclonal antibody therapy
Montelukast	May be considered as add-on treatment for patients with aspirin-exacerbated respiratory disease Limited use in severe asthma ⚠ Montelukast TGA-approved product information and consumer medicine information carry a warning about potential neuropsychiatric adverse effects. Counsel parents about risks (see TGA safety alert).
Azithromycin	An add-on treatment option used in specialist care for patients with persistent exacerbations despite maintenance treatment with medium-dose ICS-LABA. Screening is required and cautions apply (see Centre of Excellence in Severe Asthma guidance on azithromycin).

Asthma treatment is adjusted to maintain good control of asthma symptoms and prevent exacerbations, while minimising side-effects. The optimal step for an individual may change over time.

There are four levels of treatment, from least intensive to most intensive.

Recommended

Level 1. Low-dose budesonide–formoterol, taken as needed (AIR-only)

Level 2. Low-dose MART: maintenance treatment with a low dose of ICS-formoterol, plus extra doses from same inhaler taken as needed for relief of symptoms

Level 3. Medium-dose MART: maintenance treatment with a medium dose of ICS-formoterol (higher number of inhalations using low-dose inhaler), plus extra doses from same inhaler taken as needed for relief of symptoms

Level 4. Targeted intensive treatment – more intensive regimens based on ICS-LABA, sometimes with add-on treatments such as LAMAs or monoclonal antibody therapies.

Alternative options at levels 1–3

Level 1: maintenance treatment with a low dose of ICS, plus SABA taken as needed for relief of symptoms

Level 2: maintenance treatment with a low dose of ICS-LABA, plus SABA taken as needed for relief of symptoms

Level 3: maintenance treatment with a medium dose of ICS-LABA, plus SABA taken as needed for relief of symptoms

Alert All treatment levels include ICS. Treatment solely with as-needed SABA is not recommended for adults or adolescents with asthma, even if symptoms are infrequent.

Sources & rationale

Treatment regimens with ICS-formoterol as the reliever are recommended:[GINA 2025]

- At treatment levels 1–3, these regimens reduce the risk of severe exacerbations requiring oral corticosteroids, compared with regimens using as-needed SABA for symptom relief: low-dose budesonide–formoterol taken as needed (without maintenance treatment) markedly reduces the risk of severe exacerbations requiring oral corticosteroids, compared with SABA alone.[Crossingham 2021] Maintenance-and-reliever therapy (MART) with ICS-formoterol reduces the risk of severe exacerbations requiring OCS, compared with the same or higher dose of ICS or ICS-LABA.[Sobieraj 2018]
- Prevention of exacerbations is a key goal of asthma management. Short courses of oral corticosteroids to manage asthma exacerbations are associated with increased lifetime risk of osteoporosis, pneumonia, cardiovascular or cerebrovascular diseases, cataract, sleep apnoea, renal impairment, depression/anxiety, type 2 diabetes, and weight gain. [Price 2018]
- Poor adherence to ICS is common. Combining ICS with symptom reliever ensures that patients use ICS, at least whenever they have symptoms.[Murphy 2021]
- When reducing treatment from medium-dose MART to low-dose MART, or from MART to as-needed low-dose budesonide–formoterol, the use of ICS-formoterol as anti-inflammatory reliever ensures that both the ICS dose and the bronchodilator are immediately increased if symptoms increase. Both components contribute to protection against severe exacerbations.[Rabe 2006]

References

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Notes

For recommendations on Level 1 treatment, see: **Initial asthma treatment for adults and adolescents**

For recommendations on Level 2–3 treatment, see: **Adjusting treatment for adults and adolescents**

For recommendations on Level 4 treatment, see: **Managing difficult-to-treat asthma in adults and adolescents** and **Specialist assessment and treatment for severe asthma**