

# Algorithm E: Pharmacological management of asthma in children under 5

BTS, NICE and SIGN guideline on asthma

Take into account and try to address the possible reasons for uncontrolled asthma before starting or adjusting medicines for asthma. For example: alternative diagnoses or comorbidities; suboptimal adherence; suboptimal inhaler technique; passive smoking (including e-cigarettes); seasonal factors; environmental factors (such as air pollution and indoor mould exposure)

Symptom relief

Maintenance therapy

Children under 5 with suspected asthma and symptoms indicating need for maintenance therapy or severe acute episodes of difficulty breathing and wheeze

Consider 8 to 12 week trial of twice daily paediatric low-dose ICS

With a SABA

If symptoms do not resolve during trial

If symptoms resolve during trial

Check inhaler technique and adherence, whether there is an environmental source of their symptoms and review if an alternative diagnosis is likely

Consider stopping ICS and SABA treatment after 8 to 12 weeks and review symptoms after a further 3 months

Refer the child to a specialist in asthma care if none of these explain treatment failure

If symptoms recur after review or acute episode requires systemic corticosteroids or hospitalisation

Restart regular ICS. Begin at a paediatric low dose and titrate up to a paediatric moderate dose if needed

With a SABA

Consider a further trial without treatment after reviewing the child within 12 months

If asthma is uncontrolled

Consider an LTRA in addition to the ICS for a trial of 8 to 12 weeks, then stop if ineffective or side effects

With a SABA

If asthma is uncontrolled

Stop the LTRA and refer the child to a specialist in asthma care for further investigation and management

For guidance on dosages for paediatric low-dose ICS, see [inhaled corticosteroid doses for the BTS, NICE and SIGN asthma guideline](#)



**Uncontrolled asthma:** Any exacerbation requiring oral corticosteroids or frequent regular symptoms (such as using reliever inhaler 3 or more days a week or night-time waking 1 or more times a week)

ICS, inhaled corticosteroid; LTRA, leukotriene receptor antagonist; SABA, short-acting beta<sub>2</sub> agonist.