NEL Primary care management of asthma in Adolescents aged 12 to 17 years

(Adapted from **BTS, NICE and SIGN guideline on asthma)**

NHS North East London

Consider 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; active or passive smoking (including e-cigarettes); psychosocial factors; seasonal factors; environmental factors (such as air pollution and indoor mould exposure)

Symptom relief
MART
Maintenance therapy

Existing diagnosis of asthma on the treatment pathway recommended by previous NICE and BTS/SIGN guidelines

When changing from low- or Moderate-dose ICS (or ICS/LABA combination inhaler) plus supplementary therapy to MART, consider whether to stop or continue the supplementary therapy based on the degree of benefit achieved when first introduced

- SABA only
- With a SABA: If asthma is uncontrolled on low-dose ICS; low-dose ICS/LABA; low-dose ICS plus LTRA; or low-dose ICS/LABA plus LTRA
- With a SABA: If asthma is uncontrolled on moderate-dose ICS; moderate-dose ICS/LABA; moderate-dose ICS plus LTRA and/or LAMA; moderate-dose ICS/LABA plus LTRA and/or LAMA
- If asthma is uncontrolled on high-dose ICS

→ **Refer a specialist in asthma care**

Newly diagnosed asthma in adolescents aged 12 to 17

→ **Offer low-dose ICS/formoterol combination inhaler to be taken as needed (AIR therapy)**

- **MDI** *Symbicort® 100/3 Two puffs when required
- **DPI** Symbicort® 200/6 or DuoResp Spiromax® 160/4.5 One puff when required

If Asthma is uncontrolled, **offer**

→ **Low-dose MART** (Consider)

- **MDI** Symbicort® 100/3 Two puffs once or twice daily (maintenance) **+ Two Puffs for symptom relief, max 24 in one day, max 12 at any one time**
- **DPI** Symbicort® 100/6 Turbohaler One puff twice daily (maintenance) or Symbicort® 200/6 Turbohaler or Duoresp® Spiromax 160/4.5 One Puff once or twice daily (maintenance) **+ One Puff for symptom relief, max 12 in one day, max 6 at any one time**

If Asthma is uncontrolled, **offer**

→ **Moderate-dose MART** (Consider)

- **MDI** Symbicort® 100/3 Four puffs twice daily (maintenance) **+ Two Puffs for symptom relief, max 24 in one day, max 12 at any one time**
- **DPI** Symbicort® 200/6 Turbohaler or Duoresp® Spiromax 160/4.5 Two Puffs twice daily (maintenance) **+ One Puff for symptom relief, max 12 in one day, max 6 at any one time**

If Asthma is uncontrolled, despite good adherence

→ **Check FeNO level, if available, and blood eosinophil count**

- If either is raised → **Refer to a specialist in asthma care**
- If neither is raised → Consider a trial of either LTRA or LAMA used in addition to moderate-dose MART for 8 to 12 weeks unless there are side effects. At the end of the trial:
  - if asthma is controlled, continue the treatment
  - if control has improved but is still inadequate, continue the treatment and start a trial of the other medicine (LTRA or LAMA)
  - if control has not improved, stop the LTRA or LAMA and start a trial of the alternative medicine (LTRA or LAMA)

If Asthma is uncontrolled,

- **SMI** Spiriva Respimat 2.5mcg Two puffs once daily
- **LTRA** 12-14yrs Montelukast 5mg Once in the evening, 15-17yrs Montelukast 10mg Once in the evening

If highly symptomatic or there are severe exacerbations, offer low-dose MART

If Asthma is controlled, consider stepping down

Prescribe a spacer (without mask) annually with all MDIs. Reinforce inhaler technique at every review

Any patients on an AIR or MART regime should have corresponding personalised asthma action plan (PAAP).
This plan should outline the number of doses they can have the maximum dose they can have at any one time and the maximum total dose they can have in a 24-hour period. Patients should be advised to seek an urgent medical review if they are regularly using close to their maximum doses.

There is no role for the use of SABA in an AIR or MART PAAP. The one exception to this is if the child/young person is in a situation where their MART inhaler is not available (e.g. in school) treatment should be with SABA in the conventional way

*Off label use. The decision to use the device must be made in collaboration with the family/young person based on an informed discussion

MDI, metered dose inhaler; **DPI**, dry powdered inhaler; **SMI**, soft mist inhaler; **ICS**, inhaled corticosteroid; **LABA**, long-acting beta$_2$ agonist; **LAMA**, long-acting muscarinic receptor antagonist; **LTRA**, leukotriene receptor antagonist; **MART**, maintenance and reliever therapy (using ICS/formoterol combination inhalers); **SABA**, short-acting beta$_2$ agonist; **AIR**, anti-inflammatory reliever therapy (using ICS/formoterol combination inhalers).

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)