



The All Wales Paediatric Asthma Diagnosis Guideline

For children aged 3-17 years

Clinical Guideline

Also available in digital format

STEP 1 INFORMATION: CLINICAL ASSESSMENT

The diagnosis of asthma in children is a clinical diagnosis supported by objective tests, where possible

1 Asthma likelihood checklist

IMPORTANT POINTS:

- Cough without wheeze is unlikely to be asthma
- Wet cough is not usually a symptom of asthma
- Patients and parents may describe other chest sounds as wheeze (stridor, rattles)
- Consider a diagnosis of asthma in children age > 3 years with episodic wheeze

CONSIDER ALTERNATIVE DIAGNOSIS IF:

- Symptoms presenting from birth
- Persistent wet cough
- Inspiratory stridor
- Coughing with food and drink
- Anxious and lightheadedness

STEP 1: CLINICAL ASSESSMENT

Asthma likelihood checklist 1

- Recurrent episodic wheeze
- Recurrent episodic dry cough
- Diurnal variation
- Responsive to salbutamol in past
- Triggers and irritants
- Atopic history of eczema or allergic rhinitis
- Family history of asthma or allergy

STEP 2 INFORMATION: PERFORM INVESTIGATIONS

1 Peak flow diary

- Primary and secondary care**
Complete 1-2 week peak flow diary. This can be recorded on the Asthmahub for parents app
- Evidence of 20% peak flow variability supports a diagnosis of asthma

1 Skin prick tests, allergen specific IgE, blood eosinophils

- Secondary and specialist care**
- Positive skin-prick or IgE test, blood eosinophilia >4%, eczema and family history of atopy, together increases the probability of asthma in children

1 Spirometry with reversibility testing

- Specialist paediatric respiratory clinics because poor technique is common**
Aged ≥12, or 5-12 with expert guidance
- A positive result in children is defined as an increase in FEV1 of 12%, in response to bronchodilator therapy

1 Fractional exhaled nitric oxide (FeNO)

- Specialist paediatric respiratory clinics because FeNO is difficult to interpret in children**
Aged ≥12, or 5-12 with expert guidance
- FeNO >35ppb is defined as a positive result in children <16 years of age (who have not received steroid therapy)

STEP 3 INFORMATION: DIAGNOSIS

1 Asthma diagnosis confirmed

Strong clinical impression (step 1) with objective evidence to support the diagnosis (step 2)

Start treatment and review

- Commence low dose ICS as maintenance therapy (see Paediatric Asthma Management Guideline)
- Review symptoms and response to treatment at 8 weeks
- Enrol on AsthmaHub for Parents App and complete digital personal asthma action plan

1 Asthma diagnosis suspected

Strong clinical impression (step 1) without objective evidence to support the diagnosis

Perform treatment trial

Including in children age 3-5 years with "episodic wheeze":

- Commence ICS for 8 weeks: Clenil modulite 200mcg BD
- Review response at 8 weeks

No response

- Discontinue treatment
- Consider alternative diagnosis

Positive response

- Discontinue treatment
- If symptoms recur, restart low dose ICS as maintenance therapy (see Paediatric Asthma Management Guideline)

STEP 2: PERFORM INVESTIGATIONS

Not all tests are available to all practitioners
Not all tests are needed to make a diagnosis

Peak flow diary (1-2 week) age 5-17 1

Skin prick test, Allergen-specific IgE, Blood eosinophils age 3-17 1

Spirometry with reversibly testing age ≥ 12 1

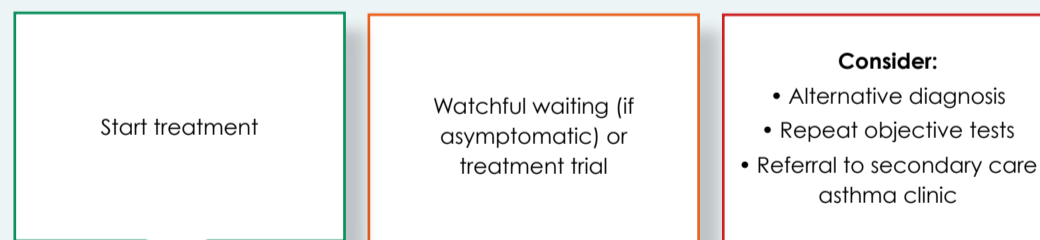
Fractional exhaled Nitric Oxide (FeNO) age ≥ 12 1

Strong clinical impression
WITH positive test result

Strong clinical impression
WITHOUT positive test result

No evidence
(step 1 or step 2)

STEP 3: DIAGNOSIS



STEP 4: REVIEW

- Ensure patient has expected response to therapy
- Review 6-months to annually if asthma is well controlled
- Review 3-monthly if poorly-controlled and after each change to medication
- Remember, symptoms may be seasonal