Y Grŵp Gweithredu ar Iechyd Anadlol
Respiratory Health Implementation Group
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Child Health

GIG CYMRU NHS WALES

icst.info/making-a-diagnosis-of-asthma-in-children/

The All Wales Paediatric Asthma Diagnosis Guideline

For children aged 3-17 years

Clinical Guideline

Also available in digital format

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

STEP 1: CLINICAL ASSESSMENT

Asthma likelihood checklist

- ☑ 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: 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

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

Spirometry with reversibly testing age ≥ 12

Fractional exhaled Nitric Oxide (FeNO) age ≥ 12

Strong clinical impression WITH positive test result	*Strong clinical impression WITHOUT positive test result*	*No evidence (step 1 or step 2)*

STEP 3: DIAGNOSIS

Asthma diagnosis confirmed	Asthma diagnosis suspected	Low probability of asthma
Start treatment	Watchful waiting (if asymptomatic) or treatment trial	**Consider:** • Alternative diagnosis • Repeat objective tests • Referral to secondary care asthma clinic

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

STEP 1 INFORMATION: CLINICAL ASSESSMENT

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 3 INFORMATION: DIAGNOSIS

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

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 INFORMATION: PERFORM INVESTIGATIONS

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

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

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

Fractional exhaled nitric oxide (FeNO)

Specialist paediatric respiratory clinics because FeNO is dififucIt 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)

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