beat asthma

Alternative diagnoses in wheezy children:

Clinical clues and investigations for primary care

adapted from BTS Asthma Guidelines 2016

Clinical clue	Possible diagnosis	Action
Perinatal and family History		
Symptoms present from birth or perinatal lung problem	• Cystic fibrosis • Chronic lung disease of prematurity • Ciliary dyskinesia • Developmental lung anomaly	CXR Sweat test Paediatric referral
Family history of unusual chest disease	• Cystic fibrosis • Neuromuscular disorder	Sweat test Creatinine kinase (CK); Neuromuscular examination Paediatric referral
Severe upper respiratory tract disease	• Immunodeficiency • Ciliary dyskinesia	CXR FBC, immunoglobulins Paediatric referral
Symptoms and signs		
Persistent moist cough	• Cystic fibrosis • Bronchiectasis • Protracted bacterial bronchitis • Recurrent aspiration • Host defence disorder • Ciliary dyskinesia	CXR FBC, immunoglobulins Paediatric referral
Excessive vomiting	Gastro-oesophageal reflux (with or without aspiration)	CXR Trial of reflux medication
Paroxysmal coughing bouts leading to vomiting	Pertussis	FBC, pertussis serology Pernasal swab
Dysphagia	Swallowing problems (with or without aspiration)	CXR Paediatric referral
Breathlessness with light headedness or peripheral tingling	• Dysfunctional breathing, panic attacks	Reassure Consider Paeditric refrral
Inspiratory stridor	Tracheal or laryngeal disorder	Paedaitric referral
Abnormal voice or cry	Laryngeal problem	Paediatric referral
Focal signs in chest	• Developmental anomaly • Post-infectivesyndrome • Bronchiectasis • Tuberculosis	CXR FBC, immunoglobulins Paediatric referral
Finger clubbing	• Cystic fibrosis • Bronchiectasis	CXR FBC, immunoglobulins Paediatric referral
Failure to thrive	• Cystic fibrosis • Immunodeficiency • Gastro-oesophageal reflux	CXR FBC, immunoglobulins Paediatric referral
Snoring, restless sleeper, day time insomnolence	Sleep Disordered Breathing	Paediatric referral

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Alternative diagnoses to consider: "All is not what it wheezes to be"

Diagnosis is difficult

- ✓ We cannot agree on what wheeze is.
- ✓ There are different phenotypes, broadly allergic and infective.
- ✓ There is no single test for asthma.

Categorise a child as having a low, intermediate or high probability of asthma.

- ✓ Keep an open mind
- ✓ The younger the child, the less likely it is to be asthma, especially under 2 years old.
- ✓ A child with interval symptoms, i.e. symptoms between colds, is more likely to have asthma

What Investigations Help?

- ✓ Any that assists an objective diagnosis
- ✓ A therapeutic trial of treatment can be a useful tool to help confirm or exclude the diagnosis of asthma as follows:
  - Bronchodilator (salbutamol) 500 micrograms
  - 8 weeks clenil modulite® via spacer THEN REVIEW.
  - Montelukast® in child who does not tolerate inhaler THEN REVIEW.
  - Prednisolone 20 mg OD in the under 5's, 40 mg OD in the over 5 for 2 weeks
  - Where infection is a possibility, amoxicillin for 2 weeks
- ✓ It is essential to review the child at the end of the trial and objectively record any improvements. The following supports a diagnosis of asthma:
  - FEV_1 or PE
  - FR (change > 15%) 25 minutes after administration of bronchdilator
  - FEV_1, or PEFR (change > 15%), resolution of wheeze or cough after 8 weeks clenil