Adult Asthma Diagnosis Guideline

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CORE PRINCIPLES IN ADULTS

The diagnosis of asthma is a clinical diagnosis supported by tests of airway obstruction and inflammation.

STEP 1: ASSESSMENT

Asthma likelihood checklist

- ☑ Episodic cough
- ☑ Episodic wheeze (particularly observed by HCP)
- ☑ Chest tightness
- ☑ Breathlessness
- ☑ Diurnal variation, symptoms worse at night/morning
- ☑ Triggers including allergens, exercise, cold air
- ☑ Associated rhinitis, atopy (hay fever, eczema)
- ☑ Childhood asthma or family history asthma

STEP 2: PERFORM INVESTIGATIONS

Demonstrate evidence of variable airflow obstruction (+/- airway inflammation)

1. Spirometry and bronchodilator reversibility
2. Peak flow diary
3. Exhaled nitric oxide (FeNO) *(Where available)*

STEP 3: DIAGNOSIS

- **Asthma diagnosis confirmed**
- **Asthma diagnosis suspected**
- **Asthma diagnosis not confirmed**

Start treatment

Consider:
- Alternative diagnosis
- Repeat objective tests
- Referral to secondary care asthma clinic

STEP 4: REVIEW

Ensure patient has expected response to therapy - if poor response re-consider diagnosis, compliance and inhaler technique

STEP 1 INFORMATION:
ASSESSMENT

Consider differential diagnoses/co-morbidities

Consider conditions that may mimic asthma:

- Obesity or poor fitness
- Anxiety or hyperventilation
- Chronic obstructive pulmonary disease
- Gastro-oesophageal reflux disease
- Upper airway abnormalities
- Bronchiectasis
- Heart failure

STEP 3 INFORMATION:
DIAGNOSIS

Strong clinical impression

Strong clinical impression (step 1) with objective evidence to support the diagnosis, as demonstrated by one of:

1. Evidence of 20% peak flow variability supports a diagnosis of asthma
2. A positive bronchodilator reversibility test is defined as an increase in FEV1 of 12%, in response to bronchodilator therapy
3. FeNO >40ppb is defined as a positive result in adults (who have not received steroid therapy)

Start treatment
- Low dose ICS
- Inhaler technique and correct spacer
- Personalised asthma action plan
- Document triggers
- Smoking cessation
- Advice on Flu vaccination
- Advice on weight

STEP 2 INFORMATION:
PERFORM INVESTIGATIONS

Spirometry and bronchodilator reversibility

Perform baseline spirometry off inhaled therapy pre bronchodilator

Asthmatics may have normal spirometry when well

If pre bronchodilator spirometry shows obstruction (FEV1/FVC ratio below 0.7 OR LLN) perform reversibility

Peak flow diary

Complete 2 week peak flow diary (a single peak flow is inadequate)

Exhaled nitric oxide (FeNO)

Note: High FeNO is not diagnostic for asthma and has other causes e.g. rhinitis

A negative test does not exclude asthma

Use flow charts for asthma diagnosis as per NICE NG80 where FeNO is available

STEP 4 INFORMATION:
REVIEW

Review

- Review annually if asthma well controlled
- Review after 3 months if any change to treatment or exacerbation/sub-optimally controlled symptoms
- Consider stepping down if well controlled

FeNO: Fractional Expired Nitric Oxide
FEV1: Forced Expiratory Volume in one second
FEV1/FVC ratio: Forced Expiratory Volume in one second over Fored Vital Capacity represented as a ratio
ICS: Inhaled Corticosteroid
LLN: Lower Limit of Normal
Pre BD: Pre bronchodilator

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