Objective tests for asthma in children and young people aged 5 to 16

**Order of tests**
- Perform spirometry in children and young people with symptoms of asthma
- Consider BDR test if spirometry shows an obstruction

**If a child is unable to perform objective tests:**
- Treat based on observation and clinical judgement
- Try doing the tests again every 6 to 12 months

**If diagnostic uncertainty remains after spirometry and BDR, consider FeNO**

**If diagnostic uncertainty remains after FeNO, monitor peak flow variability for 2 to 4 weeks**

**Interpretation of test results for children and young people aged 5 to 16 with symptoms suggestive of asthma**

- **Does spirometry show an obstruction?**
  - **NO**
  - **Are FeNO levels 35 ppb or more?**
    - **NO**
    - **Is there variability in peak flow readings?**
      - **NO**
        - **Suspect asthma and review diagnosis after treatment**
      - **YES**
        - **Suspect asthma and review diagnosis after treatment**
    - **YES**
      - **Diagnose with asthma**
  - **YES**
    - **Is there reversible airflow obstruction?**
      - **NO**
      - **Are FeNO levels 35 ppb or more?**
        - **NO**
          - Refer for specialist assessment
        - **YES**
          - Suspect asthma and review diagnosis after treatment
      - **YES**
        - Diagnose with asthma

**FeNO=fractional exhaled nitric oxide; BDR=bronchodilator reversibility**

**Positive test thresholds**
- **Obstructive spirometry:** FEV₁/FVC ratio less than 70% (or below the lower limit of normal if available)
- **FeNO:** 35 ppb or more
- **BDR:** improvement in FEV₁ of 12% or more
- **Peak flow variability:** variability over 20%