Introduction

Cough is a common symptom in children that is usually short-lived. Children without a recent cold may cough between 1 and 34 times a day. However, a chronic cough of 3 weeks or longer is unusual. Daily cough for greater than 4-6 weeks may mean there is an underlying lung disease. A comprehensive clinical history and examination together with appropriate investigations and follow up are recommended. The reader is referred to review articles on the topic (see References).

What questions to ask?

- What is the cough like?
  - Is it a dry cough?
  - Is it a wet cough?
- Does the child produce spit or phlegm?
- When does the child cough?
  - At night?
  - With exertion?
  - Early in the morning?
- Are there any other associated respiratory symptoms?
  - Wheeze?
  - Whistling in the chest?
  - Fast breathing?
  - Shortness of breath?

Investigations

The following charts show investigations commonly performed by the Paediatric Respiratory Service at Starship in the assessment of children with chronic cough or confirmed bronchiectasis. These investigations are usually undertaken serially depending on the clinical setting. The investigations seek to define not only aetiology but also disease severity.
COUGH – INVESTIGATION OF CHRONIC COUGH &/OR CONFIRMED BRONCHIECTASIS

Investigations - Stage 1

- CXR - AP ± lateral
- HRCT chest scan
- Pulmonary function
- Spirometry
- SaO₂
- Sputum or cough swab culture
- TB screen
- Mantoux if at risk group
- CF screen
- Sweat test
- FBC + differential
- ESR/CRP
- Respiratory viral serology
- Immunoglobulins: Ig G/A/M/E

Is thymus present? If not refer Immunology

If persistently abnormal after appropriate Rx refer to Respiratory team

Discuss with respiratory consultant if not consistent with clinical picture or responsive to appropriate Rx

If < 1yr and lymphopaenia or lymphocytosis consult immunologist

If IgE >1000 & eosinophilia consider ABPA:
Aspergillus fumigatus IgE, RAST & precipitins

If Ig G/A/M low or absent: consult immunologist re vaccination antibodies

If < 2yrs:
Give Pneumovax with assessment of pre & 3 weeks post pneumococcal antibody levels
– send to Dr Tang, RCH, Melbourne & copy Immunology

If unvaccinated:
Isoantibodies & blood group

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If < 1yr & markedly elevated immunoglobulins consult immunologist

If lung disease progressive, repeat immunoglobulins if not performed in last 2-3yrs

If unvaccinated:
Isoantibodies & blood group

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If IgE >1000 & eosinophilia consider ABPA:
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If Ig G/A/M low or absent: consult immunologist re vaccination antibodies

If < 1yr & markedly elevated immunoglobulins consult immunologist

If lung disease progressive, repeat immunoglobulins if not performed in last 2-3yrs

If unvaccinated:
Isoantibodies & blood group

If borderline:
repeat & consider CF genetics

If abnormal:
refer to the Respiratory team

If >2yrs:
Give Pneumovax with assessment of pre & 3 weeks post pneumococcal antibody levels
– send to Dr Tang, RCH, Melbourne & copy Immunology

If unvaccinated:
Isoantibodies & blood group

If thymus present: If not refer Immunology

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If lung disease progressive, repeat immunoglobulins if not performed in last 2-3yrs

If unvaccinated:
Isoantibodies & blood group
Investigations - Stage 2
Consider if Stage 1 tests normal and cough continues or no cause for Bronchiectasis found

References