- Vaccination – against 'flu and *Pneumococcus*
- Antibiotics – Do they have *Pseudomonas* infection?

No *Pseudomonas*

1) Use simple narrow spectrum antibiotics first line e.g. Doxycycline or Amoxicillin (500mg strength)
2) If unresponsive, second line antibiotics include Co-Amoxiclav, Clarithromycin or Azithromycin.
3) It is important to prescribe high dose and for longer, typically 10-14 days.

***Pseudomonas* present**

1) Early referral strongly advised. May be suitable for *Pseudomonas* eradication.
2) Can treat in community with Ciprofloxacin 500 or 750mg bd for 10-14 days.

Ciprofloxacin resistance is common with repeat treatment. Therefore, check sputum sensitivities and consider admission for IV antibiotics and/or outpatient nebulised antibiotics.

Key messages

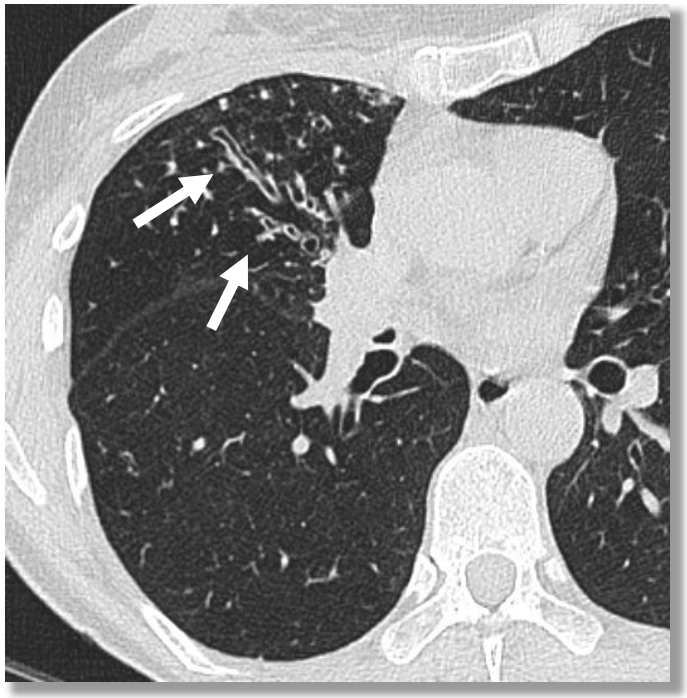
- Always consider diagnosis in patients with purulent sputum; might not be COPD!
- Patient information is crucial for both self-management and understanding of this chronic condition (see BLF website www.blf.org.uk/Conditions/Detail/Bronchiectasis)
- Physiotherapy referral is critical if significant sputum production
- Regular sputum culture (usually quarterly or prior to starting antibiotics for exacerbation) to identify Pseudomonas or other resistant organisms
- Avoid under-treatment
- Early antibiotic intervention using higher doses and longer courses.

Advice available on: **01225 825344**

Royal United Hospital Bath NHS
NHS Trust

RUH Staff Information

Bronchiectasis Information for Primary Care



Date of publication: July 2013
Ref: RUH RES/016

Healthcare you can Trust

RUH

Definition of Bronchiectasis

Dilatation of the bronchi usually associated with chronic purulent sputum punctuated by exacerbations.

Clinical features

Chronic cough, often with copious foul-smelling purulent sputum. There may also be shortness of breath, wheeze and haemoptysis.

Pathology

The dilated bronchi may be associated with ciliary damage (poor sputum clearance), fibrosis and saccules with progressive lung damage as a consequence of chronic infection.

Causes

The commonest cause is previous infection, often childhood pneumonia following whooping cough or a viral pneumonitis. However, there are other key causes including: cystic fibrosis, previous TB, hypogammaglobulinaemia (low IgG) and rheumatoid disease.

Symptoms

- Cough – may be intermittent or continuous, dry or productive
- Sputum – may be clear, purulent or blood-stained (or just blood)
- Breathlessness – may be absent, mild increasing to very severe
- Exacerbations – may be occasional or very frequent. An exacerbation might present with a relatively minor change in sputum purulence, volume or viscosity, or haemoptysis. Always consider bronchiectasis in the patient who requires numerous courses of antibiotics for recurrent 'chest infections'
- Fatigue and weight loss.

Signs

There may be none! But you may hear crackles and wheezing. Other possible features include clubbing and pulmonary hypertension.

Investigations

Sputum culture:

- This is invaluable when considering treatment. Give clinical details as "Bronchiectasis sputum" to guide microbiology to test for *Pseudomonas* and less common organisms. It is sensible to ask specifically for 'AFB', on two occasions for those with moderate to severe bronchiectasis in order to identify possible non-tuberculous mycobacteria (NTM).
- Chest x-ray – often normal
- HRCT chest – the best imaging but rarely need to repeat if bronchiectasis already confirmed
- Spirometry – often see obstructive picture similar to COPD
- Bloods – immunoglobulins including IgE (*Aspergillus* IgE if patient has asthma). Autoimmune profile including rheumatoid factor. Alpha-1 antitrypsin levels. In hospital - will need sweat test/CF genome analysis if <40 years old.

Treatment

- Physiotherapy – learn sputum clearance manoeuvres (ACBT, PD and adjuncts)
- Airflow obstructive – if spirometry and/or symptoms, treat similarly to COPD
- Nutrition – consider supplements and referral to dietician if low BMI (<20)