Update on bronchiectasis guidelines

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Bronchiectasis guidelines 2017
Currently valid guidelines

• SEPAR 2008
  – Diagnosis and treatment of bronchiectasis
• British Thoracic Society 2010
  – Non cystic fibrosis bronchiectasis
• Australia and New Zealand 2015
  – Chronic suppurative lung disease and bronchiectasis guidelines
Physiotherapy

Physiotherapy once or three times per week for patients producing >30ml per day (strong recommendation, low quality evidence)

Patients should be taught airway clearance techniques (grade D recommendation= expert opinion)

Airway clearance techniques are recommended and a respiratory physiotherapist advice should be sought
Key recommendations

Antibiotics

Treatment with prolonged antibiotics for patients with chronic bronchial infection (defined as purulent sputum and positive sputum cultures)- oral or inhaled targeted antibiotic recommended aiming to make the sputum white (strong recommendation, moderate quality evidence)

Patients having 3 or more exacerbations per year requiring antibiotic therapy or patients with fewer exacerbations that are causing significant morbidity should be considered for long term antibiotics

Macrolides can be considered for 12-24months in those with >3 exacerbations per year or 2 or more hospital admissions in 12 months. Inhaled antibiotics not recommended routinely, only for *P. aeruginosa* and frequent exacerbations.
Key recommendations

Inhaled corticosteroids and bronchodilators

Inhaled steroids recommended for patients with bronchial hyperresponsiveness and consider for patients with large sputum volumes.

Bronchodilators recommended for patients with bronchial hyperresponsiveness

Appropriate to assess patients for airflow obstruction reversibility and to initiate therapy where lung function or symptoms improve

Current evidence does not support routine use of inhaled corticosteroids in bronchiectasis outside of asthma

Inhaled corticosteroids not recommended except for patients with asthma or COPD

Bronchodilators are used on an individual basis
Why do guidelines differ?

Factors contributing to guidelines

Clinical Guidelines
Highly limited evidence base

Only 3 Grade A recommendations in the 2010 BTS guidelines

- Screen for antibody deficiency
- Offer active cycle of breathing technique
- Recombinant DNAse should not be used
**Recommendation**

**Grade recommendations (Evidence to Recommendation)**
- For or against (direction) ↓↑
- Strong or conditional/weak (strength)

By considering balance of consequences (evidence to recommendations):
- Quality of evidence
- Balance benefits/harms
- Values and preferences
- Feasibility, equity and acceptability
- Resource use (if applicable)

**Guideline**

Formulate Recommendations (↓↑ | ⊕…)
- "The panel recommends that …should..."
- "The panel suggests that …should..."
- "The panel suggests to not ...
- "The panel recommends to not..."

**Transparency, clear, actionable Research?**

**Randomization raises initial quality**
- RCTs: high
- Observational: low

**Grade overall quality of evidence** across lowest quality of **critical** outcomes

**Evidence synthesis**

**PICO**
- Outcome: Critical
- Outcome: Important
- Outcome: Not important

**Summary of findings & estimate of effect for each outcome**

**Grade overall quality of evidence** across outcomes based on lowest quality of **critical** outcomes

- High
- Moderate
- Low
- Very low

**Grade up**
- 1. Large effect
- 2. Dose response
- 3. Opposing bias & Confounders

**Grade down**
- 1. Risk of bias
- 2. Inconsistency
- 3. Indirectness
- 4. Imprecision
- 5. Publication bias

**E†R framework GRADEpro**

Formulate question
- Select outcomes
- Rate importance

Outcomes across studies
- Create evidence profile with GRADEpro

Rate quality of evidence for each outcome

Input?

"The panel recommends that ….should...
"The panel suggests that ….should...
"The panel suggests to not ...
"The panel recommends to not...

Transparency, clear, actionable Research?
ERS bronchiectasis guidelines

• Will be announced on Sunday 10\textsuperscript{th} September 2017 in Milan (14.45-16.45)

• Created using GRADE approach

• Methodologically rigorous

• Restrained in scope
Guidelines vs Real Life

EMBARC registry
N=7781, 25 countries
(Europe only)
• Guidelines are crucial to improving future care for patients with bronchiectasis

• The current poor evidence base limits strong recommendations

• The ERS guidelines 2017 will be the first international guidelines using the GRADE approach