

Audit of Bronchiectasis Patients Attending a Respiratory Clinic

Margaret Docherty^{1*}, Kathleen McGee² and Eric Livingston¹

¹Respiratory Department, Stobhill Hospital and Glasgow Royal Infirmary, Glasgow, United Kingdom

²School of Medicine, University of Dundee, Dundee, United Kingdom

***Corresponding Author:** Margaret Docherty, Respiratory Department, Stobhill Hospital/Glasgow Royal Infirmary, Glasgow, United Kingdom

Received: October 31, 2019; **Published:** November 29, 2019

Abstract

Background: Bronchiectasis is common respiratory condition, characterised by cough productive of large volumes of sputum, and recurrent chest infections.

Aims: To review Bronchiectasis patients attending a respiratory clinic at Stobhill Hospital. Information to be obtained included diagnosis, long term management and records of exacerbations. This information was compared against the British Thoracic Society (BTS) 2010 guidelines.

Method: 26 male patients and 49 female patients were included. These were all patients that attend one respiratory physician's clinic at Stobhill hospital. Data was collected using patients' case notes which are now all stored on Clinical Portal and Trakcare (Electronic patient record). Data from before 2009 was obtained from handwritten notes. The BTS audit tool (2010) was used to record the required data.

Results: 100% percent of patients involved in the audit were diagnosed using CT scan 89.3% of patients had FEV1/FVC, 92% of patients had PEF records. The average patient waited 20 months for a repeat PFT. At the time of the audit 17 patients had 3 or more exacerbations over the past year. 3 patients use nebulized antibiotics and 16 patients use long term oral antibiotics. 42 patients did not have a recorded sputum sample at time of exacerbation.

Conclusion: Diagnosis and management was appropriate in most cases. Increased efforts are required to ensure sputum samples sent at time of exacerbations. Updating PFTs on a yearly basis to ensure no deterioration in lung function needs attention.

Keywords: Bronchiectasis; Respiratory Clinic

Background

- Bronchiectasis is common respiratory condition, characterised by cough productive of large volumes of sputum, and recurrent chest infections.
- It is a persistent, or progressive condition characterised by dilated thick walled bronchi.
- The underlying pathological process is damage to the airways which results from an event or series of events where inflammation is central to the process.

- The underlying cause of the bronchiectasis should be looked for, as treatment may vary according to cause i.e. immune deficiency or ABPA
- Long term antibiotic therapy has dramatically improved prognosis within bronchiectasis patients.
- Patients with severe bronchiectasis may eventually develop respiratory failure or cor pulmonale but patients with mild bronchiectasis change do not have an altered life expectancy.

Aim of the Study

- To review Bronchiectasis patients attending a respiratory clinic at Stobhill Hospital, prior to the national British Thoracic Society (BTS) audit in October 2017.
- Information to be obtained included diagnosis, long term management and records of exacerbations.
- This information was compared against the BTS 2010 guidelines.

Method

- 26 male patients and 49 female patients were included.
- These were all patients that attend one Respiratory Physician’s clinic at Stobhill hospital.
- Data was collected using patients’ case notes which are now all stored on an Electronic Patient Record. Data from before 2009 was obtained from handwritten case notes.
- The BTS 2010 audit tool was used to record the required data.

Results

Results 1: Diagnosis (Figure 1)

- 100% percent of patients involved in the audit were diagnosed using CT scan.
- 61% of patients had aspergillus serology checked (increased to 98.4% in 2017 audit).
- Only 28% of patients had a Total IgE level checked (increased to 100% in 2017 audit).
- 83% of patients had serum protein electrophoresis checked (increased to 100% in 2017 audit).
- 87% of patients had serum immunoglobulins measured (increased to 100% in 2017 audit).

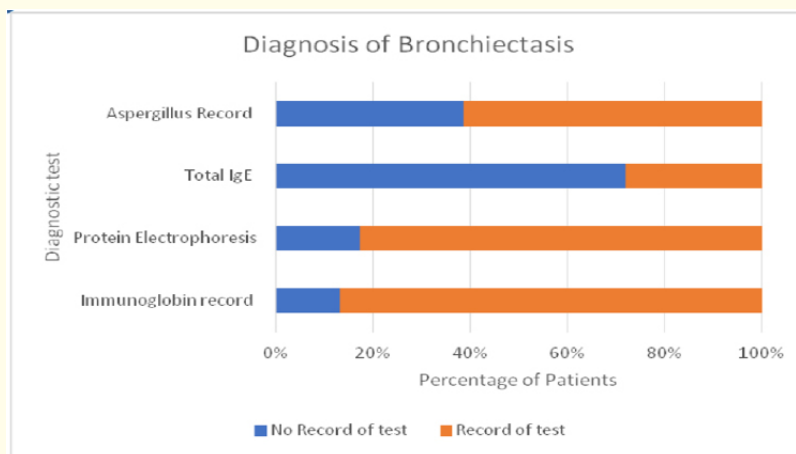


Figure 1: Diagnosis of Bronchiectasis.

Results 2: Pulmonary function

- 89.3% of patients had FEV1/FVC recorded
- 92% of patients had PEF records
- The average patient waited 20 months for repeat PFT.

Results 3: Infections and treatment (Figure 2)

- 22.6% patients had 3 or more exacerbations over the previous year (19% in 2017 audit).
- 3 patients use nebulized antibiotics and 16 patients use long-term antibiotics.
- 42 patients did not have a recorded sputum sample at time of an acute exacerbation.

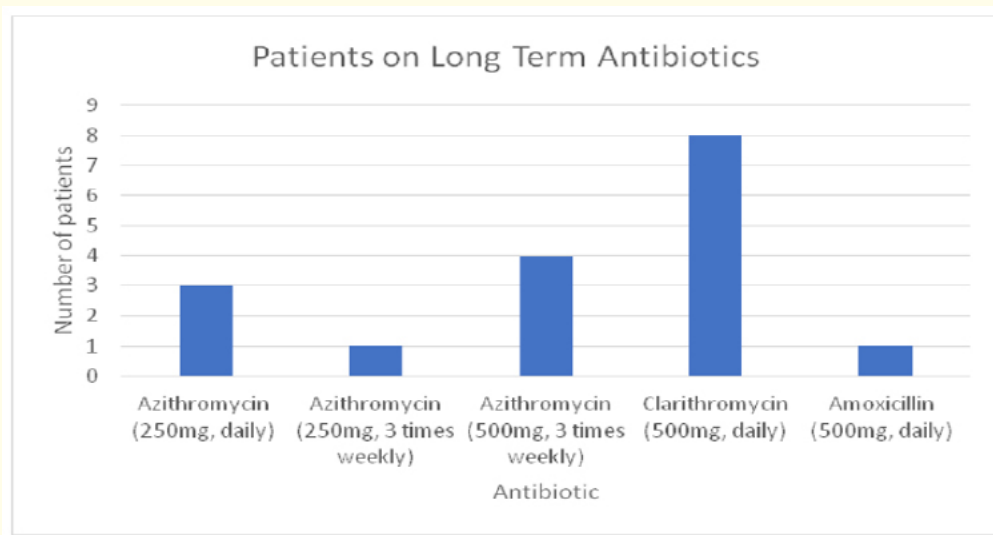


Figure 2: Patients on long term antibiotics.

Conclusion

- Diagnosis and management was appropriate in most cases.
- Increased efforts are required to ensure sputum samples sent at time of exacerbations.
- Updating PFTs on a yearly basis to ensure no deterioration in lung function needs attention
- Re-audit as part of the national BTS audit showed an improvement in a number of the different variables (although different data set collected this year) [1-5].

Conflict of Interest

None.

Bibliography

1. M C Pasteur, et al. "British Thoracic Society Guideline for non-CF bronchiectasis". *Thorax* 65.7 (2010): 577.

2. <https://www.brit-thoracic.org.uk/document-library/clinical-information/bronchiectasis/bts-guideline-for-bronchiectasis-in-adults/>
3. <https://www.brit-thoracic.org.uk/standards-of-care/audit/>
4. Clark KA. "Clinical Medicine". 9th edition. Elsevier (2016).
5. M C Pasteur, *et al.* "Audit of Bronchiectasis Patients Attending a Respiratory Clinic". *American Journal of Respiratory and Critical Care Medicine* 197 (2018): A1976.

Volume 8 Issue 12 December 2019

© All rights reserved by Margaret Docherty, *et al.*