

valuable for stratification in clinical trials and for identifying individuals in a higher risk group for intensified treatment.

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P203 WITHDRAWN: A DESCRIPTION OF IMMUNOLOGICAL AND SPECIFIC ANTIBODY PROFILE IN A COHORT OF NON-CF BRONCHIECTASIS PATIENTS

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P204 RISK FACTORS FOR REQUIRING INTRAVENOUS ANTIBIOTIC THERAPY DELIVERED IN HOSPITAL FOR EXACERBATIONS OF BRONCHIECTASIS

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10.1136/thoraxjnl-2015-207770.340

Introduction Recurrent exacerbations requiring IV antibiotic therapy are a feature of advanced bronchiectasis. Our group has previously established the safety and efficacy of domiciliary antibiotic therapy compared to inpatient hospital treatment for exacerbations of bronchiectasis. In this study we aimed to identify factors at presentation that could predict the requirement for inpatient antibiotic therapy compared to domiciliary antibiotic therapy.

Methods We assessed the management of bronchiectasis exacerbations referred to a specialist respiratory unit over a 1-year period (April 2013 to 2014). All patients received 10 to 14 days of IV antibiotic therapy and were assessed at the beginning and end of their treatment course. We assessed demographic data, treatment outcomes, morbidity, mortality and 30-day readmission rates. Logistic regression analysis was performed to identify factors predictive of the treatment modality used.

Results A total of 72 patients were treated with 131 courses of IV antibiotic therapy. Thirty-six cases (27.5%) were managed as inpatients, 20 cases (15.2%) required initial admission and subsequently received early supported discharges (ESD) to complete IV antibiotic therapy at home and 75 cases (57.2%) received domiciliary IV antibiotics.

Logistic regression showed that Charlson Co-morbidity Index was independently predictive of the requirement for inpatient antibiotic therapy ($p = 0.03$). White Cell Count at presentation was also positively associated with the requirement for inpatient antibiotic therapy approaching statistical significance ($p = 0.05$).

There were no mortalities in the ESD or domiciliary antibiotic groups but 2 mortalities (5.6%) were noted in the inpatient group (Table 1). Morbidity in the inpatient, ESD and domiciliary antibiotic groups were 8.3%, 5.0% and 2.9% respectively ($p = 0.40$). The median length of stay before early supported discharge was 7 (interquartile range 7 – 9) days. Thirty-day readmission rates were 11.1%, 25.0% and 2.7% respectively (2×3 Chi-square; $p < 0.05$). Total bed days saved from ESD and domiciliary antibiotic therapy was 1153 days (interquartile range 9–14).

Conclusions Our study has demonstrated that the Charlson Co-morbidity Index is the independent risk factor that predicts the need for inpatient intravenous antibiotic therapy in exacerbations of bronchiectasis. Those patients that received domiciliary treatment received it safely.

Abstract P204 Table 1 Biochemical indices, Morbidity, Mortality and 30-day readmission between treatment groups

| | Inpatient (n = 36) | Early supported discharge (n = 20) | Domiciliary (n = 75) |
|------------------------------|-----------------------|--|-------------------------|
| WCC (Median) | | | |
| Pre | 9.6 | 12.5 | 8.1 |
| Post | 8.3 | 7.8 | 7.1 |
| CRP (Median) | | | |
| Pre | 21 | 34.5 | 13.5 |
| Post | 10 | 9 | 5 |
| ESR (Median) | | | |
| Pre | 29 | 50 | 26 |
| Post | 28 | 32 | 18.5 |
| Morbidity | 8.3% (3) | 5% (1) | 2.9% (2) |
| Mortality | 5.6% (2) | 0 | 0 |
| Access related complications | 2.8% (1) | 5% (1) | 1.3% (1) |
| Anaphylaxis | 0 | 0 | 0 |
| Readmission within 30 days | 11.1% (4) | 25% (5) | 2.7% (2) |

P205 ADMISSION TRENDS AND OUTCOMES OF INDIVIDUALS WITH BRONCHIECTASIS ADMITTED TO ADULT GENERAL CRITICAL CARE UNITS IN ENGLAND, WALES AND NORTHERN IRELAND

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10.1136/thoraxjnl-2015-207770.341

Introduction Whilst studies suggest increasing incidence and mortality from bronchiectasis in UK, there are sparse data on outcomes of individuals with bronchiectasis admitted to intensive care (ICU). We investigated trends in bronchiectasis admissions to ICU and estimated outcomes in patients with bronchiectasis admitted to ICU compared to a better studied group, i.e. Chronic Obstructive Pulmonary Disease (COPD).

Methods We used data from the Intensive Care National Audit and Research Centre (ICNARC), a database of patient outcomes from adult critical care units across England, Wales and Northern Ireland. 95% of adult critical care units contribute data to ICNARC which includes information from 1.5 million individuals. Admissions from bronchiectasis and COPD from 1/1/2009 to 31/12/2013 were extracted. Bronchiectasis admissions included patients whose primary or secondary reason for admission was exacerbation of bronchiectasis, excluding people with cystic fibrosis. COPD admissions were those whose primary or secondary reason for admission was either COPD with acute lower respiratory infection; or COPD with acute exacerbation. Patients with COPD-bronchiectasis overlap were excluded. ICU mortality was defined as status on leaving ICU.

Results There were 614,352 admissions across 219 critical care units during the study period, 536 (0.1%) of which were from

Abstract P205 Table 1 Crude admission rates, Poisson regression modelling of admissions, mortality and median ICU length of stay in people with Bronchiectasis and Chronic Obstructive Pulmonary Disease (COPD)

| Bronchiectasis | Number of admissions | Person years | Crude admission rate per 100,000 person years (95% CI) | Crude admissions rate ratio (95% CI) | Number of ICU deaths (%) | Median length of stay on ICU [#] (IQR) |
|-----------------------|----------------------|--------------|--|--------------------------------------|--------------------------|---|
| Year | | | | | | |
| 2009 | 74 | 97,457 | 75.9 (60.5–95.4) | 1.00 | 20 (27.0) | 3.0 (1.0–5.0) |
| 2010 | 78 | 114,207 | 68.3 (54.7–85.3) | 0.90 (0.65–1.24) | 18 (23.1) | 3.5 (1.4–6.4) |
| 2011 | 108 | 128,659 | 83.9 (69.5–101.4) | 1.11 (0.82–1.49) | 22 (20.4) | 2.1 (1.0–5.1) |
| 2012 | 155 | 137,062 | 113.1 (96.6–132.7) | 1.49 (1.13–1.96) | 31 (20.0) | 3.8 (1.1–7.3) |
| 2013 | 121 | 136,877 | 88.4 (74.0–105.6) | 1.16 (0.87–1.55) | 35 (28.9) | 2.9 (1.4–7.1) |
| *p for trend = 0.022 | | | | | | |
| COPD | | | | | | |
| Year | | | | | | |
| 2009 | 3126 | 97,457 | 3204.6 (3094.2–3318.9) | 1.00 | 642 (20.5) | 3.2 (1.4–7.9) |
| 2010 | 3675 | 114,207 | 3217.8 (3115.5–3223.6) | 1.01 (0.96–1.05) | 717 (19.5) | 3.0 (1.4–6.7) |
| 2011 | 3924 | 128,659 | 3049.9 (2956.0–3146.9) | 0.95 (0.91–1.00) | 718 (18.3) | 2.9 (1.3–6.3) |
| 2012 | 4377 | 137,062 | 3193.4 (3100.2–3289.5) | 0.99 (0.95–1.04) | 818 (18.7) | 3.0 (1.4–6.4) |
| 2013 | 4652 | 136,877 | 3398.7 (3302.4–3497.8) | 1.06 (1.01–1.11) | 837 (18.0) | 3.1 (1.5–6.6) |
| *p for trend = 0.0003 | | | | | | |

*p value for likelihood ratio test. [#]length of stay in days.

bronchiectasis and 19,754 (3.2%) from COPD. Bronchiectasis admissions increased from 74 in 2009 to 121 in 2013, equating to a crude annual increase of 8% (95% Confidence Interval [CI] 2 to 15%; $p = 0.01$) (see Table 1). The mean age increased from 56.6 (standard deviation [SD] 18) to 65.8 years (SD 15.2; $p = 0.042$) whilst ICU mortality did not change (27.0% vs 28.9%; $p = 0.83$). The unadjusted yearly increase in COPD admissions was 1% (95% CI: 0.3% to 2%; $p = 0.012$). The mean age in COPD patients remained static (67.5 years [SD 10.6] vs. 67.9 years [SD 10.6]; $p = 0.16$), but ICU mortality decreased (20.5% vs. 18.0%; $p = 0.005$). ICU mortality in people with bronchiectasis over 70 ($n = 219$) was higher compared to those under 70 (31.1% vs. 18.3%; $p < 0.001$) despite having similar mean APACHE II acute physiology scores.

Conclusion Bronchiectasis admissions to ICU are increasing, and ICU mortality for is higher bronchiectasis compared to COPD, particularly in individuals above 70 years of age.

P206 EXPERIENCE OF ESTABLISHING FUNDING FOR A HOME IV SERVICE FOR BRONCHIECTASIS

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10.1136/thoraxjnl-2015-207770.342

Background The benefit of intravenous (IV) antibiotics in bronchiectasis has been established,¹ and IV antibiotics can be safely delivered in a domiciliary setting.² We report on the experience of obtaining funding through the CCG to establish a service delivering IV antibiotics safely and effectively to people with bronchiectasis at home.

Methods The model for home IV antibiotics involved a vascular surgeon placing a PICC line on day one under guided ultrasound, and an initial review by specialist nurse and physiotherapist. The specialist nurse administered the first dose. Education on line care, anaphylaxis and potential complications was provided. Drugs were delivered via a homecare company, Calea, and home IV doses were administered by specialist nurses from the homecare company. At the end of the course patients were reviewed by the specialist bronchiectasis nurse.

Results Negotiations with the CCG agreed funding for the service with 7.5 h of specialist nurse time and to meet the costs of the homecare company. Between July 2014 and July 2015 9 patients underwent 10 IV courses. A total of 132 days IV antibiotics were given, with 96 (73%) being given at home. This saved bed days, at an estimated saving of £26,400. Seventy seven home visits were conducted by the homecare company specialist nurses at a cost of £5625 and the homecare drug cost was £6134 (total £11,759 or £1,175 per course). Overall cost savings amounted to approximately £20,266 for the ten courses, or £2,026 per course. One patient had to return to hospital for replacement of their line due to mechanical phlebitis, but was still able to complete the entire course. Qualitative feedback is being sought via patient questionnaires, and has proved very positive.

Conclusion Administering IV antibiotics at home for people with bronchiectasis is safe, reduces inpatient bed days and is cost effective.

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P207 THORACIC INVOLVEMENT IN IGG4-RELATED DISEASE

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10.1136/thoraxjnl-2015-207770.343

Background and objectives IgG4-related disease (IgG4-RD) is a multi-system fibro-inflammatory disorder originally described in association with autoimmune pancreatitis (AIP), usually but not always in the context of elevated serum IgG4 levels. Thoracic manifestations of IgG4-RD include mediastinal lymphadenopathy, lung nodules or masses, interstitial lung disease, bronchiectasis and pleural disease.