Conclusion New arrhythmia complicating CAP is a recognised phenomenon that carries morbidity and mortality. Notably, no research has been reported on how best to manage this complication – reflected by the guidelines for the respective diseases in isolation. The next step is to look at how this complication is managed and identify the best approach to improve patient outcomes.

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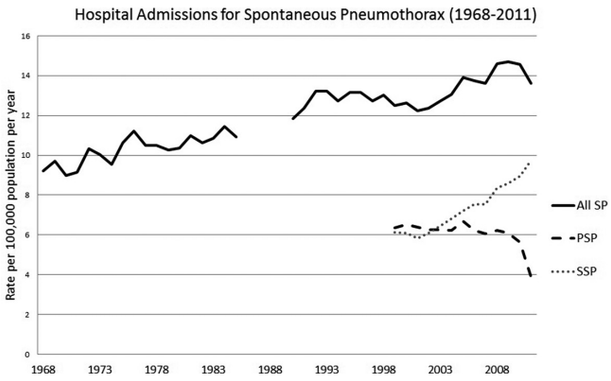

Abstract P215 Figure 1

Epidemiology in lung disease

P215 THE EPIDEMIOLOGY OF PNEUMOTHORAX IN ENGLAND (1968–2011)

RJ Hallifax, R Goldacre, NM Rahman, M Goldacre. *University of Oxford, Oxford, UK*

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Introduction and objectives Spontaneous Pneumothorax (SP) is a common pathology. Incidence rates are quoted as 16–24 and 1.2–6 per 100,000 cases per annum for males and females respectively, based on two studies in single centres (45 years ago, USA; 30 years ago, Sweden) and 4-year periods of national data in UK (1991–4) and France (2008–2011).

The aim of this study is to determine the incidence and recurrence of spontaneous pneumothorax in a larger dataset in England.

Methods An all-England Hospital Episode Statistics (HES) dataset from 1968–2011 was used to determine the incidence of Spontaneous Pneumothorax using International Classification of Diseases codes as the main diagnosis in a hospital admission. A record-linked HES dataset (only available from 1999–2011) was used to distinguish between Primary and Secondary Spontaneous Pneumothorax (PSP and SSP) and to determine the risk of a second pneumothorax within specified time intervals. SSP was defined as the patient having a diagnosis of a chronic lung disease (e.g. COPD, emphysema, lung malignancy, asthma, bronchiectasis, sarcoidosis) made at any time covered by the linked data.

Results and discussion From 1968–2011, in a population of 50 million, there were a total of 246,534 episodes of spontaneous pneumothorax (no data for 1986–89). In 1999–2011, the average annual incidence was 9.1 per 100,000 males and 3.2 per 100,000 females for PSP; 11.9 and 4.7 for SSP; and 21.0 and 7.9 for SP overall. The incidence of SP appears to be increasing (Figure 1): it was 12.5 (95% confidence interval 12.2–12.8) in 1999 and 13.6 (13.3–13.9) in 2011. It is unclear whether this reflects a true rise in new cases, better reporting or increasing recurrence rates.

The overall risk of recurrence is 13.5% within 1 year (18.7% within 5 years). Recurrence is more common in SSP than PSP at 1 year (16.1% vs 10.6%) and 5 years (21.2% vs 14.7%).

Conclusions This is the largest epidemiological study of pneumothorax to date. These data only cover hospitalised pneumothorax, and therefore may be a conservative estimate of the true burden of disease. Pneumothorax appears to be increasing in incidence.

P216 DURATION OF TOTAL AND EXCLUSIVE BREASTFEEDING, TIMING OF SOLID FOOD INTRODUCTION AND RISK OF ALLERGIC DISEASES: A SYSTEMATIC REVIEW AND META-ANALYSIS

[1]V Garcia-Larsen, [2]D Ierodiakonou, [3]J Leonardi-Bee, [4]T Reeves, [2]J Chivinge, [2]Z Robinson, [2]K Jarrold, [2]N Geoghegan, [2]E Andreou, [5]N Tagiyeva-Milne, [6]U Nurmatov, [1]S Cunha, [2]RJ Boyle. *[1]Respiratory Epidemiology, Occupational Medicine and Public Health Group, NHLI, Imperial College London, London, UK; [2]Department of Paediatrics, Imperial College London, London, UK; [3]Division of Epidemiology and Public Health, School of Medicine, University of Nottingham, Nottingham, UK; [4]Central Library, Imperial College London, London, UK; [5]University of Aberdeen, Aberdeen, UK; [6]Centre for Population Health Sciences, University of Edinburgh, Edinburgh, UK*

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Background Allergic diseases are the leading causes of chronic illness in children and young adults in the UK.

Aim To undertake a comprehensive review of the evidence on the effect of breastfeeding (BF) duration and timing of solid food introduction (SFI), on the risk of wheeze, atopic dermatitis, rhino-conjunctivitis, food allergy, allergic sensitisation and measures of lung function or bronchial hyper-responsiveness.

Methods We carried out a systematic review following the PRISMA guidelines (International Prospective Register of Systematic Reviews [PROSPERO] CRD42013003802). We included intervention, cohort, case-control and cross-sectional studies. Following literature searches (July 2013), study eligibility, data extraction and risk of bias assessments were conducted independently by two investigators. Random effects meta-analyses were used to pool results. Five levels of comparison of total or exclusive BF duration were used to assess disease risk in children at age 0–4 yrs, 5–15 yrs or 15+yrs: 'never vs ever','≥1–2 months vs. <1–2 months', '≥3–4 months vs. <3–4 months', '≥5–7 months vs. <5–7 months', and '≥8–12 months vs. <8–12 months'. Exclusive BF (EBF; BF without formula or solid food supplementation) was categorised as '≥0–2 months vs. <0–2 months', '≥3–4 months vs. <3–4 months' and '≥5+ months vs. <5+ months', and SFI as '≥3–4 months vs. <3–4 months'. Publication bias was assessed using Egger's asymmetry test.

Results Of 16,289 identified studies, 564 met the inclusion criteria and were eligible for analysis. We found reduced risk of wheezing in children aged 5–14 yrs with longer BF or EBF duration, which was dose-dependent, but there was evidence of publication bias (BF and odds of recurrent wheezing P = 0.007). Similar results were found for recurrent wheeze at age 5–14 yrs but not in other ages. Measures of lung function were also increased with increased BF or EBF duration. We found no