‘Recurrent asthma’ phenotype in birth cohort studies

Occupational asthma may develop in working life as new adult onset asthma but also in individuals that had remitted childhood asthma with a recurrence of asthma during adult (recurrent asthma) due to occupational factors.

Population-based studies of OA have limited means to investigate recurrent asthma, due to difficulty in accurate identification of time of remission and recurrence. Limit study to adult onset asthma phenotype.

Childhood asthma/wheeze is a common condition but so is remission: 20-50%. To T. et al 2007, Sears MR et al 2003

Recurrence of asthma is also common:

- Dunedin cohort: 35% who were in remission at 18 years of age had relapsed 26 years. Taylor D.R. et al 2005.
- Tucson: relapse rate 38% during a mean follow-up interval of 9.4 years. Bronnimann & Burrows 1986

‘Recurrent asthma’ phenotype in birth cohort studies

Significant phenotypic difference between childhood onset and adult onset asthma, more likely to be female, less atopic, more severe. Toren K, et al 2011, de Nijs SB 2013

Recurrent asthma phenotype less well described but more likely to be atopic and have lower mean FEV1/FVC ratios, than those without recurrence. Sears MR 2015

Research areas:

- Do occupational factors influence risk of recurrent asthma?
- Collaboration with asthma birth cohort researchers, to better define asthma remission and recurrence.
- International collaboration through open access to birth cohort data, such as Avon Longitudinal Study of Children and Parents (ALSPAC).