

European Respiratory Society Annual Congress 2012

Abstract Number: 3279

Publication Number: 2847

Abstract Group: 7.6. Paediatric Respiratory Epidemiology

Keyword 1: Wheezing **Keyword 2:** Children **Keyword 3:** Epidemiology

Title: Multiple trigger and episodic viral wheeze in early childhood: Are these phenotypes stable over time?

Dr. Ben D. 14805 Spycher bspycher@ispm.unibe.ch^{1,2}, Prof. Jonathan A.C. 14806 Sterne Jonathan.Sterne@bristol.ac.uk¹, Dr. Raquel 14807 Granell raquel.granell@bristol.ac.uk¹, Prof. Michael 14808 Silverman ms70@leicester.ac.uk MD³, Ms. Aníña M. 14809 Pescatore apescatore@ispm.unibe.ch², Dr. Erol E. 14816 Gaillard eag15@leicester.ac.uk MD³, Prof. John 14823 Henderson a.j.henderson@bristol.ac.uk MD² and Prof. Claudie E. 14828 Kuehni kuehni@ispm.unibe.ch MD¹. ¹ School of Social and Community Medicine, University of Bristol, United Kingdom ; ² Institute of Social and Preventive Medicine, University of Bern, Switzerland and ³ Division of Child Health, Department of Infection, Immunity and Inflammation, University of Leicester, United Kingdom .

Body: Aim In young children with wheeze it is common to distinguish between those who wheeze only during respiratory tract infections (episodic viral wheeze, EVW) and those who also wheeze due to other factors (multiple trigger wheeze, MTW). The stability of this classification has recently been questioned. In two population based cohort studies, we compared the prevalence and stability of these phenotypes in early childhood. Methods We included 14062 children from the Avon Longitudinal Study of Parents and Children (ALSPAC) and 4300 from the Leicester Respiratory Cohorts (LRC). Mothers received postal questionnaires including questions on wheeze and triggers of episodes in past 12 months when children were aged 2, 4 and 6yrs. Results Between ages 2 and 6yrs, prevalence of current wheeze decreased from 18 to 10% in ALSPAC and from 23 to 16% in LRC. Among children with wheeze the proportion of those with MTW as opposed to EVW increased from 55% (both cohorts) to 70% (ALSPAC) and 74% (LRC). Among children with EVW who wheezed again 2yrs later, a considerable proportion were reclassified as MTW in both cohorts (Tables). There was less reclassification from MTW to EVW.

		EVW 4yrs [%]	MTW 4yrs [%]
EVW 2yrs	ALSPAC	50	50
	LRC	44	56
MTW 2yrs	ALSPAC	19	81
	LRC	20	80

		EVW 6yrs [%]	MTW 6yrs [%]
EVW 4yrs	ALSPAC	61	39
	LRC	53	47
MTW 4yrs	ALSPAC	16	84
	LRC	11	89

Conclusion The phenotypes EVW and MTW show limited stability through early childhood suggesting that triggers of wheeze alone are not sufficient to distinguish underlying disease processes, or that the disease processes change in some children throughout this period. Funding BDS is recipient of a ERS/Marie Curie Joint Research Fellowship (MC 1614-2010).