

## RESEARCH LETTER

## Are early life factors considered when managing respiratory disease? A British Thoracic Society survey of current practice

## ABSTRACT

**Background** We hypothesised that early life events are not routinely considered by most respiratory specialists.

**Methods** Respiratory Specialists were surveyed via the British Thoracic Society (BTS) on whether they asked patients about birth weight, preterm birth and prenatal and postnatal complications.

**Results** Only a small minority (mostly hospital paediatricians) of the 123 who replied asked most respiratory patients about one of more early life factors. Patient recall of the information when asked was low.

**Conclusions** The survey results suggest little current consideration is given to early life factors in adult respiratory medicine, despite increasing evidence that early life factors do impact on later respiratory health. Improving training, increasing awareness and exploring new approaches to obtaining the information are required.

Following the 2011 British Thoracic Society (BTS) Winter Meeting symposium 'The Long Term Sequelae of Early Life Insults', we convened to discuss (i) the implications of impaired lung development on chest disease including in adulthood; (ii) awareness of these issues amongst chest physicians and (iii) gaps in knowledge that need addressing. With 8% of UK births being preterm and improved survival of ever more preterm infants into adulthood, the impact on later

respiratory health is likely to become increasingly important in the future.<sup>1</sup> We hypothesised that early life events are not routinely considered by most respiratory specialists and hence surveyed BTS members to determine their current practice.

Using a BTS survey link, respiratory specialists were asked if they routinely enquired about birth weight, preterm birth, prenatal and postnatal complications including need for neonatal intensive care; whether patients knew this information and whether BTS members believed that prematurity or low birth weight might contribute to any of their patients' airways disease.

There was good geographical spread of the 123 replies (61% consultants, 21% doctors in training, 15% nursing profession, 2% General Practitioners (GPs) and 1% staff, associate specialist, and specialty doctors (SAS doctors)) although only accounting for circa 6% of the BTS clinical members. Secondary care accounted for 93% of respondents. Only 13 respondents dealt predominantly with children (12 in hospital, 1 community).

A small minority (<25% of respondents, mainly hospital paediatricians) ask 'most respiratory patients' about one or more of the early life factors, table 1. A large proportion of respondents do not ask at all. In those who do ask, there is a wide variation in patient knowledge, recall being greatest for children, in whom parental recall or use of the 'red-book' assisted. Although 47% thought some of their patients were born preterm or had a low birth weight, 46% were unaware and 7% thought there were none.

Despite increasing evidence that early life factors do impact on later respiratory health, the results of this survey suggest little current consideration is given to these in adult medicine. Limited retrospective recall may preclude accurate assessment, although a recent survey in 74 patients with chronic obstructive pulmonary disease suggests that whilst three quarters did not know their gestational age, two-fifths knew

their birth weight (B Kowlessar and UCL COPD cohort team—personal communication). Developing a greater understanding of the potential impact of early life influences on chronic respiratory disease and how this might change over time will require new approaches, for example recall by a living parent, recording birth weight and gestational age with the NHS number, or via a preterm registry. Without such considerations, the impact is likely to be grossly underestimated. As highlighted in a recent editorial,<sup>2</sup> there are many different routes to persistent airway disease, such that despite similar degrees of obstruction, it may be wrong to label an ex-preterm and a life-long smoker with the same diagnosis and manage them the same way. If we are to optimise future management of chronic lung disease, we need improved training to ensure a greater awareness of early life events.

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## REFERENCES

- http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcn%3A77-50818 (accessed 26 Jul 2012).
- Postma DS, Brusselle G, Bush A, *et al*. I have taken my umbrella, so of course it does not rain. *Thorax* 2012;67:88–9.

**Table 1** Proportion of respondents who ask about early life factors in patients with respiratory disease

	'Do you ever ask patients you review about...'		
	Birth weight? (%)	Born preterm? (%)	Perinatal or pregnancy complications or time in Neonatal unit? (%)
Most patients with respiratory disease	14	20	20
Occasionally	27	37	38
Selected patients—asthma, COPD, restrictive lung disease or combination	4	8	4
Do not ask	55	35	38

COPD, chronic obstructive pulmonary disease.