

## APPENDIX 2 Covariates and their assessment

Variable	Survey question	Response categories
Socio-demographics		
Age	How old are you?	Years
Sex	Are you a girl or a boy?	Boy/girl
Family Affluence Scale (Cronbach $\alpha=0.44$ )	Does your family own a car, van or truck? Do you have your own bedroom for yourself? During the past 12 months, how many times did you travel away on holiday with your family? How many computers does your family own?	No/yes, one/yes, two or more No/yes Not at all/once/twice/more than twice None/one/two/more than two
Personal characteristics		
School performance	How would you describe your grades last year?	Excellent/good/average/below average
TV screen time	On a school day, how many hours a day do you usually spend watching TV?	None/<1 h/1–2 h/3–4 h/more than 4 h
Number of movies seen	Below is a list of film titles. Please mark if, and how often, you have seen each film.	Never/once/twice/more than twice
Sensation seeking/rebelliousness (Cronbach $\alpha=0.70$ )	How often do you do dangerous things for fun? How often do you do exciting things, even if they are dangerous? I believe in following rules (recoded). I get angry when anybody tells me what to do.	Not at all/once in a while/sometimes/often/very often Not at all/once in a while/sometimes/often/very often Not at all/a bit/quite well/very well Not at all/a bit/quite well/very well
Social environment		
Peer smoking	How many of your friends smoke cigarettes?	None/a few/some/most/all
Mother smoking	Does your mother/female guardian smoke cigarettes?	Yes/no/don't know (coded 'no')/don't have (coded 'no')
Father smoking	Does your father/male guardian smoke cigarettes?	Yes/no/don't know (coded 'no')/don't have (coded 'no')
Sibling smoking	Do any of your brothers or sisters smoke cigarettes?	Yes/No/don't have (coded 'no')

## Journal club

### A potential role for tiotropium bromide as an added therapy for adults with uncontrolled asthma

In this study, the addition of tiotropium bromide to an inhaled glucocorticoid was evaluated as compared with doubling the dose of the inhaled glucocorticoid (primary superiority comparison) or the addition of salmeterol (secondary non-inferiority comparison) in 210 patients with asthma.

Tiotropium use showed a superior primary outcome, as compared with doubling of the inhaled glucocorticoid dose, as assessed by measuring the morning peak expiratory flow rate (PEF), with a mean difference of 25.8 l/min, and superiority in most secondary outcomes, including evening PEF, with a difference of 35.3 l/min, the proportion of asthma-control days, the FEV<sub>1</sub> before bronchodilation and daily symptom scores. The addition of tiotropium was also non-inferior to the addition of salmeterol for all assessed outcomes and increased the prebronchodilator FEV<sub>1</sub> more than salmeterol.

The study showed that tiotropium, when added to an inhaled glucocorticoid, improved symptoms and lung function in patients with inadequately controlled asthma. Its effects appeared to be equivalent to those with the addition of salmeterol. Additional studies that have sufficient statistical power to evaluate exacerbations and safety events are required to further establish the clinical efficacy of tiotropium in asthma.

► **Peters SP**, Kunselman SJ, Icitovic N, *et al*, for the National Heart, Lung, and Blood Institute, Asthma Clinical Research Network. Tiotropium bromide step-up therapy for adults with uncontrolled asthma. *N Engl J Med* 2010;**363**:1715–26.

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Published Online First 10 February 2011

*Thorax* 2011;**66**:883. doi:10.1136/thx.2011.159483