



# Thorax

Journal of the British Thoracic Society

Impact Factor: 7.04

### Editors

A Bush (UK)  
I Pavord (UK)

### Deputy Editors

P Cullinan (UK)  
C Lloyd (UK)

### Associate Editors

R Beasley (New Zealand) E Lim (UK)  
J Brown (UK) D Mannino (USA)  
A Custovic (UK) JL Pepin (France)  
A Fisher (UK) T Sethi (UK)  
P Gibson (Australia) M Steiner (UK)  
J Grigg (UK) D Thickett (UK)  
R Hubbard (UK) M Whyte (UK)  
A Jones (UK) H Zar (South Africa)

### Statistical Editors

J Gibson (UK)  
L Tata (UK)

### Images Editor

J M FitzGerald (Canada)

### Lung Alert Editor

J Quint (UK)

### President, British Thoracic Society

P Corris

### Editorial Office

BMJ Publishing Group Ltd, BMA House,  
Tavistock Square, London WC1H 9JR, UK

T: +44 (0)20 7383 6147

F: +44 (0)20 7383 6668

E: [thorax@bmjgroup.com](mailto:thorax@bmjgroup.com)

ISSN: 0040-6376 (print)

ISSN: 1468-3296 (online)

**Disclaimer:** *Thorax* is owned and published by the British Thoracic Society and BMJ Publishing Group Ltd, a wholly owned subsidiary of the British Medical Association. The owners grant editorial freedom to the Editor of *Thorax*.

*Thorax* follows guidelines on editorial independence produced by the World Association of Medical Editors and the code on good publication practice of the Committee on Publication Ethics.

*Thorax* is intended for medical professionals and is provided without warranty, express or implied. Statements in the Journal are the responsibility of their authors and advertisers and not authors' institutions, the BMJ Publishing Group Ltd, the British Thoracic Society or the BMA unless otherwise specified or determined by law. Acceptance of advertising does not imply endorsement.

To the fullest extent permitted by law, the BMJ Publishing Group Ltd shall not be liable for any loss, injury or damage resulting from the use of *Thorax* or any information in it whether based on contract, tort or otherwise. Readers are advised to verify any information they choose to rely on.

**Copyright:** © 2010 BMJ Publishing Group Ltd and the British Thoracic Society. All rights reserved; no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of *Thorax*.

*Thorax* is published by BMJ Publishing Group Ltd, typeset by TNQ Books & Journals, Chennai, India and printed in the UK on acid-free paper by Latimer Trend & Co Ltd, Plymouth.

*Thorax* (ISSN No: 0040-6376) is published monthly by BMJ Publishing Group and distributed in the USA by Mercury International Ltd. Periodicals postage paid at Rahway, NJ. POSTMASTER: send address changes to *Thorax*, Mercury International Ltd, 365 Blair Road, Avenel, NJ, 07001, USA.

## Contents

Volume 65 Issue 12 | THORAX December 2010

### Editorials

**1031** Assessing airway inflammation  
*D R Taylor, D C Cowan*

**1033** Respiratory syncytial virus and asthma: still no final answer  
*R T Stein, F D Martinez*

**1035** Can telemedicine improve CPAP adherence?  
*M Kwiatkowska, N Ayas*

**1036** BCG vaccination: 90 years on and still so much to learn ...  
*A Lalvani, S Sridhar*

### Asthma

**1039** Exhaled nitric oxide thresholds associated with a sputum eosinophil count  $\geq 3\%$  in a cohort of unselected patients with asthma  
*F N Schleich, L Seidel, J Sele, M Manise, V Quaedvlieg, A Michils, R Louis*

**1045** Asthma and allergy patterns over 18 years after severe RSV bronchiolitis in the first year of life  
*N Sigurs, F Aljassim, B Kjellman, P D Robinson, F Sigurbergsson, R Bjarnason, P M Gustafsson*

**1053** Pneumococcal conjugate vaccine-induced regulatory T cells suppress the development of allergic airways disease  
*A N Thorburn, B J O'Sullivan, R Thomas, R K Kumar, P S Foster, P G Gibson, P M Hansbro*

### Sleep-disordered breathing

**1061** A telemedicine intervention to improve adherence to continuous positive airway pressure: a randomised controlled trial  
*D Sparrow, M Aloia, D A DeMolles, D J Gottlieb*

### Tuberculosis

**1067** Protective effect of BCG vaccination in a nursery outbreak in 2009: time to reconsider the vaccination threshold?  
*J Eriksen, J Y Chow, V Mellis, B Whipp, S Walters, E Abrahamson, I Abubakar*

**1072** BCG vaccination status may predict sputum conversion in patients with pulmonary tuberculosis: a new consideration for an old vaccine?  
*K Jeremiah, G PrayGod, D Faurholt-Jepsen, N Range, A B Andersen, H M S Grewal, H Friis*

### Acute lung injury

**1077** Adrenomedullin attenuates ventilator-induced lung injury in mice  
*H C Müller, M Witztenrath, T Tschernig, B Gutbier, S Hippenstiel, A Santel, N Suttorp, S Rosseau*

### Chronic obstructive pulmonary disease

**1086** QVA149 demonstrates superior bronchodilation compared with indacaterol or placebo in patients with chronic obstructive pulmonary disease  
*J A van Noord, R Buhl, C LaForce, C Martin, F Jones, M Dolker, T Overend*

### Lung cancer

**1092** Prognostic impact of intratumoral vascular invasion in non-small cell lung cancer patients  
*R Maeda, J Yoshida, G Ishii, T Hishida, M Nishimura, K Nagai*

### Paediatric lung disease

**1099** Patterns of fetal and infant growth are related to atopy and wheezing disorders at age 3 years  
*K C Pike, S R Crozier, J S A Lucas, H M Inskip, S Robinson, The Southampton Women's Survey Study Group, G Roberts, K M Godfrey*

### Chronic cough

**1107** Long-term low-dose erythromycin in patients with unexplained chronic cough: a double-blind placebo controlled trial  
*N Yousaf, W Monteiro, D Parker, S Matos, S Birring, I D Pavord*

### Review

**1111** Transepithelial exit of leucocytes: inflicting, reflecting or resolving airway inflammation?  
*C Persson, L Uller*

### PostScript

**1116** Letters  
**1118** Correction

[MORE CONTENTS ▶](#)

**Cover credit: Tuberculosis.** Light micrograph of a human lung affected with tuberculosis. The air sac alveoli of the lung can be seen, filled with an inflammatory exudate. This exudate consists largely of macro-phages (white blood cells) and the infecting bacteria *Mycobacterium tuberculosis*. At lower right are numerous blood vessels (red); the walls of alveoli have disintegrated (at lower left). Tuberculosis is an infectious lung disease which once was a major killer disease worldwide. In the lungs, bacteria breathed in form inflammatory lesions known as "tubercles" which destroy lung tissue. Magnification:  $\times 20$  at 35mm size / ASTRID & HANNS-FRIEDER MICHLER/SCIENCE PHOTO LIBRARY



This article has been chosen by the Editor to be of special interest or importance and is freely available online.



Articles carrying the Unlocked Logo are freely available online under the BMJ Journals unlocked scheme. See <http://thorax.bmj.com/info/unlocked.dtl>

C O P E COMMITTEE ON PUBLICATION ETHICS

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics

[www.publicationethics.org.uk](http://www.publicationethics.org.uk)



When you have finished with this magazine please recycle it.

---

**Miscellanea**

- 1044** Lung alert: Utility of serum and sputum calprotectin as a biomarker for CF exacerbation  
*I Shafiq*
- 1066** Pulmonary puzzle: Eosinophilia, meningitis and pulmonary nodules in a young woman  
*P E Pfeffer, A Sen, S Das, M Sheaff,  
A Sivaramakrishnan, D E Simcock, B Turner*

**1106** Lung alert: Step-up treatment for children with uncontrolled asthma

*C Chambers*

---

**Images in Thorax**

**1119** Tracheo-bronchial involvement in Sweet syndrome

*K Tanimura, H Kita, Y Kanemitsu, Y Fuseya,  
Y Katayama*