Jean Bousquet[1,2], Nikolai Khaltaev[3], Alvaro Cruz[3,4], Arzu Yorgancioglu[3,5] and Alexander Chuchalin[3,6]
[1]University Hospital, Montpellier, France. [2]MACVIA-LR, Contre les Maladies Chroniques pour un Vieillissement Actif en Languedoc Roussillon, European Innovation Partnership on Active and Healthy Ageing Reference Site, Montpellier, France. [3]GARD, Geneva, Switzerland. [4]ProAR – Nucleo de Excelencia em Asma, Federal University of Bahia, Salvador, Brasil. [5]Celal Bayar University Dept of Pulmonology, Manisa, Turkey. [6]Pulmonolory Research Institute FMBA, Moscow, Russia.

Correspondence: Jean Bousquet, University Hospital, Montpellier, France. E-mail: jean.bousquet@orange.fr

Received: June 04 2014 | Accepted: June 12 2014

Conflict of interest: Disclosures can be found alongside the online version of this article at erj.ersjournals.com

References

1 Chung KF, Wenzel SE, Brozek JL, *et al.* International ERS/ATS guidelines on definition, evaluation and treatment of severe asthma. *Eur Respir J* 2014; 43: 343–373.
2 Bel EH, Sousa A, Fleming L, *et al.* Diagnosis and definition of severe refractory asthma: an international consensus statement from the Innovative Medicine Initiative (IMI). *Thorax* 2011; 66: 910–917.
3 Bousquet J, Mantzouranis E, Cruz AA, *et al.* Uniform definition of asthma severity, control, and exacerbations: document presented for the World Health Organization Consultation on Severe Asthma. *J Allergy Clin Immunol* 2010; 126: 926–938.
4 Royal College of Physicians. National Review of Asthma Deaths. www.rcplondon.ac.uk/projects/national-review-asthma-deaths Date last accessed: May 31, 2014. Date last updated: May 27, 2014.
5 Bousquet J, Addis A, Adcock I, *et al.* Integrated care pathways for airway diseases (AIRWAYS-ICPs). *Eur Respir J* 2014; 44: 304–323.

Eur Respir J 2014; 44: 1377–1378 | DOI: 10.1183/09031936.00102714 | Copyright ©ERS 2014

From the authors:

We thank J. Bousquet and colleagues for their concerns regarding exclusion of ''untreated asthma'' as a form of severe asthma, with respect to the recently published international European Respiratory Society (ERS)/American Thoracic Society (ATS) guidelines on severe asthma [1].

We do recognise this category of untreated asthma and agree that untreated asthma may result in serious exacerbations of disease and death, an issue that is not confined to developing countries alone. Indeed, everywhere in the world, untreated asthma can result from lack of access to medical care but can also result not only from nonadherence to therapy or of inadequately treated asthma. As emphasised in the ERS/ATS guideline definitions, these issues should to be addressed before consideration of the diagnosis of severe asthma. As mentioned by the correspondents, the recent report of the UK National Review of Asthma Deaths pointed to under-treatment or lack of controller treatment, from nonadherence or inadequately treated asthma, which represents degrees of ''untreated'' asthma, evident in a country where everyone has access to medical care. The approach here is to identify the asthmatics who are at risk of dying from asthma and make sure that their asthma is indeed properly diagnosed and categorised, and treated appropriately. As our correspondents are aware, this is no mean task and is even near-impossible in developing countries where the healthcare infrastructure is not as well developed or funded.

We are fully aware of the World Health Organization (WHO) consultation document [2], not least, because several members of our ERS/ATS guideline task force have been involved in it. Untreated asthma could not be included within our severe asthma definition because our definition requires that patients receive or have received ''appropriate/guidelines-based'' therapy for asthma. While we agree that untreated or under-treated asthma predisposes a subgroup of these patients to severe and life-threatening exacerbations, we also believe that the introduction of even modest doses of corticosteroids will dramatically decrease their risk of severe asthma exacerbations. Thus, the ERS/ATS guidelines define severe asthma as ''asthma that requires treatment with high dose inhaled corticosteroids plus a second controller (and/or systemic corticosteroids) to prevent it from becoming 'uncontrolled' or which remains 'uncontrolled' despite this therapy''. These patients represent a poorly understood and poorly therapy-responsive population that is distinct from under-treated or untreated asthma.

The WHO consultation document recognised three categories of asthma that were considered severe on the basis of symptoms, control of asthma and risks, without consideration of the therapy taken by the patient. These categories are 1) untreated severe asthma, 2) difficult-to-treat severe asthma and 3) treatment-resistant severe asthma, with which we are in full agreement. We agree that, from the global standpoint, untreated severe asthma needs to be recognised as it is a problem that should be remediable through the

provision of affordable anti-inflammatory inhaler therapies and improved care of asthma in general. We are supportive of this categorisation of severe asthma within the WHO definition.

The ERS/ATS definition identifies the group of patients encompassed by categories 1 and 3. We see the ERS/ATS guidelines as entirely complementary to the WHO document focusing on these two categories, particularly treatment-resistant severe asthma, where approaches to phenotyping and targeted novel therapies will be needed, once the issue of untreated asthma at the individual level has been excluded.

We thank J. Bousquet and colleagues for giving us the opportunity to clarify these issues.

@ERSpublications
The ERS/ATS guidelines define severe asthma as distinct from under-treated asthma
http://ow.ly/zQJLl

Kian Fan Chung[1] and Sally Wenzel[2] for the European Respiratory Society/American Thoracic Society Severe Asthma International Guidelines Task Force
[1]Imperial College, National Heart and Lung Institute, London, UK. [2]Dept of Medicine, University of Pittsburgh, Pittsburgh, PA, USA.

Correspondence: Kian Fan Chung, Imperial College, National Heart and Lung Institute, Dovehouse St, London SW3 6LY, UK. E-mail: f.chung@imperial.ac.uk

Received: July 01 2014 | Accepted: July 03 2014

Conflict of interest: Disclosures can be found alongside the online version of this article at erj.ersjournals.com

References

1 Chung KF, Wenzel SE, Brozek JL, *et al.* International ERS/ATS guidelines on definition, evaluation and treatment of severe asthma. *Eur Respir J* 2014; 43: 343–373.
2 Bousquet J, Mantzouranis E, Cruz AA, *et al.* Uniform definition of asthma severity, control, and exacerbations: document presented for the World Health Organization Consultation on Severe Asthma. *J Allergy Clin Immunol* 2010; 126: 926–938.

Eur Respir J 2014; 44: 1378–1379 | DOI: 10.1183/09031936.00120714 | Copyright ©ERS 2014

Hot tub *Legionella* pneumonia outbreak

To the Editor:

We read with interest the article on legionnaires' disease in Europe by BEAUTÉ *et al.* [1]. As highlighted in that paper, larger outbreaks of legionnaires' disease tend to gain more attention although smaller outbreaks occur, which also have implications on public health.

Such an outbreak occurred in the Stoke-on-Trent area of North Staffordshire, UK, in July 2012, the first case presenting on July 18, 2012 with symptoms of a pneumonic illness. A positive urine *Legionella* antigen test was reported 5 days later (*Legionella pneumophila* serogroup 1). A number of similar presentations were admitted in the days that followed and 13 cases of *Legionella* pneumonia were confirmed by July 23, at which stage it was evident an outbreak was emerging. By the end of the outbreak at the beginning of August, a total of 20 cases had been confirmed.

The reported cases were all from the local area of Stoke; 13 were male. Age ranged from 48 to 79 years (mean 65 years). 50% were ex-smokers. Three patients were immunosuppressed by long-term oral steroid use (for Crohn's disease, polymyalgia rheumatica and gall bladder malignancy). One patient reported foreign travel in the month preceding the outbreak (Mallorca, Spain). The clinical features observed in the group were consistent with those reported for *Legionella* pneumonia. 14 patients had a documented fever $>38^{\circ}C$ on admission. There was evidence of a marked inflammatory response in all cases, with notably raised C-reactive protein (range 152–869 $mg \cdot L^{-1}$, mean 308 $mg \cdot L^{-1}$; reference range 0–5 $mg \cdot L^{-1}$). Deranged liver enzymes were seen in 80% with associated hypoalbuminaemia (range 18–33 $g \cdot L^{-1}$; reference range 35–50 $g \cdot L^{-1}$). 10 patients had a serum albumin concentrations <25 $g \cdot L^{-1}$. Hyponatraemia, however, was not observed to be a prominent biochemical abnormality.

All but one of the patients had evidence of consolidation on chest radiography. CURB-65 (confusion, urea >7 $mmol \cdot L^{-1}$, respiratory rate $\geqslant 30$ $breaths \cdot min^{-1}$, blood pressure <90 mmHg (systolic), $\leqslant 60$ mmHg