



## Working group on allergic bronchopulmonary aspergillosis in asthmatics

### Coordinator(s)

**Dr Ritesh Agarwal MD, DM**  
Associate Professor  
Department of Pulmonary Medicine  
Post Graduate Institute of Medical Education and Research  
Sector-12  
Chandigarh-160012, India  
E-mail: [riteshpgi@gmail.com](mailto:riteshpgi@gmail.com); [agarwal.ritesh@pgimer.edu.in](mailto:agarwal.ritesh@pgimer.edu.in)  
Tel: +91-172-2756825  
Fax: +91-172-2748215

**Dr Arunaloke Chakrabarti MD, Dip NB**  
Professor, Medical Microbiology  
Incharge, division of Medical Mycology  
Department of Medical Microbiology  
Post Graduate Institute of Medical Education and Research  
Chandigarh-160012, India.  
Tel + 91 172 275 5156  
Fax + 91 172 274 4401/ 274 5078  
E-mail: [arunaloke@hotmail.com](mailto:arunaloke@hotmail.com)

**Dr David W. Denning**  
University of Manchester; Manchester Academic Health Science Centre; The National Aspergillosis Centre, University Hospital of South Manchester, Southmoor Road, Manchester M23 9LT  
Tel: +44 161 291 5811  
Fax: +44 161 291 5806  
E-mail: [ddenning@manchester.ac.uk](mailto:ddenning@manchester.ac.uk)

### Brief description of the working group

Aspergillus species is responsible for a spectrum of lung diseases known as aspergillosis, which varies according to the immune response of the host. Allergic bronchopulmonary aspergillosis (ABPA) is a condition characterized by a hypersensitivity response to the fungus Aspergillus, most commonly Aspergillus fumigatus. It occurs most often in patients with bronchial asthma or cystic fibrosis. The condition is associated with considerable morbidity, and if untreated the disease inexorably progresses to end-stage lung disease characterized by bronchiectasis and lung fibrosis. The disease remains of utmost importance to clinicians because of the fact that the condition is glucocorticoid-sensitive, and early diagnosis and treatment can prevent progression to end-stage lung disease. The disease has a global presence albeit with difference in clinical presentation in developed versus the developing countries. In the developing countries, the condition is often misdiagnosed as pulmonary tuberculosis and most patients present with bronchiectasis. The disorder was first described in 1952. Despite five decades of research, there is still no consensus regarding its epidemiology, categorization and diagnosis. Also there is deficiency in understanding its pathogenesis, pathology and management. Herein, we propose to develop a consortium to work together and to exchange ideas for resolving the problems of ABPA in asthmatics. As there is already a body under cystic fibrosis foundation working to develop consensus areas, we would concentrate only on ABPA in asthmatics.

**Agenda of the group:**

1. Increase the awareness of ABPA among physicians treating asthma patients
2. Describe the global burden of the disease
3. Collaborate on issues related to epidemiology and pathophysiology
4. Collaborate on issues related to genetic susceptibility
5. Frame objective evidence-based consensus diagnostic criteria
6. Formulate a consensus management protocol
7. Issues related to heterogeneous presentation of disease with special reference to developed and developing countries

**FOCUS AREAS OF GROUP****Epidemiology**

1. Prevalence of Aspergillus sensitization and ABPA among patients with bronchial asthma
  - a. Population-based data
  - b. Hospital-based data
2. Severity of asthma in ABPA, and overlap with 'Fungus-associated asthma'
3. ABPA and cystic fibrosis

**Pathogenesis**

1. Fungi involved in ABPA other than A fumigatus
2. Genetic risk factor analysis of ABPA- CFTR, MBL, SPs

**Classification of ABPA**

1. Does high-attenuation mucus identify a severe form of ABPA?
2. Risk factors for progression to bronchiectasis and severity scoring of bronchiectasis
3. Risk factors for progression to pulmonary fibrosis and chronic pulmonary aspergillosis

**Diagnostic criteria for ABPA**

1. Role of markers such as total and specific IgE levels and eosinophil counts in management and follow-up
2. Role of culture and susceptibility testing
3. Role of histopathology
4. Role of recombinant allergens
5. Role of TARC
6. Role of PCR
7. Algorithm in the diagnosis of ABPA in asthma

**Management**

1. Development of algorithms in management of ABPA (need more than 1)
2. Role of oral and inhaled corticosteroids in management
3. Role of oral antifungal agents - dose and duration
4. Newer agents- omalizumab, voriconazole
5. Other therapies- pulse methylprednisolone, aerosolized amphotericin B plus budesonide
6. Experimental therapies

**Follow up**

1. Frequency of follow up imaging and respiratory function tests (to catch progression early)
2. Resistance emergence in those on antifungals
3. Management of complications especially fibrosis and CPA

**Names and contact information of working group members****Dr Alan P Knutsen**

Department of Pediatrics,  
Saint Louis University, 1465 South Grand Boulevard, St. Louis, MO 63104, USA

**Dr PG Gibson**

Department of Respiratory and Sleep Medicine, Hunter Medical Research Institute, University of Newcastle, NSW, Australia.

**Dr RB Moss**

Department of Pediatrics, Stanford University, Palo Alto, CA 94304, USA.

**Dr Mary E. Streck**

The University of Chicago, Department of Medicine – MC7076, Chicago, IL 60637.

**Dr Caroline Baxter**

University Hospital of South Manchester,  
Southmoor Road, Manchester M23 9LT  
Tel: +44 161 291 5811

**Dr. Maya Chandrani Attapattu**

Consultant Mycologist , Medical Mycology  
Asha Central Hospital,  
Colombo -0007 , Sri Lanka

**Dr Taruna Madan**

Scientist D and Head, Innate Immunity,  
National Institute for Research in Reproductive Health  
J.M.Street, Parel, Mumbai-12

**Dr Dheeraj Gupta**

Department of Pulmonary Medicine  
Post Graduate Institute of Medical Education and Research  
Sector-12, Chandigarh-160012, India

**Dr Ashutosh N Aggarwal**

Department of Pulmonary Medicine  
Post Graduate Institute of Medical Education and Research  
Sector-12, Chandigarh-160012, India

**Dr Ajmal Khan**

Consultant  
Fortis Hospital, Mohali, Punjab, India

**Dr Randeep Guleria**

Professor  
Dept of Internal Medicine  
All India Institute of Medical Sciences  
New Delhi

**Dr Ashok Shah**

Department of Pulmonary Medicine,  
University of Delhi  
C/o VP Chest Institute, University of Delhi, Delhi-110 007

**Dr Jayanthi Savio**

Christian Medical College & Hospital, Vellore, India