

Good **Airway** Practice

Event Report

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The Event on Chronic Mucus Hypersecretion (CMH), held on 24th August 2025 at the Joys Palace Thrissur, Veliyannur, Thrissur, Kerala, brought together leading pulmonologists and respiratory care experts from across India to explore diagnostic and management strategies for CMH, a distinct and clinically significant phenotype of chronic respiratory diseases.

Dr. Unni R Baby opened the scientific program with a session focused on the pharmacological management of CMH, highlighting the therapeutic value of Erdosteine. He presented mechanistic insights and robust clinical evidence supporting its role in reducing exacerbation rates, improving symptom control, and enhancing antibiotic efficacy in biofilm-associated infections.

A multi-speaker panel discussion followed, addressing non-pharmacological approaches to CMH with a focus on Oscillating Positive Expiratory Pressure (OPEP) devices. All panelists shared practical experiences and clinical perspectives on integrating airway clearance techniques, such as ACBT, PEP, and OPEP, into routine care. Comparative data, device-specific features, and supporting trial evidence were discussed to guide optimal therapy selection.

The third session, led by Dr. Anand Vijay, provided a hands-on demonstration of OPEP device functionality, usage technique, and maintenance. The session emphasized patient-specific customization, correct usage protocols, and hygiene practices to maximize therapeutic outcomes and device longevity.

In the fourth session, Dr. Neethu Thambi addressed mucus hypersecretion as a distinct yet under-recognized entity in chronic respiratory diseases. She discussed the physiological role of mucus and its cellular origins, including the roles of Goblet, Clara, and Serous cells, and highlighted how mucin overproduction contributes to airway obstruction, impaired gas exchange, and increased exacerbation risk. She stressed that Chronic Mucus Hypersecretion (CMH) should be viewed as a treatable trait, advocating for early identification, diagnostic vigilance, and integration of pharmacological and non-pharmacological strategies in routine care.

The event concluded with a strong consensus that CMH demands proactive and personalized intervention. Integration of evidence-based therapies, such as Erdosteine and OPEP devices, into standard care can significantly improve lung function, reduce exacerbation burden, and enhance overall quality of life in patients with chronic respiratory diseases.

Date: 24th August 2025

Venue: Joys Palace Thrissur, Veliyannur, Thrissur, Kerala

Total Participants: 19

Agenda



24th August 2025



10:00 a.m. to 1:00 p.m.



Joys Palace Thrissur, Veliyannur, Thrissur, Kerala

Topics	Speakers	Timings
Welcome and Introduction		10 :00 a.m. to 10:05 a.m.
Pharmacotherapy of CMS – Focus on Erdosteine	Dr. Unni R. Baby	10:05 a.m. to 10:30 a.m.
Non-Pharmacotherapy of CMS – Focus on OPEP Devices	Panel Discussion	10:30 a.m. to 11:00 a.m.
OPEP Equipment Care & Demonstration	Dr. Anand Vijay	11:00 a.m. to 11:20 a.m.
TEA BREAK		11:20 a.m. to 11:40 a.m.
Mucus Hypersecretion in Chronic Respiratory Diseases	Dr. Neethu Thambi	11:40 a.m. to 12:40 p.m.
Key Takeaways and Way Forward		12:40 p.m. to 12:55 p.m.
Vote of Thanks		12:55 p.m. to 1:00 p.m.

Summary of the Event

Session 1: Pharmacotherapy of CMS – Focus on Erdosteine- Dr. Unni R. Baby

The first session, led by Dr. Unni R. Baby, focused on the pharmacological management of Chronic Mucus Syndrome (CMS), with a special emphasis on Erdosteine. He detailed its pharmacokinetics, highlighting how its active metabolites contribute to its multi-faceted mechanism of action—anti-inflammatory, mucolytic, and anti-adhesive. Of particular interest was Erdosteine’s ability to enhance antibiotic penetration into biofilms, improving effectiveness against both Methicillin-Sensitive *Staphylococcus aureus* (MSSA) and Methicillin-Resistant *Staphylococcus aureus* (MRSA) strains.

Dr. Unni R. Baby presented robust clinical evidence to support these mechanisms. A randomized trial (n=237) showed that combining Erdosteine with amoxicillin accelerated improvement in breathlessness, cough, and sputum viscosity without added gastrointestinal (GI) side effects. The Randomized Evaluation of Sedation Titration for Respiratory Failure (RESTORE) trial (n=467) demonstrated a 19.4% reduction in chronic obstructive pulmonary disease (COPD) exacerbations and a 57.1% reduction in mild exacerbations over 12 months, consistent across patients regardless of inhaled corticosteroid (ICS) use. Additional studies showed reductions in the use of antibiotics and corticosteroids across Global Initiative for Chronic Obstructive Lung Disease (GOLD) subgroups, with improved cough severity, sputum characteristics, C-reactive protein (CRP) levels, forced expiratory volume in 1 second (FEV₁), and symptom scores.

The session concluded with Dr. Unni R. Baby affirming Erdosteine’s role as an adjunct therapy in COPD, especially in patients with frequent or severe exacerbations. He emphasized its favorable safety and efficacy profile, advocating for its inclusion in standard care. During the interactive question and answer (Q&A) session, clinicians discussed real-world decision-making and compared Erdosteine with N-acetylcysteine (NAC). Participants were encouraged to assess both options based on individual patient response, clinical evidence, and safety considerations to support personalized treatment strategies in CMS.

Session 2: Non-Pharmacotherapy of CMS – Focus on OPEP Devices – Panel Discussion

The second session featured an engaging panel discussion on the non-pharmacological management of Chronic Mucus Syndrome (CMS), with a specific focus on Oscillating Positive Expiratory Pressure (OPEP) devices. All participating doctors shared clinical insights and patient-centered strategies, beginning with an overview of non-drug interventions commonly used in Chronic Obstructive Pulmonary Disease (COPD). Techniques discussed included Active Cycle of Breathing Techniques (ACBT), manual chest physiotherapy (percussion, shaking, vibration, and overpressure), postural drainage, Positive Expiratory Pressure (PEP) therapy, respiratory muscle training, and high-frequency chest wall oscillation. The panel elaborated on OPEP’s dual mechanism, PEP maintains airway patency and reduces Dynamic Hyperinflation (DHI), while oscillations mobilize mucus by vibrating airway walls. Visual aids illustrated how OPEP helps in resolving mucus plugs and enhancing secretion clearance.

Clinical questions raised included when to initiate OPEP therapy, its role as an early intervention, and whether current evidence supports it as a first-line approach. A prospective randomized study showed that OPEP users had significantly better outcomes in terms of COPD Assessment Test (CAT) and Leicester Cough Questionnaire (LCQ) scores at 4 and 12 weeks. The panel also reviewed available OPEP devices in India, evaluating them on ease of use, adjustability, nebulization compatibility, position independence, clinical validation, and durability. One device emerged as particularly effective due to its strong evidence base and design suited for varied patient profiles. However, limitations in others, like position dependency and inconsistent efficacy, highlighted the need for personalized device selection.

Supporting evidence from both real-world practice and Randomized Controlled Trials (RCTs) was reviewed. A retrospective analysis comparing 405 COPD patients on OPEP therapy with 405 matched controls showed a significant reduction in moderate and severe post-hospitalization exacerbations. Additionally, an RCT from Chandigarh reported improvements in spirometric measures, Forced Expiratory Volume in 1 Second (FEV1), Forced Vital Capacity (FVC), as well as CAT scores and six-minute walk test results in stable COPD patients using OPEP therapy, though no significant reduction in exacerbation frequency was noted. The panel concluded that integrating OPEP devices into standard care, when selected thoughtfully, can significantly enhance outcomes in chronic respiratory care, particularly in patients with persistent mucus hypersecretion.

Session 3: OPEP Equipment Care & Demonstration – Dr. Anand Vijay

The third session, conducted by Dr. Anand Vijay, focused on the practical application of Oscillating Positive Expiratory Pressure (OPEP) devices for mucus clearance in chronic respiratory diseases. The session opened with a visual explanation of how retained mucus contributes to airway obstruction, and how OPEP therapy aids in secretion clearance through mechanical oscillation and positive expiratory pressure. Using cross-sectional visuals, Dr. Anand Vijay demonstrated how OPEP devices create positive expiratory pressure (PEP) while generating oscillations that loosen mucus, enhancing airway patency and facilitating secretion clearance, particularly in Chronic Obstructive Pulmonary Disease (COPD) and bronchiectasis.

Participants received step-by-step guidance on the correct technique for device use: sealing the lips, inhaling and holding, followed by slow exhalation and huff coughing. Special emphasis was placed on the role of adjustable resistance settings for individual customization based on patient capacity. Dr. Anand Vijay noted that lower, sustained exhalations are often more effective than brief, high-resistance efforts, thereby optimizing mucus mobilization.

The session also covered the importance of device hygiene and maintenance. Cleaning methods such as steaming, boiling, and chemical disinfection were outlined to ensure safety and prolong device life. Dr. Anand Vijay concluded by presenting clinical data supporting the benefits of OPEP therapy in improving lung function, symptom burden, and exercise capacity. He reiterated that chronic mucus hypersecretion is a distinct and treatable phenotype of chronic respiratory disease, and that early identification and appropriate intervention can significantly enhance patient outcomes.

Session 4: Mucus Hypersecretion in Chronic Respiratory Diseases – Dr. Neethu Thambi

The fourth session, presented by Dr. Neethu Thambi, focused on understanding mucus hypersecretion as a distinct yet often under-recognized entity in chronic respiratory diseases. She began by explaining the physiological role of mucus—highlighting its importance in humidifying airways and acting as a physical and immunological barrier against pathogens and environmental irritants. The session explored the epithelial composition of the intrapulmonary airways, emphasizing the roles of Goblet, Clara, Serous, and other secretory cells in mucin production, especially Mucin Immunoglobulin A (IgA). Dr. Thambi also detailed the functions of antimicrobial peptides such as lysozymes and secretoglobins, which are released both constitutively and in response to airway inflammation.

A key part of the session was dedicated to defining and establishing the clinical significance of Chronic Mucus Hypersecretion (CMH). Dr. Neethu Thambi, described CMH as a condition marked by persistent cough and sputum production, along with histopathological changes such as goblet cell hyperplasia and enlarged mucus glands. Despite being frequently reported in patients with Chronic Obstructive Pulmonary Disease (COPD), CMH is often overlooked in clinical practice. Through case-based visuals, she illustrated the downstream impact of mucus overproduction, including airway obstruction, impaired gas exchange, and a higher risk of exacerbations.

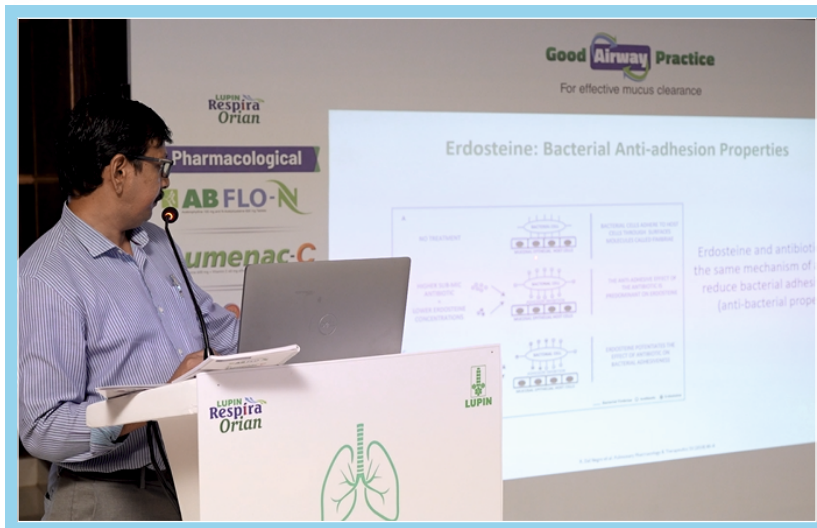
Dr. Neethu Thambi, emphasized that CMH should not be viewed merely as a symptom but rather as a distinct, treatable phenotype. She called for increased clinical vigilance, earlier diagnosis, and integration of both pharmacological (e.g., mucolytics, anti-inflammatories) and non-pharmacological therapies (e.g., airway clearance techniques) into standard care plans. The session concluded by urging clinicians to adopt a more proactive, structured approach to CMH to improve long-term outcomes in chronic respiratory disease management.

At the end of this event, the CME Foundation of India extended its sincere gratitude to the attending delegates and acknowledged Lupin Ltd., the industry partner, for their valuable support and contribution to the success of the event.

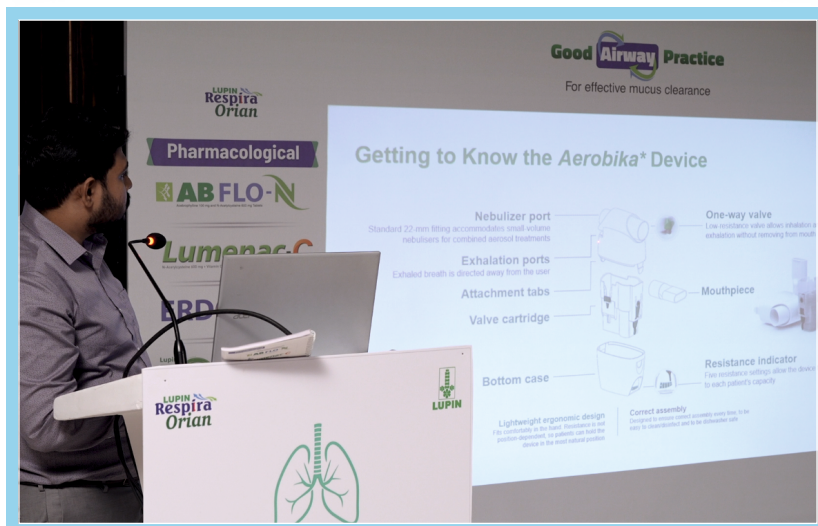
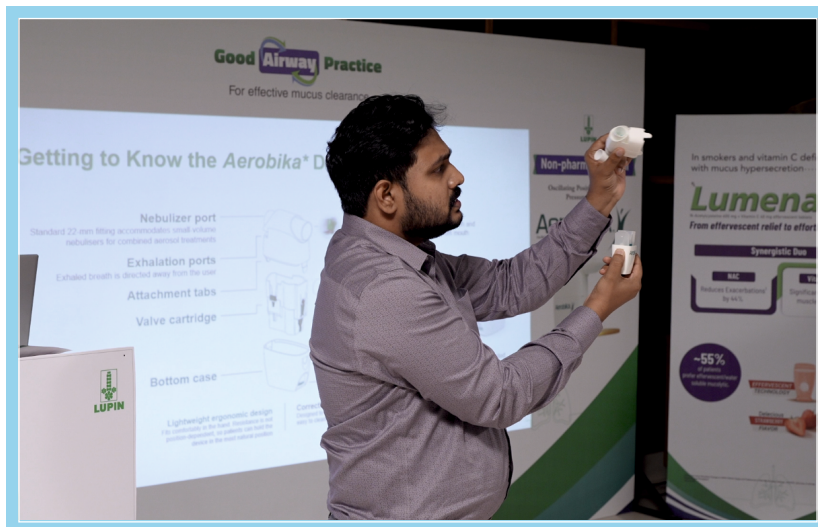


SNAPSHOTS OF SUCCESS

Pharmacotherapy of CMS – Focus on Erdosteine



OPEP Equipment Care & Demonstration



Audience:



Branding Opportunity





Developed by:

CME FOUNDATION OF INDIA

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