IAP ALLERGY AND APPLIED IMMUNOLOGY CHAPTER

AIR POLLUTION AND ALLERGY

A KNOWLEDGE INITIATIVE

Allergy Bulletin: October Edition

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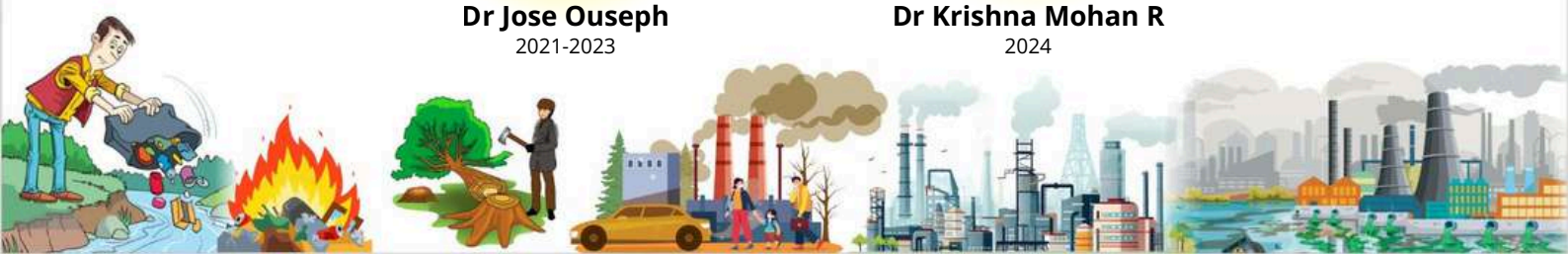

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Chairperson's Address

Dr Neeraj Gupta
Chairperson (2025), IAP Allergy & Applied Immunology Chapter

Dear **Colleagues, Friends, and Delegates,**

The festive lights of Diwali have just faded, leaving behind warmth, memories—and unfortunately, a haze that reminds us of an escalating public health emergency. As winter sets in, the air grows heavy not just with a chill, but with pollutants that imperil the health of millions. It is in this critical backdrop that we present the October–November 2025 issue of the Allergy Bulletin, devoted to the theme **"Air Pollution and Allergies – A Looming Public Health Crisis."**

Air Pollution: The Invisible Aggravator

Air pollution remains one of the most potent, yet often underestimated, triggers of allergic and respiratory diseases. Fine particulate matter (PM2.5 and PM10), nitrogen oxides, ozone, and volatile organic compounds silently infiltrate our environment and our airways. These pollutants inflame mucosal surfaces, impair immune defenses, and exacerbate existing allergic conditions such as asthma, allergic rhinitis, and atopic dermatitis.

In children, whose lungs are still developing, the impact is particularly severe—manifesting as increased hospital visits, reduced lung growth, and long-term vulnerability to chronic respiratory disorders.

The Post-Diwali Surge

This year's Diwali, celebrated on **20th October**, once again brought joy and brightness—but also a familiar and worrisome aftermath. The excessive use of firecrackers led to a sudden spike in AQI levels, many cities crossing into the "severe" category. This coincided with the onset of winter inversion and stubble burning in North India, creating a dense smog blanket that trapped pollutants close to the ground.

For children and adults with asthma, allergic rhinitis, or other respiratory sensitivities, this season often marks a period of acute exacerbations. Hospitals across Delhi and other cities report a sharp increase in emergency visits for wheezing, cough, breathlessness, and itchy eyes.

Indoor air quality also worsens during this period as windows remain closed, trapping smoke, dust, and fumes from incense sticks, candles, and cooking. The result is a double exposure—indoor and outdoor pollution—that creates an almost inescapable health hazard.

Allergies in the Age of Pollution

The rising prevalence of allergic diseases worldwide has already reached alarming proportions. Air pollution now acts as a dangerous amplifier:

- **Asthma:** Pollutants enhance airway inflammation, increase allergen penetration, and blunt response to controller medications.
- **Allergic Rhinitis:** Polluted air irritates nasal mucosa, prolonging symptoms and increasing sensitivity to allergens.
- **Atopic Dermatitis:** Fine particulate matter damages the skin barrier, aggravating eczema.
- **Food Allergy:** Emerging evidence suggests pollutants can alter immune tolerance and gut microbiota, indirectly increasing susceptibility.

Thus, pollution doesn't merely coexist with allergy—it accelerates and intensifies it.

The Role of Physicians and Policymakers

While we continue to provide clinical care and acute relief, it is clear that the problem transcends the clinic. This is a public health issue that demands **multi-sectoral collaboration**—from physicians, environmental scientists, policymakers, and community leaders alike.

Key measures must include:

- Stricter regulation of vehicular and industrial emissions
- Enforced control of firecracker sales and stubble burning
- Promotion of clean energy and public transport
- Public education on indoor air quality and pollution-safe habits
- "Clean air policies" in schools and community spaces

Empowering Our Patients

During this season, simple preventive steps can make a meaningful difference:

- Avoid the use of firecrackers and minimize outdoor exposure during high AQI days.
- Use certified N95 masks when venturing outdoors.
- Keep indoor air clean—limit incense, candles, and aerosols.
- Continue regular allergy and asthma medications; never stop controller therapy.
- Keep relievers and antihistamines accessible.
- Encourage schools to modify outdoor activities when pollution levels are high.

From Awareness to Action

Air pollution is not just a winter or post-Diwali problem—it persists year-round, worsened by traffic emissions, industrial output, and urban dust. As allergists and pediatricians, our mission extends beyond symptom management. We must become:

- Advocates, raising awareness about the health consequences of pollution;
- Educators, guiding families on protective strategies;
- Researchers, contributing Indian data on pollution–allergy interactions; and
- Collaborators, engaging with public health bodies for long-term, sustainable interventions.

A Shared Responsibility

As we step into the colder months, let us remember that the right to breathe clean air is a fundamental health right. The haze we see is not inevitable—it is preventable, if only awareness leads to collective accountability.

Let this season of reflection remind us that light should symbolize health and clarity, not the glow of fireworks that cloud our skies. Together, we can ensure that the joy of festivals never comes at the cost of our children's breath.

Warm wishes for a healthy and pollution-safe winter to all our readers and their families.

Dr. Neeraj Gupta
Chairperson (2025)
IAP (National) Allergy and Applied Immunology Chapter
MBBS, DCH, DNB, FRCPCH, DAA, FAAAAI, IDPCCM, DPSM,
EAACI Certificate of Excellence in Pediatric Allergology

Activity Report

"Eye Allergies – Webinar Series"

(September 1-3, 2025)

A Multidisciplinary Collaboration Between Ophthalmologists and Pediatric Allergists

The Indian Academy of Pediatrics – **Allergy and Applied Immunology Chapter (IAP-AAIC), in association with the All India Ophthalmological Society (AIOS)**, organized a unique three-part **Webinar Series on "Eye Allergies"** from **September 1–3, 2025.** The series brought together leading ophthalmologists and pediatric allergists on one academic platform, reflecting the spirit of multidisciplinary collaboration essential for addressing allergic eye diseases in children and adults.

With air pollution, allergen exposure, and urban lifestyle changes contributing to rising ocular allergy cases across India, this series aimed to enhance awareness, bridge the diagnostic and management gaps, and promote integrated patient care. Each session was held virtually from **8:00 to 10:00 PM IST**, allowing widespread participation from practicing pediatricians, ophthalmologists, postgraduates, and researchers from across the country.

Episode 1 – Understanding Eye Allergies: Basics to Bedside (September 1, 2025)

The opening session, moderated by **Dr. Mitesh Kakkad** and **Dr. Prabhat Nangia**, laid the foundation for understanding allergic eye diseases from both immunological and clinical perspectives.

Panelists included **Dr. Namrata Sharma, Dr. Ritu Arora, Dr. Rohit Shetty, Dr. Krishna Mohan**, and **Dr. Neeraj Gupta** — all experts in their respective fields of corneal disease, ocular surface immunology, and allergy practice.

The session began with a welcome address emphasizing the need for collaborative frameworks in identifying and managing allergic conjunctivitis — a condition often under-recognized but with significant implications for quality of life.

- **Dr. Shweta Agarwal** initiated the scientific discussions with an insightful talk on "*Classification and Clinical Presentation*", covering the spectrum from Seasonal and Perennial Allergic Conjunctivitis to the more severe Vernal and Atopic Keratoconjunctivitis.

- **Dr. Swaminathan Sethu** elaborated on "*Ocular Surface Immunology and Pathophysiology of the Allergic Eye*", highlighting recent advances in understanding immune cell signaling, cytokine cascades, and epithelial barrier dysfunction.

- **Dr. Krishna Mohan** focused on "*History Taking and Systemic Evaluation*", stressing the importance of a detailed allergic and environmental history to differentiate ocular allergy from infectious or irritant causes.
- **Dr. Neeraj Gupta** presented "*Role of Allergy Testing*", emphasizing the relevance of skin prick testing and in-vitro specific IgE testing in identifying aeroallergen triggers and guiding immunotherapy.
- The concluding Case-based Discussion, led by **Dr. Sumana C** and **Dr. Supriya Sharma**, demonstrated real-world examples of diagnostic dilemmas and multidisciplinary management, illustrating the benefit of allergist-ophthalmologist collaboration.

This episode successfully established the conceptual base for the following sessions, highlighting that early recognition and targeted testing form the cornerstone of rational eye allergy management.

Episode 2 – Management Strategies: From Eye Drops to Immunotherapy (September 2, 2025)

The second episode, moderated by **Dr. Sonia Bhat** and **Dr. Madhuvanthi Mohan,** delved into evidence-based management strategies, spanning pharmacologic to immunotherapeutic approaches. The distinguished panel included **Dr. Nikhil Gokhale, Dr. Jayesh Vazirani, Dr. Bhaskar Srinivasan, Dr. Sinchana Bhat, Dr. Sowmya Nagarajan,** and **Dr. Sayan Basu.**

After the welcome remarks, the session progressed into focused, clinically rich discussions:

- **Dr. Sharon D'Souza** presented on "*Topical Therapy in Ocular Allergies*", detailing the pharmacodynamics, indications, and step-wise use of antihistamines, mast cell stabilizers, corticosteroids, and calcineurin inhibitors.
- **Dr. Sinchana Bhat** discussed "*Systemic Therapy: Oral Antihistamines, Leukotriene Antagonists, and Biologics*", providing an update on newer therapeutic molecules and limitations of long-term systemic therapy.
- **Dr. Sowmya Nagarajan** delivered an excellent overview of "*Allergen Immunotherapy for Ocular Allergies – Indications, Efficacy, and Protocols*", highlighting both SCIT (Subcutaneous) and SLIT (Sublingual) modalities and their role in disease modification.
- **Dr. Sayan Basu** addressed the "*Role of Systemic Immunomodulators and Immunosuppressive Therapy*" in refractory ocular allergy, underlining the importance of shared decision-making and multidisciplinary care.
- The Case-based Discussion, conducted by **Dr. Varsha Bhambhani** and **Dr. Prajakta D**, reinforced key clinical takeaways through real-life examples of complex ocular allergy management.

This session effectively balanced practical pharmacotherapy with an immunological perspective, underscoring how allergists and ophthalmologists can together optimize long-term outcomes while minimizing steroid overuse and ocular complications.

Episode 3 – Special Situations, Prevention, and Collaborative Care (September 3, 2025)

The final episode, moderated by **Dr. Vikram Patra** and **Dr. Rajshekhar Paul**, addressed complex and severe forms of ocular allergy as well as preventive and surgical interventions. The panel featured **Dr. Vanathi M, Dr. Vinay Pillai, Dr. Shweta Agarwal, Dr. Dipti Pujari, Dr. Soundarya M**, and **Dr. Vrushali Warad**, bringing diverse expertise from cornea, pediatric allergy, and ocular surface disease.

- **Dr. Vinay Pillai** began with "*Refractory and Severe Ocular Allergy – Step-up Management and Referral Pathways*", presenting a systematic escalation framework for difficult cases.
- **Dr. Dipti Pujari** presented on "*Ocular Allergy in Children with Atopic March*", emphasizing the interconnectedness of asthma, rhinitis, and dermatitis, and the importance of coordinated multidisciplinary management.
- **Dr. Soundarya M** discussed "*Preventive and Environmental Strategies in Ocular Allergies*", offering practical recommendations for allergen avoidance and pollution control measures.
- **Dr. Sugaranjin G** shared insights on "*Surgical and Procedural Interventions in Vision-threatening VKC/AKC*", detailing indications and techniques like amniotic membrane transplantation and keratoplasty.
- The concluding Case Discussion, led by **Dr. Mugundhan R** and **Dr. Shivani Joshi**, provided an interactive platform for addressing complex referral scenarios and shared-care strategies.

This finale underscored the need for integrated management and early intervention to prevent vision-threatening complications.

Highlights and Impact

Across the three days, the webinar series witnessed participation from over **800 delegates**, representing pediatricians, ophthalmologists, allergists, residents, and researchers nationwide. The interactive Q&A segments reflected keen interest from participants, especially regarding allergen testing, immunotherapy protocols, and differentiating allergic from infectious ocular conditions.

The initiative was widely appreciated for fostering **a collaborative bridge between AIOS and IAP-AAIC**, demonstrating the power of interdisciplinary dialogue in addressing shared clinical

challenges. Each session was meticulously curated to provide both foundational knowledge and advanced updates, ensuring relevance to daily clinical practice.

Feedback indicated that attendees found the content highly practical and that the structured, progressive format—from understanding to management and prevention—helped consolidate learning effectively.

Conclusion

The *Eye Allergies Webinar Series 2025* marked a significant milestone in interdisciplinary allergy education in India. By uniting pediatric allergists and ophthalmologists, it emphasized a holistic approach to ocular allergy — encompassing accurate diagnosis, allergen identification, pharmacological therapy, immunotherapy, and preventive care.

The IAP Allergy and Applied Immunology Chapter extends sincere gratitude to AIOS and all participating faculty for their invaluable contributions. The series not only enhanced clinical competence but also reinforced the shared vision of improving patient outcomes through collaboration and evidence-based allergy care.

Watch the full recordings & subscribe at: https://www.youtube.com/@PAAI-IAP

Activity Report

Allergy Forum - Episode 7

Case-Based Discussion on Food Allergy

The IAP Allergy and Applied Immunology Chapter organized **Allergy Forum – Episode 7** on "***Food Allergy: Case-Based Discussion***" on September 9, 2025. The interactive session brought together national leaders and clinical experts to discuss practical approaches to diagnosing and managing food allergies in children.

The case-based session was **presented by Dr. Vaidehi Hardas,** Consultant Pediatrician and Allergy Specialist from Mumbai, and **moderated by Dr. Sowmya Nagarajan,** Consultant Pediatrician, Allergist, and Immunologist from Bengaluru. **Dr. Sinchana Bhat (National Coordinator, Allergy Forum)** led the academic coordination.

Through a detailed case presentation, the forum highlighted the stepwise evaluation of suspected food allergy — covering history taking, identification of culprit allergens, differential diagnosis with food intolerance, and the role of diagnostic tests such as specific IgE and skin prick testing. The discussion also addressed elimination diets, oral food challenges, and the management of accidental exposures, with emphasis on patient education and emergency preparedness.

The highly interactive session received enthusiastic participation from pediatricians nationwide. It reinforced the chapter's ongoing mission to enhance food allergy awareness, promote rational testing, and standardize evidence-based management protocols across India.

Watch the full recordings & subscribe at: https://www.youtube.com/@PAAI-IAP

Activity Report

Webinar on "The Allergy Journey – From Infant Reactions to Adult Challenges"

The Indian Academy of Pediatrics – **Allergy and Applied Immunology (IAP-AAI) Chapter** organized an engaging and conceptually rich webinar titled "***The Allergy Journey: From Infant Reactions to Adult Challenges***" on September 15, 2025. This unique academic session traced the evolution of allergic diseases across the lifespan — from infancy to adulthood — and explored how immune responses, triggers, and clinical manifestations evolve with age.

The session was **moderated by Dr. Suneela Nayak**, with **Dr. Neeraj Gupta**, Chairperson of the IAP Allergy and Applied Immunology Chapter, delivering the welcome address and setting the tone for the evening. He highlighted how allergic diseases, once considered largely pediatric problems, now demonstrate significant continuity and transformation throughout life. Dr. Gupta emphasized the importance of understanding this longitudinal "allergy march" to ensure continuity of care and timely intervention at every stage.

Dr. Mosam Maroo opened the scientific deliberations with his talk on "*Growing Up with Allergies: What Changes as We Age?*" He discussed how immune system maturity, environmental exposures, and genetic predispositions shape allergic outcomes, explaining why some children outgrow food allergies while others transition to respiratory allergies or eczema. His presentation provided a clear understanding of immune tolerance development and clinical evolution of atopic diseases.

The second lecture, "*The Allergy Orchestra and the March of Time,*" was delivered by **Dr. Kunal Chandwar,** who used an innovative analogy to describe how the immune system, like an orchestra, changes its rhythm and dominance across life stages. He highlighted the interplay between IgE, Th2 inflammation, and environmental modulators such as pollution and diet, emphasizing the need for early preventive strategies to modulate allergic trajectories.

In the next session, **Dr. Suneela Nayak** elaborated on "*Allergy and Age: Patterns, Progression, and Prognosis Over Time.*" She systematically presented how allergic manifestations such as eczema, asthma, rhinitis, and food allergy evolve and interlink as part of the atopic march. Her talk also touched upon age-specific diagnostic considerations and management approaches, underlining that personalized care must account for developmental stage, immune plasticity, and comorbidities.

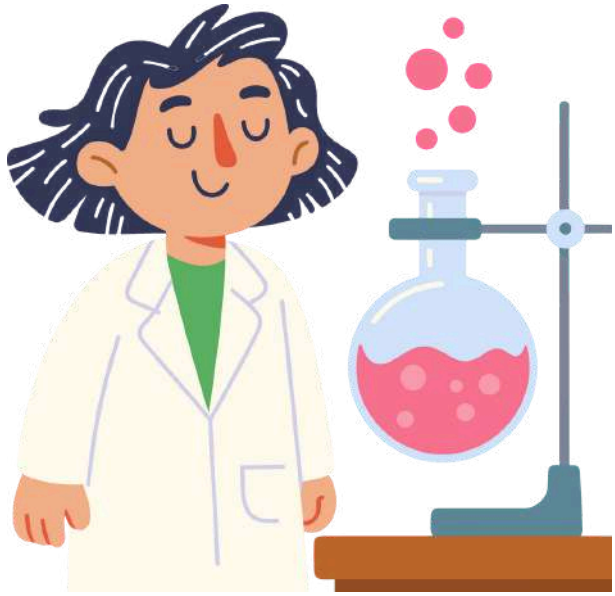
A stimulating **Panel Discussion** followed, moderated by **Dr. Suneela Nayak**, with panelists **Dr. Nandana Bala, Dr. Neeraj Gupta,** and **Dr. Raghu Chanakya.** The discussion centered around real-life patient scenarios, challenges of transition care between pediatric and adult allergists, and strategies for long-term follow-up. The experts emphasized the critical role of patient

education, environmental control, immunotherapy, and anticipatory guidance in reducing disease burden and improving quality of life.

The session concluded with a **Vote of Thanks,** acknowledging the efforts of all speakers and participants. With more than **700 delegates** joining live via the official YouTube channel (@PAAI-IAP), the webinar received excellent feedback for its comprehensive and clinically relevant approach.

Overall, "The Allergy Journey" successfully highlighted the continuum of allergic diseases across life stages and reinforced the chapter's commitment to lifelong allergy awareness, prevention, and collaborative care.

Watch the full recordings & subscribe at: https://www.youtube.com/@PAAI-IAP



Activity Report

Webinar on "Allergy Diet Dilemma – What to Eat, What Not to Eat!"

The Indian Academy of Pediatrics – **Allergy and Applied Immunology Chapter (IAP-AAIC)** organized an insightful and much-awaited webinar titled "***Allergy Diet Dilemma: What to Eat, What Not to Eat!"*** on 21st September 2025. The two-hour session addressed one of the most misunderstood yet critical aspects of allergy management — dietary interventions, elimination diets, and nutrition balance in allergic diseases.

The session was chaired by **Dr. Neeraj Gupta,** Chairperson, IAP-AAIC, and **Dr. Nandana Bala,** Consultant Pediatrician and Allergy Specialist, Bangalore. Dr. Gupta, in his introductory remarks, emphasized how dietary confusion often leads to unnecessary food restrictions, nutritional deficiencies, and anxiety among families. He highlighted the need for evidence-based dietary guidance and collaboration between allergists, pediatricians, gastroenterologists, and dietitians to ensure holistic patient care.

The academic session began with **Dr. Nandana Bala's** talk on "The Allergy Diet Conundrum." She provided an excellent overview of the dietary challenges faced by allergic patients and their families. Dr. Bala discussed how myths surrounding food allergy often result in unwarranted avoidance diets. She elaborated on differentiating food allergy from food intolerance, the importance of oral food challenges, and the concept of "safe reintroduction" of foods after proper evaluation. Her talk underscored that "the diet should heal, not harm," setting the tone for a practical and patient-centered approach.

Next, **Dr. P. A. Mahesh,** Professor of Pulmonary Medicine at JSS College, Mysuru, presented "Lessons from the EuroPrevall Study – Diet and Beyond." He shared key findings from this landmark multicentric research, explaining how dietary habits, allergen exposure, and microbiome diversity influence allergy prevalence globally. Dr. Mahesh emphasized the protective role of early dietary diversification and the introduction of allergenic foods under medical supervision. His evidence-based insights drew attention to the need for culturally relevant dietary guidelines in the Indian context.

Following a brief Q&A session that saw enthusiastic participation from attendees across India, the focus shifted to the **Panel Discussion on "Diet Dilemma in Allergy – Role of Diet in Allergic Diseases."**

The discussion was expertly moderated by **Dr. B. V. Balachandra**, Consultant Pediatrician and Allergy Specialist, and featured an eminent panel comprising **Dr. P. A. Mahesh, Dr. Priyanka Udawat** (Gastroenterologist, Allergy Specialist, and Lifestyle Coach, Mumbai), **Dr. Lavenya Padmanabhan** (Pediatric Gastroenterologist, Bangalore), and **Dr. Malathi Voora** (Senior Dietitian, Bangalore).

The panelists examined diet-related controversies in allergic disorders, including elimination diets in eczema and eosinophilic esophagitis, the role of hydrolyzed and amino acid-based formulas in infants, and the pitfalls of unnecessary food exclusion. **Dr. Priyanka Udawat** highlighted the interplay between gut health and immune regulation, advocating for prebiotic and probiotic use to enhance tolerance. **Dr. Lavenya Padmanabhan** shared practical case experiences illustrating the fine balance between allergen avoidance and adequate nutrition in children. **Dr. Malathi Voora** emphasized individualized dietary planning, ensuring nutrient sufficiency while managing allergic triggers.

A recurring theme throughout the discussion was the importance of avoiding over-diagnosis of food allergy and preventing self-imposed dietary restrictions based on incomplete information or commercial influences. The experts encouraged clinicians to integrate allergen testing, dietician support, and patient education into every allergy care plan.

The webinar concluded with a **Vote of Thanks** by **Dr. Neeraj Gupta** and **Dr. Nandana Bala**, acknowledging the contributions of all speakers and participants. The event attracted an impressive audience of pediatricians, allergists, and dietitians nationwide, who appreciated the balanced, evidence-driven approach to a topic of everyday clinical relevance.

The “Allergy Diet Dilemma” webinar successfully dispelled several misconceptions surrounding dietary management in allergic diseases and reinforced the importance of multidisciplinary teamwork for safe and sustainable allergy care in India.

Watch the full recordings & subscribe at: https://www.youtube.com/@PAAI-IAP

Activity Report

41st IAP Allergy Chapter Monthly Webinar

"Allergies and Sleep in Children"

The **IAP Allergy and Applied Immunology Chapter** organized its **41st National Webinar** on the important theme "***Allergies and Sleep in Children***" on 26th September 2025. This one-hour focused session explored the intricate relationship between allergic diseases and sleep disturbances, a subject of growing relevance in pediatric practice.

The session featured **Dr. Soundarya M,** Pediatric Allergist at KMC Hospital, Mangalore, as the **Speaker,** and was expertly **moderated by Dr. Shebna A. Khader,** Pediatric Allergist from Kochi.

Dr. Soundarya delivered an enlightening talk explaining how allergic disorders—such as allergic rhinitis, asthma, and eczema—can significantly impact sleep quality and duration in children. She elaborated on the bidirectional link between sleep deprivation and allergic inflammation, with poor sleep acting both as a consequence and an aggravating factor in chronic allergic diseases. The discussion highlighted nocturnal asthma, nasal obstruction due to rhinitis, and pruritus from eczema as major contributors to disrupted sleep architecture in children.

Practical aspects of management were discussed, including optimizing environmental control, treating nasal obstruction, addressing coexisting sleep-disordered breathing, and integrating allergen avoidance with good sleep hygiene. The session also emphasized the importance of parental counseling, school readiness, and the role of allergen immunotherapy in improving both allergy and sleep outcomes.

The lively interactive segment featured pertinent questions from pediatricians across India, reflecting the clinical significance of the topic in day-to-day practice.

The session was widely applauded for its clear clinical relevance, practical insights, and multidisciplinary approach — reinforcing the IAP-AAIC's commitment to continuous pediatric allergy education and holistic child health.

This session will be available for replay on the **dIAP YouTube Channel (and also IAP Allergy Chapter website https://iapaai.com/webinar/).**

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Activity Report

Webinar on "Case based approach to Urticaria"

To mark **World Urticaria Day 2025,** the **Indian Academy of Pediatrics – Allergy and Applied Immunology Chapter (IAP-AAIC)** organized an engaging academic session titled **"Case-Based Approach to Urticaria"** on 1st October 2025. The webinar aimed to enhance clinical understanding and practical management skills for pediatricians and allergists dealing with acute and chronic urticaria in children.

The session featured **Dr. Indrashis Podder**, Assistant Professor of Dermatology at the College of Medicine and Sagore Dutta Hospital, Kolkata, and EAACI Research Fellow (Urticaria) at Hospital del Mar, Spain. With his extensive clinical and research experience in urticaria and related dermatological disorders, Dr. Podder delivered a lucid, evidence-based presentation enriched with real-life clinical scenarios.

Dr. Podder began by explaining the **classification of urticaria**—acute versus chronic spontaneous and inducible types—highlighting the immunological mechanisms involving mast cells, histamine release, and autoimmune triggers. Through carefully chosen clinical cases, he illustrated diagnostic strategies including detailed history taking, elimination of mimickers such as viral exanthems or vasculitic lesions, and judicious use of investigations.

Key management principles were discussed in line with **EAACI/GA²LEN/EDF/WAO guidelines,** emphasizing a stepwise approach beginning with non-sedating antihistamines, up-dosing strategies, and the role of leukotriene antagonists and biologics such as omalizumab in refractory cases. Dr. Podder stressed the importance of avoiding unnecessary over-investigation and highlighted the psychosocial impact of chronic urticaria on children and families.

The interactive Q&A session saw enthusiastic participation from clinicians across India, covering queries on food-related triggers, pseudoallergen-free diets, and the use of immunotherapy in associated allergic disorders.

Concluding the webinar, the Chapter leadership appreciated Dr. Podder's insightful presentation and reiterated the importance of continued awareness and patient education on urticaria management.

The webinar successfully strengthened awareness about urticaria on a global observance day, aligning with IAP-AAIC's vision of advancing rational, evidence-based allergy care across India.

Watch the full recordings & subscribe at: SUBSCRIBE

Activity Report

"Understanding Immunology for Everyday Clinical Practice"

(October 2-4, 2025)

The **Indian Academy of Pediatrics – Allergy and Applied Immunology Chapter (IAP-AAIC)** organized a landmark **three-day Webinar Series on "Applied Immunology"** from 2nd to 4th October 2025, bringing together distinguished experts from across India to simplify complex immunological concepts for clinicians. The series aimed to bridge the gap between laboratory immunology and bedside pediatric practice, empowering pediatricians and allergists with the knowledge to recognize, diagnose, and manage immune-mediated disorders more effectively.

Each day of the series was structured around a central theme — **Fundamentals, Applications in Allergy,** and **Clinical Immunology in Special Pediatric Situations** — ensuring a logical and progressive learning experience.

Day 1 – Fundamentals of Applied Immunology in Clinical Practice

Date: 2nd October 2025 (Thursday) | **Moderator:**Dr. Mangai Sinha

The opening day focused on simplifying the basic principles of immunology, helping clinicians connect foundational concepts to real-world pediatric and allergy cases.

Dr. Shambo Samajdar began the day with an engaging session on "*Basics of Immunology Simplified for Clinicians – Innate vs Adaptive Immunity.*" He demystified the body's defense mechanisms by describing the interplay between innate barriers and adaptive immune responses. His talk emphasized the clinical importance of understanding immune ontogeny, memory formation, and how dysregulation leads to allergic or autoimmune disease.

Dr. Umair Bagir followed with "*Understanding Antibodies and Immunoglobulins in Practice – IgE, IgG, IgA, and IgM relevance*." He clearly explained the diagnostic and prognostic value of immunoglobulin profiles in allergy, infection, and immunodeficiency. His clinical tips on interpreting total and specific IgE results provided practical insight for pediatricians routinely dealing with allergic conditions.

Dr. Puja Srivastava then presented "*Role of Cytokines and Inflammatory Pathways in Allergy and Infections.*" Using a case-based approach, she explained how cytokine networks like IL-4, IL-5, and IL-13 orchestrate allergic inflammation, while others like IL-6 and TNF-α drive infection and autoimmunity. Her session seamlessly connected molecular immunology with clinical phenomena such as eosinophilia, chronic inflammation, and hyperresponsiveness.

The final talk of the day, *"Laboratory Immunology Made Simple"* by **Dr. Murali Mandakolathur,** offered an invaluable clinician's guide on when to order tests such as immunoglobulin assays, lymphocyte subset analysis, and flow cytometry. His structured approach emphasized test interpretation in the context of clinical history rather than isolated values.

Day 1 set the tone for the series, successfully translating basic immunological concepts into tools for daily clinical decision-making.

Day 2 – Applied Immunology in Allergic and Immune-mediated Disorders

Date: 3rd October 2025 (Friday) | **Moderator:** Dr. Smita Satapathy

The second day focused on applying immunological knowledge to common allergic and immune-mediated diseases encountered in pediatric practice.

Dr. Shebna Khader opened the session with "*Immunology of Asthma and Allergic Rhinitis – Th2 skewing and IgE pathways.*" She elucidated the pivotal role of Th2 polarization, cytokine imbalance, and IgE-mediated mechanisms in airway inflammation. Dr. Khader's presentation emphasized how understanding immunopathogenesis can guide rational therapy selection and immunotherapy planning.

Dr. Gururaja Ramaiah followed with "*Immunology of Food Allergy*," offering a detailed look into the mechanisms behind IgE and non-IgE mediated food allergies. He discussed oral tolerance, mucosal immune regulation, and recent advances in component-resolved diagnostics. His session highlighted the dynamic interplay between the gut barrier, microbiota, and immune system — crucial for pediatricians managing food allergy in early life.

The next lecture by **Dr. Dinesh Naik** on "*Immunology of Anaphylaxis*" provided an in-depth understanding of mast cell and basophil activation pathways, mediator release, and systemic manifestations. Dr. Naik reinforced the importance of rapid recognition and timely intervention in anaphylaxis, linking immunological principles with clinical urgency.

Concluding the day, **Dr. Kunal Chandwar** presented "*Immunological Basis of Immunotherapy (AIT, OIT, SLIT).*" He explained the mechanisms by which allergen immunotherapy induces immune tolerance, including regulatory T-cell activation, blocking antibody formation, and cytokine modulation. His talk integrated research evidence with real-world immunotherapy protocols, inspiring confidence among practitioners exploring desensitization therapies.

Day 2 effectively demonstrated how an understanding of immunology enhances precision in diagnosing and treating allergic diseases, from asthma and rhinitis to food allergy and anaphylaxis.

Day 3 – Clinical Immunology in Special Pediatric Situations

Date: 4th October 2025 (Saturday) | **Moderator:** *Dr. Vipul Sharma*

The concluding day focused on clinical immunology in challenging pediatric contexts — from recurrent infections to autoimmune overlap syndromes and advanced biological therapies.

Dr. Payal Malhotra initiated the day with "*When Allergy Mimics Immunodeficiency – Red Flags for the Pediatrician.*" She outlined key clues that distinguish primary immunodeficiencies from allergic phenotypes, such as unusual infection patterns, poor vaccine responses, and family history. Her talk provided pediatricians with a practical checklist for early recognition and timely referral to immunologists.

Dr. Nita Radhakrishnan delivered an insightful lecture on "*Immunology of Recurrent and Chronic Infections (ENT, Lungs, Skin).*" Drawing from her vast experience, she explained how subtle immune defects can predispose to recurrent infections, and how investigations like neutrophil function tests or lymphocyte subset analyses guide diagnosis.

The session on "*Autoimmunity and Allergy – The Overlap in Children*" by **Dr. Rakesh Pilania** explored the shared immunopathological mechanisms linking atopy and autoimmunity. He highlighted the emerging recognition of immune dysregulation syndromes that blur traditional boundaries between allergy and autoimmune disease, emphasizing the importance of multidisciplinary management.

The final lecture of the series, "*Biologicals and Targeted Immunotherapy – How They Work (Anti-IgE, Anti-IL-5, Anti-IL-4/13)*" by **Dr. P. C. Kathuria**, provided an advanced yet accessible overview of the mechanism of action of biologic agents used in severe allergic and immunological disorders. His presentation linked molecular targets to therapeutic efficacy, safety, and patient selection in pediatric practice.

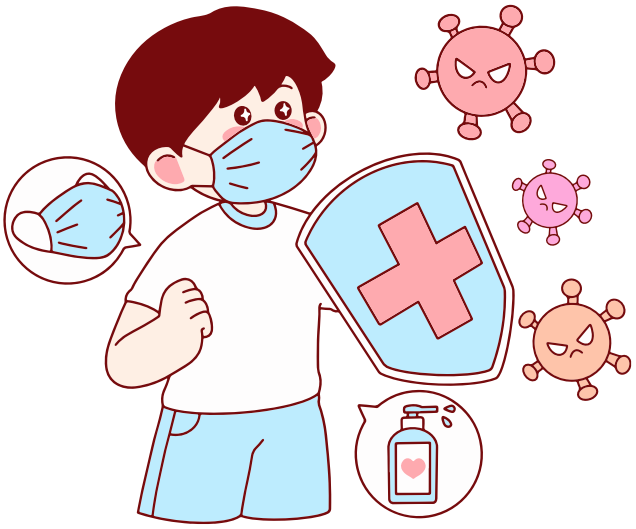
Day 3 effectively concluded the series with a forward-looking perspective, preparing pediatricians to recognize immune dysregulation early and apply cutting-edge therapies judiciously.

Conclusion and Impact

The **Applied Immunology Webinar Series 2025** was a landmark academic initiative that successfully merged fundamental science with practical clinical relevance. Across three days, over **1,000 participants**—including pediatricians, allergists, immunologists, and postgraduate trainees—joined live sessions, reflecting immense interest in immunology education within pediatric practice.

Participant feedback praised the clarity of presentations, logical flow of topics, and balanced inclusion of both basic and advanced concepts. The series reinforced the Chapter's role as a leading national platform for allergy and immunology education.

Under the able leadership and with the active involvement of the organizing team, the IAP-AAIC continues to promote academic excellence and multidisciplinary collaboration. The Applied Immunology Series has set a new benchmark in integrating immunological understanding with day-to-day pediatric care, laying a strong foundation for future clinical and research endeavors in the field.



Activity Report

IAP Allergy & Applied Immunology Chapter Module on “Allergic Rhinitis”

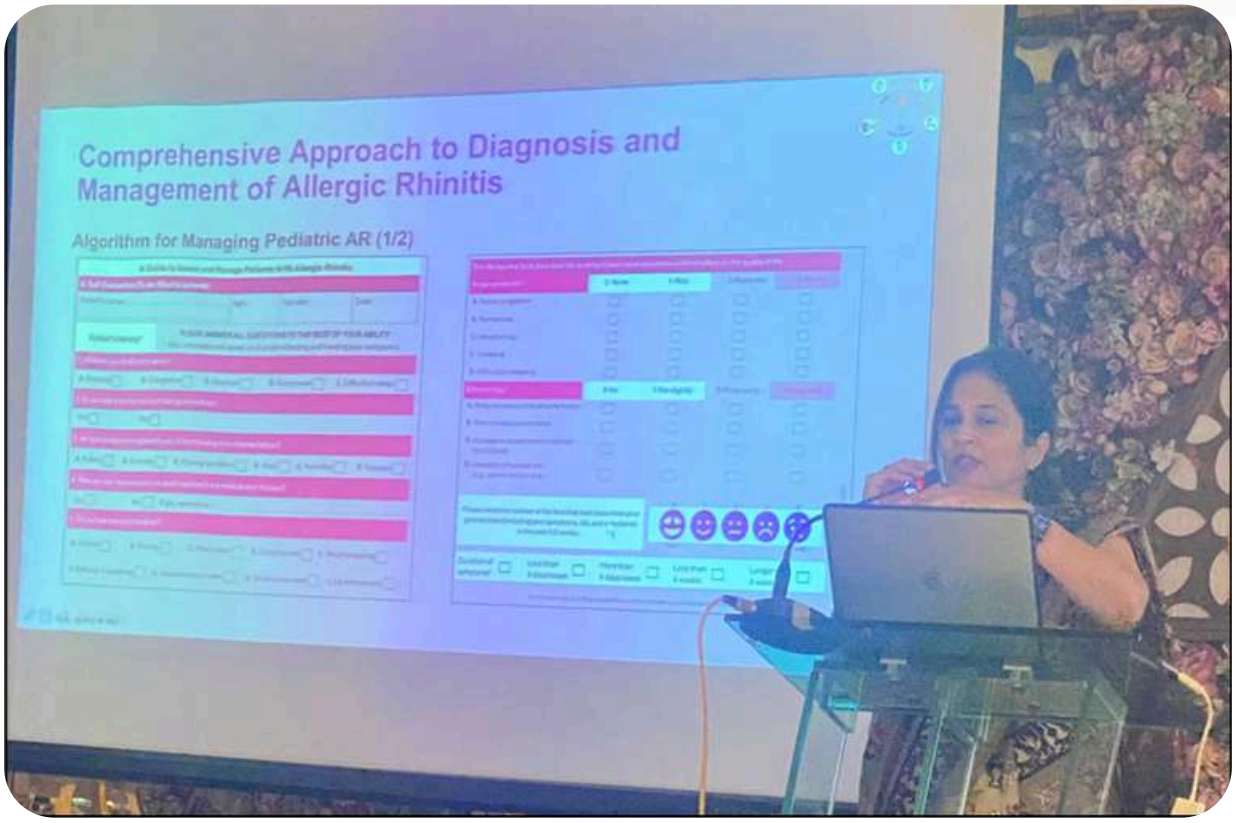
(Presidential Action Plan 2025)

As part of the **Presidential Action Plan 2025,** the IAP Allergy & Applied Immunology Chapter has launched a comprehensive educational module on **“Allergic Rhinitis – Rationale Management in Clinical Practice.”** Supported by **Sanofi Pharmaceuticals,** this initiative aims to empower pediatricians and physicians across India with updated evidence-based knowledge and practical approaches to diagnose and manage allergic rhinitis effectively.

The module focuses on a structured understanding of disease burden, pathophysiology, clinical presentation, differential diagnosis, and rational pharmacotherapy, including the appropriate use of antihistamines, intranasal corticosteroids, and allergen immunotherapy. It also emphasizes the importance of patient education, trigger avoidance, and the role of comorbidities such as asthma and sinusitis in optimizing patient outcomes.

The **first module** was successfully conducted in **Amritsar on 10th September 2025** under the leadership of **Dr. Naresh Grover**, drawing enthusiastic participation from local pediatricians and general practitioners. The **second session** took place in **Delhi on 24th September 2025**, coordinated by **Dr. Tina Goel,** and witnessed vibrant discussions on rational prescribing practices and current guideline updates. The **third module** was organized in **Goa on 26th October 2025**, led by **Dr. Dhanesh Volvoikar,** where participants highlighted regional challenges and shared clinical insights.

Dr Naresh Grover felicitated during AR module at Amritsar



Dr Tina Goel during her deliberation at Delhi

Enthusiastic audience

AR module conducted at Goa by Dr Dhanesh Volvoikar

Encouraged by the overwhelming response, the IAP Allergy Chapter plans to extend this academic activity to several other cities in the coming months, ensuring nationwide dissemination of standardized knowledge and clinical skills in allergic rhinitis management.

This module represents a vital step in strengthening India's allergy care network by fostering awareness, capacity building, and rational, guideline-based allergy management across all levels of pediatric and general practice.

Activity Report

42nd IAP Allergy Chapter Monthly Webinar

"Genetic Testing in Allergic Disorders"

The **Indian Academy of Pediatrics – Allergy and Applied Immunology Chapter (IAP-AAIC)** successfully conducted its **42nd National Webinar** on "***Genetic Testing in Allergic Disorders***" on 31st October 2025. The session addressed an emerging and complex dimension of allergy diagnostics — the role of genetics in predisposition, disease severity, and therapeutic decision-making in allergic conditions.

The scientific session featured **Dr. Veronica Arora**, Geneticist and Consultant at Sir Ganga Ram Hospital, Delhi, as the **Speaker**, with **Dr. Elayaraja**, Pediatric Allergist and Pulmonologist from SRMC, Chennai, serving as the **Moderator**. The program was coordinated by **Dr. Soundarya M**, National Webinar Coordinator.

Dr. Veronica Arora delivered an illuminating lecture that demystified the evolving field of **genetic testing in allergy and immunology.** She explained the genetic underpinnings of atopic diseases, focusing on polymorphisms in genes regulating epithelial barrier function (such as FLG), immune response (IL-4, IL-13, IL-5), and IgE regulation. The presentation emphasized that while environmental triggers play a major role, genetic predisposition determines susceptibility, chronicity, and therapeutic response.

Through clinically relevant examples, Dr. Arora highlighted how next-generation sequencing (NGS) and targeted gene panels can aid in diagnosing **monogenic allergic disorders,** severe atopic dermatitis, or immune dysregulation syndromes that mimic allergy. She also discussed the potential and limitations of genetic testing, ethical considerations, and cost-effectiveness in the Indian setting.

The session's interactive Q&A segment addressed practical aspects of when to suspect genetic etiology in allergic disease, how to interpret results, and how genetic counseling complements pediatric allergy care.

The webinar was well received by over **700 participants** across India, reinforcing IAP-AAIC's mission to integrate science, technology, and clinical practice for advancing rational allergy care.

This session will be available for replay on the **dIAP YouTube Channel (and also IAP Allergy Chapter website**

VISIT NOW

Activity Report

PedAllercon 2025: From Mites to Milestones – A Global Summit in Pediatric Allergy

The **13th edition of PedAllercon (Annual National Conference of IAP Allergy and Applied Immunology Chapter) – The Global Summit on Pediatric Allergy, Asthma, and Immunology,** organized by the **Pediatric Allergy Association (PAA) Delhi and Indian Academy of Pediatrics (IAP) Delhi** in academic partnership with **Centre for Food Allergy and Asthma Research (CFAAR), Northwestern University, Chicago, USA,** was held from **10th to 12th October 2025** at **Hotel Taj Vivanta, Dwarka, New Delhi.** With the theme **"From Mites to Milestones,"** the conference brought together more than **1,000 delegates** from across India and abroad, marking one of the largest and most comprehensive academic gatherings in the field of pediatric allergy ever held in the country.

A Confluence of Minds and Milestones

PedAllercon 2025 reflected a perfect blend of science, collaboration, and vision. The three-day scientific extravaganza featured over **150 faculty members**, including **12 eminent international experts** from the **United States, United Kingdom, Denmark, Singapore, Austria, Australia, Korea, and Maldives,** alongside leading Indian pediatricians, allergists, pulmonologists, ENT specialists, dermatologists, rheumatologists and immunologists.

The event opened new horizons in pediatric allergy education and clinical practice, addressing the full spectrum of allergic disorders — from **mites to molecular mechanisms, rhinitis to respiratory disease**, and **food allergy to immunotherapy** — reinforcing the conference's theme of transforming every challenge into a milestone in allergy care.

Over 1000 participants from 9 countries participated during PedAllercon 2025 at Delhi

Inaugural Ceremony and National Allergy Day Celebration

The inaugural ceremony, held on **11th October 2025,** coincided with **National Allergy Day** — a flagship initiative of the IAP Allergy & Applied Immunology Chapter. **Dr Vasant Khalatkar** (President 2025 CIAP) graced the occasion as Chief Guest. **Dr Ajay Swaroop** (Chairman, Board of Management, Sir Ganga Ram Hospital, Delhi), **Dr Yogesh Parikh** (Hony. Secretary 2024-25 CIAP) and **Dr Harish K Pemde** (Vice President – North Zone 2025) were distinguished guests for the inaugural ceremony.

*From Left to Right – **Dr Ajay Gupta** (President Elect 2025 – IAP Delhi), **Dr Harish K Pemde, Dr Yogesh Parikh, Dr Krishna Mohan R** (Immediate Past Chairperson, IAP Allergy & Applied Immunology Chapter), **Dr Ajay Swaroop, Dr Vasant Khalatkar, Dr Neeraj Gupta** (Organising Chairperson – PedAllercon and Chairperson, IAP Allergy & Applied Immunology Chapter 2025), **Dr Ruchi Gupta** (CFAAR, Chicago), **Dr Tina Goel** (President – PAA, Delhi) and **Dr Uppin Narayan Reddy** (Secretary, IAP Allergy & Applied Immunology Chapter 2024-25)*

The highlight of the evening was the launch of the national campaign "**STAMP Out Allergy**", unveiled by dignitaries, chapter leadership, and international guests.

*Launch of '**National Allergy Day**' on 11th October 2025 – Dr Vasant Khalatkar (President 2025 CIAP), Dr Ajay Swaroop (Chairman, Board of Management, Sir Ganga Ram Hospital, Delhi), Dr Ruchi Gupta (Director, Centre for Food Allergy and Asthma Research, Northwestern University, Chicago, USA)*

The acronym **STAMP** stands for:

- **S – Suspect** allergy early through detailed history and clinical suspicion
- **T – Test** appropriately using validated skin prick or in-vitro IgE tests
- **A – Act** based on diagnosis through evidence-based management
- **M – Monitor** response and modify treatment periodically
- **P – Prevent** disease progression through education, immunotherapy, and avoidance

This comprehensive framework was designed to guide pediatricians across India toward **rational, stepwise allergy care.** The launch received enthusiastic applause from attendees, symbolizing a unified movement toward structured allergy management and early diagnosis.

Milestone Launches and Initiatives

PedAllercon 2025 witnessed the release of several landmark academic and public health resources, establishing a new chapter in Indian allergy care:

1. Launch of 12 Practice Parameters

A major academic achievement was the unveiling of **12 Practice Parameters on Rational Allergy Care,** developed under the leadership of **Dr. Neeraj Gupta (Chairperson, IAP-AAIC)** and the expert working group coordinated by **Dr Sowmya Nagarajan**. These consensus documents provide **India-specific recommendations** for common allergic conditions — including allergic rhinitis, asthma, food allergy, drug allergy, atopic dermatitis, and immunotherapy. Each parameter was designed to be **clinically relevant, evidence-based, and resource-sensitive**, guiding practitioners toward standardized diagnosis and management pathways.

Allergy Practice parameters *available at www.iapaai.com*

2. Release of 6 Public Awareness Flyers

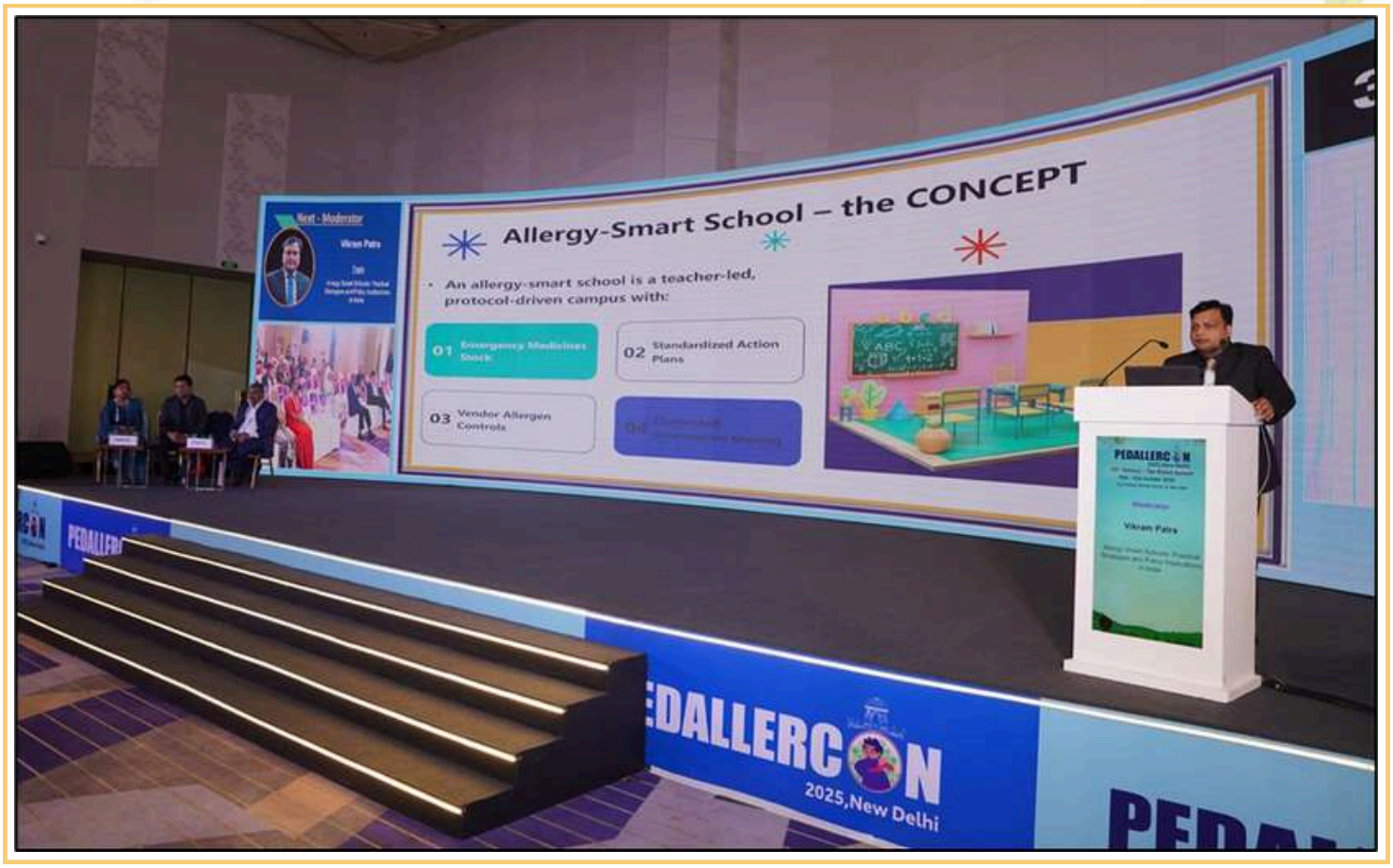
To enhance community understanding and patient engagement, **six illustrated awareness flyers** were released, addressing key topics such as **dust mite allergy, pollen allergy, food allergy, skin allergy, asthma,** and **air pollution**. These flyers, designed in simple language with practical preventive tips, aim to empower families, schools, and communities to recognize and respond to allergic symptoms early.

*6 Bilingual **Public Awareness Flyers** launched by Dr Yogesh Parikh (Hony. Secretary 2024-25 CIAP)*

3. Allergy Smart School Initiative

In alignment with the theme of preventive health, the **Allergy Smart School Initiative** was launched — a pioneering campaign to promote **allergy awareness and preparedness within schools.** The initiative provides toolkits for teachers and school health personnel on recognizing allergy symptoms, managing emergencies like anaphylaxis, and creating allergen-safe environments. This program marked the beginning of a nationwide school-based strategy to safeguard children with allergies and asthma.

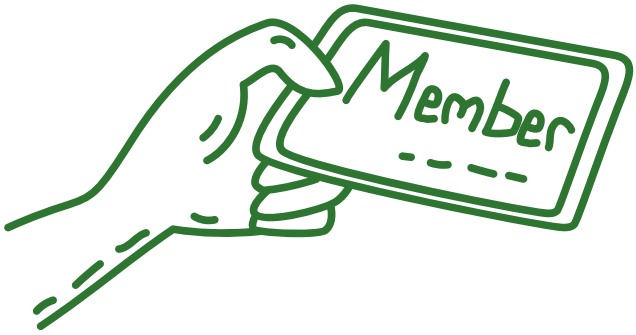
***'Allergy Smart School'** initiative launched by Dr Harish K Pemde (Vice President – North Zone), Dr Ruchi Gupta (Chicago, USA) and Dr Ajay Gupta (President Elect 2025, IAP Delhi)*



*Dr Vikram Patra (Mumbai) along with Dr Shebna Khader (Kerala), Dr Mohit Poddar (Jaipur) and Dr Rajkumar Kiratkar (Nagpur) deciphering the **'Allergy Smart School'** Concept during PedAllercon 2025*

4. Dual Membership with EAACI (NAIS Program)

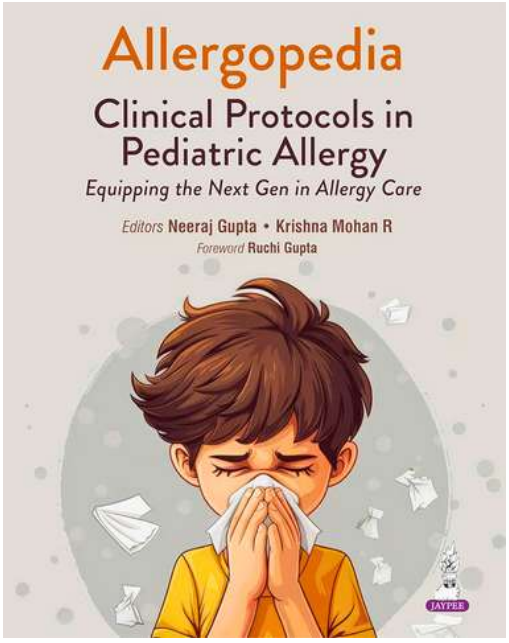
A significant milestone in international collaboration was the announcement of the **IAP Allergy Chapter–EAACI Dual NAIS Membership** (National Allergy and Immunology Society partnership). This partnership allows Indian pediatricians and allergists to become part of the **European Academy of Allergy and Clinical Immunology (EAACI),** facilitating global academic exchange, access to international resources, and cross-border learning opportunities. The agreement symbolizes India's growing recognition on the global allergy map.



5. Release of "Allergopedia"

Another highlight was the launch of **"Allergopedia"**, a comprehensive book conceptualized by the IAP Allergy Chapter under the editorship of **Dr. Neeraj Gupta.** The volume serves as a practical reference for clinicians, covering **diagnostic algorithms, testing protocols, and therapeutic approaches** for various allergic disorders in the Indian setting. The book's release was met with overwhelming appreciation for its clarity, practicality, and contribution to the growing body of indigenous allergy literature.

*Release of '**Allergopedia – Clinical Protocols in Pediatric Allergy**' during PedAllercon 2025*



6. The Allergy Journey: From Pharaoh Menes to Vision 2030

The “Allergy Journey” showcased during **PedAllercon 2025** traced the remarkable evolution of allergy science—from its earliest mention in ancient Egypt to India’s vision for 2030. This immersive exhibit and video presentation depicted over 4,000 years of milestones, capturing how curiosity, science, and compassion transformed allergy care across the globe.

The journey began with the first recorded case of anaphylaxis in 2641 BC and moved through historic breakthroughs—Richet’s discovery of anaphylaxis, von Pirquet’s introduction of “allergy,” Noon’s first immunotherapy, and the discovery of IgE. It then celebrated India’s own inspiring path—from the establishment of ICAAI in 1967 to the creation of the IAP Allergy Chapter, the launch of educational programs like DAA, FACI, and DPAA, the innovation of EpiSHOT, and the designation of WAO Centers of Excellence in 2024.

This unique visual narrative highlighted how India’s allergists are shaping the future of global allergy care through education, innovation, and advocacy.

The entire journey can be viewed at: WATCH VIDEO

*Global and Indian **Allergy Journey** highlighted during PedAllercon 2025*

7. Dr. D. J. Christopher Honoured with Lifetime Achievement Award

Dr. D. J. Christopher, Professor and Head of the Department of Pulmonary Medicine at Christian Medical College, Vellore, was conferred the **Lifetime Achievement Award** during **PedAllercon 2025.** The award, jointly presented by the **Pediatric Allergy Association (PAA) Delhi** and the **Indian Academy of Pediatrics (IAP) Delhi**, recognized his exemplary contributions to the growth and development of the field of allergy in India. A visionary teacher, clinician, and mentor, Dr. Christopher has played a pivotal role in establishing academic programs, fostering research, and inspiring generations of physicians to pursue excellence in allergy and respiratory medicine

Dr D J Christopher receiving Lifetime Achievement Award during PedAllercon 2025

8. Dr. Ruchi Gupta Receives Prestigious Dr. H. Paramesh and Late Dr. (Maj) K. Nagaraju Oration Award

Dr. Ruchi Gupta, Director of the Center for Food Allergy & Asthma Research (CFAAR) at Northwestern University, Chicago, USA, was honored with the **Dr. H. Paramesh and Late Dr. (Maj) K. Nagaraju Oration Award** by the **Indian Academy of Pediatrics (IAP) – Allergy and Applied Immunology Chapter** during **PedAllercon 2025.**

This distinguished award recognizes her outstanding global leadership and pioneering contributions in the field of pediatric allergy, asthma, and food allergy research. Dr. Gupta's extensive body of work has transformed the understanding of food allergy epidemiology, public health policy, and patient-centered interventions. Her efforts have significantly influenced global strategies for prevention, diagnosis, and management of allergic diseases.

Through her leadership at CFAAR and her collaborative initiatives with Indian academicians and policy experts, Dr. Gupta has played a vital role in bridging global and Indian perspectives on food allergy and childhood asthma. Her oration during PedAllercon 2025 inspired clinicians, researchers, and trainees alike, emphasizing the importance of interdisciplinary research, awareness, and advocacy to combat the growing allergy burden.

This recognition celebrates Dr. Gupta's lifelong commitment to advancing allergy science and fostering international collaboration in pediatric allergy care.

Dr Ruchi Gupta *receiving* ***Dr H Paramesh and Late Dr (Maj.) K Nagaraju oration*** *during PedAllercon*

Scientific Highlights

Over the three days, PedAllercon 2025 featured an extensive program of **plenary lectures, symposia, workshops, and panel discussions,** covering every dimension of pediatric allergy and applied immunology.

Workshops and Hands-on Training

The pre-conference and parallel workshops offered delegates hands-on training in **Allergy Office Practice, Skin Prick Testing, Component-Resolved Diagnostics, Allergen Immunotherapy**, and **Food Allergy Management**. The workshops were led by national experts and designed for small-group interaction, allowing participants to gain direct practical exposure to diagnostic and therapeutic techniques.

Thematic Scientific Sessions

Each day of PedAllercon carried a thematic progression — from **mites to molecules, symptoms to solutions**, and **bench to bedside.** Key topics included:

- Emerging insights into **dust mite sensitization** and indoor allergen control
- **Component-resolved diagnostics** and its role in precision allergy care
- **Biologics and targeted therapies** for severe asthma and atopic dermatitis
- **Environmental pollution and climate change** as allergy amplifiers
- Advances in **food allergy prevention and immunotherapy**
- **Allergic rhinitis–asthma link** and integrated airway management

The **International Expert Sessions** brought global perspectives from distinguished speakers representing the **United States, UK, Denmark, Singapore, Korea, and Australia,** sharing cutting-edge research and practical innovations.

Panel Discussions and Case-Based Dialogues

Multidisciplinary panels discussed complex cases spanning **drug allergies, urticaria, atopic dermatitis, and eosinophilic disorders.** Pediatricians, dermatologists, ENT surgeons, and pulmonologists shared collaborative perspectives, reinforcing the conference's spirit of inter-specialty partnership.

Young Allergist Forum and Abstract Presentations

The **Young Allergist Forum** encouraged early-career pediatricians and researchers to present innovative studies, audits, and clinical observations. The enthusiasm and academic quality demonstrated by the young participants reaffirmed the growing interest and talent in pediatric allergy research in India.

Cultural and Inspirational Moments

A special **Felicitation Ceremony** during Musical (Cultural) night recognized contributors to allergy science, public awareness, and academic advancement under the IAP Allergy Chapter

Dr H Paramesh *(Founding Chairperson – IAP Allergy Chapter) felicitated with* ***'Allergy Shikhar Samman'***

Dr T U Sukumaran *and* ***Dr Krishna Mohan R*** *(Former and Immediate Past Chairpersons of IAP Allergy Chapter) honoured with* ***'Allergy Shikhar Samman'*** *for their exemplary contribution to Allergy Science*

Dr Sowmya Nagarajan *(Bengaluru) was awarded with* ***'Allergy Luminary Award'.***

Dr Vikram Patra *(Mumbai) received* ***'Allergy Luminary Award'.*** *Other recipients for the luminary award were* ***Dr P A Mahesh*** *(Mysore) and* ***Dr Saibal Moitra*** *(Kolkata) for their outstanding contribution.*

Dr Gayatri Pandit *(Benguluru) was awarded '****Distinguished Allergist of the year****' award where as* ***Dr Soundarya M (Mangalore)*** *received* ***'Emerging Allergist of the year'*** *award for their valuable contribution.*

Dr. Neeraj Gupta*, Chairperson (2025) of the IAP Allergy and Applied Immunology Chapter, was conferred the* ***'NextGen Allergy Leadership Award'—an international recognition*** *presented by Dr. Ruchi Gupta (Director, CFAAR, Northwestern University, Chicago, USA) in acknowledgment of his extraordinary leadership and outstanding contributions to shaping allergy science in India*

'Practicals in Pediatric Allergy' *– Book released during PedAllercon with proud authors and mentors*

National and International Recognition

PedAllercon 2025 received high praise from participating organizations and international partners. The presence of leading experts from the **Asia Pacific Association of Pediatric Allergy, Respirology and Immunology (APAPARI), CFAAR,** and other allied societies highlighted India's emergence as a regional leader in pediatric allergy education and research.

The conference also hosted the **Installation Ceremony of 11 new State Allergy Chapters,** strengthening grassroots outreach and ensuring that allergy care awareness spreads to all regions of the country.

Packed Halls with ***enthusiasm at peak*** *during PedAllercon 2025*

Allergy Advocacy and Future Vision

The conference emphasized advocacy for **rational allergy care, early testing,** and **standardized training.** The IAP-AAIC reiterated its commitment to collaborate with government bodies, educational institutions, and international organizations to establish allergy as a recognized pediatric subspecialty in India.

Future goals announced during the closing ceremony included:

- Expansion of **Allergy Smart Schools** across India.
- Creation of a **National Allergy Registry** for epidemiologic tracking.
- Launch of **Fellowship and Diploma programs** in Pediatric Allergy and Asthma.
- Continued publication of practice parameters and consensus statements tailored to Indian needs.

Closing Ceremony and Reflections

The three-day academic celebration concluded with heartfelt reflections from the organizing committee. **Dr. Neeraj Gupta,** in his closing address, expressed gratitude to all delegates, faculty, and industry partners for making PedAllercon 2025 a scientific and organizational success. He highlighted that the journey from “mites” (the smallest allergen) to “milestones” (transformative achievements) mirrors the chapter’s mission — advancing allergy care step by step through evidence, education, and empathy.

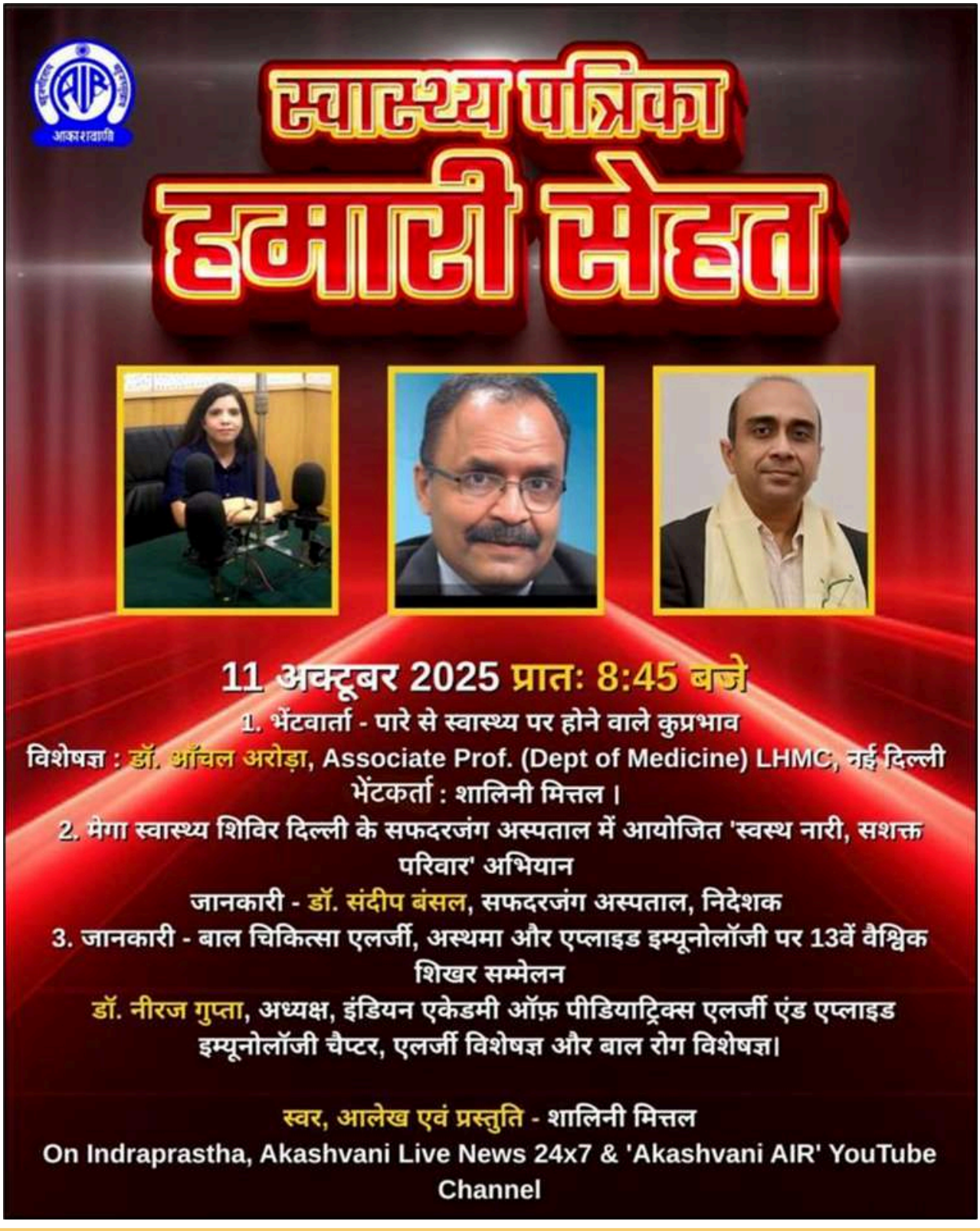
The delegates departed with a renewed sense of purpose, empowered by new knowledge, practical skills, and a shared commitment to improve the lives of children suffering from allergies.

National Media Coverage of PedAllercon 2025

PedAllercon 2025 received extensive national visibility through wide coverage across leading print and audio-visual media platforms. **Doordarshan National** featured special segments highlighting key sessions, expert interviews, and the launch of National Allergy Day initiatives. Prominent newspapers and health magazines carried detailed reports on conference highlights, public awareness activities, and scientific advancements showcased during the event. **Radio FM channels** across major cities broadcast awareness messages on allergy prevention and management, amplifying the outreach to the general public. This comprehensive media engagement significantly enhanced public understanding of allergies and positioned PedAllercon as a landmark event in national health communication

Doordarshan coverage is available watch now

WATCH NOW



Radio FM coverage is available watch now

WATCH NOW

Summary

PedAllercon 2025 was not merely a conference; it was a **celebration of India's leadership in pediatric allergy.** It integrated education, research, advocacy, and community outreach under one roof. The launch of STAMP Out Allergy, 12 practice parameters, 6 awareness flyers, the Allergy Smart School initiative, dual EAACI membership, and Allergopedia marked defining milestones that will shape the future of allergy care in India.

Mr Mitey *– PedAllercon 2025 Mascot themed* ***faculty momentos*** *were well appreciated by all*

PEDIATRIC ALLERGY ASSOCIATION

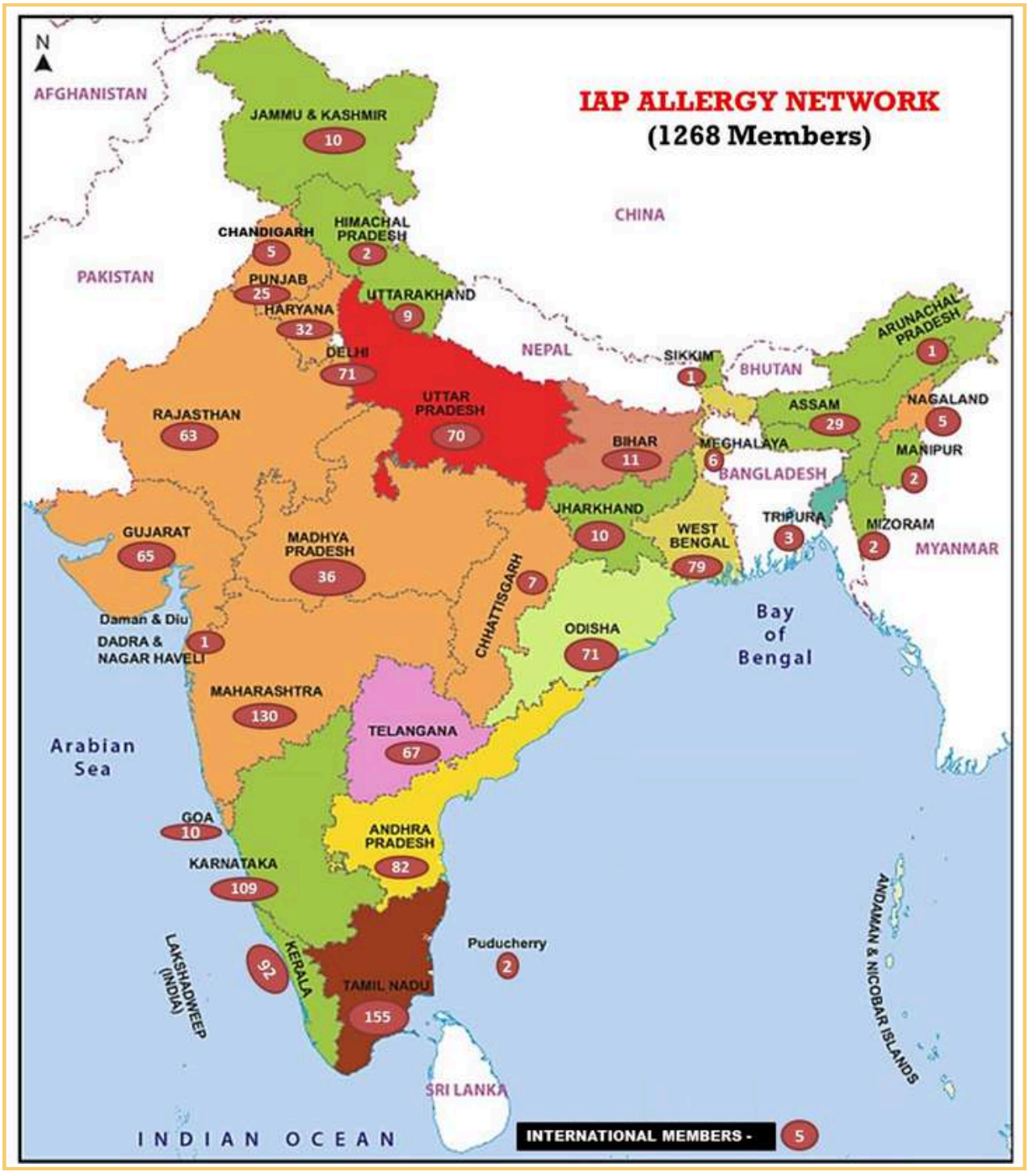
INDIAN ACADEMY OF PEDIATRICS

CFAAR
Center for Food Allergy & Asthma Research

PED ALLERCON
2025, New Delhi

"Where learning met leadership, and milestones were made."

Membership Snapshot



WISH TO JOIN OUR MEMBERSHIP?

ENROLL NOW

Expert Column

Dr Shweta Agarwal
FRCS (Ed), FRCOphth
CJ Shah Cornea Services, Dr G S Memorial Clinic of Ocular Surface Disorders
Sankara Nethralya, Chennai

along with

Dr Hiren Matai
MS, Consultant, Narayan Smruti Multispecialty Hospital, Vadodara

SHIELDING THE EYES
ADVANCES IN DIAGNOSIS AND TREATMENT OF OCULAR ALLERGY

INTRODUCTION

Ocular allergy (OA) encompasses a spectrum of diseases, namely seasonal(SAC) and perennial allergic conjunctivitis(PAC), vernal keratoconjunctivitis (VKC), atopic keratoconjunctivitis (AKC), giant papillary (GPC) and contact dermatoconjunctivitis(CDC). SAC and PAC represent the more common and milder forms and are predominantly mediated by IgE-dependent hypersensitivity mechanisms. In contrast, VKC, AKC, GPC, and CDC involve a more complex interplay of both IgE-mediated and non-IgE-mediated (cellular immune) pathways, often associated with chronic inflammation and tissue remodelling.

Due to the varying spectrum of symptoms and recurrent nature of the ocular allergies, the patients, often school-going children, suffer from long-term and grave complications, most of which endanger their vision. Hence, accurate and timely diagnosis and adequate treatment of the disease are of paramount importance, ideally achieved in conjunction with paediatricians, dermatologists, allergists, and pulmonologists.

CLINICAL FEATURES OF OCULAR ALLERGY

Various studies note the increased role of indoor allergens as compared to outdoor allergens. The most commonly implicated ones are pollen, fungal spores, dust allergens, insect materials and animal epithelia. Males are known to be affected more than females, which is especially true for VKC. The mean age of onset of VKC as per one study in patients under the age of 16 years has been noted to be 5.70 ± 3.49 years, while for patients above 16 years of age, it is 19.93 ± 4.06 years.

Ocular allergies generally affect both the eyes. Symptoms on presentation include itching and/or eye rubbing, conjunctival hyperemia, watering, foreign body sensation, diminution of vision, photophobia and discharge. The most common forms of allergic conjunctivitis in children are seasonal allergic conjunctivitis (SAC) and perennial allergic conjunctivitis (PAC). These conditions are primarily distinguished by their duration and the nature of the allergens involved. SAC typically arises during the spring and summer months due to exposure to outdoor allergens like pollen from trees and grasses. It often coexists with allergic rhinitis and asthma. In contrast, PAC is triggered by indoor allergens such as dust mites, mold, pet dander, and tends to cause year-round symptoms with intermittent flare-ups.VKC is usually seasonal; in the tropics, perennial variety predominates. On examination, signs can vary based on the type of disease and its severity. These include periocular hyperpigmentation (allergic shiners), change in the texture of the eyelids' skin, eyelid and/or facial eczema, conjunctival congestion, chemosis, conjunctival pigmentation, tarsal or limbal papillae, Horner-Trantas dots and, pseudogerontoxon. There can be varying complications, ranging from innocuous corneal scars, superficial punctate keratitis, to vision-threatening keratoconus, shield ulcers, steroid-induced cataract and glaucoma, and limbal stem cell deficiency.

A positive family history and a history of systemic allergies are often present. Asthma is the most common systemic allergy; others include atopic dermatitis, allergic rhinitis, skin allergy, and combined allergies. There is also a subset of VKC patients who test positive for Human Immunodeficiency Virus (HIV), where the disease severity is inversely related to the CD4 cell count.

Atopic keratoconjunctivitis (AKC) is a chronic, bilateral, and severe allergic inflammation of the ocular surface, commonly seen in adolescents and adults with atopic dermatitis (AD). Eyelid changes such as erythema, scaling, single or double infraorbital crease (Dennie–Morgan folds), and periorbital darkening ("allergic shiners") are characteristic. In older patients absence of the lateral eyebrow (de Hertoghe's sign) may be seen because of constant rubbing. The conjunctiva is hyperemic, with papillary hypertrophy mostly involving the lower tarsal, and the cornea may show punctate epithelial erosions, neovascularization, and scarring, sometimes progressing to shield ulcers or vision loss.

DIAGNOSIS AND MANAGEMENT

Diagnosis of ocular allergy is mainly clinical. However, ocular allergy testing can be done by sampling the patient's tears by Schirmer's filter paper or by glass capillary tubes or pipettes. From these samples, ocular surface biomarkers can be analysed using different methods such as beaded assay, polymerase chain reaction (PCR) array, real-time PCR, enzyme immunoassay (EIA) or enzyme-linked immunosorbent assay (ELISA). The ocular surface can be cytologically

analysed by obtaining an impression cytology of the upper palpebral conjunctiva. Corneal tomography is a sine qua non in the early diagnosis of corneal ectasia secondary to eye rubbing. It is important to differentiate allergic conjunctivitis from other causes of red eye—such as infectious conjunctivitis, glaucoma, uveitis, or scleritis—with referral to an ophthalmologist.

Cases of seasonal and perennial allergic conjunctivitis can usually be well controlled with allergen prevention (if the allergen is known), cold compresses for symptom alleviation, use of topical antihistamines, mast cell stabilisers or dual-acting agents with lubricants. Severe and acute exacerbations of the disease may warrant the addition of topical, low-potency (soft) corticosteroids for a short time. Topical immunomodulators like cyclosporine and tacrolimus are indicated in the severe forms or steroid-dependent/steroid responders as steroid-sparing agents. It is imperative to note that topical vasoconstrictor agents should be avoided at all costs as they most often lead to rebound redness.

While the management of VKC usually starts with the above-mentioned strategy in a step ladder fashion, it is the complications that need special attention. The table below summarises the surgical interventions for the complications.

COMPLICATIONS	**SURGICAL INTERVENTION (as the case may be)**
Shield ulcer	Debridement/Superficial keratectomy +/- Amniotic membrane transplantation
Giant papillae	Supratarsal steroid injection Excision +/- 0.02% Mitomycin-C +/- Amniotic membrane transplantation or Mucous membrane grafting Cryotherapy
Keratoconus	Corneal collagen cross-linking Deep Anterior Lamellar Keratoplasty Optical Penetrating Keratoplasty
Steroid-induced cataract	Cataract extraction + Intraocular lens implantation
Steroid-induced glaucoma	Filtration surgery
Limbal Stem Cell Deficiency	Simple Limbal Epithelial Transplantation

AKC requires a multidisciplinary approach in conjunction with a dermatologist/allergy specialist. The treatment involves pharmacotherapy as outlined above for ocular allergy with the long-term purpose of controlling chronic inflammation and minimizing complications. Systemic therapy for controlling systemic allergies include oral antihistamines, oral corticosteroids and steroid-sparing agents like calcineurin inhibitors (cyclosporine, tacrolimus).

Allergen immunotherapy (AIT) is a promising option since it is the only modality of treatment that alters the natural course of the disease. Known as desensitization or allergy vaccination in common parlance, it involves continuous and scheduled administration of allergens to shift the immune response in a bid to reduce the severity of the disease and the need for pharmacological treatment. Currently, there are two types of AIT available in India- subcutaneous immunotherapy (SCIT) and sublingual immunotherapy (SLIT). AIT is indicated in definite cases of allergic conjunctivitis where the skin prick test is positive or when the symptoms of the disease are interfering with sleep or day-to-day activities of the patient.

Lastly, public awareness about the misuse of over-the-counter medications (often, corticosteroids) is the need of the hour. Each follow-up visit should ensure proper compliance with the treatment, reassurance and most importantly, to review with the concerned specialist and not resort to self medicating in case of exacerbations.

RECENT ADVANCES AND FUTURE DIRECTIONS

As discussed above, the diagnosis of ocular allergy remains mostly clinical. Recently, a new classification of VKC along with treatment guidelines has been proposed, which takes into account the corneal pathognomonic signs and complications besides symptoms. The need for referral to an allergy specialist has also been incorporated when the disease is associated with systemic allergies.

Confocal microscopy of the cornea in patients with ocular allergy, even when the disease is quiescent, shows an increase in Langerhans cell density, which implies subclinical inflammation. Altered corneal nerves have also been demonstrated in VKC patients. This modality of diagnosis, although not widely available, can be very helpful to identify and treat patients even before they develop symptoms and signs of active disease and potential complications.

Most of the advances in the management of allergic diseases are occurring in the field of AIT. Epicutaneous immunotherapy and intralymphatic immunotherapy are newer techniques of desensitization that are being tested.

Drug delivery using contact lenses are under study since they have an advantage of mechanical barrier against aeroallergens. They can also act as sustained depot for drug delivery on the ocular surface. Epinastine- and olopatadine-soaked contact lenses are the major contenders.

Ophthalmic preparations of orally available antihistamines like cetirizine and bilastine for the treatment of ocular allergy is another area of research.

Recently, cyclosporine A (CsA) 1mg/ml eye drops emulsion has been authorized for the treatment of severe VKC in patients of 4 to 18 years of age.

Newer drugs like prostaglandin receptors antagonists have also shown promise in controlling symptoms of rhinoconjunctivitis.

Detection of ocular surface biomarkers in basal tear samples could be a game-changer in the early diagnosis and treatment of ocular allergies if this were commercially available. Protein

biomarkers can be detected using techniques like automatic electrophoretic technology, mass spectrophotometry and sodium dodecyl sulphate polyacrylamide gel electrophoresis. There is still room for research to determine potential biomarker candidates on the ocular surface in ocular allergy for diagnostics and drug targeting. It is also imperative to develop a normative database of proteins and their concentrations in healthy adult tear samples so that diagnostic methods for characterizing similar biosignatures in patients of ocular allergy can be developed.

REFRACTORY VKC

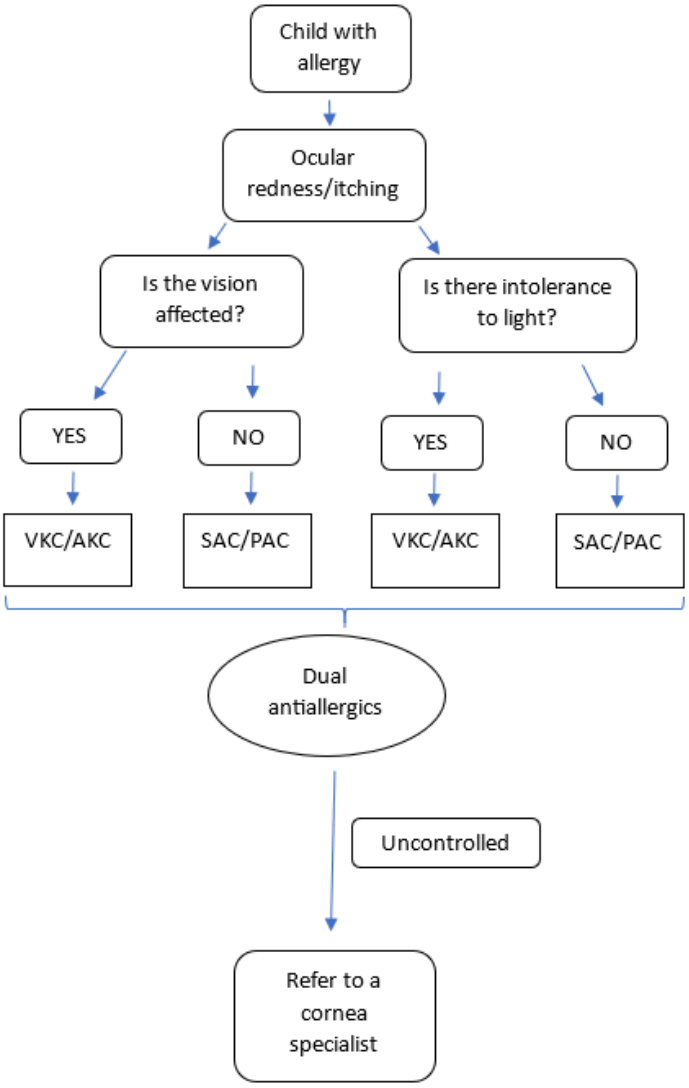
This entity needs a special mention because the concept of 'refractory' can be confounded by multiple factors like improper and inadequate pharmacotherapy, inaccurate diagnosis of the illness, the presence of systemic comorbidities, lack of compliance, failure to take into account the environmental conditions of the patient and the doctor's experience and expectations. Literature reveals patients mistakenly stamped as having refractory VKC when they exhibited signs of atopic dermatitis and hence, had AKC. One study labels patients as refractory to CsA 0.1% after one month of treatment failed to resolve giant papillae and punctate keratopathy. However, it should be known that these signs cannot be expected to resolve after just one month of treatment. Refractory VKC is defined as the chronic/recurrent form of VKC with persistence or worsening of disease activity not responding to the highest possible concentration of available topical immunomodulatory agents for more than 3 months and is either steroid dependent or unresponsive despite repeated courses (at least 3) of pulsed topical high potency steroids for >3 consecutive months. Proposed recommendations for the management of refractory VKC include oral short pulses of corticosteroids; use of biologics like anti-IgE (omalizumab), anti-interleukin IL-4/IL-13 (dupilumab), anti-IL-5 (meprolizumab and benralizumab) and anti-sialic acid-binding immunoglobulin-like lectin-8 (lirentelimab); surgeries as mentioned in the table above in case of complications. Referral to a dermatologist/pulmonologist/allergy specialist should not be overlooked in case of systemic disorders. It is important to begin Highly Active Antiretroviral Therapy (HAART) in patients with HIV.

ROLE OF PEDIATRICIAN AND ALLIED SPECIALTIES

Paediatricians are often consulted by anxious parents for their children suffering from red eyes and itching, since the concept of a 'family doctor' (a single doctor for any and every ailment) is strongly ingrained in the minds of the masses. While cases of mild ocular allergies are expected to be adequately treated by comprehensive ophthalmologists, it is prudent to refer severe and complicated cases to cornea and ocular surface specialists. As mentioned vide supra, ocular

allergy is frequently associated with asthma, skin allergies and/or rhinitis. Ocular symptoms are noted in approximately 75% of patients with rhinitis as per current literature. Hence, it is important to recognize the need to manage such patients in association with the concerned specialists to ensure adequate treatment while minimizing or preventing blinding complications.

The following flowchart can be a useful guide in the management and referral of children with ocular allergy.



SUMMARY

The fact that ocular allergies can lead to potential blindness cannot be overemphasized. As physicians, we need to be well aware of the holistic implications of systemic allergic disorders. It is only then that we would be able to guide our patients to receive the required treatment from the concerned specialists. At the end of the day, it is only by our knowledge, our patience and hope that we can bring about a positive impact in the lives of our patients.

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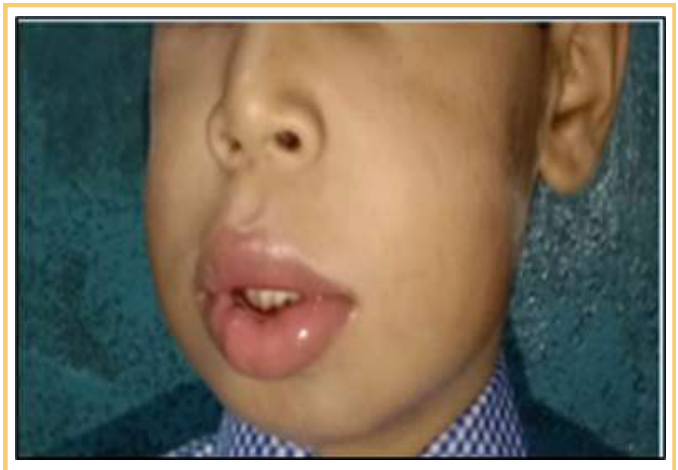
Case of the Month

Dr. Dhanesh Volvoikar
MBBS, DCH, DPH, AFIH, FACI
Senior Pediatrician & Allergist
Healthway Hospital, Goa

HEREDITORY ANGIOEDEMA

INTRODUCTION: Hereditary angioedema (HAE) is an uncommon disorder characterized clinically by recurrent notchy subcutaneous and or submucosal swellings. Deficiency or dysfunction of the C1-esterase inhibitor (C1-INH) protein (caused by pathogenic variants in the SERPING1 gene) is the most common pathogenic abnormality for HAE (seen in 90–97% of patients). The estimated prevalence of HAE is 1: 10,000 to 1: 50,000. There are no prevalence data from India, however, estimates suggest that there are 27,000 to 135,000 patients with HAE in India at present. The majority of these, however, remain undiagnosed.

CASE PRESENTATION: an 11-year-old male child was referred to me for evaluation and expert opinion. Ever since the child was 2 years of age, repeated episodes of lip and eyelid swelling appear which gradually increases over 2 to 3 days and then slowly decreases over the next 3 days. Each year, a minimum of 2/3 similar episodes occur and subside on their own. No H/O severe episode of laryngeal oedema or breathlessness. Patient also develops yearly 2/3 episodes of pain in the abdomen lasting for 2/3 days for the last few years. Although not diagnosed with a CT/USG picture of Abdominal wall oedema, this probably must be abdominal angioedema. For one such episode in 2022, the child was admitted and managed conservatively as a case of Acute Abdomen.



INVESTIGATIONS:

Serum C4 2.8 (decreased markedly from normal of 12-43 mg/dl).
C1 Esterase Inhibitor 0.05 is also markedly decreased from the normal range of 0.21-0.38g/L.
Both these tests and clinical scenarios are diagnostic of HAE.
A genetic Test was done but a report is not yet available.

FAMILY SCREENING: of 1st-degree relatives of the patient and his mother are being asked. His mother had similar symptoms but unfortunately died of cardiac cause when this child was 7 years of age.

MANAGEMENT: On-demand treatment for every episode is suggested to him as one of these episodes can turn into a life-threatening one. C1 INH Concentrate 10 to 20 IU/kg (Maximum Adult dose 1000IU i.e. 2 vials of 500 each) Intravenous (IV) should be administered in such a scenario. The dose may be repeated in 2 to 3 hours if there is no adequate response. If it is not available FFP (Fresh Frozen Plasma) 20 ml/kg will be required. He will also require short-term prophylaxis before dental procedures, before intubation which may be required during General Anesthesia or before surgical procedures. Although C1 INH concentrate or Icatibant is the drug of choice in its absence FFP or attenuated androgens like Stanozolol for 5 days can be given in a resource-poor set-up. In this case, in such a scenario IV C1 INH concentrate of 10 to 20 IU/kg if available should be given just before the planned procedure. Since he gets frequent attacks long term prophylaxis with daily Tranexamic acid (30-50mg/kg/Day: div tds) is recommended for him.

DISCUSSION:

Angioedema is defined as a deep-seated, ill-defined, nonpitting edema or swelling of skin or mucosa that lasts much longer (2–3 days) than an average urticarial wheal, which is superficial, well-defined swelling of skin that usually lasts for few hours. Urticaria is usually intensely pruritic, whereas angioedema is not; it can rather be painful. Angioedema is traditionally classified according to the presence or absence of wheals. Angioedema associated with wheals is commonly encountered in patients having acute or chronic urticaria or anaphylaxis, and the chief mediator for its development is histamine, which is released from the mast cells, either through immunological pathways (IgE-mediated type-1 hypersensitivity) or by agents that act directly on the mast cells to cause their degranulation. Angioedema not associated with wheals is a different entity, mediated by agents other than histamine; bradykinin being the most important one. Hereditary angioedema (HAE) with onset in childhood is the most important entity in this category followed by acquired angioedema (AAE) onset of which is usually after 30 years of age & has multifactorial etiologies. We are discussing only Hereditary Angioedema (HAE) in this article.

PATHOGENESIS: Hereditary angioedema (HAE) pathophysiology involves a genetic defect (autosomal dominant), usually in the C1 inhibitor (C1-INH) gene, leading to a lack of functional C1-INH. C1-INH is a serine protease inhibitor (SERPIN), which controls different proteases involved in the complement, kinin/contact, fibrinolytic, and coagulation systems. All patients have low functional plasma levels of C1-INH. The most common cause of HAE involves either a deficiency in (type 1) or dysfunction of C1-INH enzyme, which leads to overproduction of bradykinin B2 receptors. This increases vascular permeability and results in angioedema attacks Patient with genetic deficiency of C1-INH constantly present increased activation of the classical complement pathway with depletion of C4 and, to a lesser extent, of C2. Hence measurement of these parameters may help in the laboratory diagnosis of HAE.

CLINICAL FEATURES: HAE is characterized by recurrent episodes of ill-defined, nonpitting skin and mucosal swellings. Diagnosis of HAE should be considered in any patient who presents with angioedema in absence of wheals. Although most episodes of angioedema in patients with HAE are spontaneous in onset, a trigger such as physical trauma, mental stress, infections, and dental or other surgical procedures may be identified in a few patients. A typical episode of angioedema in patients with HAE lasts approximately 3–5 days and resolve spontaneously. It may involve lips, eyes, cheeks, hands, feet, genitals, gastrointestinal tract, tongue and larynx. Cutaneous swellings most frequently involve the limbs followed by face, genitals, and lips. These are nonpitting and frequently involve nondependent areas of the limbs. Facial and lip angioedema may rapidly progress to involve laryngeal edema is a potentially life-threatening manifestation of HAE and approximately 50% patients experience episode of laryngeal edema at least once in their lifetime. Abdominal colic due to angioedema of bowel wall is common and many of these patients present to the emergency settings with acute abdomen. These patients may even inadvertently undergo laparotomy.

DIAGNOSIS: In every suspected case serum C4, C1 INH levels and C1 INH Function should be done. It can be repeated if results are normal when done in between the attack. Type I constitute 85% of cases and will show low C4 and C1 INH level. Type II which constitute remaining 15% will show low C4 but normal C1 INH level but its function will be low. Estimating only C4 levels may not be helpful as in 20% it can be normal. If all levels are within normal limit and if index of suspicion is high genetic testing with next generation sequencing (either whole exome sequencing or targeted next generation sequencing) should be done as it may pick up very rare HAE type III.

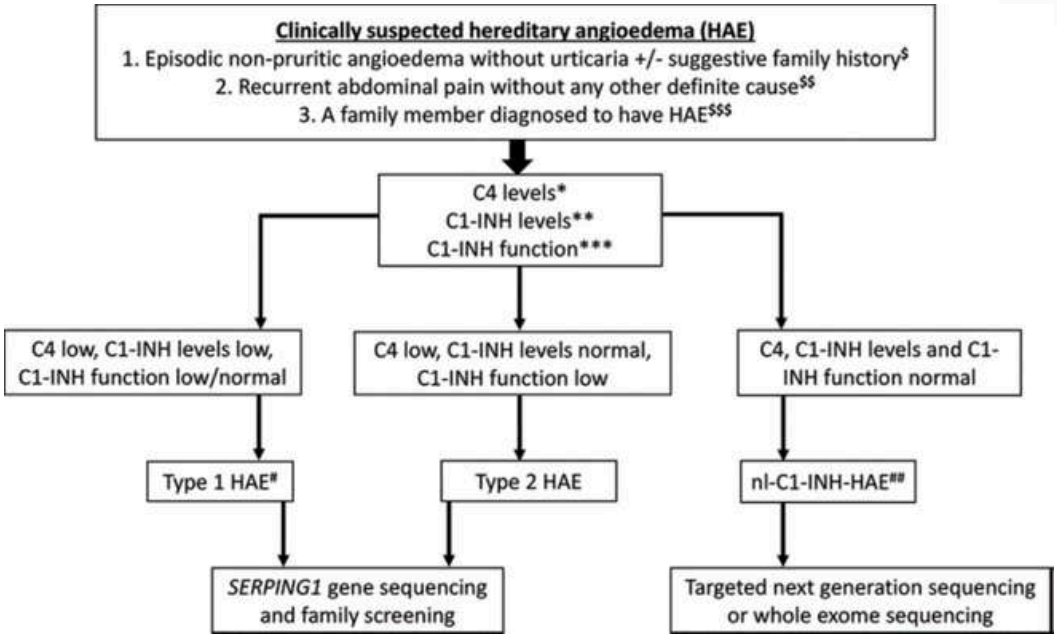


*Figure 2: Simplified diagnostic algorithm for patients with clinically suspected HAE. $Family history of HAE may not be present in up to 20% of all patients with HAE. $$Recurrent pain abdomen may occasionally be the only clinical presentation of HAE. $$$Family members should be screened even if they are asymptomatic as late presentations and very mild presentations of HAE are known. *C4 levels are usually assessed using nephelometry, which may be normal in up to 20% of all patients even at the time of an acute attack. **C1-INH levels usually assessed using nephelometry. A repeat test is advised if the initial results are normal and there is high clinical suspicion of HAE. ***C1-INH function usually assessed using enzyme-linked immunosorbent assay (ELISA). Depending on the ease of accessibility, this test may be carried out at the time of initial presentation or after obtaining results of C4/C1-INH levels. Inappropriate storage or transport may affect the results of C1-INH functions. #A clinical possibility of acquired angioedema may be considered in patients with late-onset of symptoms (>40 years of age) and if there is no family history. Low C1q levels may be suggestive of acquired angioedema due to the presence of autoantibodies against C1-INH protein (seen in autoimmune diseases). ##At present, there are no biomarkers for diagnosis of nl-C1-INH-HAE.*

Management of HAE:

HAE is a genetic disorder and at present there is no cure for HAE. The aim of treatment is to avoid any related mortality and to improve quality of life of patients. There are 3 different principles in the management of HAE: Treatment of acute attack (on-demand therapy), prevention of long-term attacks (long-term prophylaxis), and prevention of attacks when it is anticipated (short-term prophylaxis).

Treatment of Acute attack (On demand therapy):

Self-administered plasma-derived C1-INH concentrate (20IU/kg) is the drug of choice and it is now available in India. In its absence FFP should be used in a dose of 10–20 ml/kg (or 2 units in adults). Most patients respond within 1–12 h of administration of FFP. Other medications like Bradykinin B2 receptor antagonist ICATIBANT & kallikrein inhibitor ECALLANTIDE is not yet available in India.

Short-term prophylaxis:

Short-term prophylaxis is used in situations when there is a predictable risk of development of an episode of life-threatening laryngeal edema usually seen at a dental procedure or procedure involving laryngeal manipulation (Intubation during surgery). IV C1 INH (20 IU/kg) given just before the surgery is the preferred drug. In its absence the fresh frozen plasma alone or in combination with attenuated androgens can be considered.

Long-term prophylaxis (LTP):

Long-term prophylaxis is used to prevent an episode of angioedema in patients who have very frequent episodes that are affecting their quality of life or patients who have life-threatening episodes of angioedema. Although there is no definite recommendation It may be appropriate to initiate long-term prophylaxis in patients who have at least more than 1 episode of angioedema every month. Recommended Subcutaneous pd-C1-INH is not available in India and intravenous plasma derived (pd) C1-INH is less effective for LTP. Hence, at present, if a patient needs LTP, attenuated androgens or tranexamic acid (30-50 mg/kg/day in 2/3 divided doses, or a combination of the 2 may be used. Other easy to use drugs used in LTP like plasma kallikrein monoclonal antibody LANDELUMAB subcutaneous injections and plasma kallikrein inhibitor BEROTALSTAT Tablets are not available as of now in India.

Patient Support Group:

India now has a dedicated physician society for HAE with the name “Hereditary Angioedema Society of India” (www.haesi. in). In addition, there is a patient support group in India with the name “HAE India” (https://haeindia.haei.org) and an international patient group “HAE International” (https://haei.org) who work in close collaboration with physicians who are interested in HAE and are willing to improve patient care. HAE comes under rare diseases program of Govt of India and appropriate treatment including LTP is possible after enrolling these patients in one of the 12 regional centers spread across the country.

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Investigation of the month

Dr. Antarbhai Patel
Senior Consultant
PICU, Pulmonology & Pediatrics
Cloud Nine Hospital, Greater Noida

Fractional Exhaled Nitric Oxide (FeNO)

Introduction

Asthma and Allergic rhinitis (AR) area highly prevalent pediatric condition characterized by inflammation of the airways and nasal mucosa. Traditionally considered a localized disorder confined to the upper/ lower airways, recent research has shifted this view significantly. Asthma and AR are now understood as part of a systemic airway inflammatory condition, aligning with the concept of a unified airway disease. The concept of a "unified airway" now integrates upper and lower respiratory pathology, emphasizing the continuity of inflammatory processes across the respiratory tract. This shift is supported by histological findings showing eosinophils and mast cells infiltrating the nasal and airway mucosa and corroborated by systemic markers like elevated eosinophilic granulocytes and eosinophilic cationic protein levels in peripheral blood. Immunopathologically, both are mediated primarily by Th2 lymphocytes that trigger IgE production in response to allergens.

Given the strong immunological and pathological overlap between AR and asthma, assessing airway inflammation becomes crucial not only for diagnosis but also for phenotyping, predicting treatment response, and monitoring disease control. Fractional exhaled nitric oxide (FeNO) has emerged as a pivotal non-invasive biomarker in this context. Nitric oxide (NO), which plays essential roles in bronchodilation, mucociliary clearance, and antimicrobial defense, becomes pathologically elevated in eosinophilic airway inflammation. Thus, FeNO levels reflect Th2-mediated eosinophilic inflammation and are increasingly being used in pediatric clinical practice to assess both AR and asthma, and to phenotype complex airway conditions.

Nitric Oxide (NO) in the Respiratory System (Figure 1)

Nitric Oxide: Synthesis and Function in the Airways

Although commonly recognized as an environmental pollutant generated by vehicular emissions and cigarette smoke, nitric oxide is also an essential endogenous signaling molecule. It plays a crucial physiological role in various systems, including the respiratory tract.

In the lungs, NO is synthesized by several cell types, including airway epithelial cells, vascular endothelial cells, nerve endings, and inflammatory cells. The precursor, L-arginine, enters these cells through the cationic amino acid transporter (CAT) system and is metabolized by either nitric oxide synthases (NOS) or arginases. Three NOS isoforms are expressed in the respiratory system:

- Neuronal NOS (nNOS or NOS-I)
- Inducible NOS (iNOS or NOS-II)
- Endothelial NOS (eNOS or NOS-III)

Under basal conditions, constitutive isoforms (nNOS and eNOS) produce NO in picomolar concentrations, supporting tissue homeostasis and vascular tone. However, during inflammation, iNOS expression is upregulated, producing NO in nanomolar concentrations—a hallmark of chronic airway inflammation, host defense, and bronchial hyperresponsiveness (BHR), particularly in allergic asthma and rhinitis.

Regulatory Pathways: Arginase and ADMA

The regulation of NO synthesis is tightly linked with two additional molecular agents—arginase enzymes (I and II) and asymmetric dimethylarginine (ADMA). Arginase enzymes convert L-arginine into L-ornithine, which is then metabolized into polyamines and proline, promoting tissue repair and remodeling.

However, elevated arginase activity, commonly seen in asthma, reduces substrate availability for NOS enzymes, leading to decreased NO production and increased generation of superoxide. This imbalance favors oxidative stress and contributes to airway dysfunction.

Simultaneously, ADMA, a naturally occurring endogenous NOS inhibitor, competes with L-arginine for NOS binding sites. ADMA also inhibits intracellular L-arginine transport, resulting in diminished NO synthesis and elevated formation of reactive oxygen species (ROS) and RNS. This leads to a vicious cycle of inflammation, oxidative stress, and airway remodeling.

NO's interaction with superoxide anion (O_2^-) results in the formation of peroxynitrite ($ONOO^-$)—a potent reactive nitrogen species (RNS).

This compound plays a central role in nitrative-oxidative stress, which is associated with protein dysfunction, cellular injury, tissue remodeling, and exacerbation of airway diseases like asthma and chronic obstructive pulmonary disease (COPD). Peroxynitrite contributes to nitrative stress, DNA damage, and epithelial injury and plays a role in airway hyperresponsiveness and remodeling seen in pediatric asthma and AR.

Measurement of Fractional Exhaled Nitric Oxide (FeNO) (Figure 2)

FeNO is a non-invasive biomarker for assessing eosinophilic airway inflammation, particularly in AR and asthma. Two main measurement technologies are employed:

1. Chemiluminescence

Considered the gold standard, this method involves the reaction of exhaled NO with ozone, producing fluorescent light detected by a photomultiplier tube. It offers high sensitivity and specificity, suitable for both clinical and research settings.

2. Electrochemical Sensors

These devices use electrodes to detect current changes resulting from NO oxidation. While more portable and cost-effective, they underestimate FeNO values compared to chemiluminescence and show only moderate correlation.

FeNO Measurement Protocols

FeNO measurement can be performed via two methods:

- **Online technique:** Direct exhalation into an analyzer with real-time display of NO levels.
- **Offline technique:** Exhalation into a reservoir bag, followed by delayed analysis.

Regardless of method, interpretation focuses on the **plateau phase of exhalation** (Figure 3), which reflects alveolar and bronchial NO. The initial washout and peak phases are ignored due to possible contamination from nasal/oral NO.

Criteria for Valid Measurement

- Children under 12: Exhalation ≥ 4 seconds
- Adults/older children: Exhalation ≥ 6 seconds
- Volume ≥ 0.3 L at a flow rate of 0.05 L/sec
- Two plateau values within 10% agreement
- A 30-second rest period with tidal breathing between breaths

Factors Influencing FeNO Levels

FeNO is subject to biological and environmental variability:

Category	Factors
Demographics	Age and height (increase FeNO in children); sex (males have higher values); ethnicity (Chinese > Caucasians)
Hormones	Menstrual cycle and pregnancy modulate FeNO via immune shifts
Anatomy	Smaller airway caliber leads to lower FeNO
Pathophysiology	Hypoxia impairs NOS activity, reducing FeNO
Lifestyle	Smoking and alcohol decrease FeNO; dietary nitrates and caffeine increase it
Category	**Factors**
Medications	ICS and NO synthase inhibitors reduce FeNO; viral infections and nocturnal asthma elevate it

Reference Values and Clinical Significance

FeNO reference thresholds:

- A**dults:**
  -Low: <25 ppb
  -Intermediate: 25–50 ppb
  -High: >50 ppb
- **Children:**
  -Low: <20 ppb
  -Intermediate: 20–35 ppb
  -High: >35 ppb
- **Clinically significant change:** Increase or decrease >20% or >10 ppb

In population-based studies, atopic nonsmoking males showed FeNO as high as 56.5 ppb, while non-atopic smoking females had values as low as 30.5 ppb. In children, levels rise from ~15 ppb at age 4 to ~22.4 ppb in adolescence.

FeNO in Allergic Rhinitis and Asthma

FeNO is elevated in AR even in non-asthmatic individuals, validating the unified airway hypothesis. Perennial AR is associated with higher FeNO levels than seasonal types. In CRS, particularly the eosinophilic subtype, FeNO also increases due to paranasal inflammation.

Predictive Role:

- Strong inverse correlation with methacholine PD20 (r = –0.61)
- Cut-off for bronchial hyperresponsiveness (BHR):
  -32 ppb in children
  -37 ppb in adults
- Correlation with bronchodilator response (ΔFEV1)

FeNO-Guided Clinical Management

A structured clinical algorithm includes:

- **Initial Evaluation:**
  -FeNO >50 ppb in adults or >35 ppb in children suggests eosinophilic inflammation → start ICS

- **Monitoring:**
  -Reassess every 3 months

- **Treatment Adjustment:**
  -Persistent elevation → escalate ICS dose or initiate biologics (e.g., anti-IgE, anti-IL-5)

- **Patient Engagement:**
  -Visualizing FeNO trends improves adherence

- **Relapse Prediction:**
  -FeNO >49 ppb four weeks post-ICS withdrawal indicates relapse risk

Evidence-Based Use of FeNO

Numerous high-level studies support FeNO use:

- **Kuo et al. (2019):** Scottish Consensus recommends >25 ppb for diagnosis; >40 ppb for ICS initiation.

- **Wang et al. (2020):** Meta-analysis validating FeNO as a diagnostic tool in childhood asthma.
- **Tsurumaki et al. (2025):** FeNO-guided therapy reduces exacerbations.
- **Petsky et al. (2018):** Cochrane Review supports FeNO's accuracy in eosinophilic asthma when combined with blood eosinophils.

FeNO in Other Pediatric Respiratory Diseases

Disease	FeNO Profile	Clinical Use
Cystic Fibrosis (CF)	Low	May rise in ABPA; reflects NO synthesis dysfunction
Primary Ciliary Dyskinesia (PCD)	Very Low (<5 ppb)	Useful screening tool
Disease	**FeNO Profile**	**Clinical Use**
Eosinophilic Bronchitis (EB)	High	Differentiates from asthma; responsive to ICS
Bronchiectasis	Low baseline; may spike	Helps detect eosinophilic overlap
Vocal Cord Dysfunction (VCD)	Normal/Low	Helps differentiate from asthma
Obstructive Sleep Apnea (OSA)	Mildly elevated	Reflects upper airway inflammation
Interstitial Lung Disease (ILD)	Variable	May reflect Th2 inflammation or fibrosis

Research Frontiers and Future Directions

The role of FeNO is expanding beyond asthma into eosinophilic bronchitis, allergic fungal airway disease, and nasal polyposis. Epigenetic regulators (e.g., NOS gene methylation) and environmental pollutants (e.g., NO_2, PM2.5) are being studied for their impact on FeNO variability. Integration of FeNO with serum IgE, blood eosinophils, and periostin may enable composite inflammatory profiling. Future efforts must aim to standardize measurements across devices and populations, and define disease-specific cut-offs for nuanced interpretation

Conclusion

FeNO represents a powerful, non-invasive biomarker central to modern pediatric respiratory medicine. It enhances disease detection, inflammation phenotyping, and longitudinal monitoring in allergic rhinitis, asthma, and other airway diseases. When integrated with clinical algorithms, nasal eosinophilia, and patient education, FeNO becomes instrumental in delivering personalized, unified airway care—bridging upper and lower airway pathology in a single diagnostic stream.

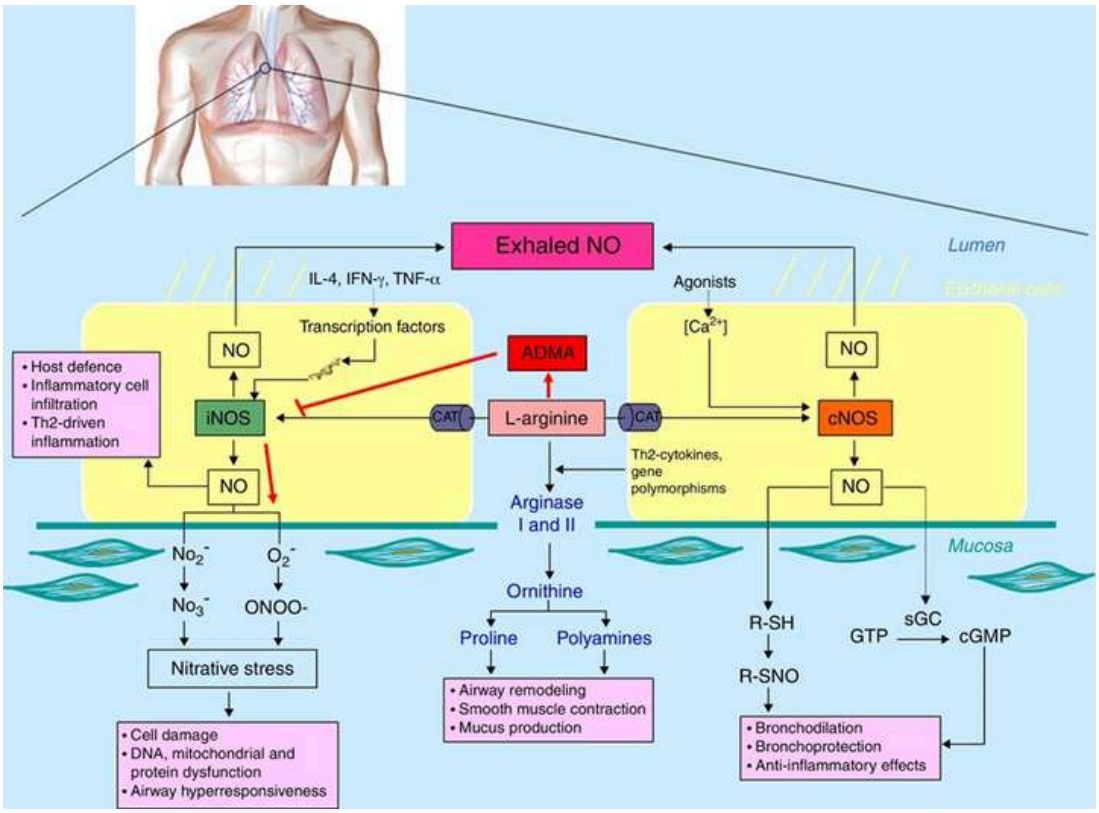


Figure 1 *Schematic representation of nitric oxide (NO) metabolism in the airways. l-Arginine is transported into the cell via the cationic amino acid transport (CAT) system and can be metabolised by both nitric oxide synthases [constitutive NOS (cNOS) and inducible NOS (iNOS)] and arginases (I and II). Moreover, asymmetric dimethyl arginine (ADMA), an l-arginine analogue, can competitively inhibit NOS isoforms that, in uncoupling conditions, generate O_2^- and, as consequence, "nitrative stress".*

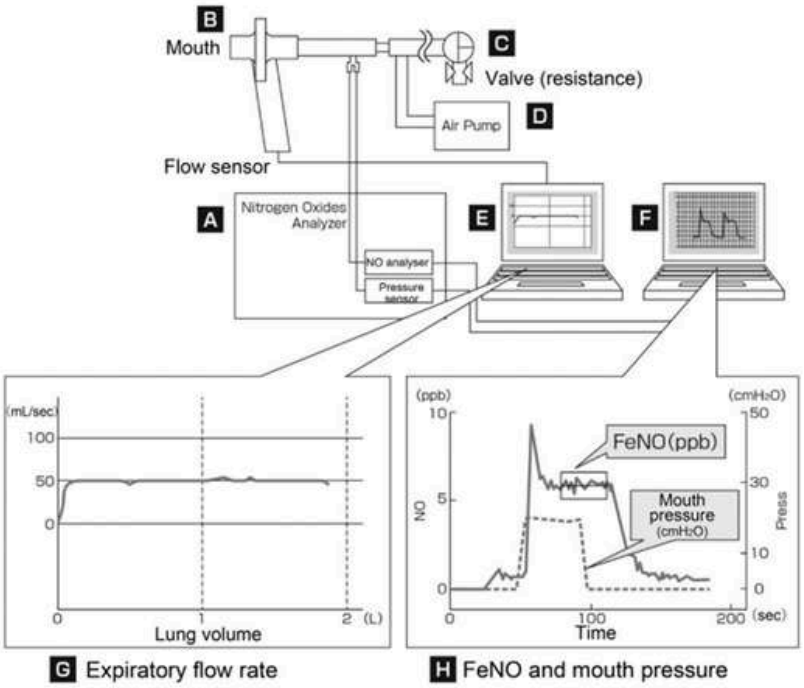


Figure 2 *FeNO measurement system. A: Main unit of the measurement device, B: expiratory flow-rate sensor, C: resistance valve, D: air pump, E: expiratory flow-rate monitor, F: FeNO and mouth pressure, G: expiratory flow rate, H: FeNO and mouth pressure.*

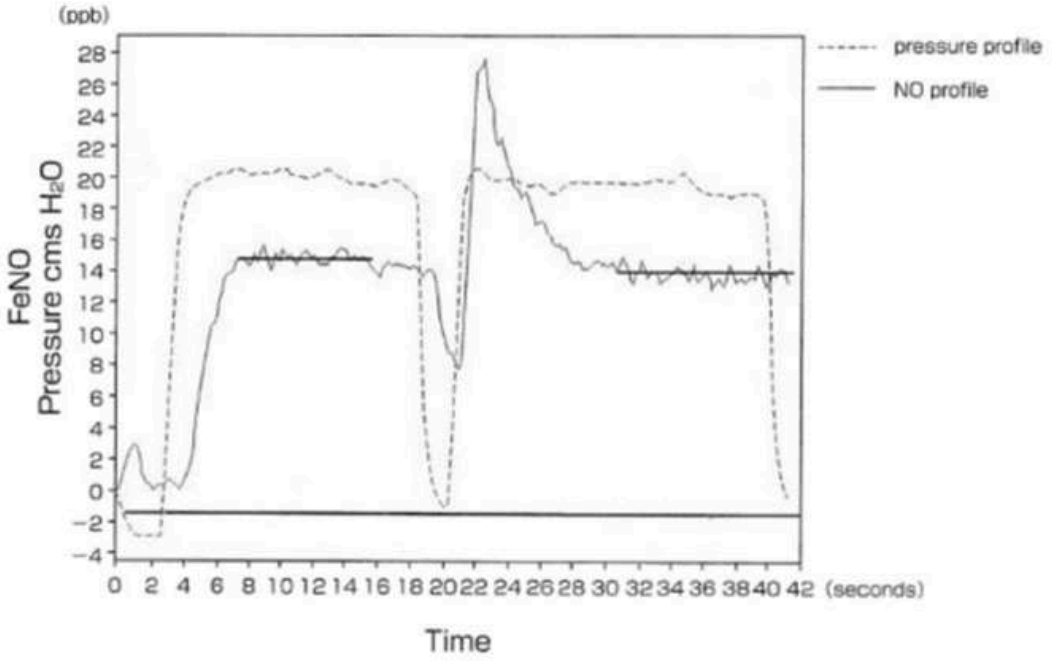


Figure 3 Differences between the FeNO profiles for air inspired from the oral cavity and the nasal cavity. The vertical axis displays the FeNO or airway pressure over time (horizontal axis). The values for air inspired through the oral cavity are shown on the left side, while the same for the nasal cavity of the same subject are shown on the right side. Due to the high nasal cavity concentrations, NO flows into, and accumulates in, the airways when air is inspired through the nose, forming an initial peak when exhalation starts. However, in the latter half of the expiration, FeNO reaches a plateau with the same value with the initial peak, and therefore, the plateau is reproducible

Pollen Update

Dr. Narmada Ashok
Vellore, Tamilnadu

Pollen calendar for the Winter Season

Pollen calendar for India for the month of October to February

The upcoming pollen season across India is indeed characterized by a dominance of grasses and weeds, with distinct regional patterns influenced by monsoon cycles. In northern India, the pollen calendar shows two distinct peaks: March-April and July-October, with the second season primarily dominated by monsoon annual and perennial grasses and weeds. Southern India experiences its peak pollen concentrations during November (early northeast monsoon) and December, with grass pollen being abundantly distributed throughout the atmospheric air.

The major grass allergens across India include Cynodon dactylon (Bermuda grass), which emerges as the most significant sensitizer, followed by Poa pratensis, Parthenium hysterophorus, Eragrostis species, and various tree pollens including Eucalyptus and Salvadora persica.

Cross-Reactive Allergen Networks

A note about cross reactivity is important for this season.

Ricinus communis Cross-Reactivity

The cross-reactivity between Ricinus communis (castor bean) and Putranjiva roxburghii represents a well-documented allergenic relationship within the Euphorbiaceae family. Studies demonstrate that shared IgE-binding components of molecular weights 92, 80, 66, 50, 43, and 14 kDa exist between these species. Additionally, cross-reactivity extends beyond this family, with Ricinus communis showing immunological relationships with Olea europaea (olive) through shared allergenic proteins.

Cynodon dactylon Cross-Reactivity Complex

Cynodon dactylon demonstrates extensive cross-reactivity with multiple species, particularly within subtropical grass families. The key cross-reactive relationships include:

- Eragrostis species: Studies show that 95% of grass-sensitive patients have IgE antibodies to both Cynodon and Eragrostis pollen extracts, with significant cross-inhibition observed between these species
- Brassica species: Cross-reactivity exists through shared profilin allergens
- Olea europaea: Immunological cross-reactivity has been documented through olive-grass pollen shared components
- Importantly, research indicates that Cynodon dactylon shows limited cross-reactivity with temperate grasses from the Pooideae subfamily, suggesting that sensitization to this species involves allergens distinct from those found in sweet grasses.Tree Pollen Cross-Reactivity

Salvadora persica demonstrates close allergenic relationships with other tree species, particularly Prosopis juliflora, Ailanthus excelsa, and Cassia siamea. Cross-inhibition assays reveal shared IgE-binding components of 14, 41, 52, and 66 kDa among these species.sciencedirect

Diagnostic Implications and Testing Optimization

Strategic Allergen Selection for Skin Prick Testing

The understanding of cross-reactive patterns enables significant optimization of diagnostic approaches. For grass allergies, testing with Cynodon dactylon can effectively identify patients who would also react to Eragrostis species, even when Eragrostis is the predominant local weed. This is particularly valuable in southern India, where Eragrostis species are abundant but Cynodon testing materials are more readily available.

Studies demonstrate that among tropical grass species, extensive immunologic cross-reactivity exists, suggesting that mixed allergen preparations could be used effectively for both diagnosis and immunotherapy. However, the cross-reactivity is not complete - while Cynodon can serve as a representative for Eragrostis sensitivity, the reverse relationship shows some limitations.

Skin prick testing with Cynodon dactylon extract has shown high diagnostic accuracy, with sensitivity of 81% and specificity of 89% in identifying grass pollen allergy. The test demonstrates positive predictive value of 88.0% and negative predictive value of 82.4%.

For tree pollens, the cross-reactive relationships within the Euphorbiaceae family (Ricinus-Putranjiva) and among desert trees (Salvadora-Prosopis-Ailanthus) allow for streamlined testing protocols.

Optimized Testing Panels

Based on cross-reactivity patterns, an efficient diagnostic approach for Indian patients should include:

1. Cynodon dactylon as a representative for subtropical grass allergies (covering Eragrostis cross-reactivity)
2. Ricinus communis for Euphorbiaceae family sensitization (covering Putranjiva cross-reactivity)
3. Parthenium hysterophorus for Compositae weed allergies
4. Eucalyptus species for tree pollen sensitization
5. Salvadora persica for desert tree allergen assessment

Pollen	North	South	Central	East	West
Trees					
Anogeissus	++				++
Cassia			+++	+++	+
Cedrus	++				
Eucalyptus		++		+	++
Mallotus	++		++		
Prosopis		+++			++
Salvadora	++	++	++	++	
Shrubs					
Asteraceae	++++			++++	
Xanthium	++++	++++			
Ricinus		++++		+++	
Grasses					
Ageratum		++++			
Asphodelus			++++		++++
Artemesia	++++	++++			++++
Amaranth/Chenopod	++++	++++		++++	
Argemone	++++		++++		++++
Bothrichloa			++++		++++

Cenchrus					++++
Heterophogon		++++			
Pennisetum		++++			++++
Cynodon	++++	++++	++++	++++	++++
Eragrostis		++++			
Sorghum		+++	++++		++++
Poaceae	++++	++++	++++	++++	++++
Parthenium	++++	++++	++++		++++

Trees

Anogeissus

Cassia

Cedrus

Eucalyptus

Mallotus

Prosopis

Salvadaro

Shrubs

Asteraceae

Xanthium

Ricinus

Grasses

Ageratum

Artemisia

Asphodelus

Amaranth/Chenopod

Argemone

Bothrichloa

Cenchrus

Heterophogon

Pennisetum

Cynadon

Eragrostis

Sorghum

Poa

Parthenium

Journal Scan

Dr Soundarya M
KMC, Mangalore

The 2024 ISHAM-ABPA working group guidelines:
Transforming diagnosis and management of ABPA.
Agarwal R, Sehgal IS, Muthu V. Lung India. 2025 Mar 1; 42(2): 79–83.

This article is an authoritative editorial summarizing and contextualizing the **2024 revised ISHAM-ABPA Working Group (AWG) clinical practice guidelines** for allergic bronchopulmonary aspergillosis / mycoses (ABPA/ABPM).

The 2013 ISHAM criteria had been widely used but evidence and clinical practice evolved substantially in the intervening decade (novel biomarkers, improved radiology, expanded antifungal and biologic therapies).

High prevalence and frequent misdiagnosis (notably confusion with pulmonary tuberculosis in some regions) mean clearer, more practical guidance is urgently required. The editorial stresses the particular relevance for India, where ABPA is relatively common and misdiagnosis burdens healthcare systems.

The revised guidelines introduce several important structural changes intended to improve diagnostic clarity and guide therapy:

Clearer distinction between ABPA and broader ABPM
The 2024 revision delineates diagnostic categories more explicitly to avoid conflation of allergic disease (ABPA) with a wider spectrum of allergic bronchopulmonary mycoses (ABPM). This helps tailor investigations and therapy using a combined diagnostic strategy with the clinical context (asthma/bronchiectasis or cystic fibrosis), radiology (chest radiograph/CT patterns), and immunological testing (specific IgE/IgG to Aspergillus, total IgE, skin testing where available).

Diagnostic algorithm
Screen patients with predisposing conditions : classically **asthma** (difficult/uncontrolled/recurrent exacerbations) or **cystic fibrosis** for Aspergillus sensitization as the first step.

Step 1 — Demonstrate Aspergillus sensitization (screening test)
Measure Aspergillus fumigatus-specific IgE (or perform immediate skin prick test to Aspergillus where available).
If A. fumigatus-IgE ≥ 0.35 kUA/L (or positive skin test), proceed to Step 2.

Step 2 — Measure total serum IgE

After demonstrable sensitization, measure total serum IgE.

If total IgE ≥ 500 IU/mL, continue evaluation with additional tests (see Step 3). The guideline uses this cutoff as a key decision point.

Step 3 — Additional investigations when total IgE ≥ 500 IU/mL

Obtain Aspergillus fumigatus-specific IgG (serology) and blood eosinophil count (BEC).

Obtain chest imaging — high-resolution CT (HRCT) chest to look for characteristic radiological features (central bronchiectasis, fleeting pulmonary infiltrates, mucoid impaction, consolidation, bronchiectasis with mucus plugging).

Step 4 — Integrative diagnosis (combination of criteria)

A diagnosis of ABPA is made by combining:

Aspergillus sensitization (A. fumigatus-specific IgE ≥0.35 kUA/L or positive skin test),

Elevated total IgE (≥500 IU/mL), and

Supportive features such as elevated A. fumigatus-specific IgG, peripheral eosinophilia (see BEC cutoff below), and compatible radiological changes on CT (particularly central bronchiectasis or fleeting pulmonary opacities).

This helps to classify the disease into active inflammatory ABPA vs chronic sequelae (bronchiectasis/fibrosis)and this staging influences treatment intensity and monitoring. The CT pattern and clinical history helps to differentiate active disease from chronic structural changes.

Utility of sputum/mycology

Culture for Aspergillus or molecular tests are used selectively — they inform fungal burden but are not the primary diagnostic gatekeepers in the algorithm.

Monitoring

Serial total IgE is recommended for monitoring response and for early detection of relapse (rising levels prompt reassessment). The guideline emphasizes using the same laboratory/method for serial measurements for comparability. Exact percent-fall targets for treatment response are discussed in detail in the full guideline; consult the ERJ guideline tables for specific follow-up intervals and response targets.

Grading/classification and disease staging

The 2024 International Society for Human and Animal Mycology (ISHAM)-ABPA working group clinical and radiological categorization of ABPA

(Ref: Lung India. 2025 Feb 27;42(2):79–83. doi: 10.4103/lungindia.lungindia_28_25)

Categories	Definition
Clinical	
Acute stage	Newly diagnosed: Previously undiagnosed ABPA meeting the diagnostic criteria
	Exacerbation: In a known case of ABPA
	• Sustained (>14 days) clinical worsening, or
	• Radiological worsening, and
	• Increase in serum total IgE by ≥50% from the last recorded IgE value during clinical stability, along with
	• Exclusion of other causes of worsening.
	Asthma exacerbation: worsening respiratory symptoms for ≥48 hours without immunological or radiological deterioration related to ABPA.
	Bronchiectasis exacerbation: clinical deterioration for ≥48 hours with an increase in cough, breathlessness, sputum volume, consistency, or purulence, fever or haemoptysis, without immunological or radiological deterioration of ABPA.
Response	• Symptomatic improvement by ≥50% (on a Likert or visual analogue scale) after eight weeks; and,
	• Major radiological improvement (≥50% reduction in opacities) or decline in serum total IgE by ≥20% after eight weeks of treatment.
Remission	• Sustained (≥6 months) clinico-radiological improvement, off glucocorticoids; and,
	• Lack of rise in serum total IgE by ≥50% from the last recorded IgE value during clinical stability.

	Patients on biologics or long-term antifungal agents may also be considered in remission if they meet these criteria.
Treatment-dependent	• Two or more consecutive ABPA exacerbations, each within three months of stopping glucocorticoids.
	• Worsening respiratory symptoms AND worse imaging or rise in serum total IgE by 50% within four weeks of tapering oral steroids on two separate occasions.
Advanced	• Extensive bronchiectasis (≥10 segments) due to ABPA on chest imaging; and,
	• Cor pulmonale or chronic type 2 respiratory failure.
Imaging	
Serologic ABPA (ABPA-S)	ABPA without bronchiectasis
ABPA with bronchiectasis (ABPA-B)	ABPA with evidence of bronchiectasis
ABPA with mucus plugging (ABPA-MP)	ABPA with mucus plugging but without high-attenuation mucus. Patients with both bronchiectasis and mucus plugging will be classified as ABPA-MP
ABPA with high attenuation mucus (ABPA-HAM)	ABPA with high-attenuation mucus
ABPA with chronic pleuropulmonary fibrosis (ABPA-CPF)	ABPA with two or more of the following: pulmonary fibrosis, fibro-cavitary lesions, fungal ball, and pleural thickening

Therapeutic recommendations

First-line anti-inflammatory therapy remains corticosteroids for active ABPA, with careful tapering and monitoring.

Antifungal therapy (oral triazoles) is recommended selectively — mainly when there is frequent exacerbation, steroid-dependence, or to reduce fungal burden and steroid exposure.

The guidelines cautiously endorse the role of biologic agents (e.g., anti-IgE and anti-IL-5/IL-5R therapies) in steroid-dependent or refractory cases, while noting evidence gaps and cost/access limitations.

Monitoring and follow-up

Regular clinical review, serial total IgE (as a marker of response/relapse), targeted imaging if clinically indicated, and sputum/mycological testing is done in selected cases. There is emphasis on practical monitoring schedules to detect relapse early and limit corticosteroid exposure.

Practical implementation tool: the EQUAL ABPA score

A novel, pragmatic tool—the **EQUAL ABPA score**—was introduced to measure clinician adherence to guideline recommendations and to provide a checklist for quality of care.

EQUAL ABPA score:

European confederation of medical mycology quality scores for diagnosis and management of allergic bronchopulmonary aspergillosis (EQUAL-ABPA score).

Parameter	Score	Optimal score for each component
A. Screening asthmatics for ABPA		
1. Serum A. fumigatus-IgE	3	3
2. Aspergillus skin test	1	
3. Recombinant Aspergillus antigens	1	
4. Serum galactomannan	−1	
B. Diagnosis of ABPA		
1. Assessment of predisposing conditions or compatible clinical presentation	3	16
2. Serum A. fumigatus-IgE	3	
3. Serum total IgE	3	
4. Aspergillus skin test	2	

5. Serum A. fumigatus- IgG or LFA	2	
6. Blood eosinophil count	2	
7. Aspergillus precipitins	1	
8. Recombinant Aspergillus antigens	1	
9. Sputum fungal cultures	2	
10 Serum galactomannan	−3	
11. Chest CT	3	
12. Chest radiograph only	2	
13. Spirometry	1	
14. Flexible bronchoscopy	−3	
C. Treatment of acute ABPA		
1. Inhaled corticosteroids alone	−3	3
2. Oral glucocorticoids (4 months)	3	

3. Oral itraconazole (4–6 months)	3	
4. Oral prednisolone (2 weeks) plus itraconazole	3	
5. Oral voriconazole (4–6 months)	1	
6. Oral prednisolone plus itraconazole (both for 4 months)	−3	
7. Type-2 biologics	−3	
8. Methylprednisolone pulses	−3	
D. Management of treatment-dependent ABPA		
1. Oral glucocorticoids	−3	3- 6
2. Oral itraconazole	3	
3. Oral voriconazole	1	
4. Inhaled amphotericin B	3	
5. Type-2 biologics	3	
6. Methylprednisolone pulses	−3	
E. Treatment response monitoring		
1. Clinical review	3	10 or 13
2. Chest radiograph	3	
3. Spirometry	1	
4. Serum total IgE	3	
5. Therapeutic drug	3	

monitoring for azole (2 weeks, 2 months)		
6. Serum A. Fumigatus IgE or IgG	−3	

Maximum score for acute ABPA: (A + B + C + E) = 32–35

Maximum score for treatment- dependent ABPA (A + B + D + E)= 32–38

Limitations and knowledge gaps

The editorial acknowledges persistent evidence gaps: limited randomized data for many management questions (e.g., duration/indications for antifungals, optimal biologic selection and duration), and variability in access to diagnostic tests or biologic therapies across low- and middle-income settings.

The authors call for prospective validation of the guidelines (and of the EQUAL ABPA score) and for research into biomarkers, long-term outcomes, and cost-effectiveness.

Conclusion

The 2024 ISHAM-AWG revision represents a major step toward harmonizing diagnosis and management of ABPA by combining up-to-date evidence with pragmatic tools for implementation. If widely adopted and validated, these recommendations are expected to improve diagnostic accuracy, reduce inappropriate treatments (including anti-tubercular therapy for misdiagnosed cases), limit steroid exposure, and provide clearer pathways for use of antifungals and biologics.

Allergy Trivia

Dr D Rama Rajyam

Latex Allergy

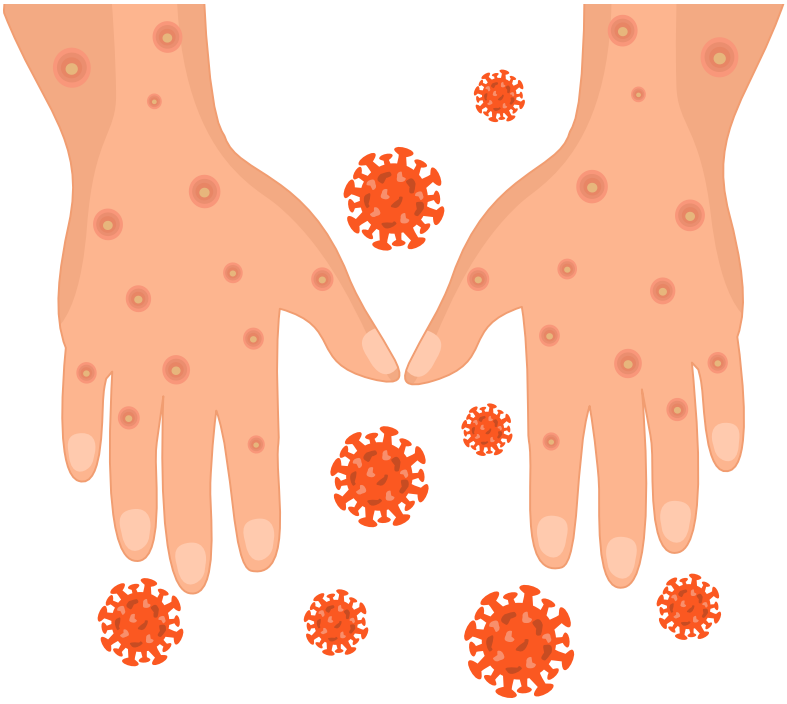
- True or False? People allergic to latex may also react to foods like banana, avocado, kiwi, and chestnut. → True (This is called latex–fruit syndrome).
- Latex allergy is most common in which group? → Healthcare workers (due to repeated exposure to gloves).
- What is the most severe reaction in latex allergy? → Anaphylaxis (life-threatening).
- Can latex balloons trigger an allergic reaction just by being in the same room? → Yes! In highly sensitive people, airborne latex proteins can cause asthma or anaphylaxis. Insect Allergy (Hymenoptera venom allergy – Bee, Wasp, Ant stings)
- Which insect sting is most likely to cause life-threatening anaphylaxis? → Honeybee, Wasp, and Fire ant stings.
- True or False? Only people stung many times can develop an insect sting allergy. → False. Even a single sting can trigger allergy in sensitized people.
- What is the first-line emergency treatment for severe insect sting allergy? → Adrenaline (Epinephrine) auto-injector.
- Insect sting allergy is more common in: Adults (especially men working outdoors).
- Which traditional 'home remedy' for insect stings should be avoided because it delays treatment? → Cutting the wound and sucking venom (ineffective and dangerous).

Take-home message: Latex and insect sting allergies can be life-threatening. Awareness, avoidance, and quick access to epinephrine save lives

Oral Food Allergy Syndrome (OFAS)

- True or False? Oral Food Allergy Syndrome usually occurs in people who already have pollen allergy. → True (cross-reaction between pollen proteins and certain raw fruits/vegetables).
- OFAS symptoms are usually: A) Swelling of lips, tongue, itchy mouth B) Severe skin rashes C) Stomach ulcers → Answer: A.
- Which season is OFAS most often noticed? → Spring / pollen season, because pollen allergy flares up then.
- People allergic to birch pollen often react to: Apple, carrot, celery, hazelnut, pear.
- People allergic to ragweed pollen may react to: Melon, banana, cucumber, zucchini.
- True or False? Cooking the food usually reduces or prevents symptoms of OFAS. → True (heat destroys the cross-reactive proteins).
- OFAS is usually mild. But in rare cases, it may progress to: Anaphylaxis.
- Which is the first-line treatment for severe OFAS reactions? → Epinephrine (Adrenaline) auto-injector.

Take-home message: Oral Food Allergy Syndrome is a cross-reaction between pollen and certain raw plant foods. It is usually mild, but awareness is key because rarely it can become serious.



Spotlight

Dr. Vinay Mehta
MD, FAAAI, FCAAI
Allergy & Asthma Associates of Southern California
Irvine, California, USA

Introduction

Dr. Vinay Mehta is a board-certified allergist at Allergy & Asthma Associates of Southern California in Irvine, California. He completed his residency in internal medicine at the Mayo Clinic in Rochester, Minnesota, and his fellowship in allergy and immunology at Creighton University in Omaha, Nebraska. His areas of clinical interest include severe asthma, chronic sinusitis, atopic dermatitis, chronic urticaria, and eosinophilic esophagitis.

In addition to clinical practice, Dr. Mehta is passionate about medical education. Since 2010, he has volunteered his time at Christian Medical College, where he helps train allergists across India through a one-year distance learning diploma program, Diploma in Allergy & Asthma (DAA). He is also a volunteer faculty for the Diploma in Pediatric Allergy & Asthma (DPAA) at Sir Ganga Ram Hospital in Delhi, the Fellowship in Allergy, Asthma and Immunology (FAAI) at PGIMER Chandigarh and AIIMS Rishikesh, and the Diploma in Allergy, Asthma & Immunology (DAAI) in Kozhikode, Kerala. Since 2019, Dr. Mehta has served as the scientific co-chair of Allergocon, an annual international allergy conference held at CMC Vellore. In collaboration with International Asthma Services (IAS), he has participated in CME programs and asthma camps in various parts of India, as well as Kenya, Myanmar, Vietnam, and Russia.

Early Career and Inspiration

My interest in allergy and immunology began after personally being diagnosed with eosinophilic esophagitis in 2002 while a resident at the Mayo Clinic. At the time, eosinophilic esophagitis was a poorly understood disease of uncertain prognosis and unclear treatments. However, a clear association with allergic disorders had been established. My gastroenterologist at the time, Dr.

Jeffrey Alexander, therefore encouraged me to pursue a fellowship in allergy & immunology. Researching my own disease gave me a unique appreciation for the complexity of the field of allergy. I became fascinated not only by the mechanisms underlying allergic diseases but also by the ways in which allergen immunotherapy could significantly improve quality of life and arrest disease progression.

During my first year of allergy fellowship, I had the privilege of connecting with Dr. P.K. Vedanthan, whose dedication to global health deeply inspired me. He invited me to join him at a free asthma camp in Barrackpore, Kolkata, where I witnessed firsthand the tremendous burden of asthma in India. This experience strengthened my commitment to global health through charitable service and education.

Later, while in private practice, I had the privilege of being involved in clinical trials in various therapeutic areas, namely severe asthma, atopic dermatitis, eosinophilic esophagitis, chronic urticaria, and hereditary angioedema. Witnessing how clinical research can directly transform patient care reinforced my passion for advancing the field through evidence-based medicine.

Key Achievements and Contributions

For me, my greatest achievement is advocating for patients and raising awareness about allergic disorders. I have been fortunate to engage in teaching early on, both locally and abroad. Despite significant advancements in allergy over the past decade, the field remains relatively underrepresented compared to other specialties. By training more physicians, I am hopeful that more patients will be able to benefit from the breakthroughs in this field, particularly with regards to preventing disease progression though allergen immunotherapy.

Challenges and Lessons Learned

One of the greatest challenges in the field of allergy is the complexity and variability of allergic diseases. Disorders such as asthma, atopic dermatitis, eosinophilic esophagitis, and food allergies often overlap and present differently across patients, making the diagnosis and management individualized. Limited awareness of allergy as a specialty and disparities in access to care also remain significant barriers, particularly in India.

In my own practice, I have learned the importance of listening closely to my patients, collaborating across specialties, and remaining adaptable as the field of allergy rapidly evolves. Perhaps the most valuable lesson has been recognizing our role as educators and advocates for our patients and family members.

Ethical Practice

As a physician, it is important to place the patient's well-being at the center of every decision. One should regard every patient as their own family member, working to serve them with fairness, dignity and empathy. In the field of allergy, this means navigating complex treatment options, balancing risks and benefits, and advocating for access to therapies regardless of ethnic or socioeconomic barriers.

Personal Reflection and Advice

The field of allergy is an evolving field. Advances in diagnostic and therapeutic modalities are rapidly transforming the landscape, offering hope for conditions that were once difficult to manage. Yet my advice for new physicians is simple: listen carefully and learn from your patients, as they are often your best teachers. Their experiences, symptoms, and insights can guide diagnosis, treatment decisions, and even inspire new approaches to care.

Final Message

Beyond listening to our patients, it is important to advocate for them—whether ensuring access to therapies, educating families, or raising awareness about allergic diseases. Sometimes, even a small intervention or education can make a profound difference.

Allergy Quiz

Contributed by the Delhi Chapter

Chronic Spontaneous Urticaria and Angioedema

1, Urticaria is termed chronic if it persists for more than:

a) 1 week
b) 4 weeks
c) 6 weeks
d) 12 weeks

Correct Answer: c

Explanation: The key difference between acute and chronic urticaria (hives) is duration. Acute urticaria lasts less than **six weeks**, while chronic urticaria persists for six weeks or longer, often occurring most days of the week. Acute hives are frequently caused by external triggers like an allergic reaction to food, medication, or a viral infection. Majority of cases (approximately 80%) of chronic spontaneous urticaria are idiopathic, meaning no specific external trigger can be identified. The prevailing hypothesis is that it relates to autoimmune dysfunction involving autoantibodies targeting IgE and/or IgE receptors to activate histamine release from basophils and mast cells.

2, A 15-year-old boy presents with daily episodes of pruritic wheals for the past 4 months. Each individual lesion resolves within 12 hours without leaving a bruise or hyperpigmentation. He also reports occasional swelling of his lips and eyelids. His physical exam is unremarkable, and he has no other systemic symptoms. Which of the following is the most appropriate initial diagnostic workup?

a) A complete blood count (CBC) with differential, and erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP)
b) Comprehensive allergy panel (Immunocap or skin prick testing) for common food and environmental allergens.
c) Autologous serum skin test (ASST) to assess for an autoimmune etiology.
d) Serum tryptase level and C1 esterase inhibitor levels

Correct Answer: a.

Explanation: Chronic urticaria in children is primarily a clinical diagnosis. It is important to take a detailed history to differentiate it from other conditions and to identify any potential triggers. The initial, routine workup for chronic urticaria is minimal. A **CBC** helps to rule out underlying

infections or hematologic abnormalities, and inflammatory markers like ESR or CRP can indicate the presence of systemic inflammation. Other tests are reserved for specific clinical situations. Expensive tests like comprehensive allergy panels should be avoided as chronic urticaria is rarely caused by a classic IgE-mediated food or environmental allergy. The diagnosis is mainly clinical based on appearance of itchy recurrent wheals and/or angioedema for more than 6 weeks, with resolution within 24 hours.

3, The primary inflammatory cell involved in the pathogenesis of chronic spontaneous urticaria is the:

a) Neutrophil.
b) Eosinophil.
c) Lymphocyte.
d) Mast cell.

Correct Answer: d

Explanation: The mast cell is the central effector cell in urticaria. When activated by autoantibodies or other triggers, it degranulates and releases histamine. Histamine binds to H-1 receptors located on endothelial cells and sensory nerves which is responsible for the characteristic wheals and pruritus. Prostaglandin, leukotrienes, and a variety of cytokines and chemokines are also involved. Ultimately, this induces vasodilatation and increased permeability of vessels leading to dermal edema and recruitment of inflammatory cells.

4. According to international guidelines, the maximum up-dosing recommended for non-sedating antihistamines in CSU is

a) 2× standard dose
b) 3× standard dose
c) 4× standard dose
d) No up-dosing allowed

Correct Answer: c

Explanation: Second-generation H1-antihistamines (e.g., cetirizine, loratadine, fexofenadine), taken regularly, are the first-line pharmacological treatment. The dose can be up-titrated to 4 times standard dose if symptoms remain at 2 to 4-week intervals. Due to anticholinergic properties and the adverse effect profile on the central nervous system, the routine use of first-generation H1-antihistamines is no longer recommended.

5, Which of the following statements about the Autologous Serum Skin Test (ASST) in pediatric chronic urticaria is most accurate?

a) A positive ASST is a definitive diagnosis of an IgE-mediated allergy.

b) A positive ASST indicates the presence of functional autoantibodies (IgG) that can activate mast cells.

c) ASST is recommended as a routine first-line diagnostic test for all children with chronic urticaria.

d) The ASST is a reliable tool to predict the child's response to H1-antihistamine therapy

Correct Answer: b.

Explanation: The ASST involves injecting a small amount of the patient's own serum intradermally. A positive result (a wheal larger than the saline control) suggests that the patient's serum contains a factor that can induce mast cell degranulation, most commonly autoantibodies (IgG) against the high-affinity IgE receptor (FcεR1α) or IgE itself. This test supports the diagnosis of an autoimmune-driven chronic spontaneous urticaria. However, it is not a routine test as the presence of these autoantibodies do not significantly change the initial management strategy, which is based on a stepwise drug regimen. A negative result does not completely exclude an autoimmune cause, and the test's use has become more limited in routine practice.

6, Which tool is commonly used for monitoring CSU disease activity?

a) CU-Q2oL
b) Urticaria Activity Score (UAS7)
c) DLQI only
d) Visual analogue scale for pruritus

Correct Answer: b

Explanation: **The Urticaria Activity Score (UAS7)** is the standard and most validated tool for assessing disease activity in CSU. It is a simple, patient-completed diary that quantifies both the **number of wheals** and the **severity of itching** on a daily basis for seven consecutive days. The scores are summed to give a total score from 0 to 42. It provides a reliable and objective measure of symptom burden, which is crucial for monitoring treatment response and making management decisions. While other tools like the DLQI and CU-Q2oL measure quality of life, they do not directly quantify disease activity in the same way as the UAS7.

Correct Answer: b

7, A 12-year-old boy presents with a 7-month history of daily wheals and episodes of facial swelling. He has failed high-dose H1 antihistamines. The most appropriate next step in his management, according to EAACI/WAO guidelines is:

a) Addition of a leukotriene receptor antagonist (LTRA).
b) Initiation of omalizumab.
c) A short course of oral corticosteroids.
d) Referral for a skin prick test to identify a trigger.

Correct Answer: b

Explanation: According to current international guidelines for the management of chronic spontaneous urticaria (CSU), the next step after a failure of high-dose H1 antihistamines is the addition of **omalizumab,** a monoclonal antibody against IgE. Oral corticosteroids are not recommended for long-term use, and LTRAs are less effective and considered a third-line option.

8, Which of the following is the most likely mechanism of action of omalizumab in the treatment of chronic spontaneous urticaria?

a) It blocks the histamine H1 receptor on mast cells.
b) It inhibits the degranulation of mast cells and basophils by binding to free IgE.
c) It suppresses the production of autoantibodies against the IgE receptor.
d) It antagonizes the action of bradykinin, a key mediator in angioedema.

Correct Answer: b

Explanation: **Omalizumab** is a recombinant humanized monoclonal antibody that targets the Fc portion of IgE. By binding to free IgE in the circulation, it prevents IgE from binding to the high-affinity IgE receptor (FcεRI) on the surface of mast cells and basophils. It prevents their degranulation and inhibits the release of histamine and other inflammatory mediators that cause wheals and itching. Omalizumab not only reduces free IgE levels but also downregulates the expression of FcεRI on mast cells and basophils. This targeted mechanism makes it a very effective and safe treatment for CSU. The recommended dose for omalizumab is 300 mg every 4 weeks. With this dosing regimen, minimal disease activity can be achieved in 65% of patients within 3 months. Although lower doses, such as 150 mg every 4 weeks, can be effective in some patients.

9, A 10-year-old patient with chronic urticaria presents with wheals that are consistently triggered by writing on the skin with a tongue depressor or by friction from clothing. The wheals appear within minutes and resolve in less than an hour. Which of the following is the most likely diagnosis?

a) Chronic spontaneous urticaria (CSU)
b) Chronic inducible urticaria (CIndU)
c) Urticarial vasculitis
d) Hereditary angioedema (HAE)

Correct Answer:B. Chronic inducible urticaria (CIndU).

Explanation: CIndU is a subgroup of chronic urticaria which develops after exposure to a known stimulus, such as cold, heat, pressure, vibration, sunlight, or water. Common forms include dermographism (due to scratching), cold urticaria, cholinergic urticaria (from heat or sweat), and delayed pressure urticaria. Management involves avoiding triggers, using antihistamines and in some cases, a prescription for an epinephrine auto-injector due to the risk of serious reactions like cold anaphylaxis.

10, A 40-year-old male with chronic urticaria fails to respond to high-dose antihistamines and omalizumab. He has no angioedema. His laboratory workup is negative for autoimmune markers. Which of the following is an appropriate next-line agent to consider?

a) Plasmapheresis.
b) Cyclosporine.
c) Rituximab.
d) Adrenaline (epinephrine).

Correct Answer: b

Explanation: For patients with CSU refractory to both high-dose antihistamines and omalizumab, the next step is the use of an immunosuppressant. **Cyclosporine** is the recommended third-line option due to its evidence of efficacy in inhibiting T-cell function and indirectly suppressing mast cell activity.While effective, its use is limited by a considerable risk of adverse effects, including nephrotoxicity, hypertension, and increased susceptibility to infections. Because of this, it requires close monitoring and is typically managed by a specialist.

11. A patient with chronic spontaneous urticaria develops severe, burning wheals that last for over 24 hours and leave residual hyperpigmentation. A skin biopsy would most likely show:

a) Neutrophilic infiltration with perivascular edema.

b) Mast cell degranulation in the dermis.
c) A dense perivascular infiltrate of lymphocytes, neutrophils, and eosinophils, with evidence of leukocytoclastic vasculitis.
d) No significant inflammatory infiltrate.

Correct Answer: c

Explanation: This clinical presentation is highly suggestive of **urticarial vasculitis,** a condition where the wheals are a manifestation of an underlying small-vessel vasculitis. On histopathology, it shows a dense inflammatory infiltrate and signs of vessel damage, unlike simple urticaria

12. Which of the following is considered a key differentiating feature between mast cell-mediated angioedema and bradykinin-mediated angioedema?

a) Mast cell-mediated angioedema is typically associated with urticaria and pruritus.
b) Bradykinin-mediated angioedema responds well to antihistamines and corticosteroids.
c) Mast cell-mediated angioedema is often recurrent and hereditary.
d) Bradykinin-mediated angioedema is a common side effect of NSAIDs.

Correct Answer: a

Explanation: The presence of **urticaria (hives)** and **pruritus (itching)** is the most important clinical differentiator. Approximately 40% patients with urticaria develop mast cell mediated angioedema and sometimes allergic angioedema can present without urticaria. Mast cell degranulation releases histamine, causing both wheals and itching. It typically responds to antihistamines and corticosteroids. **Bradykinin-mediated angioedema** (HAE, AAE or ACE-inhibitor-induced) does not cause urticaria or itching. Bradykinin is a vasodilatory peptide which plays a key role in endothelial cell activation and tissue edema. It does not respond to anti mast cell treatments i.e antihistamines or corticosteroids

13, A 10-year-old boy presents with recurrent episodes of facial and abdominal swelling since childhood. His father has a similar history of unexplained swelling. Laboratory evaluation reveals low levels of C4 and C1-inhibitor (C1-INH) protein. What is the most likely diagnosis?

a) Acquired C1-inhibitor deficiency (AAE)
b) Allergic angioedema
c) Hereditary angioedema (HAE) type I
d) Hereditary angioedema (HAE) type II

Correct Answer: c

Explanation: This patient's presentation is classic for **hereditary angioedema (HAE)**, an autosomal dominant disorder. The combination of early onset, a positive family history, and recurrent swelling without urticaria points to a bradykinin-mediated cause. HAE is diagnosed by a deficiency or dysfunction of the C1-inhibitor protein which is a plasma protease inhibitor that regulates several proinflammatory pathways. There are three types of HAE-Type I is characterized by **low C1-INH protein levels and function**, which leads to low C4 levels.

14, A 60-year-old woman with a history of chronic urticaria presents with angioedema of the tongue and lips after starting an ACE inhibitor. There is no history of associated wheals. What is the most likely diagnosis?

a) Allergic angioedema.
b) Hereditary angioedema (HAE).
c) Acquired angioedema (AAE).
d) Drug-induced angioedema.

Correct Answer: d

Explanation: ACE inhibitors are a well-known cause of drug-induced angioedema due to the accumulation of **bradykinin.** Unlike allergic angioedema, it is not associated with urticaria. Most cases of angioedema occur in the first week after starting ACE inhibitor therapy. However, up to one-third of cases occur months to years after initiating the medication. ACE inhibitors should be discontinued in any individual who presents with angioedema without urticaria as this can be life-threatening when it involves the upper airway.

15, Which of the following is the most appropriate first-line treatment for an acute, life-threatening laryngeal attack in a patient with hereditary angioedema?

a) Epinephrine
b) High-dose corticosteroids
c) Antihistamines
d) C1-inhibitor concentrate

Correct Answer: d

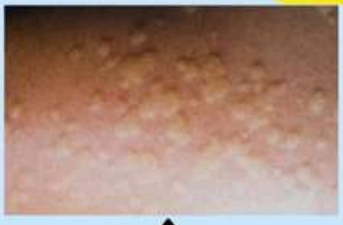
Explanation: Unlike histamine-mediated angioedema, attacks of HAE do not respond to epinephrine, corticosteroids, or antihistamines because they are not mediated by histamine. The underlying problem is the overproduction of bradykinin. The most effective treatment for an acute attack is to replace the deficient or dysfunctional protein using a **C1-inhibitor (C1-INH) concentrate.** Other options for acute attacks include bradykinin receptor antagonists (e.g., icatibant) or kallikrein inhibitors (e.g., ecallantide).

URTICARIA AWARENESS BY IAP ALLERGY AND APPLIED IMMUNOLOGY CHAPTER

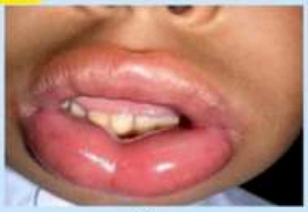
CAUSES AND TRIGGERS

- Allergies
- Infections (viral / bacterial)
- Preservatives in food
- Some medication
- Insect Bites
- Autoimmune condition
- Extreme temperature
- Stress

SYMPTOMS



raised, red or pink, itchy bumps (wheals)



Angioedema (swelling of face and lips)

PREVENTION TIPS

- Avoid Known Triggers
- Use lukewarm water for bathing.
- Protect skin in extreme weather.

- Avoid Scratching
- Use Hypoallergenic Products
- Wear loose-fitting, cotton clothing.

WHEN TO CONSULT A DOCTOR?

- Severe swelling or difficulty in breathing (a sign of angioedema) requires immediate medical attention.
- You're unsure of the cause of your hives.
- Symptoms persist or worsen.

Do not self-medicate,consult a doctor for proper treatment.

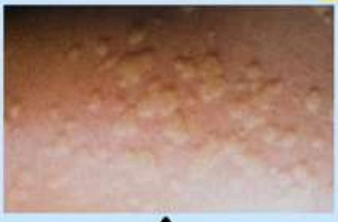
For further information visit
https://iapaai.com

URTICARIA AWARENESS BY IAP ALLERGY AND APPLIED IMMUNOLOGY CHAPTER

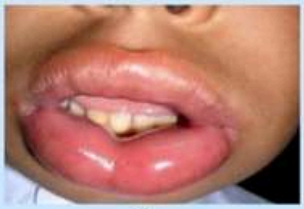
कारण और ट्रिगर

- एलर्जी
- संक्रमण (वायरल / बैक्टीरियल)
- भोजन में परिरक्षक
- कुछ दवाएँ
- कीड़े का काटना
- स्वप्रतिरक्षी स्थिति
- अत्यधिक ठंडा/ गरम तापमान
- तनाव

लक्षण



उभरे हुए, लाल या गुलाबी, खुजली वाले दाने (व्हील्स)



एंजियोएडेमा (चेहरे और होंठों की सूजन)

रोकथाम के सुझाव

- ज्ञात कारणों से बचें।
- स्नान के लिए गुनगुने पानी का प्रयोग करें।
- अत्यधिक ठंडे/ गरम तापमान में त्वचा की सुरक्षा करें।

- खरोंचने से बचें।
- हाइपोएलर्जेनिक उत्पादों का उपयोग करें।
- ढीले-ढाले, सूती कपड़े पहनें।

डॉक्टर से कब परामर्श करें?

- गंभीर सूजन या सांस लेने में कठिनाई (एंजियोएडेमा का संकेत) के लिए तत्काल चिकित्सा की आवश्यकता होती है।
- आप अपने अर्टिकेरिया के कारण के बारे में अनिश्चित हैं।
- लक्षण बने रहते हैं या बिगड़ जाते हैं।

स्वयं दवा न लें, उचित उपचार के लिए डॉक्टर से परामर्श लें।

अधिक जानकारी के लिए यहां जाएं
https://iapaai.com

Myths and Facts: Drug Allergies

Contributed by North-East Team

Topic: Allergen Immunotherapy (AIT)

Allergen immunotherapy is a treatment where small, controlled doses of the allergy-causing substance (allergen) are given over time to reduce sensitivity. It is available as injections (subcutaneous immunotherapy, SCIT) or drops/tablets under the tongue (sublingual immunotherapy, SLIT).

❌ **Myth 1:** "Immunotherapy cures allergies immediately."

✅ **Fact:** Immunotherapy is not a quick fix. It works gradually by training the immune system to tolerate allergens. Most patients need 3–5 years of treatment to see long-term benefits.

❌ **Myth 2:** "It is the same as taking allergy medicines."

✅ **Fact:** Antihistamines and inhalers control symptoms temporarily. Immunotherapy is the only treatment that modifies the disease, reducing symptoms even after treatment is stopped.

❌ **Myth 3:** "All allergy patients need immunotherapy."

✅ **Fact:** Not everyone needs it. It is useful for:

- Allergic rhinitis (dust mite, pollen, mold, animal dander)
- Allergic asthma
- Certain insect sting allergies (bee/wasp)

👉 It is not given for food allergies or skin allergies like eczema/urticaria.

❌ **Myth 4:** "It is unsafe and risky."

✅ **Fact:** When given under medical supervision, immunotherapy is generally safe.

- Mild side effects: local redness, itching at injection site, throat irritation in SLIT.
- Severe reactions (rare): anaphylaxis – which is why injections are given in clinics with emergency care available.

❌ **Myth 5:** “Once I stop, my allergy will come back immediately.”

✅ **Fact:** If completed for the recommended duration (usually 3–5 years), immunotherapy gives long-term benefits. Symptoms may stay reduced for years, even after stopping.

❌ **Myth 6:** “It works for all allergens.”

✅ **Fact:** Immunotherapy works best for specific allergens proven by tests (skin prick test or blood IgE test). For example, dust mites, pollens, molds, animal dander, insect venom. It does not work for non-allergic triggers like smoke, perfumes, or pollution.

❌ **Myth 7:** “It can be started at any time during an allergy flare-up.”

✅ **Fact:** It should be started when the patient’s symptoms are well controlled with medicines, not during severe asthma attacks or infections.

❌ **Myth 8:** “Children cannot take immunotherapy.”

✅ **Fact:** Children above 5 years of age can safely receive immunotherapy. In fact, starting early may prevent progression from allergic rhinitis to asthma.

❌ **Myth 9:** “I can stop my regular medicines as soon as I start AIT.”

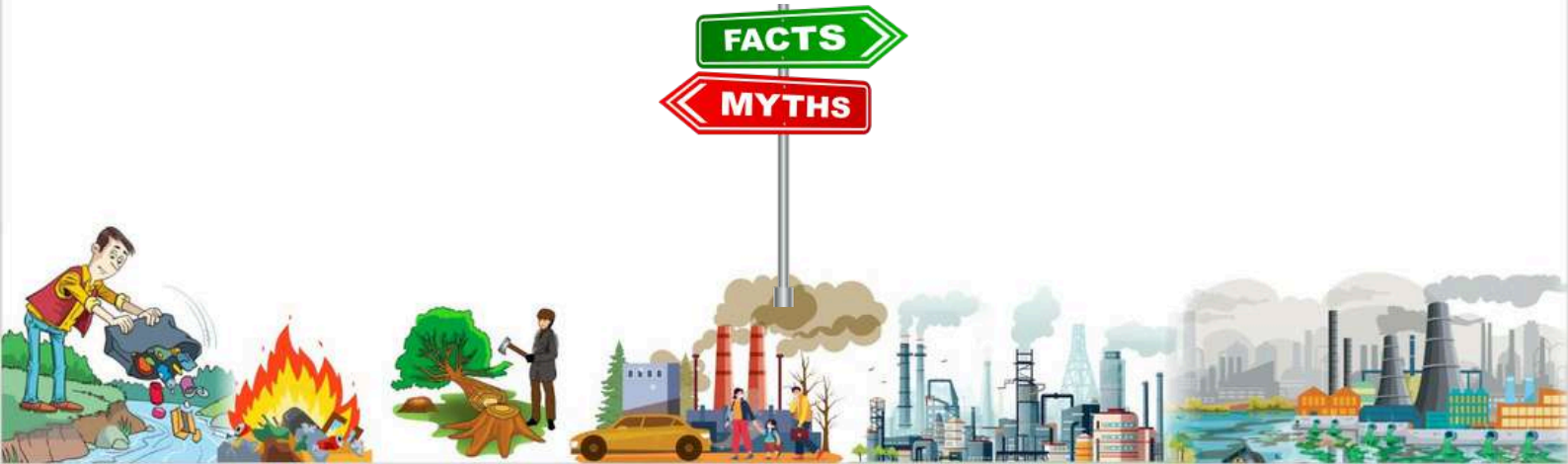
✅ **Fact:** Immunotherapy takes time to show effects. Patients usually need to continue their regular allergy/asthma medicines in the beginning. Over time, the need for medicines reduces.

❌ **Myth 10:** “Immunotherapy is only available as injections.”

✅ **Fact:** Both injections (SCIT) and sublingual tablets/drops (SLIT) are available. The choice depends on allergen type, patient preference, cost, and doctor’s advice.

📝 ***Key Takeaway***

Allergen immunotherapy is the closest we have to a long-term solution for respiratory allergies and allergic asthma. It requires patience, regular follow-up, and medical supervision, but the benefits can be life-changing.



Patient Awareness Corner

Dr. Nayan Mani Deka
Guwahati, Assam

Festival Allergies: Stay Safe & Celebrate Healthy

🎇 Common Festival Triggers

- Firecrackers → smoke, dust, heavy metals
- Perfumes, incense, scented candles → strong smells, volatile chemicals
- Air pollution → worsens asthma, bronchitis, allergies
- Noise & crowding → stress, anxiety, wheezing in children

👀 Who is Most at Risk?

- Children 👶
- Elderly 👴
- Asthma & allergy patients 😷
- People with sinusitis or bronchitis 🤧
- Pregnant women 🤰

🚨 Warning Signs

- Continuous sneezing, runny or blocked nose
- Itchy/watery eyes
- Cough, wheezing, chest tightness
- Difficulty breathing or speaking
- Blue lips / severe breathlessness → EMERGENCY

✅ Do's (Safe Festival Practices)

- Choose eco-friendly, cracker-free celebrations
- Use LED lights, flowers, rangoli for decoration
- Monitor Air Quality Index (AQI) before going outdoors
- Wear N95 masks if pollution is high
- Keep inhalers/medicines handy
- Ventilate rooms if candles or lamps are lit
- Drink water, eat fruits & vegetables
- Practice deep breathing / pranayama

❌ Don’ts (Things to Avoid)

- Bursting or standing near firecrackers
- Using strong perfumes, incense sticks, scented sprays
- Going outdoors during peak smoke hours
- Ignoring asthma symptoms or skipping medicines
- Allowing kids to play in smoky areas

👪 Tips for Parents

- Tell teachers/relatives about your child’s allergies
- Make sure your child carries an inhaler
- Encourage safe fun: rangoli, music, crafts
- Keep kids away from crackers & incense smoke

🌍 Community Role

- Promote cracker-free festivals in schools & housing societies
- Organize awareness campaigns on clean air
- Support eco-friendly decorations & gifting

When to See a Doctor

- Frequent asthma attacks despite medicines
- Severe chest tightness, breathlessness, bluish lips
- Continuous irritation of eyes, nose, or skin
- High fever or infection after smoke exposure

✨ Remember

Festivals should bring joy, not illness. By avoiding smoke, strong perfumes, and unsafe practices, you can protect your health, your children, and the environment.

Let’s celebrate with light, love, and fresh air

Upcoming Allergy Events

1

Allergy Forum
Second Tuesday of every month at Virtual Platform (9-10 PM)

Description: The Allergy Forum will provide a platform for case-based discussions on various aspects of allergy by different institutions. Previous sessions can be accessed at https://www.youtube.com/@PAAI-IAP.

2

Allergy Webinar
Last Friday of every month at Virtual Platform (9-10 PM)

Description: The monthly activity of the chapter, ongoing since April 2022, involves talks and panel discussions by leading allergy experts across the globe. Previous sessions can be accessed at https://iapaai.com/webinar/.

3

Webinar Series: Investigations in Allergy Practice
Dates: November 12-14, 2025 at Virtual Platform (8-10 PM)

Description: The IAP Allergy & Applied Immunology Chapter proudly announces a 3-day national webinar series on *"Investigations in Allergy Practice"* to be held from **12th–14th November 2025** (8:00–10:00 PM, Zoom platform). This academically rich program aims to strengthen the understanding of diagnostic tools essential for rational allergy care.

Day 1 will focus on Foundations of Allergy Investigations, covering the power of history taking, total IgE interpretation, in-vitro testing, and eosinophilia work-up.

Day 2 will explore *In-vivo Testing Techniques*, including skin prick, intradermal, basophil activation, and patch testing.

Day 3 will highlight *Provocation Tests and Advances in Allergy Diagnostics*, encompassing oral food, nasal, bronchial, and drug challenges, with insights into future diagnostics.

This comprehensive series brings together leading experts across India, offering evidence-based discussions and clinical pearls to enhance allergy diagnostic proficiency among pediatricians and allergists.

PEDICON2026

63rd Annual Conference of Indian Academy of Pediatrics
16TH JANUARY - 20TH JANUARY, 2026 | KOLKATA

West Bengal Academy of Pediatrics

16th - 20th January, 2026

Biswa Bangla Convention Centre, Kolkata, India

RATIONAL APPROACH TO ALLERGY DIAGNOSIS IN OFFICE PRACTICE

WHO SHOULD ATTEND?

- All Paediatric practitioners as allergic diseases are now a common complaint among OPD patients

THE WORKSHOP OBJECTIVE:

- To familiarise Paediatricians with quick and effective approach to children with allergies : Allergic Rhinitis Allergic Asthma , Urticaria and Food Allergies
- Rational and effective approach to diagnosis , with special emphasis on SPT, CRD and newer modalities
- Pharmacotherapeutic approach including
- Immunotherapy

JAN 16, 2026
9:00 AM TO 4:00 PM

NATIONAL COORDINATORS
Dr. Uppin Narayan

PEDICON COORDINATOR
Dr. Sanjukta De

JOINT COORDINATOR
Dr. Nihar Ranjan Misra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