IAP ALLERGY AND APPLIED IMMUNOLOGY CHAPTER

A KNOWLEDGE INITIATIVE

ALLERGY BULLETIN: AUGUST 2025 EDITION

MONSOON ALLERGIES

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Allergy Bulletin – August 2025 Issue

Dr Neeraj Gupta

Monsoon Allergies

Dear Esteemed Colleagues,

Greetings from the IAP Allergy and Applied Immunology Chapter!

As we welcome the monsoon season in different parts of India, I take this opportunity to bring your attention to a particularly relevant and often overlooked area in allergy practice – **Monsoon Allergies.** This season, while bringing much-needed respite from the scorching heat, also ushers in a surge of allergic disorders, exacerbations, and diagnostic dilemmas for pediatricians and allergy specialists alike.

In this issue of the Allergy Bulletin, our focus is to sensitize, educate, and empower clinicians to better recognize and manage allergic diseases that intensify during this unique climatic window.

Why Do Allergies Worsen During the Monsoons?

Monsoon in India is characterized by **increased humidity, sudden temperature shifts, poor ventilation,** and an overall damp environment. These climatic conditions foster the growth of **fungi (molds), house dust mites, cockroaches,** and **bacterial bioaerosols.** All of these are known indoor allergens that can worsen **airway and skin allergies.**

Moreover, stagnant rainwater and poor drainage systems create breeding grounds for insects and mites, aggravating **insect bite hypersensitivities** and **urticarial episodes.** In outdoor environments, post-rain growth of **fungal spores (such as Aspergillus, Cladosporium, Alternaria)** in soil, decaying vegetation, and construction debris lead to increased airborne allergen load.

Clinical Manifestations of Monsoon Allergies

1. Respiratory Allergies

- **Allergic Rhinitis:** Patients may present with sneezing, nasal blockage, watery discharge, and itching, often triggered or worsened by mold spores and indoor allergens.
- **Allergic Asthma:** A significant number of children experience asthma flares during the rainy season due to exposure to damp indoor environments, dust mite proliferation, and increased indoor crowding.
- **Mold-induced exacerbations:** In children with pre-existing asthma, **fungal sensitization**, particularly to Aspergillus fumigatus, may lead to increased bronchial reactivity and even risk for conditions like Allergic Bronchopulmonary Aspergillosis (ABPA) in select cases.

2. Skin Allergies

- **Atopic Dermatitis** may worsen due to excessive sweating, occlusive clothing, wet garments, and high humidity, all of which disturb the skin barrier and promote secondary infections.
- **Fungal Skin Infections (Tinea),** while not allergic per se, often complicate pre-existing eczema and can be mistaken for flare-ups.
- **Urticaria and Insect Bite Reactions** tend to increase during the monsoons due to proliferation of midges, mosquitoes, and other biting insects.

3. Food Allergy Exacerbations

- During the monsoon, dietary habits change, and food storage often becomes suboptimal due to humidity. **Fermented, stale, or mold-contaminated food** can trigger non-IgE-mediated or mixed-pattern food-related hypersensitivities.
- Spoilage of grains, nuts, and dairy products during storage is a silent but potent trigger of GI and skin allergic symptoms in sensitized individuals.

Diagnostics in Monsoon Allergy Practice

A high index of suspicion, coupled with **detailed environmental and dietary history,** is critical during this season.

- **Skin Prick Testing (SPT)** and **specific IgE testing** for common fungal allergens (e.g., Aspergillus, Alternaria, Cladosporium) and house dust mites can help identify triggers.
- **Molecular component-resolved diagnostics (CRD)** can help differentiate genuine fungal sensitization from cross-reactivity.
- **Nasal eosinophils, FeNO,** and **spirometry or impulse oscillometry** can assist in monitoring airway inflammation during this period.
- Imaging may be warranted in patients with persistent symptoms, particularly to rule out fungal sinusitis or lower respiratory fungal disease.

Preventive and Therapeutic Strategies

Given the unavoidable nature of monsoon weather, our emphasis must be on **minimizing indoor allergen exposure, improving ventilation, and adopting environmental control practices.**

Environmental Measures:

- Encourage **sunlight exposure,** use of **dehumidifiers** in closed spaces, and cross-**ventilation** wherever possible.
- Carpets, upholstered furniture, and soft toys should be minimized or vacuumed with HEPA filters.
- Fungal-prone corners (kitchens, bathrooms, storerooms) must be routinely cleaned with antifungal disinfectants.
- Educate families about **proper food storage** practices, avoiding moldy or expired grains and food products.

Pharmacologic Management:

- Use of **non-sedating antihistamines, intranasal corticosteroids, leukotriene receptor antagonists,** and **asthma controller therapies** (ICS/LABA) is essential.
- Short-course oral **corticosteroids** may be needed in acute flares.
- **Topical therapies** for skin involvement should be optimized to prevent secondary infections.

Immunotherapy:

- **Allergen-specific immunotherapy (AIT)** targeting *Dermatophagoides pteronyssinus, D. farinae,* and fungal allergens (if clinically and immunologically indicated) remains underutilized in India but should be considered in carefully selected patients with persistent symptoms despite optimal pharmacotherapy and allergen avoidance.

Role of Schools and Community Settings

- Monsoon months coincide with school terms across most of India. Schools must be sensitized about the impact of mold and dust mites on allergic children. **School Allergy Management Plans (SAMP)** should include:
- Encouraging regular cleaning and ventilation of classrooms,
- Restricting exposure to wet or dusty areas,
- Ensuring availability of emergency medications (like inhalers, antihistamines, epinephrine if needed), and
- Facilitating physician-patient-school communication.

Need for Awareness and Capacity Building

Monsoon allergy management is not just a matter of clinical knowledge—it requires a **multi-sectoral and community-based approach.** In India, where allergic diseases are rising but awareness remains limited, this season should become a teaching moment.

At the IAP Allergy Chapter, we propose to:

- **Launch patient-facing materials** (posters, infographics, and videos) on monsoon allergy care,
- Conduct **school awareness programs,** particularly in metro cities with high humidity and urban mold exposure, and
- Foster research on **aeroallergen mapping during monsoon months,** including fungal spore burden, in collaboration with environmental scientists.

Final Thoughts

Monsoon is a beautiful season – but for many of our patients, especially children with allergic tendencies, it is a time of significant morbidity and missed school days. As clinicians, it is our responsibility to transform this challenging season into one of **preparedness and prevention.**

Let us take this season as an opportunity to:

- Reassess our patients' asthma control,
- Re-emphasize inhaler techniques and allergen avoidance measures,
- Identify modifiable environmental triggers, and
- Collaborate across specialties – dermatologists, ENT specialists, pulmonologists, and immunologists – to offer holistic care.

I urge each one of you to use the resources shared in this Allergy Bulletin, engage with our webinars and CME programs, and actively participate in patient education initiatives.

Together, let us continue to strengthen allergy care in India, one season at a time.

Warm regards,

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

Biologics in Allergy – A Transformative Educational Series

"Targeted Therapies in Allergies: The Biologics Era" – a three-day immersive webinar series organized by the IAP Pediatric Allergy and Applied Immunology Chapter – was conducted from **July 2 to 4, 2025,** bringing together renowned national and international experts to demystify and decode the role of biologics in allergic and immunologic disorders. With a sharp focus on evidence-based science, clinical decision-making, real-world applicability, and the Indian context, the series proved to be an academic milestone in allergy education.

The series was meticulously structured into three focused sessions – each spanning two hours, with four power-packed lectures followed by interactive Q&A segments – creating an enriching platform for over **1200 registered participants,** including pediatricians, allergists, pulmonologists, dermatologists, ENT specialists, and internal medicine physicians.

Dr Shalini Tyagi

Webinar 1: "Biologics in Allergic Disorders – Science, Indications, and the Indian Perspective"

The opening webinar laid the scientific and therapeutic foundation of biologics in allergic disease. It started with an insightful presentation by **Dr. Shalini Tyagi,** who unpacked the **mechanisms and molecular targets of biologics in allergy,** emphasizing the pivotal roles of IgE, IL-4, IL-5, and IL-13 pathways. Her talk served as a powerful primer on how monoclonal antibodies revolutionize immune modulation in allergic inflammation.

Dr. Karthik Nagaraju followed with a comprehensive overview of **approved biologics** in allergic diseases globally and in India, detailing the approved indications of **Omalizumab, Dupilumab, Mepolizumab, and Benralizumab**. His contextual commentary on the Indian regulatory and usage trends offered practical clarity for clinicians considering these options.

Dr Karthik Nagaraju

Dr Sunita Shukla

The third talk by **Dr. Sunita Shukla** delved into **chronic rhinosinusitis with nasal polyps (CRSwNP)** – one of the most evolving indications for biologics. She emphasized the need for precise **endotyping and phenotyping** to optimize treatment outcomes.

Dr Deepak Talwar

Closing the session, **Dr. Deepak Talwar** addressed **practical aspects of biologic therapy**, such as cost considerations, monitoring protocols, treatment duration, and the unique **accessibility challenges** within the Indian healthcare framework. His candid reflections grounded the academic discourse in real-world clinical practice.

Webinar 2: "Biologics in Action – Tackling Wheeze and Sneeze"

Dr Sitesh Roy

The second webinar spotlighted the application of biologics in **respiratory allergic disorders,** especially **severe asthma** and **allergic rhinitis**. It opened with **Dr. Sitesh Roy's** balanced discussion on the **long-term safety of biologics in children,** addressing concerns about growth, immune modulation, and infection risks. His reassuring message, backed by longitudinal data, allayed many fears associated with pediatric use.

Dr Vijay Warad

Dr. Vijay Warad then explained **biomarkers for patient selection,** such as **eosinophil counts, IgE levels, and FeNO,** helping clinicians better stratify responders and improve cost-effectiveness.

Dr Sowmya Nagarajan

The third speaker, **Dr. Sowmya Nagarajan,** explored the **expanding frontier of biologics in food allergy and eosinophilic esophagitis (EoE).** She reviewed ongoing global trials involving peanut allergy and EoE and highlighted the need for India-centric research to support future approvals.

Dr Ankit Parakh

Rounding off the day, **Dr. Ankit Parakh** presented the real-world application of biologics in severe pediatric asthma, drawing upon both GINA guidelines and Indian consensus documents. He underlined the importance of patient education, periodic reassessment, and multidisciplinary management.

Webinar 3: "Next-Gen Allergy Care – Biologics Beyond Convention"

Dr Vinat Mehta

The concluding webinar brought a futuristic vision of **emerging indications** and **global trends** in biologics. **Dr. Vinay Mehta (USA)** began the session with an extensive update on **Omalizumab in chronic urticaria,** including predictors of response and newer dosing regimens. His international perspective provided a comparative lens for Indian clinicians.

Dr Srabani G Zoha

Dr. Srabani G Zoha addressed the evolving biologic landscape in **atopic dermatitis,** emphasizing **Dupilumab's impact** and upcoming agents for moderate-to-severe disease. Her clinical pearls were especially relevant given the growing burden of eczema in pediatric and adult populations alike.

Dr. Saibal Moitra

In a captivating talk on the **future pipeline, Dr. Saibal Moitra** introduced novel targets such as **anti-TSLP, anti-IL-33,** and **combination biologics,** reflecting the **shift towards endotype-driven, precision medicine.** His session offered a glimpse into the next decade of therapeutic innovation.

Dr Serge Doan

The series concluded with **Dr. Serge Doan (France)** highlighting the **emerging use of biologics in ocular allergy,** a topic rarely addressed yet clinically significant for allergists and ophthalmologists alike.

Key Takeaways and Impact

1. **Strong Scientific Foundation:** The series successfully explained the mechanisms, indications, and clinical utility of currently approved biologics, making it accessible even to early-career clinicians.
2. **Indian Relevance:** While global data was discussed, the series emphasized Indian clinical challenges, including accessibility, affordability, and diagnostic gaps.
3. **Practical Focus:** Talks on patient selection, biomarkers, treatment duration, safety in children, and cost-effectiveness made this series highly actionable.
4. **Future Outlook:** The discussion on pipeline molecules and emerging indications prepared participants for the next wave of allergy therapeutics.
5. **Multi-specialty Engagement:** The series drew participation from not just allergists but also ENT specialists, pulmonologists, dermatologists, and pediatricians, reinforcing the need for interdisciplinary collaboration in biologic care.

Acknowledgements

The IAP Pediatric Allergy and Applied Immunology Chapter thanks all **faculty members,** moderators, and **organizing team members** for their enthusiastic participation and preparation. Special appreciation is extended to **Chairpersons Dr. Neeraj Gupta, Dr. Krishna Mohan R, and Dr. Uppin Narayan Reddy,** and moderators **Dr. Dhanesh Volvoikar, Dr. Tina Goel, and Dr. Sonia Bhatt** for steering the sessions so effectively.

Conclusion

The "Biologics in Allergy" webinar series set a new benchmark in allergy education in India by combining foundational knowledge, real-world guidance, and a glimpse into future therapies. As biologics evolve from niche to mainstream in allergy management, such initiatives will play a pivotal role in empowering Indian clinicians to deliver personalized, targeted, and optimal care.

Activity Report

Allergy Forum – Episode 5

Case-Based Discussion: Insect Venom Hypersensitivity

The IAP Allergy and Applied Immunology Chapter conducted the fifth episode of its highly regarded monthly webinar series – **Allergy Forum – Episode 5** – on **July 8, 2025.** The focus of this session was on an increasingly recognized but often underdiagnosed clinical entity: Insect **Venom Hypersensitivity.** This episode took a **case-based discussion approach,** allowing participants to engage with the real-world complexities of diagnosis, evaluation, and management of venom allergy.

The **presenter, Dr. Rashmitha M T** (Fellow, Allergy, Asthma and Immunology, CMC Vellore), delivered an engaging and clinically relevant case that detailed the presentation of a young adult who developed anaphylaxis following a bee sting. The case unfolded methodically, exploring acute management, diagnostic confirmation through **skin testing and specific IgE,** and highlighted patient risk stratification and counselling.

The **expert discussant, Dr. S. Narmada** (Director, Nalam Medical Center and Hospital, Vellore), provided an insightful overview of current best practices in **diagnosis and long-term management** of insect venom hypersensitivity. Her comments emphasized the importance of early recognition, indications for **venom immunotherapy (VIT),** use of **adrenaline auto-injectors,** and patient education for emergency preparedness.

Several key discussion points emerged during the interactive Q&A:

- Recognition of systemic reactions versus local insect bite responses
- Utility and timing of skin testing in Indian patients
- Long-term efficacy and safety of venom immunotherapy
- Challenges in accessing adrenaline auto-injectors and allergen-specific immunotherapy in India

The session was attended by pediatricians, allergists, general practitioners, and emergency care providers from across the country and was praised for its **clarity, clinical relevance, and practical focus.**

With venom hypersensitivity now being increasingly acknowledged as a **potentially life-threatening allergic condition,** this webinar served as a timely reminder for clinicians to remain vigilant and proactive. The IAP Allergy Forum continues to uphold its commitment to nurturing clinical acumen in allergy practice through case-based, multidisciplinary education.

Activity Report

Webinar on "Allergy in Pregnancy – Balancing Two Lives"

The IAP Allergy and Applied Immunology Chapter successfully **organized a special thematic webinar** titled **"Allergy in Pregnancy – Balancing Two Lives"** on **July 17, 2025.** This highly relevant session was aimed at addressing the diagnostic, therapeutic, and ethical dilemmas encountered in the management of allergic diseases during pregnancy—an often neglected but critically important topic in both allergy and obstetric practice.

The session was **chaired by Dr. Neeraj Gupta,** Chairperson of the IAP Allergy Chapter, who emphasized the importance of developing India-specific recommendations for the safe care of allergic pregnant women. The program was **moderated by Dr. Uppin Narayan Reddy,** Secretary of the Chapter, and featured an insightful **introductory address by Dr. Neelam Mohan,** President Elect CIAP, an Eminent Guest and a respected thought leader in pediatric medicine.

The session unfolded through a series of **five targeted presentations** followed by a multi-disciplinary panel discussion, which collectively offered a holistic view on the topic.

Dr Roohi Rasool

The first lecture was delivered by **Dr. Roohi Rasool** on **"Immunological Changes During Pregnancy: A Delicate Balance."** She lucidly described the complex immune adaptations that occur in pregnancy—especially the dynamic interplay between Th1 and Th2 responses—and how these shifts can affect the natural course of allergic diseases such as asthma, urticaria, and food allergy. Her talk laid the scientific groundwork for the clinical discussions that followed.

Next, **Dr. Abhinav Guliani** spoke on **"Managing Allergic Rhinitis and Asthma in Pregnancy: What's Safe?"** With clarity and pragmatism, he reviewed current evidence on the safety of pharmacologic agents including antihistamines, inhaled corticosteroids, leukotriene receptor antagonists, and decongestants. He emphasized the necessity of optimal asthma control during pregnancy to avoid hypoxic complications, stressing that **undertreatment carries greater risks than appropriately prescribed medications.**

Dr Abhinav Guliani

Dr Shilpa Garg

This was followed by **Dr. Shilpa Garg,** who tackled **"Atopic Dermatitis and Urticaria in Pregnancy: Challenges in Dermatologic Care."** She provided a thoughtful overview of safe topical and systemic options for symptom control while cautioning against high-risk agents. Her dermatology-centered approach bridged the gap between allergists and obstetric dermatologists.

The fourth speaker, **Dr. Sujatha Ramesh**, delivered a powerful talk on **"Food Allergy, Anaphylaxis, and Immunotherapy in Pregnancy: To Treat or Not to Treat?"** She addressed real-world challenges, including when to initiate or withhold immunotherapy, and protocols for managing anaphylaxis during pregnancy. She reinforced the importance of **epinephrine auto-injector training** and emphasized shared decision-making between allergists and patients.

Dr Sujatha Ramesh

Dr Veena Singh Gupta

The final and perhaps most interactive part of the evening was the **panel discussion** titled **"Co-Managing Pregnancy with Allergy",** moderated by **Dr. Veena Singh Gupta.** The panel included **Dr. Sakshi Nayar (Obstetrician), Dr. Abhinav Guliani (Pulmonologist), Dr. Sujatha Ramesh (Allergist), and Dr. Shilpa Garg (Dermatologist),** bringing together both obstetric and allergy perspectives. Key highlights included:

- Importance of **pre-conception counseling** in women with known allergic diseases
- Safety thresholds and trimester-specific considerations
- Addressing psychosocial anxiety related to medication use during pregnancy
- Coordinated care models between obstetricians, allergists, and dermatologists

Dr Sakshi Nayyar

The webinar concluded with closing remarks and a vote of thanks by Dr. Uppin Narayan Reddy, who acknowledged the contribution of all faculty and reiterated the importance of context-driven, interdisciplinary learning.

The webinar attracted widespread participation from clinicians across India, including pediatricians, obstetricians, dermatologists, general physicians, and allergy specialists.

This webinar was yet another milestone in the IAP Allergy Chapter's ongoing efforts to promote rational, safe, and evidence-based allergy care in niche but impactful areas. It highlighted the urgent need for national protocols and strengthened collaboration between allergy and maternal care teams in India.

Activity Report

39th IAP Allergy Chapter Webinar
Panel Discussion on "Pollution and Asthma"

The IAP Allergy and Applied Immunology Chapter organized its **39th monthly academic webinar** on **July 25, 2025,** featuring a high-impact **panel discussion on "Pollution and Asthma".** The session brought together **global experts, public health leaders, and respiratory clinicians** to delve into one of the most pressing challenges in modern allergy and pulmonology: the rising burden of pollution-induced asthma.

The webinar was inaugurated under the leadership of **Dr. Neeraj Gupta (Chairperson, IAP Allergy Chapter),** and supported by **Dr. Krishna Mohan R (Immediate Past Chairperson), Dr. Upin Narayan Reddy (Secretary), Dr. Dhanesh Volvoikar (Treasurer),** and **Dr. Soundarya M (National Webinar Coordinator).** The session was well-attended by over **700 delegates** from across India, including pediatricians, allergists, pulmonologists, environmental health professionals, and medical students.

The panel was skillfully moderated by **Dr. Barnali Bhattacharya,** a leading Pediatric Pulmonologist and Sleep Specialist from Pune, who guided the discussion through a structured, evidence-based, and interactive format. Her moderation ensured a seamless flow of ideas while linking global insights with Indian realities.

Panel Highlights:

1. **Prof. (Sir) Stephen Holgate** (UK), a globally respected authority in respiratory medicine and immunopharmacology, opened the discussion with an overview of how **air pollutants act as inflammatory triggers** in the respiratory tract. He elaborated on how **particulate matter (PM2.5 and PM10), nitrogen dioxide, and ozone** affect the innate immune system and epithelial barrier, leading to asthma exacerbations, impaired lung development in children, and long-term chronic respiratory disease.
2. **Dr. Ozge Yilmaz** (Turkey), Professor and Department Chair at Celal Bayar University, highlighted **pediatric data and cohort studies** linking prenatal and early childhood pollution exposure to increased asthma risk. She emphasized the role of **biomass fuel exposure,** indoor air quality, and the **need for pediatric-specific research and preventive strategies** in lower- and middle-income countries.
3. **Dr. P.A. Mahesh** (India), Professor of Pulmonary Medicine at JSS Medical College, provided an India-centric perspective. He presented data from **population-based studies and urban monitoring** linking pollution peaks with asthma emergency visits. He also discussed the need for **state-wise asthma registries**, air quality alerts, and **inclusion of environmental risk in asthma guidelines.**

- 4. **Dr. Anumita Roy Choudhary**, Executive Director at the **Centre for Science and Environment (CSE),** brought in a powerful public health lens. She discussed the **policy disconnects** and lack of enforcement in urban planning, vehicular emissions, and industrial pollution controls. She emphasized the importance of advocacy, **community-level interventions, and the role of clinicians in shaping air quality narratives.**

The session focused not just on identifying problems but also on **possible interdisciplinary solutions:**

- **Asthma action plans integrated with pollution data**
- **School-based education on asthma and air hygiene**
- **Clinical counselling on indoor air purification and allergen control**
- Use of **real-time air quality apps** for patient advice on exposure reduction
- Pushing for **climate-resilient healthcare systems**

The discussion also acknowledged emerging challenges such as **climate change-driven pollen shifts, wildfire smoke,** and the **urban heat–pollution–asthma triad,** especially affecting vulnerable populations like children and the elderly.

The panel concluded with a unanimous call for **collaborative advocacy among medical professionals, policymakers, and civil society** to tackle the rising health toll of pollution. The consensus emphasized that **asthma management in the modern era must incorporate environmental assessment as a core component.**

<u>Closing Note:</u>

The IAP Allergy Chapter's 39th webinar stood out for its **global-local blend,** high academic rigor, and timely relevance. As pollution continues to fuel the asthma epidemic in India and beyond, such discussions are vital in shaping **practice, policy, and public consciousness.**

This landmark panel discussion will be available for replay on the **dIAP YouTube Channel (and also IAP Allergy Chapter website https://iapaai.com/webinar/),** ensuring continued access for practitioners and students. The IAP Allergy Chapter remains committed to hosting **impactful, evidence-based, and collaborative educational platforms** in the months to come.

Activity Report

International Webinar on "Biomarkers for Airway Inflammation"

The IAP Allergy and Applied Immunology Chapter successfully hosted an insightful international webinar on "Biomarkers for Airway Inflammation" on July 29, 2025, as part of its ongoing initiative to advance translational and precision approaches in allergy and asthma care.

The session featured globally renowned expert **Dr. Manali Mukherjee,** who currently serves as the **AstraZeneca Chair in Respiratory Diseases and Associate Professor of Medicine** at the **Division of Respirology, McMaster University, Canada.** With an outstanding academic and research background, Dr. Mukherjee brought cutting-edge perspectives to the Indian audience on this highly relevant topic.

Over **500 participants** from across India and abroad, including pediatricians, pulmonologists, allergists, researchers, and postgraduate trainees, attended the session. The webinar was streamed live on the IAP Allergy Chapter's official YouTube channel, ensuring wider accessibility and outreach.

In her engaging and well-structured presentation, Dr. Mukherjee elaborated on the **evolving role of biomarkers in assessing airway inflammation,** particularly in asthma and chronic airway disorders. She discussed traditional biomarkers such as **eosinophils, serum IgE, and FeNO,** and delved deeper into **emerging molecular biomarkers including periostin, TSLP, IL-33, and transcriptomic signatures.** The importance of **endotyping airway diseases** using these biomarkers for optimizing biologic therapies was underscored throughout her talk.

She also emphasized the role of **biomarker-driven treatment algorithms** in enhancing precision medicine, predicting treatment response, and reducing disease burden through tailored interventions. The Indian relevance of such technologies and the challenges in implementation were also thoughtfully addressed.

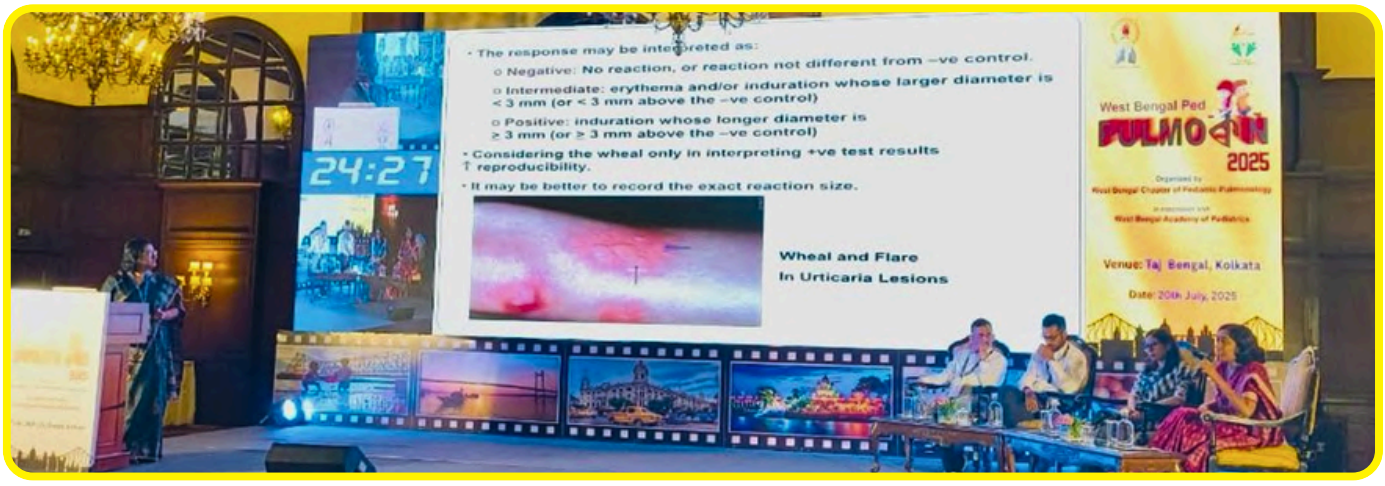
The session concluded with a highly interactive Q&A segment, where clinicians posed practical queries on the use and interpretation of biomarkers in pediatric and adult patients, especially in resource-constrained settings.

This high-impact webinar not only enriched scientific understanding but also served as a platform to bridge bench-to-bedside gaps in allergic airway disease management. The IAP Allergy Chapter continues to engage global thought leaders to inspire evidence-based practice in India.

SUBSCRIBE

Activity Report

Representation at Various Allergy Platforms

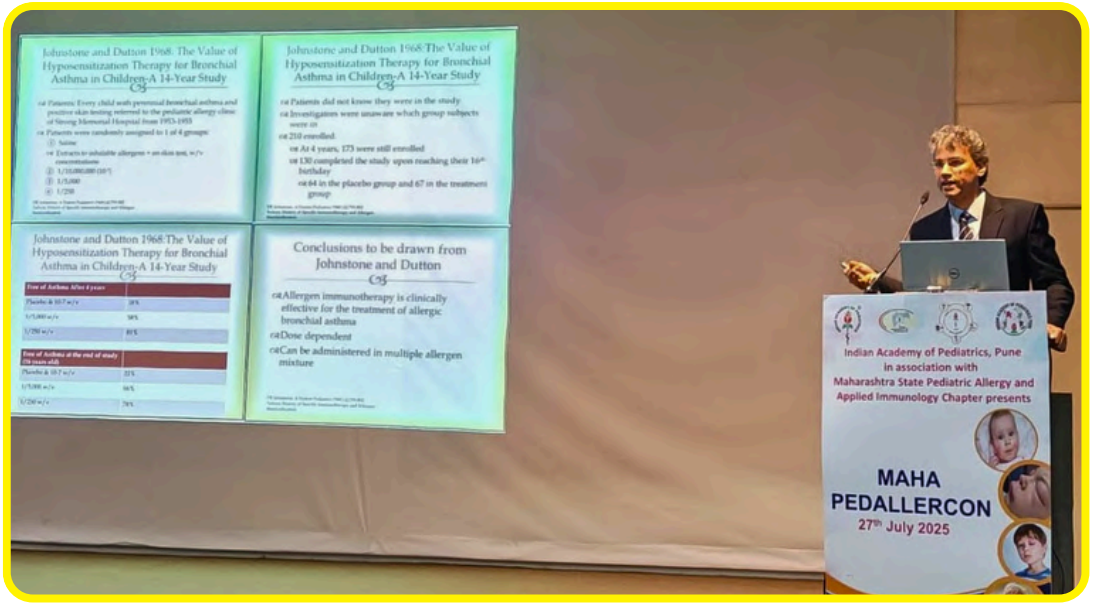


Dr Sanjukta Dey conducting a panel discussion on "Allergy Testing" during West Bengal Ped PulmoCON at Kolkata

Dr Sowmya Nagarajan on "Pearls of Pediatric Allergies" during SuperPaedia Conclave at Trichy

Dr Vikram Patra speaking on "Approach to Allergic disorders" and "Urticaria Management" at MGM Institute of Health Sciences, Navi Mumbai

Dr Neeraj Gupta, Chairperson IAP Allergy Chapter, felicitated at MahaPedAllercon at Pune



Dr Sitesh Roy, with his best on Allergen Immunotherapy, at Pune

Housefull show at MahaPedAllercon Pune

Dr Dipti Pujari with Dr Neeraj Gupta, during inaugural ceremony of MahaPedAllercon at Pune

Dr Dhanesh Volvoikar in action on Allergic Rhinitis at MahaPedAllercon, Pune

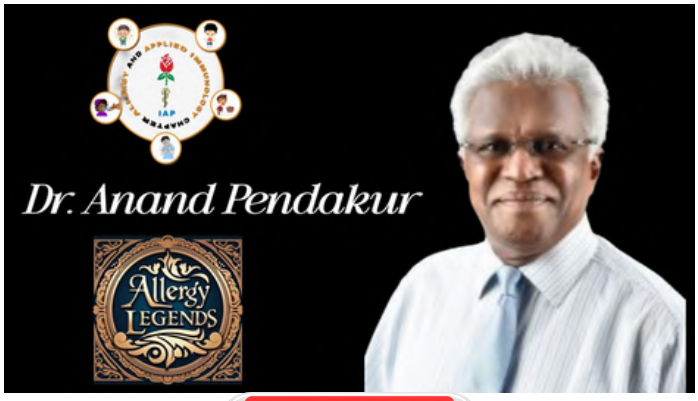
Dr Dipti Pujari, organising chairperson of MahaPedAllercon 2025, during her mesmerizing session on Urticaria

Activity Report

Honouring The Torchbearers

Allergy practice in India owes its growth and recognition to a handful of visionary pioneers who dared to walk an uncharted path when allergy as a discipline was still evolving in the country. Their relentless dedication, clinical insight, and commitment to patient care laid the groundwork for what we now identify as structured allergy care in India.

In the August 2025 issue of the Allergy Bulletin, we pay tribute to four such stalwarts — clinicians whose lifelong service, clinical excellence, and mentoring of the next generation have profoundly shaped allergy care in India.



Dr. Pendakur Anand

ENT & Allergy Specialist, Richmond Town, Bengaluru

A pioneering ENT surgeon who seamlessly integrated allergy and clinical immunology into his ENT practice, Dr. Pendakur Anand is a name revered by both colleagues and patients alike. His foresight in understanding the immunological basis of chronic ENT diseases made him one of the earliest ENT specialists in the country to embrace allergic diagnostics and therapeutics. Practicing in Richmond Town, Bengaluru, Dr. Anand has been a strong proponent of endoscopic-guided sinus care with integrated allergy testing and management — a model now widely accepted. His ability to blend surgical precision with allergy care reflects his holistic approach to airway disease management.

Dr. K V Nagendra Prasad

Bengaluru Allergy Centre, Bengaluru

With more than four decades of unwavering dedication to allergy practice, Dr. K V Nagendra Prasad is widely respected as one of India's foremost allergists. Founder of the Bengaluru Allergy Centre, his name is synonymous with patient-centred allergy care and scientific rigor in immunotherapy. He was among the earliest to adopt and promote standardized allergen immunotherapy in South India. A teacher to many and a clinician par excellence, Dr. Prasad's work has inspired a generation of physicians to pursue allergy as a specialty. His humble demeanour and steadfast service to patients across Karnataka stand as a testament to ethical and evidence-based allergy practice.

(Late) Dr. R K Modi

Pioneer of Allergy Practice in Bihar

The story of allergy care in eastern India would be incomplete without acknowledging the immense contributions of the late Dr. R K Modi. A true visionary, he pioneered allergy practice in Bihar at a time when awareness about allergic diseases was almost non-existent. His compassionate care, clinical brilliance, and early adoption of allergy testing created ripples that still influence practice in the region. After his passing, his son, **Dr. Gautam Modi**, has admirably carried forward this noble legacy with dedication and innovation, continuing to serve allergy patients in Bihar with distinction.

Dr. P C Kathuria

National Allergy Centre, New Delhi

Dr. P C Kathuria has been a pillar of allergy care in North India. Based in Delhi, he founded the National Allergy Centre and has over the years built a reputation for thorough diagnostics, meticulous record-keeping, and quality allergen immunotherapy. Known for his commitment to academic excellence, Dr. Kathuria has trained and mentored numerous clinicians in allergy practice. His calm presence, evidence-based approach, and long-standing dedication to patients with complex allergic disorders make him a respected figure in the national allergy landscape.

These legends have shown us that allergy care is not just a science but also a service — to bring relief, clarity, and hope to those who suffer. We salute their contributions and hope that their stories inspire many more to take forward the torch of rational and compassionate allergy practice in India.

We salute their legacy — inspiring generations in the quest for better allergy care.

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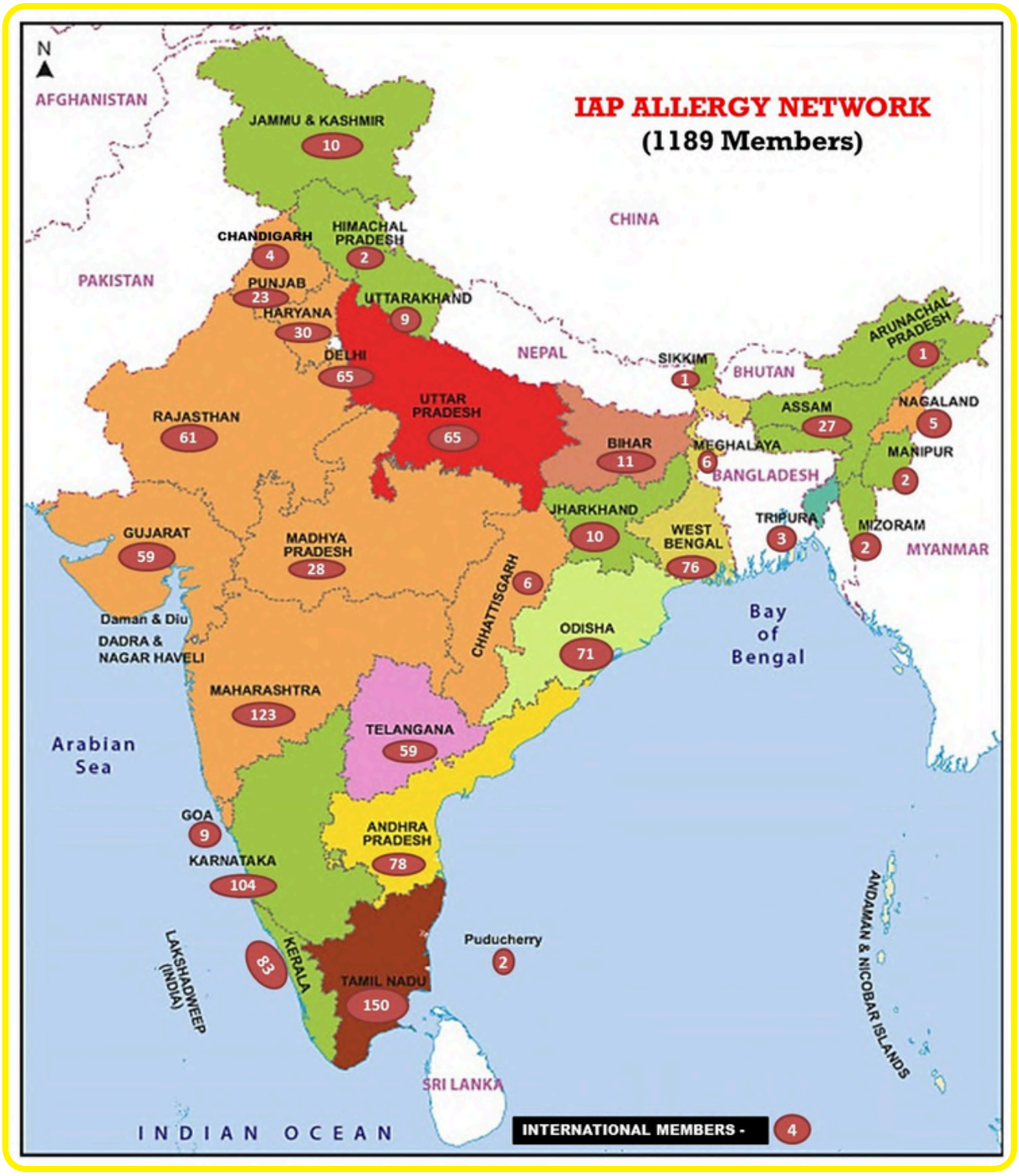

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ENROLL NOW

Expert Column

Dr Sanjukta Dey
MBBS, DCH, DNB, MRCPCH, FRCPCH,
Dip. Allergy (UK)

Clinical Director
Department of Pediatrics & Neonatologist
Peerless Hospital & B K Roy Research Centre
Panchasayar, KolkataKolkata

Early Life Interventions to Prevent Allergy Development: What Works?

The global rise in allergic diseases, particularly in industrialized societies, presents a significant public health challenge. Mounting evidence suggests that the origins of allergic sensitization begin early in life, offering a critical window of opportunity for preventive interventions

1. Introduction

Allergic diseases have reached epidemic proportions in many parts of the world, with a particularly sharp increase in developed nations. According to the World Allergy Organization, allergic rhinitis affects 10–30% of the global population, and food allergies affect up to 10% of children in some regions. The “atopic march,” describing the progression from eczema in infancy to food allergies, asthma, and allergic rhinitis later in life, emphasizes the interconnected nature of allergic diseases. Preventing allergy development in early life, therefore, has the potential to alter lifelong health trajectories and reduce healthcare burdens.

Emerging evidence supports the idea that the immune system is highly plastic in the first 1000 days of life—from conception through early childhood. Interventions during this period can influence the development of tolerance versus allergic sensitization. This essay critically examines the range of early-life interventions and their efficacy in allergy prevention, based on recent clinical trials, mechanistic insights, and public health implementation efforts.

2. The Immune Basis of Allergic Disease Development

Allergies are mediated by a dysregulated immune response characterized by overactivation of the Th2 pathway and subsequent IgE production in response to harmless antigens. The neonatal immune system is naturally biased toward Th2 responses, possibly to prevent immune rejection of maternal antigens. This Th2 skewing requires appropriate environmental exposures to shift toward a balanced Th1/Th2 or regulatory T-cell (Treg) response as the child develops.

Environmental, dietary, and microbial exposures in early life help shape immune tolerance. Lack of appropriate immune "education" can predispose individuals to allergic diseases. Genetic predisposition also plays a role, but gene-environment interactions are pivotal. Twin studies have shown that environmental factors account for more variation in allergic outcomes than genetics alone.

3. Dietary Interventions in Early Life

3.1 Breastfeeding

Breastfeeding has long been recommended for infant health due to its immunomodulatory components, including secretory IgA, oligosaccharides, cytokines, and immune cells. The American Academy of Pediatrics recommends exclusive breastfeeding for the first 6 months of life.

Meta-analyses show inconsistent results regarding the protective effect of breastfeeding against allergic diseases. A 2015 systematic review by Lodge et al. found that exclusive breastfeeding may reduce the risk of atopic dermatitis and early wheezing but had no significant effect on asthma or food allergy development. The variability in results could stem from confounding variables such as maternal diet, duration and exclusivity of breastfeeding, and reverse causation (e.g., allergic mothers breastfeeding longer).

Nonetheless, breastfeeding likely confers modest protection, especially against eczema in high-risk infants. However, it is not sufficient as a stand-alone intervention for allergy prevention.

3.2 Introduction of Allergenic Foods

One of the most significant shifts in allergy prevention strategy is the reversal of prior avoidance recommendations. Previously, parents were advised to delay introduction of allergenic foods such as peanuts, eggs, and milk. This approach is now considered not only ineffective but potentially harmful.

The pivotal **LEAP (Learning Early About Peanut Allergy)** trial in 2015 demonstrated an 81% reduction in peanut allergy prevalence in high-risk infants (those with severe eczema or egg allergy) who were introduced to peanuts between 4–11 months of age and continued consumption until age 5. Follow-up studies such as **LEAP-On, EAT (Enquiring About Tolerance),** and **PETIT** have provided additional support for early allergen introduction.

- **Egg:** Early introduction of cooked or pasteurized egg between 4–6 months can reduce egg allergy risk. The PETIT trial demonstrated a 79% reduction in egg allergy with early controlled introduction.
- **Milk:** Hydrolyzed milk formulas have not shown consistent benefit for allergy prevention. Breast milk remains the preferred source during early infancy.
- **Wheat, soy, fish:** Less data exists for these allergens, but early introduction is being studied.

Timing, form (e.g., boiled vs raw), dose, and frequency of exposure are key determinants of success. Guidelines now recommend that infants, particularly those at high risk, be introduced to common allergens from around 6 months of age while continuing breastfeeding.

The timing of allergen introduction in relation to early dietary patterns is a significant factor in the development of allergic conditions, such as food allergies, eczema, and asthma. Research has suggested that introducing allergenic foods during infancy may influence the immune system and reduce the risk of developing allergies.

Here are some key points regarding this relationship:

1. **Window of Tolerance:** Infants are thought to have a window of tolerance during which their immune systems are more adaptable to new proteins. Introducing potential allergens, such as peanuts, eggs, and dairy, during this period (usually around 4 to 6 months of age) may help the immune system build tolerance to these foods.
2. **Influence of Early Diet:** The early diet of an infant, including both the timing and types of foods introduced, may impact their immune system development. A diet that includes a variety of foods, including allergenic ones, is believed to help promote a more robust immune response and reduce the likelihood of allergies.
3. **Guidelines and Recommendations:** Recent guidelines from organizations such as the American Academy of Pediatrics (AAP) and the European Academy of Allergy and Clinical Immunology (EAACI) have shifted towards recommending the early introduction of allergenic foods after initial complementary foods are established. This is based on findings from studies that show early introduction can lower the risk of food allergies, particularly in high-risk infants.

4. Microbial Exposure and the Hygiene Hypothesis

The **hygiene hypothesis**, first proposed by David Strachan in 1989, postulates that reduced microbial exposure in early childhood (due to smaller family sizes, antibiotics, cleaner environments) leads to immune dysregulation and higher allergy risk. This hypothesis has evolved into the **"microbiome hypothesis,"** which emphasizes the role of microbial diversity—particularly in the gut—in immune education.

4.1 Mode of Delivery

Infants delivered via cesarean section have a higher risk of allergic diseases, likely due to altered microbial colonization. Vaginally delivered infants are exposed to maternal vaginal and fecal microbiota, which seed the gut and play a critical role in immune programming. C-section infants often have a delayed and less diverse microbiome dominated by skin and hospital bacteria.
Intervention strategies under investigation include vaginal seeding and maternal fecal microbiota transplantation (FMT), though these remain experimental.

4.2 Antibiotics and Microbial Disruption

Antibiotic exposure in utero or during early infancy has been linked to increased risk of eczema, asthma, and food allergies. Antibiotics disrupt the gut microbiome and may delay the maturation of immune tolerance pathways. Judicious use of antibiotics during pregnancy and infancy is thus a critical preventive strategy.

5. Role of the Gut Microbiome in Allergy Development

The gut microbiome modulates immune development by interacting with intestinal epithelial cells, dendritic cells, and T cells. Certain bacterial taxa (e.g., Bifidobacteria, Lactobacilli, Clostridia) promote regulatory T-cell development and anti-inflammatory cytokine production.

Infants who go on to develop allergies often show delayed colonization by beneficial microbes and reduced microbial diversity. Fecal microbiota composition in the first 6 months is predictive of later allergy development.

5.1 Probiotics and Prebiotics

Several randomized controlled trials (RCTs) have examined the use of **probiotics**—live microorganisms with health benefits—for allergy prevention. Meta-analyses suggest that perinatal probiotic supplementation (especially Lactobacillus rhamnosus GG) in pregnant women and infants may reduce eczema incidence but show inconsistent effects on food allergies and asthma.

Prebiotics (non-digestible fibers that promote beneficial microbes) and **synbiotics** (combined pre- and probiotics) are also under study. While promising, more data is needed on optimal strains, timing, and long-term safety.

6. Environmental and Lifestyle Interventions

6.1 Farm Exposure and Pet Ownership

Studies such as the **PARSIFAL** and **GABRIELA** cohort studies have shown lower allergy rates in children raised on farms or with early exposure to animals. These children have more diverse microbial exposure and lower rates of asthma and atopy.

Dog ownership in infancy, for instance, has been associated with reduced risk of wheezing and sensitization. The “farm effect” is thought to be mediated by endotoxin exposure and early immune priming.

6.2 Air Pollution and Tobacco Smoke

Exposure to air pollution and passive tobacco smoke during pregnancy and early life is associated with increased risk of wheezing, asthma, and eczema. Avoidance of indoor and outdoor pollutants should be considered a basic preventive strategy.

7. Genetic and Epigenetic Considerations

While genetics contribute to allergy susceptibility, gene-environment interactions and epigenetic modifications (e.g., DNA methylation, histone acetylation) mediate how early-life exposures influence immune development. For example, maternal smoking and diet can alter methylation patterns in key immune genes, potentially affecting allergy risk in offspring.

Future preventive strategies may involve epigenetic biomarkers to identify high-risk infants and tailor interventions accordingly.

8. Translating Evidence into Public Health Policy

Recent guidelines from the **American Academy of Pediatrics (AAP), National Institute of Allergy and Infectious Diseases (NIAID),** and **European Academy of Allergy and Clinical Immunology (EAACI)** endorse early allergen introduction, particularly for high-risk infants.

However, real-world implementation remains inconsistent due to:

- Lack of awareness among healthcare providers and parents
- Cultural feeding practices
- Concerns about safety and anaphylaxis
- Limited access to allergist support in low-resource settings

Population-level strategies must include parent education, integration into routine well-baby visits, and food safety training. Digital tools and decision aids can help scale individualized recommendations.

9. Controversies and Knowledge Gaps

Despite promising evidence, several uncertainties remain:

- Optimal dose, form, and duration of early allergen exposure
- Long-term effects of probiotics and microbiome manipulation
- Role of vitamin D, omega-3 fatty acids, and other micronutrients
- Efficacy in diverse populations and low-income settings

Moreover, most studies focus on high-income, Caucasian populations, limiting generalizability. There is also insufficient data on long-term allergy outcomes beyond early childhood

10. Future Directions

To enhance allergy prevention, future research should focus on:

- Longitudinal cohort studies linking early interventions to adolescent and adult outcomes
- Personalized prevention using genomics and microbiome profiling
- Implementation science to bridge the evidence-policy gap
- Cost-effectiveness studies in public health settings

Integration of allergy prevention into maternal-child health programs, particularly in low- and middle-income countries (LMICs), is also essential to ensure equitable impact.

In Summary

The development of allergies is influenced by a complex interplay of genetic and environmental factors, particularly during early life. Here are some specific environmental factors that are considered significant:

1. Exposure to Allergens: Early exposure to potential allergens (such as pet dander, pollen, dust mites, and mold) can influence the development of allergies.

2. Microbiome Diversity: The gut microbiome plays a crucial role in the immune system's development. An imbalance or lack of diversity in gut bacteria during early life, influenced by factors like mode of delivery (vaginal vs. cesarean), antibiotic use, and diet, can increase the risk of developing allergies.

3. Dietary Factors: The introduction of allergenic foods (such as peanuts, tree nuts, eggs, and dairy) during early infancy may influence allergy development.

4. Environmental Exposures: Living in urban settings with higher pollution levels has been associated with increased rates of allergies. Exposure to tobacco smoke during pregnancy or in early childhood also heightens the risk.

5. Socioeconomic Status (SES): Lower SES is often linked to increased exposure to allergens and pollutants, poor nutrition, and limited access to healthcare.

6. Breastfeeding: Breastfeeding is associated with a lower risk of allergies. Human breast milk contains beneficial substances that help to develop the infant's immune system and gut microbiome.

7. Infections and Immune Exposure: Early exposure to infections, particularly respiratory infections, may influence immune development. The hygiene hypothesis posits that a lack of early childhood infections can lead to an increased risk of allergies by not adequately stimulating the immune system.

8. Parental Allergies: A family history of allergies can predispose children to develop similar conditions. Genetic factors coupled with environmental exposures can enhance this risk.

Conclusion

Allergic diseases are among the most common non-communicable diseases in childhood, with lifelong consequences. The first 1000 days of life offer a window of opportunity to modulate immune development and reduce allergy risk. Interventions that have shown efficacy include early introduction of allergenic foods, maintaining microbial diversity, judicious antibiotic use, and possibly targeted probiotic supplementation. While breastfeeding may offer modest protection, it should be part of a broader prevention strategy.

Translating these findings into public health practice requires collaboration between researchers, clinicians, policymakers, and communities. As research evolves, tailored, accessible, and scalable interventions will be key to reducing the global burden of allergic disease.

Case of the Month

Dr Ankit Parakh
Associate Director
Department of Pediatric Pulmonology, Allergy & Sleep
BLK-MAX Super-Speciality Hospital, Delhi

Dr Ritika Goyal
Consultant
Pediatric Pulmonology & Allergy
BLK-MAX Super-Speciality Hospital, Delhi

Problematic Severe Asthma: Use of Biologicals in Pediatrics

Asthma is a chronic inflammatory condition characterized by hyperreactivity of the airways and variable expiratory airflow limitation. While most children (~80%) respond well to standard pharmacotherapy, a smaller proportion (2–5%) suffer from problematic severe asthma. These children have poor asthma control despite optimal therapy and may require advanced interventions, such as biologicals. Factors contributing to poor control include comorbidities, incorrect inhaler technique, poor adherence, or true therapy-resistant asthma. Such patients often have frequent hospital visits, oral steroid dependence, and impaired quality of life. Among biological options, Omalizumab is widely used in children over 6 years of age with allergic asthma.

Case Presentation

First Visit

An 8-year-old boy presented with a 3-year history of recurrent cough and breathlessness, relieved by inhaled bronchodilators. He experienced chest tightness during physical activity and had persistent nasal obstruction with occasional epistaxis. On examination, rhonchi were noted without signs of chronic hypoxia. He was on Budesonide + Formoterol (800 mcg/day) with a spacer, and Mometasone nasal spray. Inhaler technique was appropriate. Despite this, he had monthly exacerbations requiring oral steroids and multiple ER visits. Family history of atopy was present.

Due to poor control on Step 4 of the GINA 2019 treatment ladder, Tiotropium was added and further investigations were ordered.

Investigations

- Spirometry: Obstructive airway disease with reversibility
- Total Serum IgE: 161.3 IU/mL
- Blood Eosinophils: 230 cells/cu.mm
- Skin Prick Test: Positive for Dermatophagoides farinae, Ricinus, and Artemisia
- Diagnosis: Therapy-Resistant Severe Asthma, Atopic, Non-eosinophilic

Second Visit & Follow-up

Within a month, the child had another exacerbation requiring oral steroids. Montelukast was added and Tiotropium increased. Despite this, monthly exacerbations persisted. Lung function showed marginal improvement but symptoms remained uncontrolled.

After six months of poor control, the family was counseled regarding biologicals. Given the child's non-eosinophilic, atopic asthma with elevated IgE, Omalizumab was selected. Based on his weight and IgE level, he received 150 mg/month subcutaneously.

Treatment Monitoring and Outcomes

The child was monitored monthly. Key parameters included symptom frequency, rescue medication use, hospital visits, and spirometry.

Timepoint	Daytime Symptoms	Night-time Symptoms	Rescue Med Use	Oral Steroid Use	FEV1
Start of Treatment	Daily	Daily	10 puffs/month	Every month	102%
16 weeks	None	None	6 puffs/month	0	110%
1 year	None	None	0–2 puffs/month	Every 6 months	102%
2 years	None	None	6 puffs/viral episode	Once	105%
4 years (End)	Occasional	Occasional	6 puffs/viral episode	0	102%

After 1 year of Omalizumab (12 doses), the controller medications were gradually tapered. The dosing interval was increased and Omalizumab was discontinued after 4 years. At the end of therapy, the child was maintained on low-dose ICS (Budesonide 200 mcg/day) with excellent asthma control. Allergic rhinitis also improved significantly, requiring intranasal corticosteroids only intermittently. According to the Global Evaluation of Treatment Effectiveness (GETE), there was a 'marked improvement in asthma'.

Take-Home Messages:

1.Problematic severe asthma affects a small but significant subset (2–5%) of pediatric asthma patients, who remain symptomatic despite high-dose inhaled corticosteroids and long-acting bronchodilators.

2.A comprehensive assessment including review of inhaler technique, adherence, comorbidities, and environmental triggers is essential before labelling a case as therapy-resistant asthma.

3.Phenotyping and endotyping play a crucial role in identifying candidates for biological therapy. This includes evaluating serum IgE levels, eosinophil counts, and allergen sensitization (e.g., via skin prick testing).

4.Omalizumab, an anti-IgE monoclonal antibody, is an effective and safe treatment option for children aged >6 years with moderate to severe allergic asthma and elevated IgE levels.

5.Regular monitoring and structured follow-up are essential to evaluate the effectiveness of biologic therapy. Parameters should include symptom frequency, rescue medication use, lung function (spirometry), and healthcare utilization.

6.Biological therapy can lead to marked clinical improvement, reduced steroid dependence, improved lung function, and better quality of life — as seen in this child who achieved well-controlled asthma on low-dose ICS after 4 years of Omalizumab.

7.A gradual tapering strategy post-biologic therapy, with careful extension of dosing intervals, can help maintain asthma control while minimizing medication burden.

8.Multidisciplinary collaboration involving pediatricians, pulmonologists, and allergists is key for timely identification and optimal management of children with severe asthma.

Investigation of the Month

Dr Neetu Bhari
Additional Professor
Department of Dermatology and Venereology
AIIMS, New Delhi

Dr Vanshika Arora
Resident
Department of Dermatology and Venereology
AIIMS, New Delhi

Patch Testing

Allergic contact dermatitis (ACD) is a **type IV (T-cell mediated) hypersensitivity** to environmental haptens. Patch testing is the gold-standard method for identification of contact allergy. In a patch test, standardized allergens are occluded on the patient's skin (typically the upper back) for 48 hours. The sites are then read at removal (≈48h) and re-read days later (Day 3–4 or even Day 5–7) to detect delayed reactions. By identifying the culprit allergen(s), patch testing guides targeted avoidance and treatment.

Indications for Patch Testing

- **Suspected ACD:** Any chronic or recurrent eczematous dermatitis (face, hands, body) with exposure to potential allergens should prompt patch testing (Figure 1).
- **Exacerbated dermatoses:** Eczematous disorders failing to respond to treatment as expected (including atopic, seborrheic, stasis, and nummular dermatitis, can be aggravated by contact allergens)
- **Occupational exposures**
- **Chronic hand/foot eczema:** Patch testing can reveal allergens in gloves, footwear, or irritants.
- **Late drug eruptions:** A subset of drug rashes (e.g. fixed-drug eruption, DRESS, AGEP) are mediated by delayed hypersensitivity; patch testing may identify the offending drug in some cases .
- **Mucous membrane** reactions (conjunctivitis, stomatitis or vulvitis)
- **Implants**
- Other morphological presentations that may represent a contact allergic reaction, e.g. erythema multiforme like, lymphomatoid or granulomatous presentations

Figure 1: Allergic contact dermatitis to metal (a) and foot wear (b)

Contraindications for patch testing

- Severe or generalized active dermatitis
- Systemic immunosuppressive treatment in relevant doses where a pause is foreseen or possible
- Dermatitis on the upper back or other sites chosen for application of patch tests
- Test sites recently treated with topical corticosteroids- according to current practice, 7 days are considered adequate
- Recent UV exposure of the test area
- Patch testing during pregnancy or lactation is not known to be harmful , but is generally postponed during pregnancy and lactation as a general precaution

Patch Test Procedure

Prior to testing:

- **Avoid topical corticosteroids** on the test site 7 days prior
- **Avoid UV exposure** for 2 weeks before the test, since UV can suppress skin reactivity.
- **Test site should be clear of dermatitis for at least 2 weeks**

Post patch test instructions:

- Keep the back **dry (no showers or sweating)**
- Do not disturb the patches for the 2 day application period.
- **Avoid scratching** the patch test site immediately if there is severe itching or irritation.
- **Avoid exposure** to sunlight/UV light.

Patch test allergens are applied in small chambers on the patient's upper back. Each allergen is mixed in a suitable vehicle (most often petrolatum) and placed under occlusion. **Finn Chambers** (aluminum discs on hypoallergenic tape) or other patch systems (e.g. Van der Bend chambers) are commonly used (Figure 2).

Figure 2: Finn patch test chambers applied to the back

The Indian Standard Series (ISS) consists of a battery of 20 allergens, with petrolatum serving as control (Table 1).

Table 1: Allergens in Indian Standard Series (ISS)

Column 1	Column 2	Column 3	Column 4
1. Petrolatum	6. Potassium dichromate 0.5%	11. Paraben mix 16%	16. Fragrance mix 8%
2. Wool alcohol 30%	7. Nickel sulphate 5%	12. Paraphenylenediamine 1%	17. Thiuram mix 1%
3. Balsam of Peru 10%	8. Cobalt sulphate 5%	13. Neomycin sulphate 20%	18. Nitrofurazone 1%
4. Formaldehyde 1%	9. Colophony 20%	14. Benzocaine 5%	19. Black rubber mix 0.6%
5. Mercaptobenzothiazole 2%	10. Epoxy resins 1%	15. Chlorocresol 1%	20. Parthenium 15%

After 48 hours of occlusion, the patches are removed from the patient's back and readings are taken 1 hour after removal and again 48 hours later (that is, day 2 and day 4). A third reading on day 5-7 allows to identify allergies where sensitivity is weak or there is poor absorption of the allergen, like for corticosteroids, neomycin and some metals. These delayed readings are crucial: true allergic reactions often peak after 2–3 days, whereas simple irritation tends to fade. In fact, one study noted that a site positive at 48 hours may turn negative by 72–96h if it was merely irritant in nature . Thus, multiple readings improve accuracy.

Scoring and Interpretation of Reactions

When reading the patches, the clinician grades each site using the standardized ICDRG (International Contact Dermatitis Research Group) criteria . Table 2 summarizes the ICDRG scoring.

Table 2: ICDRG grading of patch test reactions

Score	Description
-	Negative
?+	Doubtful reaction; faint erythema only
+	Weak positive reaction; palpable erythema, infiltration, possibly papules
++	Strong positive reaction; erythema, infiltration, papules, vesicles
+++	Extreme positive reaction; intense erythema, infiltration and coalescing vesicles
IR	Irritant reaction
NT	Not tested

Occasionally, there can be difficulty in distinguishing an allergic from a false positive non-allergic irritant reaction. No infiltration, lack of itching, deep redness or a brown hue, and sharp delineation corresponding to the margins of the patch test all favour an irritant reaction. False positive irritant reactions tend to induce stronger reactions at day 2 than at day 4- crescendo-decrescendo effect.

Figure 3: Patient with airborne contact dermatitis due to Parthenium showing positive patch test (2+) to Thiuram mix1%, Parthenium 15%, and Parthenium disc with acetone extract (1:50, 1:100, 1:200)

Determining Clinical Relevance

Crucially, not all positive patch tests prove that the allergen is causing the patient's current dermatitis. Each positive must be correlated with the patient's exposures to establish relevance. Clinicians must obtain a detailed exposure history (occupations, hobbies, cosmetics, medications, protective equipment) to assess relevance. Relevance is often assessed using the COADEX scale (Table 3).

Table 3: The COADEX system for assessing clinical relevence

Code	Meaning
C (Current)	The patient has been exposed to the allergen prior to the current episode of dermatitis; disease improves after avoidance.
O (Old)	The allergen caused dermatitis in the past, but is not implicated in the current episode.
A (Active sensitization)	The patient has developed a sensitization reaction due to the patch test itself.
D (Doubtful)	No clear link between the allergen and the patient's dermatitis can be established.
E (Exposed)	Exposed without reaction: The patient has a history of exposure but never developed dermatitis to the allergen.
X (Cross-reaction)	The reaction is likely due to a substance chemically related to the actual allergen causing dermatitis.

Ultimately, avoidance of a truly relevant allergen should lead to resolution of dermatitis.

Supplemental Testing

Beyond the baseline series, patch testing can be supplemented in several ways:

- **Specialty series:** Tailor additional allergens to the patient. For example, a textile series for suspected clothing-related dermatitis; a cosmetic series for facial dermatitis; *a hairdresser series for salon workers; metals series for welders, etc.*
- **Photopatch testing:** If **photoallergy** is suspected, photopatch testing is done. In this method, each allergen is applied twice on the back. After 48h, the patches are removed, and one side of the test area is exposed to a controlled dose of UVA (5–15 J/cm²) while the other side is shielded . A comparison reading at 48h post-UV distinguishes between pure contact reactions and photoinduced reactions. Agents like sunscreen chemicals or certain perfumes can cause photoallergic dermatitis.
- **Usage tests (ROAT and open tests):** These simulate real-life application of a product. In a repeated open application test (ROAT), the patient applies the suspected product (e.g. lotion, shampoo) twice daily to a fixed skin area (often the forearm or antecubital fossa) for up to 1–2 weeks . Development of eczema at that site confirms sensitivity to some constituent in the product. Alternatively, an open or semi-open test may be used for potential irritants: a small amount of the agent is applied in a non-occluded fashion (open) or lightly covered after drying (semi-open) to see if a reaction occurs. These tests are helpful when patch-testing the undiluted product would be too irritating or when ingredients/ concentrations are unknown.

Pitfalls and Complications

Patch testing is generally safe, but clinicians should be aware of pitfalls:

- **False positives (irritants):** Some chemicals (especially at high concentration) simply irritate the skin. This underscores the need for standardized dilutions. Recent or active dermatitis in the test area lowers the threshold for irritant reactions.
- **"Angry back" phenomenon:** Occasionally, one or two very strong allergic reactions can trigger multiple simultaneous false-positive sites; this is called the angry back or excited skin syndrome. The cause is thought to be nonspecific skin hyperreactivity or cross-stimulation. If an angry-back occurs, one should retest each suspected allergen separately later, and consider confirmation by ROAT.
- **False negative reactions:** Can occur due to insufficient concentration or amount applied, poor adhesion of patches, UV irradiation of patch test site, pretreatment with topical corticosteroids, systemic treatment with immunosuppressants, or if readings are performed too early.
- **Dermatitis flare:** Patch testing can sometimes cause a flare of the patient's existing eczema or widespread dermatitis.
- **Local skin changes:** At the application sites, persistent reactions can leave post-inflammatory changes. Possible complications (though uncommon) include *hypopigmentation or hyperpigmentation*, scarring or keloid formation (especially if blistering occurred), and rare infections (bacterial or viral) at the test sites . These are usually mild and fade with time.

Conclusion

Patch testing is the **cornerstone** for diagnosing allergic contact dermatitis. A thorough patch test involves careful patient preparation, the use of appropriate test series (baseline and supplemental), skilful interpretation of graded reactions, and assessment of clinical relevance. Although time-consuming, patch testing has high value: in the hands of a trained clinician it can resolve chronic dermatitis in up to half of patients by pinpointing the cause .

Pollen Update

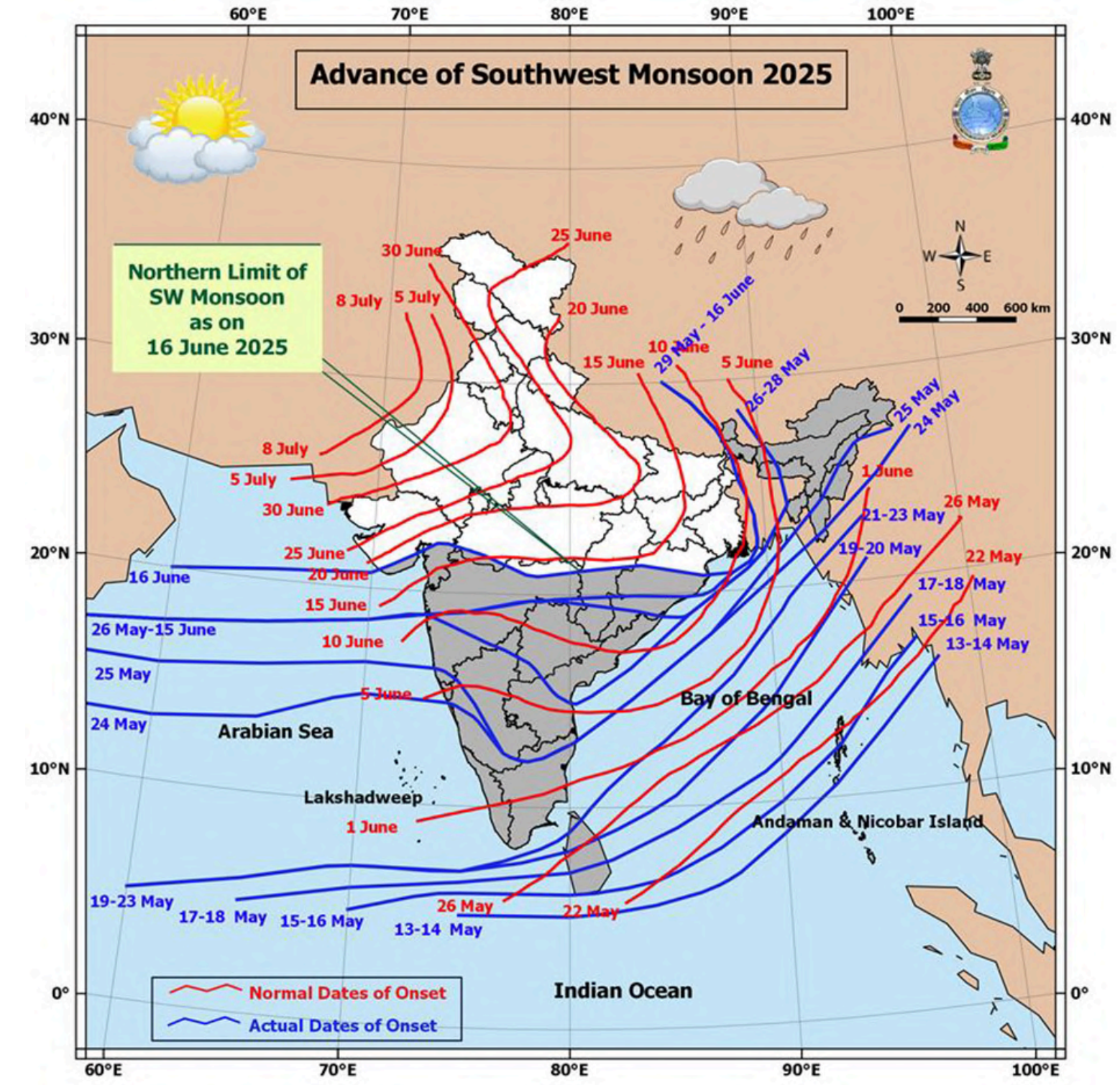
Dr. Narmada Ashok
Vellore, Tamilnadu

Pollen calendar for the Monsoon season

Pollen allergy is a global health issue and the major cause for outdoor airborne allergen responsible for number of allergic disorders. The changes in the environmental conditions are also causing significant changes in the pollinosis. Hence pollen monitoring is crucial to understand the exacerbations of allergic disorders. Pollen calendar represent the time dynamics of airborne pollen taxa in a graphical form representing a geographical area. It gives a visual representation of the various airborne pollens in the particular season. India has a diverse range of vegetations and species contributing to significant challenges in developing a uniform calendar that fits for the entire nation. Here we have tried to integrate all the regions into a single table.

The month of June, July and August brings the south west monsoon to India. It is the rainy season here starting from Kerala and moving up towards north eastern belt. The map (Figure 1) gives the origin dates of the rains in India depending on the region.

With the advent of the rains there is shift in the pollens from those contributed to trees to that of shrubs and weeds. There is also more of molds that will be the predominant contributor as the rain spells become more prominent. Though the species are varied in each region, there is preponderance of grasses and weed across India. It can also be said as a relatively quiet period for pollens in contrast to the previous blooming months especially in Assam and Kashmir.



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POLLEN CALENDER FOR THE MONTH OF JUNE, JULY AND AUGUST

TREES


Cassia family (Pudding-pipe Tree, Golden Shower)


Casuarina (she-oak)


Eucalyptus


Holoptelea (Indian elm)


Holoptelea (Indian elm)


Morus (mulberry)


Morus (mulberry)

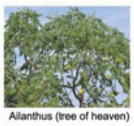

Putranjiva (child life tree, karuvilai)

Pollen calendar for India for the month of June, July and August in India based on articles and calendars

Pollen	North	South	Central	East	West
Trees					
Ailanthus					
Areca catachu		+		+	
Cassia				+++	+
Cedrus					
Casuarina		+			
Cocus nucifera		+		+++	+
Cyperus					
Cicer					
Eucalyptus		+		+	
Holoptela					
Quercus					
Morus					
Magnifera				+	
Pinus					
Putranjiva				+	
Pongamia				+	
Peltophorum		+			
Spathodia					
Trema orientalis				+	

TREES


Quercus


Ailanthus (tree of heaven)


Cocos nucifera (coconut)


Arecha catechu


Pongamia tree (Indian beech, Pungai, Honge)


Trema orientalis (Charcoal tree)


Peltophorum (yellow flame)


Spathodea(Fountain tree, Nandi flame)


Mangifera (mango)

North		South	Central	East	West
Himachal Pradesh	Uttar Pradesh	Andhra Pradesh	Madhyapradesh	Bihar	Maharashtra
Uttarakhand	Delhi	Karnataka	Chhattisgarh	Jharkhand	Goa Rajasthan
Punjab	Jammu and Kashmir	Kerala	Uttar Pradesh	West Bengal	Gujarat
Haryana	Ladakh	Tamilnadu			Dadra
Rajasthan		Telangana			Nager& Haveli

POLLEN CALENDER FOR THE MONTH OF JUNE, JULY AND AUGUST

SHRUBS


Asteraceae family (sun flower)


Xanthium (cocklebur)

Apocynaceae (dog bane, milkweed)


Ricinus (castor bean plant)

Cicer (Chickpea)

Cicer (Chickpea)


Hibiscus


Prosopis

Pollen calendar for India for the month of June, July and August in India based on articles and calendars

Shrubs					
Asteraceae	++++			++++	
Xanthium	++++	++++			
Apocynaceae					
Prosopis		++++			
Rosa					
Ricinus		++++		+++	
Hibiscus					
Grasses					
Artemesia	++++				++++
Amaranth/Chenopod	++++	++++		++++	
Argemone	++++		++++		++++
Cyperaceae	++++	++++	++++		
Poaceae	++++	++++	++++	++++	++++
Parthenium	++++	++++	++++		++++

GRASSES


Parthenium


Poaceae grass family


Chenopodium (goose foot)


Ragweed


Cyprus


Argemone


Artemisia vulgaris (mugwort)

North		South	Central	East	West
Himachal Pradesh	Uttar Pradesh	Andhra Pradesh	Madhyapradesh	Bihar	Maharashtra
Uttarakhand	Delhi	Karnataka	Chhattisgarh	Jharkhand	Goa Rajasthan
Punjab	Jammu and Kashmir	Kerala	Uttar Pradesh	West Bengal	Gujarat
Haryana	Ladakh	Tamilnadu			Dadra
Rajasthan		Telangana			Nager& Haveli

Journal Scan

Dr Soundarya M
KMC, Mangalore

DRUG ALLERGY

David A. Khan, David A. Bernstein, Jonathan A. et al. Drug allergy: A 2022 practice parameter update. Journal of Allergy and Clinical Immunology, Volume 150, Issue 6, 1333 – 1393.

The primary focus of the drug allergy practice parameter historically has been to provide suggestions and recommendations for the proper diagnosis and management of the spectrum of drug hypersensitivity reactions (HSRs).

Classification of drug allergies:

The classification for drug HSRs has evolved. Allergic drug reactions can be classified based on chronology, mechanism, and clinical phenotypes. The chronology of drug allergic reactions is generally simplified into either immediate or delayed reactions.

- Immediate reactions are generally considered to occur within 1 hour but in some cases ≤6 hours of exposure to the drug. Phenotypically, immediate drug reactions may present with urticaria, angioedema, bronchospasm, or in severe cases, anaphylaxis. Immediate reactions are often IgE-mediated, but IgE-independent reactions can also occur. Recently, MRGPRX2 on mast cells has been found to be responsible for non- IgE–mediated reactions to drugs such as vancomycin, neuromuscular blocking agents, and fluoroquinolones.

- Delayed HSRs often evolve over days or, in some cases, weeks following exposure to the drug. There are numerous clinical phenotypes of delayed HSRs with the most common being benign (e.g. morbilliform drug eruption) exanthems. More severe delayed drug HSRs include the well-described phenotypes of drug reaction with eosinophilia and systemic symptoms (DRESS), acute generalized exanthematous pustulosis (AGEP), and Stevens-Johnson syndrome (STS)/toxic epidermal necrolysis (TEN). Collectively these syndromes are referred to as severe cutaneous adverse reactions (SCARs). The immunologic mechanisms for delayed HSRs are likely related to drug-specific T cells including TH1, TH2, and cytotoxic T cells, depending on the phenotype.

Serum sickness- like reactions (SSLRs) are another phenotype of delayed drug reaction that have clinical manifestations very similar to immune complex–mediated serum sickness, but the immunopathology of SSLRs is still not entirely clear. SSLR are characterized by urticaria- like (lesions persist more than 24 hours) and erythema multiforme-like lesions, joint inflammation, and fever, but unlike serum sickness, nephrotoxicity and hypocomplementemia are rare. There are also a number of organ-specific delayed drug reaction phenotypes (often without cutaneous manifestations), including drug-induced cytopenia, liver injury, interstitial nephritis, and vasculitis to name a few.

Diagnostic tests

In the United States, diagnostic tests for drug allergies are based primarily on immediate skin testing and drug challenges. Delayed drug skin testing including dIDT and PT have an evolving role in the diagnosis of certain phenotypes of delayed HSRs. In vitro testing for drug allergy with tests such as basophil activation tests, lymphocyte transformation tests, and other testing do not have any well-validated commercial assays.

While skin testing is often performed with drug hypersensitivity evaluations, the accuracy of skin tests for most drugs is unclear. The workgroup now recommends that a positive prick/puncture or intradermal skin test is to be defined as a wheal that is ≥3 mm than the negative control accompanied by a ≥5 mm flare. Recently, studies have shown an optimal method for reproducible intradermal antibiotic skin testing. Fluid should be drawn out first by filling the syringe with a larger volume (0.05-0.07 mL) and expelling the excess fluid and air bubbles to obtain 0.02 mL, then injecting to produce a baseline 3-5 mm bleb. While immediate skin testing is often employed in the evaluation of drug HSRs, skin testing primarily is of most value in patients with histories of drug- induced anaphylaxis. The majority of patients who have more benign, non-anaphylactic reactions may be managed without drug skin testing. In certain situations, such as DRESS syndrome where several causal agents are potentially implicated, delayed skin testing may be considered to help identify the potential culprit. While the accuracy of delayed drug skin testing is unclear, it appears to be safe when performed at least 6 weeks to 6 months following healing of the drug reaction. In contrast to drug skin testing, drug challenges are considered the reference standard for determining tolerance to a drug. A number of terms have been used to describe this procedure including “drug provocation tests,” “graded challenges,” and “test doses.” The term “drug challenge” is recommended as this is in keeping with other allergic diseases (e.g., food challenges, sting challenges). While “drug provocation” is commonly used in the international literature, we do not recommend this term as the intent is to show tolerance rather than to provoke a reaction. Drug challenges may be given in an incremental (graded) fashion but can also be administered as a single dose. Drug challenges can be performed for both immediate and delayed phenotypes of drug reactions. In most scenarios, drug challenges are performed when the clinical probability of a drug allergy is low. In these circumstances, drug challenges can be performed with a 1- or 2-step drug challenge. A 1-step challenge would involve administering a therapeutic dose of the drug as a single step. In contrast, a 2-step challenge would involve first administering a smaller dose, such as 10-25% of the final dose with observation, followed by administration of the rest of the dose 20-30 minutes later. Patients with primarily subjective symptoms or those who have multiple reported drug allergies should be considered for placebo-controlled drug challenges.

Antibiotic allergy

In this parameter, updates regarding beta-lactams including penicillins, cephalosporins, carbapenems, monobactams, sulfonamides, fluoroquinolones, and macrolides will be discussed.

Penicillin

Patients with a history of penicillin allergy are more likely to be treated with less effective, more toxic, or more expensive antibiotics, leading to increased cost, antibiotic-associated infections, longer hospital stays, and even increased mortality. Cost and simulation model-based economic studies support that penicillin allergy assessment is a cost-saving intervention. Therefore, a proactive effort should be made to delabel penicillin allergy whenever possible, and strong efforts should be made to educate about the benefits of delabeling to patients and clinicians. There are multiple strategies for penicillin allergy delabeling that are primarily based on the history of the reaction and patient comorbidities. While penicillin skin testing has been the most carefully studied skin test reagent for drug allergy, penicillin skin testing is primarily for patients with a history of anaphylaxis or a IgE-mediated reaction. For most other patients with histories of penicillin allergy that are remote and benign, direct challenge without preceding skin testing is the preferred approach. Patient histories are not always accurate, nevertheless risk stratification by historical features alone appears to be able to safely identify patients appropriate for direct challenge. In children and adults, with a history of benign cutaneous reactions, direct amoxicillin challenge without preceding penicillin skin testing is recommended. For patients with histories that are inconsistent with penicillin allergy (such as headache or family history of penicillin allergy), no testing is required and the patient may be de-labeled. Multiple-day penicillin challenges are not recommended because recent studies have shown that single-day challenges detect the majority of delayed reactions. Recently, reports of patients with selective allergic reactions to piperacillin tazobactam have been published that indicate that most patients with reactions to piperacillin tazobactam can tolerate other penicillins. Skin testing to piperacillin tazobactam may be useful to identify this selective sensitivity where traditional penicillin skin testing or amoxicillin challenge may be negative.

Cephalosporins

Immediate allergic reactions to cephalosporins appear largely to be related to antigenic responses to the R1 group/side chains rather than the core beta-lactam portion of the molecule or R2 group/side chains. The history of the reaction is important in determining the diagnostic approach. For immediate reactions to cephalosporins, we suggest stratifying patients based on anaphylactic reactions versus non-anaphylactic reactions. For patients with non-anaphylactic reactions, a direct challenge should be performed for a cephalosporin with dissimilar side chains to determine tolerance. In contrast, for administration of cephalosporins with similar side chains and for the less common anaphylactic reaction history, a negative cephalosporin skin test to a parenteral cephalosporin should be performed prior to challenge to determine tolerance. Urticaria fulfilling “1- 1-1-1” criterion (appearance within 1 hour after the first dose and regression within 1 day and occurred within 1 year) suggests a high likelihood of having a positive skin test.

Beta-lactam cross-reactivity

For management approaches, stratifying patients based on anaphylactic versus non-anaphylactic histories as well as verified versus unverified (unconfirmed) penicillin allergy is suggested.

- For patients with a history of an unverified non-anaphylactic penicillin allergy, any cephalosporin can be administered routinely without testing or additional precautions
- For patients with a primary allergy to cephalosporin, similar stratifying of patients as above is suggested.
- For patients with a history of an unverified non-anaphylactic cephalosporin allergy, a penicillin can be administered without testing or additional precautions.
- For those rare patients with a history of anaphylaxis to a cephalosporin, we suggest penicillin skin testing and drug challenge must be performed prior to administration of penicillin.
- In patients with a history of penicillin or cephalosporin allergy, a carbapenem may be administered without testing or additional precautions regardless of whether the reaction was anaphylactic.

Sulfonamides

For those with histories of sulfonamide allergy, direct challenges that can be completed within 2-3 hours are recommended.

- For patients with a history of benign cutaneous reactions to sulfonamides occurring more than 5 years ago, a 1-step drug challenge with TMP-SMX can be performed to delabel.
- For patients with reactions within the past 5 years, a 2-step challenge is recommended.

Fluoroquinolones

Immediate-type reactions to fluoroquinolones have been increasingly described. There is evidence for both IgE-mediated and non–IgE-mediated mechanisms, because fluoroquinolones may cause nonspecific mast cell degranulation via interaction with the surface receptor MRGPRX2. Unlike IgE-mediated reactions, non–IgE-mediated reactions may occur with first exposure because prior sensitization is unnecessary. However, non–IgE-mediated reactions may not be consistently or repeatedly observed for a given drug or be observed for other drugs that interact with the MRGPRX2 receptor (such as vancomycin in patients who reacted to a fluoroquinolone). For remote (i.e. more than 5 years ago), non-anaphylactic reactions, a 1- or 2-step graded challenge with the implicated fluoroquinolone
is suggested as a method of delabeling. For more severe or recent (i.e. more than 5 years ago) reactions, 1- or 2-step graded challenge with a different fluoroquinolone than the one implicated in the historical reaction (because they may not cross-react) may be considered.

Macrolides

Very few patients are confirmed to actually be allergic to macrolides. Therefore, based on the low pretest probability, very low rate of anaphylaxis, and disagreement on the utility of skin testing, direct challenge appears to be the most appropriate diagnostic approach for any such patients.

NSAID hypersensitivity

Aspirin and NSAIDs can cause a spectrum of drug HSRs with 4 primary categories of NSAID reactions that can be diagnosed via history, presence of comorbid diseases, and drug challenges.

1. AERD: Here an oral aspirin challenge is suggested to confirm the diagnosis of AERD
2. NSAID-induced urticaria and angioedema: The general approach to patients with this condition is to primarily control the underlying urticaria. Patients whose urticaria is controlled on either H1-antihistamines or omalizumab may be able to tolerate NSAID therapy
3. NSAID-exacerbated cutaneous disease: Patients with this phenotype may react to all COX-1 inhibitors. An aspirin challenge is suggested where there is uncertainty regarding tolerance to other NSAIDs.
4. Single NSAID-induced reactions:
    - Immediate reactions (i.e. urticaria, angioedema, or anaphylaxis)
    - Delayed reactions (i.e. fixed drug eruptions, meningitis, pneumonitis, etc.).

Here a COX -2 inhibitor may be used as an alternative

A selective COX-2 inhibitor may be used as an alternative analgesic in patients with any NSAID hypersensitivity phenotype when an NSAID is needed.

Guidance on the approach to patients with a history of aspirin allergy in the setting of an acute

coronary syndrome has changed since the last updated drug allergy parameter. Rather than using an aspirin desensitization protocol, we suggest a 2-step aspirin challenge for patients labeled with an aspirin allergy if the history does not suggest AERD. A graded challenge is preferred because it provides the patient and clinician with a true diagnosis and, if negative, simplifies any further questions about aspirin use. A challenge is simpler than a desensitization (no need for compounding the aspirin dose), faster, and will efficiently answer the question regarding hypersensitivity while simultaneously achieving the therapeutic objective.

Cancer chemotherapeutics

Guidance on management of HSRs to cancer chemotherapeutics has been expanded significantly in this parameter. The main approaches to care after a presumed HSR to a chemotherapeutic include (1) desensitization, (2) skin testing to assist with risk stratification, (3) risk stratification without skin testing and drug challenge, or (4) avoidance of the offending agent if an equally efficacious alternative exists.

Biologics

Biologic agents including mAbs have the benefit of target specificity and infrequent dosing yet have potential to be immunogenic. A variety of mechanisms may result in reactions including complement activation, SSLR, and mast cell activation either via IgE-mediated or direct mast cell activation. Nonimmune mechanisms such as tumor lysis and cytokine storm may also cause symptoms that overlap with immune-mediated reactions. The utility of diagnostic testing (eg, skin testing and in vitro testing) is limited by several factors including, but not limited to, mechanistic uncertainty, the cost of the medications, availability, lack of validation, and the unknown predictive value. Given these limitations, we suggest that skin testing for mAbs is rarely clinically indicated or performed.

- For patients with nonimmediate reactions or a history of reactions inconsistent with mAb HSR, a desensitization may not be required and treatment with a slowed infusion, graded dose escalation, and/or premedication is suggested.
- For patients with immediate reactions including anaphylactic reactions to mAbs, drug desensitization should be considered when the implicated drug is the preferred therapy.

Rituximab

The risk of rituximab HSR is especially high during the initial infusion, as ≤77% of patients being

treated for a B-cell lymphoma can develop a reaction during their first exposure. Paradoxically, the risk of having a reaction to rituximab appears to decrease with subsequent infusions. Tumor burden affects the type of infusion reaction. For milder rituximab HSRs, slowed infusion (typically 50% usual infusion rate), graded challenge, or desensitization are considered reasonable options. In more severe reactions, empiric desensitization is preferred. The utility of rituximab skin testing is unclear, especially in cases where the reaction likely is not mast cell–mediated.

Infliximab

Similar to rituximab, the mechanisms of infliximab reactions are likely diverse, including IgE- mediated hypersensitivity, cytokine release syndrome, and SSLR. HSRs to infliximab occur in 10% of patients and are usually during the first or second exposure but can also occur with subsequent doses. Antibodies against infliximab may reduce the efficacy of treatment and increase the risk of HSRs. Risk stratification based on the severity of the HSR can be considered in the evaluation and management of individuals that develop reactions to infliximab. Testing for alpha-gal–specific IgE should be considered in patients with first dose reactions to infliximab, given the aforementioned potential for cross-reactivity in patients with alpha-gal allergy.

Omalizumab

The risk of anaphylaxis with omalizumab is approximately 0.1%, but interestingly 36% of reactions occurred more than 1 hour after administration of the drug, and 7% occurred more than 12 hours later. A nonirritating omalizumab concentration for intradermal skin testing was defined at 1:100,000 volume to volume dilution, a concentration of 1.25 mcg/mL, but the predictive value has not been established in individuals with omalizumab anaphylaxis.

Excipients

An excipient is an inactive substance that is formulated alongside the active pharmaceutical

ingredient of a medication. Excipients include coloring agents, preservatives, stabilizers, and fillers. Excipients are more likely to contribute to intolerance than to a true allergic reaction. Categories of excipients include foods and sugars such as lactose, mannitol, gelatin, and cornstarch; polymers such as polyethylene glycol (PEG) and its derivatives; dyes and coloring agents; and other ingredients such as carboxymethylcellulose. The average oral formulation of a product has 9 inactive ingredients. Excipients are a very rare cause of immediate or delayed reactions associated with drugs. Although delayed reactions are associated with some excipients (e.g. propylene glycol), the most worrisome reactions are life-threatening anaphylaxis associated with excipients such as PEG and carboxymethylcellulose in injectable corticosteroids. The optimal testing strategy for polysorbates and their cross-reactivity with PEG requires further study. Excipient allergy may be considered in patients with a history of anaphylaxis to more than 2 structurally unrelated drugs or products that share a common excipient, (e.g. injectable corticosteroids; PEG-based laxatives).

Allergy Trivia

Dr. D. Rama Rajyam
Visakhapatnam

Urticaria and Angioedema in Children – Cool Clinical Facts

1. Hives (urticaria) are like skin's version of a fire alarm — red, itchy, raised bumps that signal something is irritating the body (like an allergen or infection).
2. Angioedema is the deep-tissue cousin of urticaria — instead of just bumps, it causes puffiness (especially lips, eyes, hands, or even genitals).
3. Most cases of acute urticaria in children resolve within 6 weeks — no long-term worries in most cases!
4. Milk, nuts, eggs, and infections (especially viral) are common triggers in kids — not always allergens!
5. Hives that change location, size, and shape in hours are not dangerous — that's typical behaviour for urticaria!
6. No blood test is needed for most acute urticaria — history is more important than lab values!

Funny-but-True Bits

- "My kid is allergic to air!"
  - Nope — but many parents say this because their child seems to react to everything. The truth: kids have very sensitive histamine buttons!
- Angioedema looks scary but is usually harmless.
  - Unless it's blocking the airway, it's mostly a puffy pillow face moment — treatable and reversible!
- Urticaria is the original "Now you see it, now you don't" rash.
  - It disappears like magic — especially when the doctor finally comes to see it!
- Perfumes, pressure, and even laughter can sometimes trigger hives in sensitive kids.
  - Yes, being tickled too much can raise a rash!
- Cold urticaria: Some kids can get hives from eating ice cream — imagine being allergic to happiness!
- Chronic hives in kids are rarely about food — more often, the cause is "we never find it."

Doctor-to-Doctor Insight

- In chronic spontaneous urticaria, most children outgrow it in 1–5 years.
- Antihistamines (cetirizine, loratadine) are usually enough — steroids only if severe.
- Avoid over testing — parents may push for allergy panels, but false positives are common.
- If angioedema is recurrent without hives → rule out hereditary angioedema (HAE).

Spotlight

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

From a thriving pediatric practice to becoming one of Goa's most trusted names in allergy care, Dr. Dhanesh Volvoikar's journey exemplifies the evolving landscape of allergy and clinical immunology in India. With decades of experience, a spirit of continual learning, and a deep commitment to patient care, he stands as a beacon for physicians exploring specialized allergy practice.

Early Career and Inspiration

Dr. Volvoikar graduated with an MBBS from the iconic Goa Medical College in 1987 — the oldest medical institution in Asia. After his pediatric training at GMC and BYL Nair Hospital, Mumbai, and completing a senior residency, he rose to become the Head of the Pediatrics Department at North Goa District Hospital. In 2010, he took voluntary retirement, a decision that would lead him down an extraordinary new path.

It was in that same year during an IAP program in Mumbai that Dr. Volvoikar's trajectory shifted. He met the late Dr. K. Nagaraju, a pioneering allergist and passionate educator. Dr. Nagaraju recognized his potential and encouraged him to join the IAP Allergy Chapter, then in its infancy. Their bond soon became that of mentor and mentee. Through programs like Training of Trainers (ToT) in Allergic Rhinitis and subsequent advanced courses in Chennai, Dr. Nagaraju instilled in him a vision — one in which allergy practice could be transformed in India. He personally encouraged Dr. Volvoikar to pursue the Fellowship in Allergy and Clinical Immunology in 2014. The mentorship and persistent encouragement by Dr. Nagaraju played a vital role in shaping Dr. Volvoikar's passion and path in allergy care.

Challenges and Lessons Learned

The early years were not easy. Purchasing standardized allergen extracts, finding patients willing to undergo skin testing, and establishing credibility in a largely underserved field all posed challenges. Dr. Volvoikar often tested relatives and patients free of cost, just to hone his diagnostic skills. Slowly but steadily, awareness grew. Invitations to speak at conferences and IAP/IMA forums followed. With each lecture, his confidence deepened, and more physicians began referring patients.

Over time, Dr. Volvoikar took the bold step of reducing — and eventually giving up — his busy pediatric practice to focus entirely on allergy. He now practices exclusively as a consultant allergist at Healthway Hospital, Goa, treating patients across all age groups. His decision to devote 30–40 minutes per allergy consultation stands in contrast to routine 10-minute OPDs. “Every allergy patient’s story is different,” he says, “It challenges and stimulates the brain. Explaining the cause and educating the patient deeply impacts outcomes.”

One of his most valuable pieces of advice to young doctors is: “Do not mix allergy consultations with your general OPD. Create dedicated allergy clinics. Keep proper records. Use cloud-based systems. Build a database that can help you in research and analysis later.”

Ethical Practice

His professional journey is also marked by a deep commitment to medical ethics and public service. Dr. Volvoikar has served as President of the IAP Goa state branch, Vice President of the Goa State Medical Council, and as the first State Representative to the National Medical Commission. His contribution to combatting quackery and promoting ethical practice is noteworthy. He has written chapters on medicolegal issues and regularly delivers lectures to raise awareness on this topic. He also currently serves as the Anti-Quackery Officer for the State IMA and State Council.

Dr. Volvoikar’s commitment to continuous education is inspiring. He has contributed chapters to allergy-related books and been actively involved in formulating national treatment guidelines. He has delivered numerous guest lectures on allergy topics across forums and platforms. He considers every lecture an opportunity to improve his own understanding and refine his patient care.

He fondly acknowledges the mentorship he received from not just Dr. Nagaraju, but also legends like Dr. P.C. Kathuria, Dr. P. A. Mahesh, Dr. A.B. Singh, and Dr. Nagendra Prasad Komarla. He credits his exposure to their training programs and insights during practical sessions for shaping his clinical acumen. Over the past decade, he has participated in every major allergy conference in India, including ICAACON and PedAllercon, constantly learning and engaging with both senior experts and enthusiastic peers.

Personal Reflections and Advice

“Every colleague is my teacher,” he says. “Every interaction adds something new to my understanding.”

Dr. Dhanesh Volvoikar’s journey underscores what is possible when passion meets purpose. From the roots of general pediatrics to the specialized canopy of allergy science, he has grown into a respected clinician, speaker, and leader. His story is a powerful reminder that with courage to pivot, humility to learn, and discipline to document and disseminate, one can build a successful and deeply meaningful allergy practice.

Final Message

“Allergy is no longer the future — its time has arrived. The burden is real. The patients are suffering. And the knowledge to help them exists. More doctors must rise, learn, and become a part of this growing revolution in allergy care. Together, we can make a difference.”

Allergy Quiz

Contributed by the Delhi Chapter

1.Which of the following medications does not interfere with skin prick tests?
a. Systemic corticosteroids
b. Tricyclic antidepressants
c. Oral antihistamines
d. Topical Corticosteroids

2.A 2 yrs old child with milk protein allergy is being considered for baked milk introduction. Which CRD marker is most helpful in predicting tolerance to baked milk?
a. Bos d 5 (β lactoglobulin)
b. Bos d 8 (casein)
c. Bos d 4 (α lactalbumin)
d. Lactose

3.All the following are indications of intradermal tests except
a. Hymenoptera venom allergy
b. Drug allergy
c. Food allergy
d. When SPT is negative but there is a strong clinical suspicion

4.Which of these conditions is a relative contraindication rather than absolute for a drug challenge test?
a. Blistering dermatitis (e.g., Stevens-Johnson syndrome, toxic epidermal necrolysis)
b. Uncontrolled asthma
c. Beta blocker use
d. Severe generalized hypersensitivity reactions involving internal organs (e.g. DRESS)

5.Which of the following statements are false?
a. A negative histamine or methacholine challenge probably excludes current asthma.
b. In the methacholine challenge test bronchial hyper responsiveness can be associated with allergic rhinitis, COPD, cystic fibrosis and a recent viral infection
c. Methacholine causes broncho constriction via direct stimulation of airway smooth muscle receptors
d. A positive histamine or methacholine challenge is diagnostic of asthma

6. A 12 yrs old boy with birch pollen allergy presents with oral itching, mild lip swelling after eating peanut butter. SPT tests positive for peanuts, wheal 9 mm. CRD to peanut extract (in kUA/L) reveals Ara h 2 0.1, Ara h 8 3.1 and Ara h 9 0.2. Which of the following statements are true?

a. child is at higher risk of anaphylaxis due to peanut allergy
b. Ara h 2 is heat labile protein
c. Child can't be taken for oral peanut challenge
d. Ara h 8 shares structural and functional similarities with Bet v1, the major birch pollen allergen, making cross reactivity common

7. A 7 yrs old boy with a previous mild reaction to milk had negative SPT and SIgE<0.1kUA/L but is still having ocassional hives after milk ingestion. Basophil activation test (BAT) shows significant upregulation of CD63 with milk.

What does this suggest?

a. BAT is falsely positive
b. Hidden or non IgE mediated reaction
c. Milk allergy completely resolved
d. BAT detects low level IgE sensitization missed by SPT and specific IgE test, risk of reaction

8. A 12 yrs old girl presents chronic, itchy, eczematous patches limited to the area around her earlobes where she wears fashion jewelry.

What is the most appropriate next diagnostic test?

a. Serum IgE to nickel
b. Patch testing with standard series including nickel
c. Avoid wearing earrings without testing
d. Food allergy skin prick test

9. A 9-year-old girl with severe persistent asthma on high dose ICS/LABA and good adherence. FeNO 12 ppb and blood eosinophil count 80 cells/µL

What does this pattern suggest?

a.Ongoing Type 2 inflammation
b.Likely Non type 2 inflammation
c.ICS ineffective
d.Need to increase ICS further

10. Which of the following statements is correct about SPT?

a. Can be performed safely during an acute severe asthma attack
b. Can not be performed in children below the age of 2 years
c. Negative SPT excludes all allergies
d. Only standardized allergen extracts should be used

11. What is the recommended timing for second(baseline) sample for serum tryptase measurement in a patient presented with anaphylaxis?

a. 30 minutes after the first sample
b. 2 hrs after the first sample
c. ≥24 hrs after resolution of symptoms
d. No second sample is required

12. A 12 yrs old child with suspected pollen allergy undergoes allergy testing. The skin prick test is negative, but symptoms persist and there is strong suspicion for pollen allergens. What is the next best step in the diagnostic process?

a. Repeat the SPT with a broader panel of allergens
b. Perform a nasal provocation test
c. Order a serum specific IgE test
d. Discontinue allergy evaluation as SPT is negative

13. A 4 yrs old with moderate atopic dermatitis has multiple sensitizations to food on SPT but no history of clinical reaction. What is the gold standard to confirm food allergies?

a. Component resolved diagnostic
b. Complete avoidance of food items and see the effects
c. Double blind placebo-controlled food challenge (DBPCFC)
d. Serum specific IgE

Answers

1.A	**5. D**	**9. B**	**13. C**
2.B	**6. D**	**10. D**	
3.C	**7. D**	**11. C**	
4.C	**8. B**	**12. B**	

Explanation

1. SPT is a bioassay to determine the presence of specific IgE antibodies on the surface of mass cells. Allergen, introduced by prick test, binds to the IgE (bound to the high affinity FCeR1 receptor on the surface of the mast cells) resulting in an aggregation of the receptors causing cells to release histamines and other cytokines. Significant suppression of skin reactivity is seen following conventional doses of antihistamines
    - Allergy skin test suppression by medication

Anti histamines: H 1 blockers	3-10 days
Antihistamines: H2 blockers	No effect
Ketotifen	Upto 5 days
Imipramines (Tricyclic antidepressants)	Upto 21 days
Phenothiazines	Upto 10 days
Systemic Steroids	No effect
Topical steroids	Upto 7 days
LABA	No Effect

2. More than 50% of the individuals with CMPA are sensitized to caseins (Bos d 8), beta-lactoglobulin (Bos d 5), and alpha-lactalbumin(Bos d 4), which are major CM allergens. The allergenicity of CM protein is modified by extensive heating e.g., baking. Caseins are more resistant to heating compared to whey proteins. Heating reduces allergenicity of beta-lactoglobulin through the formation of the intermolecular disulphide bonds and binding to other food proteins. Extensively heated CMP are usually tolerated by children with mild IgE-mediated CMPA. On the contrary, there is a higher risk for anaphylaxis and more persistent CMPA in children who react to baked milk. IgE antibodies directed against sequential CMP epitopes (especially casein) are mainly produced by children with more persistent CMPA, while children who tolerate baked milk mainly generate IgE antibodies against conformational CMP epitopes (destroyed by high temperature).
3. Intra dermal tests are more sensitive but less specific, there is a high chance of getting false positive results. Also, there is a risk of systemic reaction/anaphylaxis (sp with food allergens). Intradermal skin tests are used to detect drug allergy particularly β lactum antibiotics like penicillin, some other antibiotics and biological agents. It is also used to tests venom allergy and allergy toward vaccines and certain other injectables when SPT are negative.

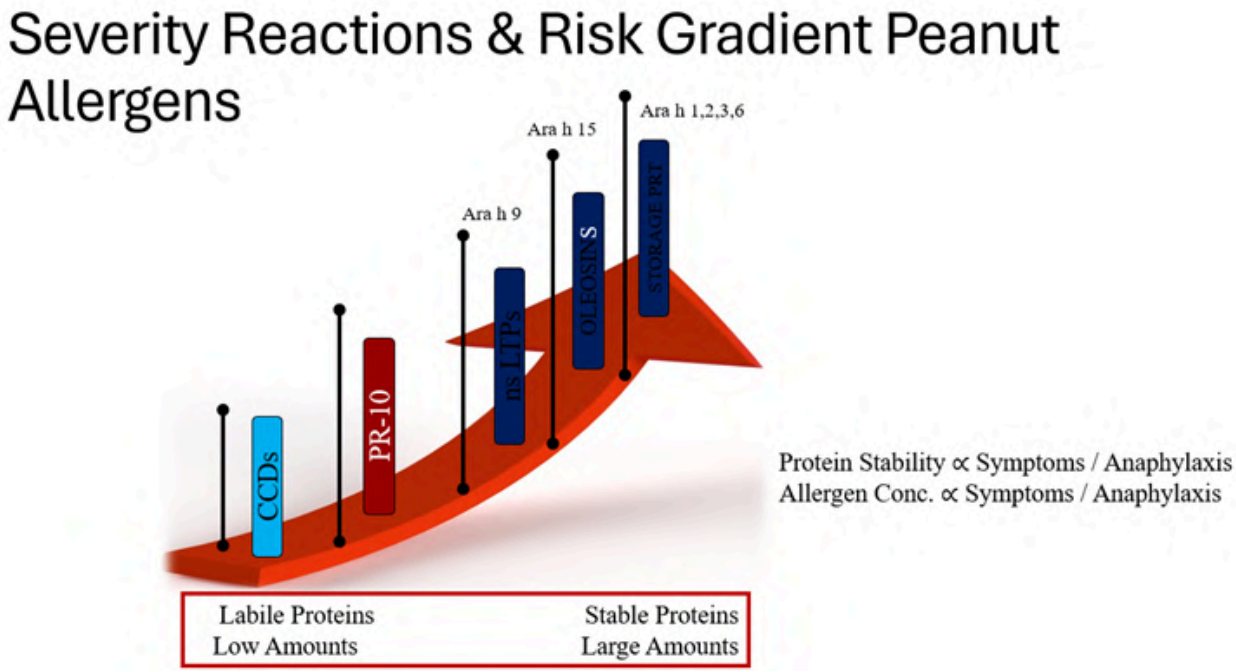
Intradermal skin

4. Beta blockers increase severity of potential anaphylaxis and treatment but are a relative, not absolute contraindication to drug challenge test

5. Methacholine challenge testing is often performed when asthma is a diagnostic possibility but traditional methods such as pre and post bronchodilator spirometry and FeNO measurements are inconclusive. Methacholine is the agent of choice for nonspecific bronchoprovocation challenge testing and is FDA approved. This test is more suited to rule out the diagnosis of asthma due to its high sensitivity and high negative predictive value. On the other hand, it is less well suited to confirm the diagnosis of asthma because of its moderate specificity and low positive predictive value.

6. CRD – component resolved diagnostics uses microarray technique to identify the allergen at molecular level.

- It detects most of the major and minor components of the allergen and distinguishes between true allergy and cross sensitization.
- Risk stratification
- Informed immunotherapry decisions, guide the selection of appropriate allergens and extract potentially improving its effectiveness and safety
- Targeted avoidance strategies – can help identify which foods or substances a patient needs to strictly avoid and which they may be able to tolerate in moderation
- Prediction of oral food challenge outcomes – helping clinicians decide whether to proceed with the challenge or not

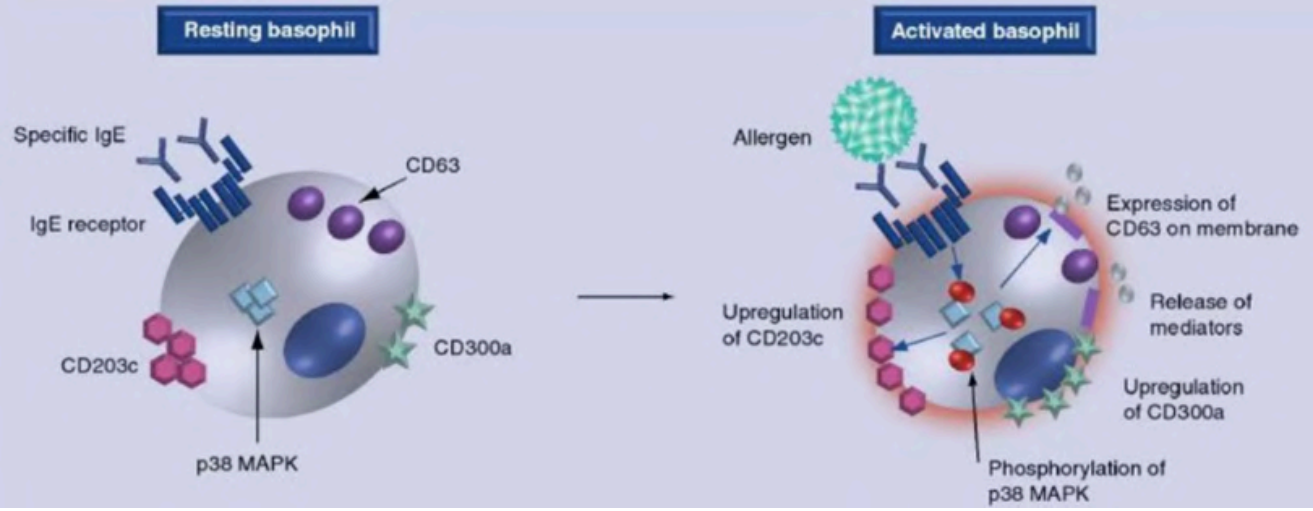


The cross reactivity between Bet v1 allergen component of birch pollen to Ara h 8 component (minor allergen) of peanut allergen, causes oral pollen allergy syndrome with symptoms like itching or swelling in the mouth and throat when eating peanuts.

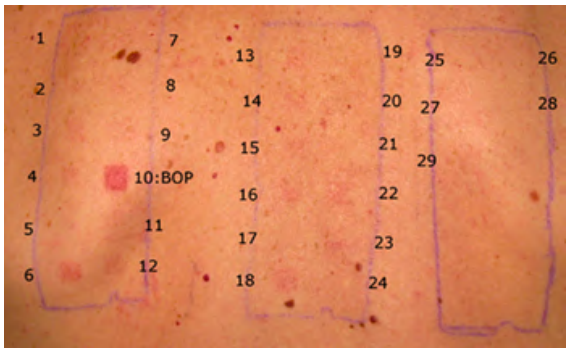
7. The BAT is a flow cytometric assay that detects the functional ability of IgE to activate basophils which are stimulated due to allergen exposure. When the basophil is in a resting mode the activation marker CD63 is mainly present inside the cell granules. Upon activation, after exposure to an allergen, the granules fuse with the cell membrane and CD63 are exposed on the cell surface and can be detected by labelled antibodies with subsequent flow cytometry. Upregulation of CD203c receptors is also detected on basophils. Even though basophils are scarce (they form less than 3% of peripheral white blood cells) they are easily accessible cells and their activation is quantifiable.

The accuracy of the BAT has been shown to be higher than tests for IgE sensitization (sIgE/SPT) and the BAT has been able to differentiate clinically allergic patients from those who were sensitized but tolerant, with a specificity ranging from 75% to 100% and a sensitivity between 77% to 98%.

This specificity and sensitivity profile has positioned BAT as a potential tool in reducing the number of Oral food challenges, contributing to the interest in further developing this technique for FA diagnosis.



8. Patch test is the gold standard test to diagnose allergic contact dermatitis mediated by type 4 hypersensitivity reactions. The test reproduces an eczematous reaction by allergens under occlusion on intact skin of allergic patients.



Indications for patch tests

- Contact dermatitis
- Eczematous disorders failing to respond to treatment
- Chronic hand and foot eczema
- Persistent or intermittent eczema of the face, eyelids, ears and perineum
- Suspected contact allergy to topical medications and their vehicles

9. Low level of NOs is continuously produced by human airway epithelial cells under normal conditions, which are upregulated by proinflammatory cytokines IL-4 and IL-13 and stimuli after allergen exposure in allergic individuals. Low FeNO (Fractional exhaled nitric oxide) and low eosinophils suggest non type 2 asthma and it's less likely to benefit from more ICS. Clinical implication of FeNO

- Detection of eosinophilic airway inflammation
- Determining corticosteroid response
- Unmasking of non-adherence to steroid therapy
- Help in early detection of ongoing atopic inflammation in poor perceivers

General outline for FENO interpretation: symptoms refer to cough and/or wheeze and/or shortness of breath

	FENO < 25 ppb (<20 ppb in children)	FENO 25-50 ppb (20-35 ppb in children)	FENO > 50 ppb (> 35 ppb in children)
DIAGNOSIS			
Symptoms present during past 6 wk	- Eosinophilic airway inflammation unlikely - Alternative diagnoses - Unlikely to benefit from ICS	- Be cautious - Evaluate clinical context - Monitor change in FENO over time	- Eosinophilic airway inflammation present - Likely to benefit from ICS
Monitoring (in Patients with Diagnosed Asthma)			
Symptoms present	- Possible alternative diagnoses - Unlikely to benefit from increase in ICS	- Persistent allergen exposure - Inadequate ICS dose - Poor adherence - Steroid resistance	- Persistent allergen exposure - Poor adherence or inhaler technique - Inadequate ICS dose - Risk for exacerbation - Steroid resistance
Symptoms absent	- Adequate ICS dose - Good adherence ICS taper	- Adequate ICS dosing - Good adherence - Monitor change in FENO	- ICS withdrawal or dose reduction ma result in relapse - Poor adherence or inhaler technique

10. Skin prick test can be performed at the earliest age of 6 months and above. It should not be done in a patient with uncontrolled symptoms of asthma as it may lead to worsening symptoms. The following are the indications to get serum specific IgE test where you are not able to do SPT

- When it's not possible for patients to stop oral antihistamines
- Widespread skin disease
- Un cooperative patient
- When there is a risk of anaphylaxis

11. Tryptase is a serine protease enzyme, present in the mast cells and is a useful marker for systemic reaction/anaphylaxis. Tryptase level peaks about 1-2 hrs after the onset of symptoms, sampling should ideally be done as soon as possible after stabilization of patient, usually within this window. It reaches the baseline in 24 to 48 hours. A clinically significant rise in tryptase is considered when it increases above 1.2×baseline +2ng/mL

Tryptase is more reliably raised in anaphylaxis due to venom and drugs, less so in food triggered events.

12. A negative SPT does not rule out an allergy, especially if clinical symptoms strongly suggest allergic rhinitis. Nasal provocation test involves the challenge of nasal mucosa by serial dilutions of a suspected allergen extract. Assessment and interpretation is done by quantitative analysis by rhinomanometry, objective measures and semiquantitative analysis by using scores for symptoms typically seen with allergic rhinitis, subjective measures (e.g. secretion, irritation, sneezing, nasal obstruction and ocular symptoms).
Before allergen application, record

- Total nasal symptoms score
- Nasal airflow, rhinomanometry
- Acoustic rhinometry, cross sectional area
- Possibly collect nasal secretions for mediators (histamine, tryptase)

Post provocation measurement at defined intervals after allergen application(at 15, 30 sometimes 60 minutes)- repeat TNSS, repeat objective tests. Then calculate the changes from the baseline.
NPT is considered positive if one or more of these occur

- TNSS- increase ≥3-4 points or TNSS ≥5-6 depending on protocol
- Rhinomanometry – increase in total nasal resistance≥100% or≥40 -50 % from baseline
- Acoustic rhinomanometry – decrease in MCA ≥25% from baseline
- Combination – both objective and subjective changes significantly.

However, NPT is a time consuming and labor intensive and requires standardized equipment.

Repeating the SPT in the above case may be considered but the nasal provocation test is more specific.

13. The gold standard for the diagnosis of food allergy is the DBPCFC. It markedly reduces the potential bias of patients as well as the health personnel. This test can be used for diagnosis of both IgE and Non IgE mediated food allergy, however OFC is a resource intensive, time-consuming test.

Patient Information Leaflet

Contributed by the West Bengal Chapter

Understanding Urticaria in Children

Contributors: Dr. Sanjukta De and Dr. Anindya Kundu

What is Urticaria?

Urticaria, commonly known as hives, is a skin condition that causes red, itchy welts. In children, it can be either acute (lasting less than six weeks) or chronic (lasting more than six weeks). These welts can vary in size and appear anywhere on the body.

Common Causes

Identifying triggers helps in managing urticaria effectively. Common causes include:

- Food allergies (e.g., nuts, eggs, milk, shellfish)
- Insect stings (bee or wasp)
- Medications (especially antibiotics and OTC drugs)
- Viral infections like common colds
- Environmental factors (pollen, pet dander, temperature changes)
- Physical triggers (pressure, heat, scratching)

Symptoms to Watch For

- Red, raised welts that change size or location
- Intense itching or burning
- Swelling (angioedema) in lips, eyes, hands
- Welts that appear and disappear within hours or days

Diagnosis

Consult a qualified allergist if you suspect urticaria. Diagnosis includes:

- Detailed medical history
- Physical examination
- Allergy testing (skin or blood tests if needed)

Treatment Options

Managing urticaria often involves symptom relief and trigger avoidance. Key treatments are:

1. Antihistamines: Help relieve itching and welts. Use only under medical supervision.
2. Corticosteroids: Short-term use in severe cases. Not for routine use.
3. Avoiding known triggers: Maintain an allergy diary to help identify them.
4. Home care tips:
   - Cool baths (avoid hot water)
   - Loose clothing
   - Cool compresses
   - Stress reduction through calm activities

5. Emergency signs: Seek urgent medical help if your child has difficulty breathing or significant swelling.

Living with Urticaria

While urticaria can be distressing, most children respond well to treatment and lead normal lives. Educating your child is important – urticaria is not contagious.

Frequently Asked Questions (FAQs)

Q: Do urticaria symptoms last long?

A: Acute urticaria resolves within 6 weeks. If symptoms persist beyond that, it's called chronic urticaria.

Q: Can urticaria be life-threatening?

A: Rarely, urticaria can lead to anaphylaxis, a severe allergic reaction. Immediate medical attention is required.

Q: Are there other symptoms with urticaria?

A: Yes. About 40% of children may have angioedema, or swelling of lips, face, fingers. Treatment is similar.

Q: Can urticaria recur?

A: Yes. Re-exposure to an allergen can cause recurrence.

Q: What are usual allergens?

A: Common allergens include dust mites, cockroach, pollen, certain foods, and medications.

Q: What should I do for recurrent urticaria?

A: Maintain an allergy diary and consult your doctor for evaluation.

Q: Should I do allergy tests advertised in media?

A: No. Allergy testing should only be done on a doctor's advice after clinical assessment.

Q: Can I reuse steroids if they worked once?

A: No. Do not repeat steroids without consulting your doctor.

Q: How long does chronic urticaria last?

A: It may persist for months or years, but often resolves with proper care and treatment.

Q: What if my child's rashes are painful and leave scars?

A: This may be urticarial vasculitis. Please consult your doctor urgently for evaluation.

Conclusion

Urticaria in children can usually be managed effectively with proper care. Always consult your healthcare provider for guidance. Your child's well-being is most important.

Myths and Facts: Allergic Rhinitis in Children

Contributed by North-East Team

MYTHS FACTS

Myth 1: It's just a common cold that keeps coming back.
Fact: Allergic rhinitis is not a cold. It is an immune response to allergens like pollen, dust mites, or pet dander. Unlike viral colds, it doesn't go away in a few days and often follows a seasonal or year-round pattern.

Myth 2: Children will outgrow allergic rhinitis.
Fact: Some children may experience a reduction in symptoms with age, but many continue to have symptoms into adulthood. Early identification and management are essential to prevent complications like asthma or sinusitis.

Myth 3: Allergic rhinitis is not serious—it doesn't need treatment.
Fact: Untreated allergic rhinitis can lead to poor sleep, impaired school performance, ear infections, and worsening asthma. Proper treatment improves quality of life significantly.

Myth 4: All runny noses in children are due to allergies.
Fact: While allergic rhinitis is a common cause of nasal symptoms, infections, anatomical problems (like enlarged adenoids), or irritants can also cause similar complaints. A detailed history and sometimes allergy testing help clarify the cause.

Myth 5: Antihistamines make kids sleepy and should be avoided.
Fact: Newer generation antihistamines (e.g., loratadine, cetirizine, fexofenadine) are non-sedating and safe for children. They effectively reduce sneezing, runny nose, and itching with minimal side effects.

Myth 6: Allergic rhinitis can be cured permanently with medications.
Fact: Medications control symptoms but do not cure the allergy. Long-term management involves avoiding triggers and, in some cases, allergen-specific immunotherapy.

Myth 7: Children with allergic rhinitis should avoid outdoor play.
Fact: Children can and should play outside. Parents can manage exposure during high-pollen times (e.g., early morning, windy days) and encourage regular activity while managing allergies with medications.

Myth 8: Nasal sprays are addictive and unsafe for children.
Fact: Nasal steroid sprays, when prescribed and used correctly, are safe and effective in children with allergic rhinitis. The sprays that cause dependency are decongestant sprays (like oxymetazoline), which are not recommended for regular use.

DID YOU KNOW?

Patient Awareness Corner

Dr Nayan Mani Deka
Guwahati, Assam

Childhood Asthma and Allergy: What Parents Need to Know

Asthma and allergies are among the most common chronic conditions in children. Their impact on quality of life can be significant if left unrecognized or poorly managed. However, with the right knowledge and timely action, parents can play a crucial role in reducing symptoms, preventing complications, and ensuring a healthy, active childhood for their children.

Understanding Childhood Asthma

Asthma is a chronic lung condition that causes inflammation and narrowing of the airways, making it difficult to breathe. It often begins in childhood and can range from mild to severe. Childhood asthma, if managed well, rarely interferes with daily life, but if ignored, it may lead to emergency visits and missed school days.

Early Signs of Asthma: What to Watch For

Recognizing early signs of asthma can help initiate early management and prevent severe flare-ups.

- Frequent coughing, especially at night, during play, or with laughter
- Wheezing – a whistling sound when your child breathes out
- Shortness of breath or rapid breathing during activity
- Chest tightness or discomfort
- Fatigue or avoidance of physical activity
- Recurring episodes of bronchitis or pneumonia

Children may not always verbalize their discomfort. Parents should stay alert to subtle signs like coughing after running, choosing sedentary play, or saying “my chest hurts” or “I can’t catch my breath.”

Medications: Rescue vs. Controller

There are two main categories of asthma medicines:

1. Rescue medications (like salbutamol/albuterol):
    - Provide quick relief from symptoms
    - Should be used only when needed
2. Controller medications (like inhaled corticosteroids):
    - Reduce inflammation and prevent symptoms
    - Must be taken daily if prescribed, even when the child feels well

Stopping controller medications abruptly can result in flare-ups. Parents should never stop asthma medicines without consulting the doctor.

Environmental Control: Reducing Exposure to Triggers

Minimizing exposure to known allergens can significantly reduce asthma and allergy symptoms:

- Dust mites: Use allergen-proof covers for pillows and mattresses, wash bedding weekly in hot water, avoid carpets and heavy curtains
- Pets: Keep pets out of bedrooms, bathe them regularly, and vacuum frequently with HEPA filters
- Pollen: Keep windows closed during high-pollen seasons, especially in early morning
- Mold: Fix water leaks, use exhaust fans in bathrooms, and clean moldy areas with mild bleach solution
- Avoid smoking: A smoke-free home is critical for children with asthma

Lifestyle and Wellness Tips for Long-Term Control

- Physical activity: Children with asthma should be encouraged to play and stay active. Well-controlled asthma does not limit participation in sports.
- Vaccination: Ensure timely influenza and pneumococcal vaccinations.
- Healthy weight: Obesity can worsen asthma symptoms.
- Breathing exercises: Techniques like pursed-lip breathing or yoga can help older children.

When to See a Doctor Urgently

Seek immediate medical help if your child has:

- Severe breathing difficulty or rapid breathing
- Bluish lips or face
- Inability to speak full sentences
- Symptoms not improving with rescue medication
- Lethargy or drowsiness

These are signs of a severe asthma attack and may require emergency intervention.

Reassurance and Support for Parents

Living with a child who has asthma or allergies can be overwhelming. But it's important to know:

- Most children with asthma lead normal lives with proper care.
- Regular follow-ups with a pediatrician or asthma specialist ensure optimal control.
- Education and involvement in management empower children as they grow.

Parents should also educate school staff, coaches, and caregivers about their child's condition, medication needs, and how to respond during an asthma attack.

Conclusion

Asthma and allergies in children, though chronic, are manageable with vigilance, education, and teamwork. By recognizing early signs, maintaining good inhaler practices, avoiding triggers, and adhering to long-term control strategies, parents can ensure their children breathe easy—every day.

Public Awareness Initiative

Flyer Release on "Allergy Safety in Pregnancy"
Launched during the Webinar on "Allergy in Pregnancy – Balancing Two Lives"

The **IAP Allergy and Applied Immunology Chapter,** as part of its ongoing commitment to public education and maternal health, released a bilingual **public awareness flyer titled "Allergy Safety in Pregnancy"** during its special academic webinar on **"Allergy in Pregnancy – Balancing Two Lives"** held on **July 17, 2025.**

The flyer was formally released by **Dr. Neelam Mohan, President Elect, Central IAP (2025),** in the presence of senior faculty members and webinar participants from across the country. The release marked a milestone in the Chapter's efforts to address the **growing concerns around managing allergies during pregnancy,** a topic often overlooked in mainstream health education.

Dr Neelam Mohan

Available in **both English and Hindi,** the flyer is designed as a **patient-friendly resource** to help expecting mothers, caregivers, and healthcare professionals understand the **safe and evidence-based approach to managing allergic conditions during pregnancy.** It addresses common allergic issues such as **asthma, allergic rhinitis, skin allergies,** and food allergies and provides practical tips on:

- Recognizing warning signs of allergic reactions
- Safe use of medications during pregnancy
- Role of immunotherapy and avoidance measures
- Emergency preparedness, including anaphylaxis management

The flyer also emphasizes the importance of **obstetrician-allergist collaboration** and highlights the role of **pre-conception counselling** in women with known allergies.

This initiative is part of a larger vision of the Chapter to **equip pregnant women with scientifically validated and accessible information,** enabling safer outcomes for both mother and baby.

Both English and Hindi versions of the flyer are featured below for reader dissemination and clinic display.

ALLERGY SAFETY IN PREGNANCY

by - IAP ALLERGY AND APPLIED IMMUNOLOGY CHAPTER

PROTECTING YOU AND YOUR BABY

"As the seed is nourished by fertile soil, so is the baby nurtured in the mother's womb through care, calm, and wholesome living."

"A mother's mind is the first home her baby knows. Keep it peaceful, joyful, and pure"

— *Charaka Samhita*

Common Allergies During Pregnancy

- **Allergic Rhinitis** (sneezing, nasal blockage)
- **Asthma** (wheezing, breathlessness)
- **Atopic Dermatitis** (eczema, itching)
- **Urticaria** (hives)
- **Food Allergy & anaphylaxis**

Why Allergy Management Matters?

Pregnancy can change how your body responds to allergies.
Safe treatment ensures better health for both *you and your baby*.

What if You Have a Severe Reaction?

- ✓ Anaphylaxis is an emergency!
- ✓ Use your EpiPen immediately if prescribed
- ✓ Epinephrine is safe during pregnancy
- ✓ Call emergency services without delay

Will Baby Be Affected?

- Allergies are not directly passed, but family history increases risk
- No need to avoid foods unnecessarily unless there's a diagnosed food allergy
- Breastfeeding and smoke-free homes may reduce allergy risk in your child

Allergy Safe Pregnancy Tips:

- Know your triggers and avoid them
- Carry emergency meds
- Stay away from tobacco smoke and incense sticks smoke
- Keep in touch with your obstetrician
- Stay calm — allergy in pregnancy can be managed!

When to Consult an Allergist:

- ✓ Frequent or severe allergy symptoms
- ✓ History of anaphylaxis or food allergy
- ✓ Considering immunotherapy

गर्भावस्था में एलर्जी से सुरक्षा

- आईएपी एलर्जी और एप्लाइड इम्यूनोलॉजी चैप्टर द्वारा

आप और आपके बच्चे की सुरक्षा

"जैसे उपजाऊ मिट्टी में बीज पोषित होता है, वैसे ही माँ के गर्भ में बच्चा देखभाल, शांति और स्वस्थ जीवन से पोषित होता है।"

"माँ का मन उसके बच्चे का पहला घर होता है। इसे शांत, आनंदमय और पवित्र रखें।"

— चरक संहिता

गर्भावस्था के दौरान सामान्य एलर्जी

- एलर्जिक राइनाइटिस (छींक आना, नाक बंद होना)
- अस्थमा (सांस फूलना, सांस लेने में कठिनाई)
- एटॉपिक डर्माटाइटिस (एक्ज़िमा, खुजली)
- अर्टिकेरिया (पित्ती)
- फूड एलर्जी और एनाफिलेक्सिस

एलर्जी प्रबंधन क्यों जरूरी है?

गर्भावस्था में आपका शरीर एलर्जी पर अलग तरह से प्रतिक्रिया कर सकता है। सुरक्षित इलाज से आप और आपके बच्चे दोनों का स्वास्थ्य बेहतर रहता है।

अगर गंभीर एलर्जी रिएक्शन हो जाए तो?

- ✓ एनाफिलेक्सिस आपात स्थिति है!
- ✓ अगर डॉक्टर ने बताया है तो अपना एपिपेन तुरंत इस्तेमाल करें
- ✓ एपिनेफ्रिन गर्भावस्था में सुरक्षित है
- ✓ बिना देर किए आपातकालीन सेवाओं को कॉल करें

क्या बच्चे पर असर पड़ेगा?

- एलर्जी सीधे नहीं फैलती, लेकिन पारिवारिक इतिहास से जोखिम बढ़ता है
- अगर पक्की फूड एलर्जी नहीं है तो खाने से बेवजह परहेज न करें
- स्तनपान और धूम्रपान-मुक्त घर बच्चे में एलर्जी का खतरा कम कर सकते हैं

गर्भावस्था में एलर्जी से सुरक्षा के टिप्स:

- अपने ट्रिगर जानें और उनसे बचें
- आपातकालीन दवाइयां साथ रखें
- तम्बाकू के धुएं और अगरबत्ती के धुएं से दूर रहें
- अपने प्रसूति चिकित्सक के संपर्क में रहें
- शांत रहें — गर्भावस्था में एलर्जी को नियंत्रित किया जा सकता है!

एलर्जिस्ट से कब सलाह लें:

- ✓ बार-बार या गंभीर एलर्जी के लक्षण हों
- ✓ पहले एनाफिलेक्सिस या फूड एलर्जी का इतिहास हो
- ✓ इम्यूनोथेरेपी लेने पर विचार कर रहे हों

Allergy Awareness Seminar

Organized by: Department of Respiratory Medicine, New Civil Hospital, Surat
Date: July 8, 2025 | **Occasion:** World Allergy Day
Theme: *"Anaphylaxis – A Preventable Threat"*

On the occasion of **World Allergy Day,** the **Department of Respiratory Medicine at New Civil Hospital, Surat** organized a high-impact **Allergy Awareness Seminar** on **8th July 2025.** The seminar was aimed at empowering the general public with knowledge about allergic diseases, their prevention, and modern treatment strategies. With over **200 patients and caregivers** in attendance, the event served as a valuable community outreach and educational initiative, aligning with this year's global theme – *"Anaphylaxis: A Preventable Threat".*

The seminar began with an inaugural session graced by prominent dignitaries and leaders from the medical and administrative community. Distinguished guests included **Dr. Dharitri Parmar (Superintendent, NCH Surat), Dr. Ketan Naik (Registered Medical Officer), Dr. Parul Vadgama (Head, Dept. of Respiratory Medicine), Dr. Khyati Shamaliya (Associate Professor, Respiratory Medicine), Mr. Iqbal Kadiwala (Vice President, Nursing Association), Dr. C.B. Patel (President, IMA), Dr. Dhaval Shah (Secretary, APS), Dr. Mukur Petrolwala (Past President, APS), Dr. Sameer Gami and Dr. Deepak Viradiya (Chest Physicians), and Dr. Jagdish Sakhiya (Senior Dermatologist).** The event also saw enthusiastic participation from faculty members and heads of departments from Government Medical College, nursing staff, and students.

During the seminar, participants were educated on **common allergic symptoms** including **recurrent sneezing, nasal congestion, eye watering, skin itching, and breathing difficulty.** Expert talks focused on identifying and avoiding common allergens such as **dust mites, pollen, pet dander, food items,** and **insect venom.** Real-life preventive strategies like **pest control, dust mite mitigation,** and **pollen avoidance** were explained through demonstrations and interactive discussions.

One of the highlights of the seminar was the explanation of the **Skin Prick Test (SPT),** a diagnostic tool for identifying specific allergens. Experts elaborated on how SPT can detect allergies to **pollens, dust mites, animal dander, foods (such as milk, egg, and fish), and insects.** The session helped demystify allergy testing and emphasized its role in precision diagnosis.

A special emphasis was laid on **Immunotherapy**, particularly **Sublingual Immunotherapy (SLIT),** which involves administering allergen extracts as drops under the tongue. This treatment, when indicated, provides long-term relief from allergic rhinitis and asthma caused by aeroallergens. The **Department of Respiratory Medicine at NCH, Surat,** has already evaluated around **300 allergy-related cases,** and has **initiated SLIT in 22 patients** found to be suitable candidates. The typical duration of therapy ranges from **3 to 5 years,** and although the treatment normally costs around **₹2–3 lakhs,** it is being offered **free of cost** to all patients at the hospital – a unique and commendable public health service.

This important event was organized in collaboration with several esteemed medical associations, including:

- **Association of Chest Physicians of Gujarat (ACPG)**
- **Indian Medical Association (IMA)**
- **Surat Medical Consultant Association (SMCA)**
- **Association of Chest Physicians Surat (ACPS)**
- **Association of Physicians Surat (APS)**
- **Surat Pediatric Association Charitable Trust (SPACT)**
- **National College of Chest Physicians (NCCP)**
- **South Gujarat Dermatology Association (SGDA)**
- **IAP Allergy and Applied Immunotherapy Chapter**

The seminar concluded with a collective call for early recognition, accurate diagnosis, and timely management of allergies, especially anaphylaxis, which can be life-threatening yet preventable with proper preparedness and awareness. The event reaffirmed the critical role of public education and interdepartmental collaboration in addressing the growing burden of allergic diseases in India. The event was widely covered by regional and national media and press.

दैनिक भास्कर सूरत 09-07-2025

एलर्जी डे एलर्जी से जुड़ी बीमारियों के प्रति जागरूकता बढ़ाने सिविल अस्पताल में सेमिनार

बार-बार छींक आना, आंख-नाक से पानी गिरना, त्वचा में खुजली और सांस लेने में तकलीफ एलर्जी के संकेत, इलाज जरूरी

हेल्थ रिपोर्टर | सूरत

वर्ल्ड एलर्जी डे के अवसर पर नई सिविल अस्पताल के रेस्पिरेटरी मेडिसिन विभाग की ओर से एलर्जी अवेयरनेस सेमिनार का आयोजन किया गया। कार्यक्रम का उद्देश्य लोगों को एलर्जी के लक्षणों, उसकी गंभीरता और समय पर जांच व उपचार के प्रति जागरूक करना था। सेमिनार में करीब 200 मरीजों ने भाग लिया। आमतौर पर इस बीमारी के इलाज पर 2-3 लाख रुपए तक का खर्च आता है। लेकिन यहां फ्री में होता है। विशेषज्ञ डॉक्टरों ने बताया कि बार-बार छींक आना, आंख-नाक से पानी गिरना, त्वचा में खुजली और सांस लेने में तकलीफ जैसे लक्षण एलर्जी के संकेत हो सकते हैं। इन लक्षणों को नजरअंदाज करना भविष्य में गंभीर बीमारी का कारण बन सकता है। अब तक ओपीडी-11 में 300 मरीजों को एलर्जी और सांस की तकलीफ के लिए इलाज दिया जा चुका है। इनमें से 22 मरीजों की इम्यूनोथेरेपी (SLIT) चल रही है। डॉक्टरों ने बताया कि स्किन प्रिक टेस्ट के जरिए एलर्जी की पहचान की जाती है और SLIT थैरेपी से लंबे समय तक राहत मिलती है।

रेस्पिरेटरी विभाग की इन सेवाओं का लाभ बिल्कुल मुफ्त है। जबकि निजी में इलाज पर 2-3 लाख रुपए तक का खर्च आता है। इस साल वर्ल्ड एलर्जी डे की थीम 'एनेफिलेक्सिस' रही, जो एलर्जी से जुड़ी एक घातक प्रतिक्रिया है।

Media Feature Report

Speaker: Dr. Neeraj Gupta, Chairperson, IAP Allergy & Applied Immunology Chapter
Platform: Doordarshan National (DD Urdu)
Topic: *"Allergies in Children – Understanding, Managing, and Preventing"*

Dr. Neeraj Gupta, Senior Consultant at Sir Ganga Ram Hospital, New Delhi, and the **Chairperson of the IAP Allergy and Applied Immunology Chapter,** was recently featured on Doordarshan, India's national television network, in an expert awareness segment dedicated to **"Allergies in Children."**

The session aimed at educating the general public—especially parents, caregivers, and teachers—on the growing burden of childhood allergies and how to recognize early symptoms. Speaking in an engaging and simplified manner, Dr. Gupta highlighted how allergic conditions such as asthma, **allergic rhinitis, eczema, and food allergies** are becoming increasingly common among Indian children due to rising pollution, changing lifestyle, dietary habits, and increased indoor allergen exposure.

He emphasized the **importance of timely diagnosis** and discussed the role of allergy testing, especially **Skin Prick Testing,** in identifying triggers like **dust mites, pollen, foods, and insect venom.** The session also touched upon practical aspects such as allergen avoidance measures, safe medications, and the emerging role of **Immunotherapy** in managing long-term allergic diseases.

A special segment was devoted to explaining **anaphylaxis,** a potentially life-threatening allergic reaction, and the urgent need for **adrenaline auto-injector awareness** in schools and homes.

Dr. Gupta concluded by encouraging parents to seek help from trained allergy specialists and emphasized that with the right approach, most childhood allergies can be effectively managed, and quality of life can be significantly improved.

The session received wide appreciation and served as a vital step in **mainstreaming allergy awareness in India's public health dialogue.**

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: Allergen Immunotherapy: Foundations to frontiers

Dates: August 1-8, 2025 at Virtual Platform (8-10 PM)

Description: The IAP Allergy and Applied Immunology Chapter is proud to present a five-part webinar series on Allergen Immunotherapy (AIT) in first week of August. Designed for clinicians and allergists, the series will explore AIT from its scientific foundations to cutting-edge innovations. Sessions will cover clinical decision-making, SCIT vs SLIT implementation, challenging patient scenarios, and futuristic approaches like EPIT and food immunotherapy. Join leading global experts as they demystify AIT and share practical insights for building successful AIT practices in India. Sessions will stream live on YouTube at *https://www.youtube.com/@PAAI-IAP*.

4

PedAllercon 2025 (13th Edition) – The Global Summit

Dates: October 10-12, 2025 at Taj Vivanta, Dwarka, Delhi (India)

Description: The 13th Annual Conference of IAP Allergy & Applied Immunology Chapter, is going to be conducted by Pediatric Allergy Association (PAA), Delhi in collaboration with IAP Delhi and CFAAR Chicago (USA). This premier event will feature international experts, 10 hands-on workshops, and attract over 1000 attendees from across the globe. The summit will showcase the latest innovations in allergy, asthma, and immunology, offering a unique platform for learning and collaboration. Kindly register now at *https://pedallercon2025.com/registrations.php*.

CFAAR
Center for Food Allergy & Asthma Research

PED ALLERCON

13th Annual Conference of Pediatric Allergy and Applied Immunology Chapter of IAP

2025, New Delhi

Pediatric Allergy Association (PAA), Delhi

In Assocation with: Indian Academy of Pediatrics, Delhi & Centre for Food Allergy and Asthma Research (CFAAR), Chicago, USA

Save the Date

10th-12th October, 2025

Hotel Taj Vivanta, Dwarka Sec. 21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Co-Org. Chairperson


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REGISTRATION DETAILS

Registration Categories	Midway Saver Valid till 31st July 2025		Countdown Rates Valid till 30th Sept. 2025		On Spot Registrations	
	Member* or PG Student	Non-Member*	Member* or PG Student	Non-Member*	Member* or PG Student	Non-Member*
Conference Registration	INR 5,000	INR 6,000	INR 6,000	INR 7,000	INR 8,000	INR 10,000
Pre Conference Workshop + Conference Registration	INR 6,000	INR 7,000	INR 7,000	INR 8,000		
Accompanying Person	INR 5,000		INR 5,000		INR 5,000	
International Delegates	USD 300		USD 400		USD 500	
International Accompanying Person	USD 100		USD 100		USD 100	

SAVE ₹1000– JUST BY BECOMING A MEMBER!
Kindly click here to become a member - https://iapaai.com/registration-form/

NOTE:
*Active member of IAP Allergy & Applied Immunology Chapter
All Rates are exclusive of 18% GST and Transaction Charges as applicable

SCAN TO REGISTER
Click to Know T&C/ Cancellation policy

PRE CONFERENCE WORKSHOPS

3 Hours Each

Pre Lunch Workshops
- Molecular Diagnostics
- Skin Prick Test, Prick on prick, Intradermal and Patch Test
- Pulmonary Function Test (Spirometry, Oscillometryand PEF) and FeNO analysis
- Nasal endoscopy workshop
- Food Allergy- Office Challenges

50 Participants Each

Post Lunch Workshops
- Allergen Immunotherapy- SCIT and SLIT
- Emergencies in allergypractice- asthma/anaphylaxis/SCAR/ angioedema
- Drug Allergy exclusively for practicing Allergists
- Research Methodologies in Allergy
- Immunode_ciency workshop

ONE PERSON CAN ATTEND 2 WORKSHOPS
(01 PRE AND 01 POST LUNCH)

CLICK HERE TO REGISTER

CALL FOR ABSTRACT

The deadline for abstracts submission is: **31st July 2025**
Notification of the acceptance of abstracts: **01st September 2025**

SUBMISSION CATEGORIES
1. Drug Allergy
2. Diagnosis, natural history, Immunotherapy, Biologics for the treatment of Food Allergy
3. Asthma management and pathogenesis
4. Secondary Immunodeficiency and autoimmunity
5. Allergic Rhinitis, Non Allergic Rhinitis, Ocular Allergy and Immunotherapy
6. Anaphylaxis and Venom Allergy
7. Atopic Dermatitis, Urticaria, Angioedema, Contactdermatitis
8. Aerobiology
9. Allied health care in Allergy

PRESENTATION FORMATS
- Oral Presentation
- E-Poster Presentation

SCAN TO SUBMIT ABSTRACT

CLICK HERE
CLICK TO KNOW GUIDELINES & OTHER DETAILS

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TENTATIVE PROGRAM

Comprehensive Summary of The Scientific Sessions

ORATION

Prof. (Late) K. Nagaraju — **Prof. H. Paramesh**

01 Airway Allergies Conclave | 02 Food Allergy Forum | 03 Occupational Allergy Segment | 04 Skin Allergies Colloquium | 05 Ocular Allergies Symposium | 06 Venom & Insect Allergies Segment | 07 Mixed Bag | 08 IMMUNO-THERAPY

AIRWAY ALLERGY CONCLAVE

- Asthma Endotypes in the era of Data science boom
- Circulating nitrate in allergic airway disease: Just an anotherbiomarker or novel treatment target?
- Oxidative stress and Obesity related Asthma
- Childhood asthma and 'OMICS'
- Update on the epithelial barrier dysfunction and allergies
- Updates on Biological Therapies in airway allergies
- AERD- treatment revisited
- Pollen Forecasting and Real-Time Allergy Alerts
- Non-Allergic Rhinitis

SKIN ALLERGIES COLLOQUIUM

- Urticarial Vasculitis- Suspect and manage in clinical management
- Hereditary angioedema- An update
- Skin microbiome and atopic dermatitis
- Genetics of allergic skin diseases
- Understanding mast cells, Langerhans cells, dendritic cells in skin allergies

VENOM & INSECT ALLERGIES SEGMENT

- Current challenges and dilemmas in management of insect venom hypersensitivity- Indian perspective
- Molecular diagnostics of insect venom allergy- The future

MIXED BAG

- Circadian biology in allergies
- Sleep disordered breathing and allergies- Panel discussion
- Epigenetics and Allergy: Future Therapeutic Targets
- Allergy and Climate Change: The Impact of Global Warming
- Psychoneuroimmunology in Allergy: The Mind-Body Connection
- Exposome-Based Allergy Therapy: A New Frontier
- Holistic approach to allergies
- Ethical and medicolegal issues in managing Allergy.

FOOD ALLERGY FORUM

- Diagnostic challenges and Novel approaches in Food Allergy
- Global perspectives on Food Allergy Diagnosis
- AI in food allergy management
- Non IgE Food Allergy and Eosinophilic Disorders
- Preparedness of schools and food handlers for management of food allergies in India.
- Environmental Factors contributing to Food Allergy development

OCCUPATIONAL ALLERGY SEGMENT

- The occupational allergen and hazard – latex allergy
- Occupational asthma, work enhanced asthma and reactive airway disease syndrome – each a conundrum on their own
- Occupational Allergy – Immuno-pathological basis and research gaps

OCULAR ALLERGIES SYMPOSIUM

- The Role of Tear Biomarkers in Diagnosing Ocular Allergies
- Importance of risk stratification in patients with red eye for allergy evaluation
- Allergic Rhino conjunctivitis: ARIA MedALL hypothesis
- Novel Biologic Therapies for Severe Ocular Allergy Cases: A game changer?
- The Potential of Immunotherapy in Ocular Allergies: Current Evidence & Future Prospects
- Screen time, Digital Eye Strain & Ocular Allergies: A Growing Modern-Day Concern

IMMUNOTHERAPY

- 110 Years of Immunotherapy – A review Allergy
- Immunotherapy and Cancer Immunotherapy: Crossroads of Immune Modulation
- Biomarkers for Predicting Immunotherapy Response
- Precision Immunotherapy: Beyond Conventional Allergen Extracts
- Advances in Novel preparations in Allergen Immunotherapy
- Combination of Allergen Immunotherapy with Biologicals – when and how?

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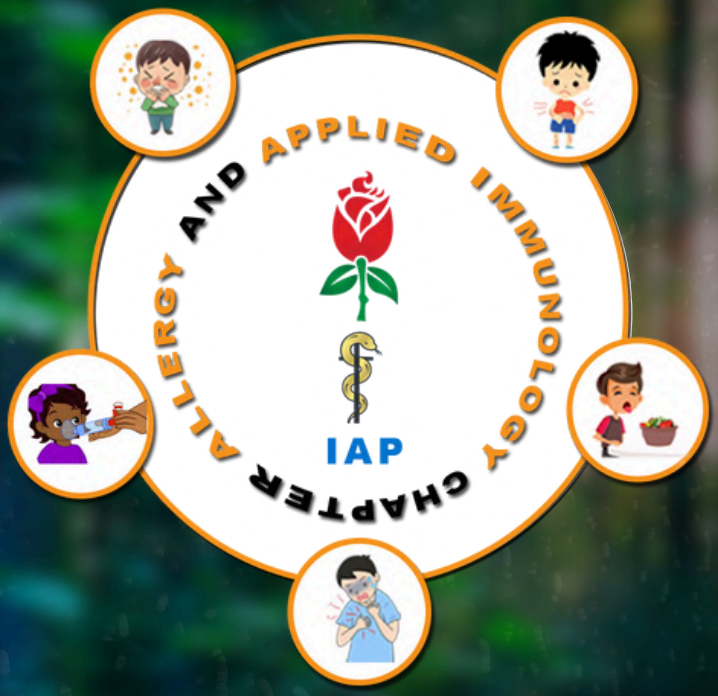
Spot Treat Prevent



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