Listed below are the highest priority topic areas in which allergist/immunologists have identified a need for additional knowledge and/or practice skills. These topic areas were identified from an analysis of surveys of the AAAAI membership and an analysis of questions submitted to the “Ask the Expert” feature on the AAAAI website.

When you are planning an educational activity, please consider ways to address these learner needs in the development of your program.

**Drug Allergy**

- **Ask the expert**
  - Skin testing to PCN (including testing to cephalosporins); Drug allergy - radiocontrast, antibiotic skin testing
  - Reaction to propofol
- **Member Survey**
  - Desensitization for drugs, particularly aspirin and antibiotics and on line availability of protocols

**Skin testing**

- **Ask the expert**
  - Factor affecting skin testing: Impact of medication, dermatographism
  - Concentration of allergen, area of skin testing,
  - Indications
- **Member Survey**
  - Skin testing (scratch and ID) - devices and interpretation
  - Autologous serum skin testing

**Insect Sting Allergy**

- **Ask the expert**
  - Desensitization to mosquito and deerfly *(note: a survey is planned to assess need for non-hymenoptera allergy)*
  - Urticaria- insect sting (cutaneous reactions)
  - Reactions to venom IT: recurrent, encephalitis during rush, neurotoxic
  - Venom IT for large local reactions
  - Diagnosis: conflicting skin and serological test results, timing of skin test after reaction

**Urticaria-Angioedema**

- **Ask the expert**
  - Angioedema
• Angioedema with normal complement
• Angioedema with giant cells on biopsy
• Angioedema low C1q complement;
• Angioedema misc: due to titanium, photos of angioedema; oropharyngeal edema with unknown cause; periorbital edema vs angioedema
• Age to begin treatment for HAE
• Urticaria- insect sting, chronic, outdoor-related, laryngeal edema, autoimmune, contact, ethanol in management, histamine-release laboratory test

  • **Member Survey**
  • HAE treatment update

**Mastocytosis**
• **Ask the expert**
  • Evaluation and management of mastocytosis
  • Histopathology: Measurement and interpretation of serum tryptase, mucosal vs connective tissue mast cells

**Anaphylaxis**
• **Ask the expert**
  • Anaphylaxis
    • Anaphylaxis- management - inotropic agents in management; terbutaline for uterine cramping
    • Anaphylaxis to vaccines – HPV
    • Anaphylaxis to meds - oseltamivir, chantix, paclitaxel, delayed anaphylaxis after injection of triamcinolone into a joint, sodium tetradecyl sulfate
    • Anaphylaxis to disinfectants/chemicals - Cidex (orto-phthalaldehyde), povidone, on an airplane due to de-icer
    • Anaphylaxis to biologics - seminal hypersensitivity,
    • Oral anaphylaxis to mite (pancake syndrome), black ant
    • Anaphylaxis to foods - wheatgrass, tea, contact with peanut oil, public health risk of anaphylaxis to peanut oil
    • Anaphylaxis - other - anaphylaxis in skin-test negative child; Idiopathic anaphylaxis vs mastocytosis, Differences between anaphylactic shock and septic shock, Sustained/protracted
    • Epinephrine induced hypokalemia and IV epidural anesthesia
    • Latex allergy (crumb rubber and rubber/leather-based footing in equestrian arena)
Skin allergy
- Ask the expert
  - Patch testing
  - Contact dermatitis - metal implants, silicon lapband; ink for US currency; tegaderm, adhesives, or polyurethane; B. Kamins anti-aging moisturizer; EDTA
  - Autoimmune progesterone dermatitis
  - Atopic dermatitis: Infant with atopic dermatitis and milk allergy - maternal avoidance of dairy while breast feeding; severe atopic dermatitis with high serum IgE; association with oral contraceptives; anti-reticulin antibodies
  - Relationship between asthma, allergy, dermatitis
- Member Survey
  - Diagnosis of Nonallergic skin disease
  - Diagnosis and Management of Contact Dermatitis

Food Allergy
- Ask the expert
  - Skin testing - food allergy
  - RCM and shellfish allergy
  - Flu vaccine for egg-allergic patients
  - Cross reactivity between legumes
  - Cross reactivity between tree nuts and/or peanut
  - Foods containing sulfites
  - Complex pediatric patient with multiple positive environmental and food tests
  - Infant with bloody stools
  - Treatment of EE
  - Food challenge
- Member Survey
  - GI mucosal immunity
  - IgG mediated food allergy

Rhinitis/Sinusitis
- Ask the expert
  - Sinusitis - severe chronic sinusitis
  - Rhinitis - X3 (treatment)
  - Ocular allergy - ketotifen; difficult case of vernal conjunctivitis
- Member Survey
  - Rhinitis this was #1 topic
  - Impact of smoke, medications on rhinitis
  - Rhinoscopy and other rhinitis-oriented office procedures (rhinomanometry, etc.)
  - Aspirin desensitization
• Local production of IgE & nasal challenge
• **Sinusitis**
  • Options for **non-surgical management** (including nebulized abx, leukotriene inhibitors, calcium channel blockers, antifungals, evidence for efficacy of prolonged oral antibiotics) #1 topic
• **Clinical indications for surgery** & post-op management
• **Chronic sinusitis** - fungal, other phenotypes, pathophysiology
• **Diagnostic procedures**: rhinoscopy and sinus cultures, CT scans - interpretation and safety
• Pediatric sinusitis

**Lab tests/Alternative tests/procedures:**
• **Ask the expert**
  • Blood tests for allergy
  • Specific IgG and stool precipitins in allergy diagnosis (also: education of non-allergists ; food allergy; controversial tests)
  • Neutralization/provocation
• **Member Survey**:  
  • Oral food challenges, rhinoscopy, rhinomanometry, bronchial challenges, atopy patch test (beyond the TRUE test)
  • Controversial/unproven testing modalities
  • FENO
  • Nasal allergen provocation
  • Coding for these procedures
  • Audiometry

**Vaccines:**
• **Ask the expert**
  • Vaccines-management of allergic reaction to hep B vaccine, flu vaccine side effects, CI, allergic reaction
• **Member Survey**
  • Pneumovax immunization
  • Immunomodulation and Immunomodulators role in allergic and other immunologic diseases including asthma,allergic rhinitis ,food ,etc
• Update on vaccines in general

**Immunodeficiency/immunology/other immunological disorders:**
• **Ask the expert**
- Immunodeficiency - evaluation of responses to pneumococcal vaccine; mannose
  binding lectin deficiency
- CVID
- Immunoglobulin replacement: in CLL, pt with fever, pharmacokinetics, pts with
  chronic sinopulmonary infections, when to begin, indications for & overview of
  treatment of hypogammaglobulinemia
- Effect of long-term steroids on immunoglobulin levels

- Member Survey
  - Hypereosinophilic disorders
  - Screening for primary immune defects
  - When to get genetic tests for PID
  - Recent progress in PID – update on defects, presentations
  - When to use IVIG, guidelines and followup
  - Review of Systemic autoimmune diseases and treatment
  - Immune Mechanisms (e.g. antigens, immunoregulation, cytokines, mucosal
    immunity, transplantation)
  - Review of cytokines in general, which does what
  - Review of Toll like receptors: allergy, GI tract, immune defects
  - Immune modulators of TNF receptors
  - Update on IVIG indications and proper application or use
  - Immune complex diseases

Practice management
- Ask the expert
  - Concierge allergy; consent for minors
- Member Survey
  - Quality and Outcomes (e.g. Pay-for-Performance standards, measurement and
    documentation of outcomes for reporting)
  - Health Outcomes, Education, Delivery and Quality (e.g. adherence,
    patient/provider communication, healthcare outcomes, systems-based practice,
    pharmaco-epidemiology and pharmaco-genetics, professionalism)
  - Health Informatics: EMR - electronic office set-up; when; how, why; what is best out
    there, specific to allergy; personal health records; practical comparison of systems;
    systems where patients can input data; use in solo practice; electronic health cards;
    how is it better than paper
  - Healthcare Disparities (e.g. access and barriers to care, disease susceptibility,
    socioeconomic issues in care, cultural aspects of care)

Aerobiology
- Ask the expert
• Pollens - pollinating seasons, where to find counts, diurnal variation in counts, pollutants in air
• Animal
• Allergy-free cats.
• Level of Fel d 1 in kittens
• Effect of indoor pets on development of allergy
• Allergy to raccoon

**Occupational respiratory diseases**

- **Ask the expert**
- Occupational respiratory diseases

**Immunotherapy**

- **Ask the expert**
  - Switching extracts from one manufacturer to another
  - Where to inject
  - Immunotherapy schedules, rush IT reactions, premedication
  - Allergy injection reactions (3): large local reactions during treatment and at injection site after treatment completed
  - Personnel for supervision/administration of allergen immunotherapy: physician extenders, non-allergy trained MD
  - IT and medication: ACE inhibitors, MAO
  - IT and other conditions: pregnancy, Raynouds, AIDS, breast cancer undergoing chemotherapy
- **Member Survey**
  - SLIT and SCIT update in role, mechanism and protocols for use in sinusitis/rhinitis/atopic dermatitis

**Asthma**

- **Ask the expert**
  - Asthma - treatment: Advair vs symbicort in athletes; treatment with albuterol/atrovent via nebulizer and QOD azithromycin; treating the wheezing infant; difficult to treat patient with asthma and ectodermal dysplasia; child with poorly managed asthma; preferred inhaled steroid for age 4 or younger; control of EIA
  - Asthma - other topics - Safety of beta blockers; demographics of asthma; relationship of asthma to menstrual cycle
- **Member Survey**
• Asthma diagnosis and management update, particularly immunomodulators ie Omalizumab
• Pediatric asthma (<6 year) diagnosis and management
• Phenotypes: Severe, difficult to control asthma, exercise and intrinsic asthma diagnosis and management, and impact of smoking
• Diagnostic challenge testing and nitric oxide role in diagnosis and management
• Good review of respiratory mucosal immunology

Cough
• Ask the expert
  • Causes of cough
• Survey
  • Chronic cough: Diagnosis and Management