Timeliness of DTaP-IPV-Hib Vaccination and Development of Atopic Dermatitis Between 4 Months and 1 Year of Age—Register-Based Cohort Study
Gehrt et al 1520

What is already known about this topic? Vaccines can trigger non—antigen-specific immune responses. An Australian study of approximately 4000 children found that delayed vaccination with the nonlive Diphtheria, Tetanus, acellular Pertussis — Inactivated Polio vaccine — Haemophilus influenzae type b (DTaP) vaccine was associated with reduced risk of atopic dermatitis.

What does this article add to our knowledge? Delayed vaccination (at least 1 month) with the first dose of DTaP was associated with a 6% lower risk of developing new cases of more severe atopic dermatitis between age 4 months and age 1 year in a cohort of nearly 900,000 Danish children.

How does this study impact current management guidelines? Many issues should be considered when designing vaccination programs. Maternal pertussis vaccination accompanied with fewer and later doses of DTaP in children may reduce the occurrence of atopic dermatitis without compromising the protection against pertussis.

Clinical Outcomes in People with Difficult-to-Control Asthma Using Electronic Monitoring to Support Medication Adherence
Boddy et al 1529

What is already known about this topic? Seven-day FeNO suppression testing with fluticasone+Inhaler Compliance Assessment (INCA) electronic monitoring added to usual therapy, coupled with home FeNO monitoring, identifies medication nonadherence in difficult-to-control asthma. Long-term clinical outcomes are not known.

What does this article add to our knowledge? A simplified approach where usual inhaled corticosteroid (ICS)/long-acting b2-agonist (LABA) is replaced with fluticasone/salmeterol+INCA for 28 days with repeat assessments in clinic provides similar results to the 7-day test. Clinical outcomes improved for many previously nonadherent patients.

How does this study impact current management guidelines? Use of the 28-day fluticasone/salmeterol+INCA protocol as a pre-step/stratification tool for biological therapy in patients with a high baseline FeNO may reduce unnecessary biologic prescribing and oral corticosteroid exposure, whilst optimizing treatment with ICS/LABA therapy.

Complications and Health Care Resource Utilization Associated with Systemic Corticosteroids in Children and Adolescents with Persistent Asthma
Sullivan et al 1541

What is already known about this topic? A clear association exists between systemic corticosteroid use and complications in individuals with asthma ≥18 years of age, but this association in asthmatic children and adolescents under 18 years is less well explored.

What does the article add to our knowledge? Children and adolescents who receive as few as 1 to 3 systemic corticosteroid prescriptions per year have an increased risk of developing corticosteroid-related complications.

How does this study impact current management guidelines? Optimal management of persistent asthma in children and adolescents should aim to reduce the need for systemic corticosteroids, in recognition of the associated potential for complications.
Effect of LTRA in L-ASA Challenge for Aspirin-Exacerbated Respiratory Disease Diagnosis
Ramírez-Jiménez et al

What is already known about this topic? Several types of challenges have been used for the diagnosis of hypersensitivity to aspirin and/or nonsteroidal anti-inflammatory drugs, including oral, intravenous, bronchial, and nasal routes of administration. However, there is no internationally unified consensus to perform nasal challenge tests with lysine-acetylsalicylate (L-ASA) either with or without the use of a leukotriene receptor antagonist (LTRA) before the nasal challenge.

What does this article add to our knowledge? This study has demonstrated that patients without antileukotriene treatment showed a greater positive response to the L-ASA challenge than those taking this drug, increasing both accuracy and sensitivity of the test.

How does this study impact current management guidelines? Antileukotriene therapy reduces the response to the nasal L-ASA challenge significantly. Thus, it is recommended to avoid the use of LTRA when performing a nasal L-ASA challenge.

Diabetes Mellitus Is Associated with Worse Outcome in Patients Hospitalized for Asthma
Zhang et al

What is already known about this topic? Diabetes mellitus and asthma frequently coexist and are closely related. Diabetes, via augmented systemic inflammation, likely worsens asthma disease severity. Conversely, certain asthma treatments including corticosteroid negatively impact diabetic control.

What does this article add to our knowledge? When hospitalized for asthma, patients with coexisting diabetes had longer length of stay, higher cost, and were more likely to be readmitted within 30 days of discharge when compared with patients without diabetes.

How does this study impact current management guidelines? Patients with coexisting asthma and diabetes likely constitute an underrecognized high-risk group for asthma hospitalization and related adverse outcomes. Dedicated research and innovative management strategies for this group are urgently needed.

Reduced Exhaled Breath Condensate pH and Severity of Allergic Sensitization Predict School Age Asthma
Kreißl et al

What is already known about this topic? Early risk stratification in young children with a history of wheezing is of great clinical importance. Our baseline study identified deaerated exhaled breath condensate pH (dEBC pH) as a potential predictive marker to detect asymptomatic preschoolers at high asthma risk.

What does this article add to our knowledge? The present follow-up suggests that dEBC pH combined with Capacity class and clinical information constitutes a sensitive, noninvasive marker with high negative prediction value for early detection of asymptomatic preschool children with increased asthma risk.

How does this study impact current management guidelines? Diagnosing asthma at preschool age with a low rate of false-negative cases will enable early guideline-based therapy, thus reducing undertreatment and risk of future exacerbations, improving symptom control, and possibly preserving lung function.

Longitudinal Analysis of Lung Function in Pregnant Women with and without Asthma
Jensen et al

What is already known about this topic? Spirometry is a useful clinical asthma management tool, yet its utility in pregnancy is unclear.

What does this article add to our knowledge? Pregnancy and mild asthma have limited impact on spirometry.

How does this study impact current management guidelines? Spirometry can be used in clinical assessment and education during pregnancy.
The Impact of Patient Self-Monitoring Via Electronic Medication Monitor and Mobile App Plus Remote Clinician Feedback on Adherence to Inhaled Corticosteroids: A Randomized Controlled Trial
Mosnaim et al 1586

What is already known about this topic? Poor adherence to inhaled corticosteroids and overreliance on short-acting beta-agonists are risk factors for uncontrolled asthma.

What does this article add to our knowledge? Compared with a control group, patient self-monitoring via electronic medication monitors and a smartphone application plus remote clinician feedback helped maintain baseline adherence to inhaled corticosteroids and decrease short-acting beta-agonist use.

How does this study impact current management guidelines? Although asthma guidelines endorse self-monitoring and feedback to increase or maintain adherence, most strategies are resource intensive. This intervention is delivered remotely via a digital platform and clinician phone calls, thereby increasing flexibility and reducing costs.

Remission and Changes in Severity Over 30 Years in an Adult Asthma Cohort
Tupper et al 1595

What is already known about this topic? Asthma remission rate is low in adults, but knowledge of factors associated with remission is scarce.

What does this article add to our knowledge? Over 30 years, remission of objectively verified asthma is associated with short disease duration.

How does this study impact current management guidelines? Early recognition, and treatment, of asthma in adults with preserved lung function may improve the likelihood of remission.

Aspirin-Exacerbated Respiratory Disease: Association Between Patient-Reported Sinus and Asthma Morbidity
Bergmark et al 1604

What is already known about this topic? Aspirin-exacerbated respiratory disease (AERD) is characterized by asthma, chronic rhinosinusitis with nasal polyps, and hypersensitivity to aspirin and other nonsteroidal anti-inflammatory drugs.

What does this article add to our knowledge? Chronic and severe sinonasal symptoms are a chronic cause of morbidity for patients with AERD. This study demonstrates a significant association between patient-reported rhinosinusitis symptom severity and subjective and objective asthma severity in patients with AERD.

How does this study impact current management guidelines? Patients with AERD who report worsening sinonasal symptoms should be evaluated for asthma control and pulmonary function. Severity of sinonasal symptoms and asthma symptomatology is correlated. Further research is needed to confirm the hypothesis that improved sinonasal disease control would improve asthma symptomatology in patients with AERD.

Potential Severe Asthma Hidden in UK Primary Care
Ryan et al 1612

What is already known about this topic? Primary care physicians are often reticent to refer patients with asthma to specialist care, because they are working under the expectation that all asthma can be managed effectively in primary care and/or are unaware of the benefits of referral.

What does this article add to our knowledge? There are large numbers of patients with asthma in the United Kingdom with potential severe asthma (8%) who are managed long-term in primary care who may be eligible for referral to specialist care.

How does this study impact current management guidelines? Our findings may help primary care physicians recognize those with hidden severe asthma in their care. These patients would benefit from a structured assessment by their primary care physician, with possible referral to specialist care.
Patient-Reported Burden of Chronic Cough in a Managed Care Organization
Zeiger et al

What is already known about this topic? Using electronic health records, we have reported that patients diagnosed with chronic cough by specialists exhibit considerable disease burden and health care resource utilization (HCRU).

What does this article add to our knowledge? The present survey of patients with chronic cough documents that patients report substantial cough severity, poor cough health status and quality of life, frequent cough hypersensitivities and cough triggers, discouraging response to medications, and frequent HCRU.

How does this study impact current management guidelines? The substantial disease burden associated with chronic cough provides additional documentation of the need for more effective diagnostic and treatment tools for successful management of chronic cough.

A Randomized Controlled Trial to Assess the Effect of Lidocaine Administered via Throat Spray and Nebulization in Patients with Refractory Chronic Cough
Abdulqawi et al

What is already known about this topic? A number of case reports and case series have reported the off-license use of nebulized lidocaine as an antitussive in various respiratory disorders, including patients with refractory chronic cough.

What this study adds? This first randomized placebo-controlled study of lidocaine in patients with refractory chronic cough shows that lidocaine delivered as a throat spray to the pharynx reduced objective cough rates over 10 hours, whereas nebulized lidocaine did not. The greatest reduction in cough was in the first hour after treatment.

How does this study impact current management guidelines? This study draws into question the clinical use of nebulized lidocaine for refractory chronic cough. Future sodium channel blockers with less irritant effects and longer duration of action may be effective antitussive agents.

Evaluating Immediate Reactions to Cephalosporins: Time Is of the Essence
Romano et al

What is already known about this topic? Parent drugs are used as skin test reagents for evaluating subjects with hypersensitivity reactions to cephalosporins. However, few studies have assessed the diagnostic value of cephalosporin skin tests in patients with immediate reactions.

What does this article add to our knowledge? Skin testing with parent cephalosporins is a useful tool in evaluating immediate reactions to these β-lactams, with a rate of positive results that can reach 70%.

How does this study impact current management guidelines? IgE-mediated cephalosporin hypersensitivity may disappear over time. Therefore, it is advisable to retest subjects who experienced anaphylactic reactions and present negative allergy test results, including challenges, when evaluated more than 6 months after their reactions.

Safety of Intravenous Iron Following Infusion Reactions
Stojanovic et al

What is already known about this topic? Hypersensitivity reactions of any severity to intravenous iron have a reported prevalence of less than 0.1%. The majority of adverse reactions to iron are not immunological IgE-mediated responses.

What does this article add to our knowledge? Re commence ment of an infusion after transient flushing and truncal myalgias or mild and moderate hypersensitivity reactions to intravenous iron is safe. Rechallenge to an alternative intravenous iron formulation following transient flushing and truncal myalgias or mild and moderate, single-system hypersensitivity reactions is safe.

How does this study impact current management guidelines? Current guidelines are based on expert opinion and isolated case reports. This study provides clinical guidance regarding the safety of recommencing an infusion or subsequent rechallenge following an adverse reaction to intravenous iron.
Accurate Prediction of Peanut Allergy in One-Third of Adults Using a Validated Ara h 2 Cutoff
Kansen et al

What is already known about this topic? The diagnostic value of peanut components is extensively studied in children, but less in adults. An Ara h 2 cutoff level (≥1.75 kUA/L) with 100% positive predictive value has been reported in adults.

What does this article add to our knowledge? sIgE to Ara h 2 and 6 have equally high discriminative ability in adults. The validated Ara h 2 cutoff predicts peanut allergy in one-third of adults.

How does this study impact current management guidelines? sIgE to Ara h 2 should be used to reduce the need for double-blind placebo-controlled food challenges using the validated 100% positive predictive cutoff level of ≥1.75 kUA/L in adults.

Characteristics of Food Allergic Reactions in United States Restaurants
Oriel et al

What is already known about this topic? Food allergic reactions occur while dining out. Prior studies have shown that restaurant patrons fail to communicate allergies to restaurant staff and restaurant staff lack fundamental food allergy knowledge that could help decrease allergic reactions.

What does this article add to our knowledge? Peanut, tree nuts, and milk are the most commonly implicated foods in restaurant allergic reactions, with tree nuts the most common cause of epinephrine use. More than 1 in 4 reactions result in epinephrine use.

How does this study impact current management guidelines? Data presented here of the circumstances surrounding food allergic reactions will help counsel food allergic patients and advance advocacy efforts for mandatory declaration of allergenic ingredients on menus and food allergy training of restaurant staff.

Mahr et al

What is already known about this topic? Although peanut allergy is a serious, potentially life-threatening condition that substantially impairs quality of life among patients and their caregivers, the epidemiology and disease burden are not well defined.

What does this article add to our knowledge? This large, nationally representative, longitudinal claims analysis suggests that the incidence and prevalence of peanut allergy in the United States may be increasing and characterized by a high comorbidity burden and severe reaction rate.

How does this study impact current management guidelines? Peanut allergy management using avoidance measures alone may be insufficient. Implementation of effective tools to manage peanut allergy is needed to avoid severe reactions and reduce impact on health care burden and patient quality of life.

Criteria for the Regression of Pediatric Mastocytosis: A Long-Term Follow-Up
Polivka et al

What is already known about this topic? In contrast to adult-onset mastocytosis, mast cell infiltration in children is usually limited to the skin and typically regresses after several years. The underlying mechanisms have not yet been identified.

What does this article add to our knowledge? In children, congenital disease and the KIT D816V mutation were associated with the regression of cutaneous mastocytosis. Symptoms of mast cell activation may worsen over time, even after cutaneous regression. The rare aggressive forms were symptomatic from the outset.

How does this study impact current management guidelines? KIT D816V is not associated with a poor prognosis factor in children. Long-term follow-up is mandatory for children with mastocytosis and symptoms of mast cell activation.
What is already known about this topic? Patients with mastocytosis in the skin (MIS) need a bone marrow biopsy to differentiate between cutaneous and systemic mastocytosis. Several parameters may be indicative for systemic involvement in patients with MIS, but no score-based estimation model is available.

What does this article add to our knowledge? Our article is the first to describe a large data set–based risk score for systemic involvement in patients with MIS, ready for application in clinical practice.

How does this study impact current management guidelines? Our score is ready for use to estimate the actual risk of patients with MIS to have systemic mastocytosis, which may in turn support the physician’s decision of whether and when to recommend a bone marrow biopsy.