Emergency Department Use in Pediatric Patients with Inflammatory Bowel Disease

The incidence of pediatric inflammatory bowel disease (IBD) is increasing, and pediatric patients with IBD often go to the emergency department (ED) for care. The authors of this study evaluated risk factors associated with pediatric IBD and ED use. The study period was over a one-year period and occurred at a single tertiary children's hospital. All patients diagnosed with pediatric IBD less than or equal to 21 years of age were studied. Standard patient data was obtained from the electronic medical record (EMR). Once a patient was identified via the EMR, the number of ED visits 6 months prior to IBD diagnosis, 3 months prior to IBD diagnosis, and 6 months after IBD diagnosis were reviewed.

A total of 531 patients were evaluated in the study (mean age 17 years, range 3-21 years). The time since an initial IBD diagnosis ranged from 2 days to 18 years. It was noted that 7.9% of patients were seen in the ED 3 months prior to the study starting point. During the study, 9.2% of patients were seen in the ED for any potential reason with 4.1% of patients being seen in the ED for IBD-related reasons and 1.1% of patients being seen in the ED multiple times. The highest rate of ED visits occurred within 30 days of IBD diagnosis with 62.1% of such visits leading to hospitalization.

Univariate analysis demonstrated that having public insurance, having been seen in the ED at 3 months prior to IBD diagnosis, and having been seen in the ED within 6 months after IBD diagnosis increased the risk of ED visits. Interestingly, having no known hemoglobin level, no known C-reactive protein level, no known fecal calprotectin level, or having an elevated calprotectin level were not associated with an increased risk of ED visits. Multivariable analysis of ED use for any reason demonstrated that having public insurance, having had recent ED visits, and having a known IBD diagnosis within 6 months were risk factors of ED utilization while having a recent elevated calprotectin level was not associated with an increased risk of ED visits.

When ED utilization specifically for IBD-related issues was considered, an increased number of ED visits within 3 months of IBD diagnosis, having an IBD diagnosis by itself within 6 months, and the presence of perianal disease were associated with IBD-related ED use. Conversely, having no available hemoglobin or C-reactive protein level was protective against IBD-related ED use. Multivariable modeling demonstrated that only the number of ED visits in the 3 months prior to IBD diagnosis was associated with IBD-related ED use while a low hemoglobin level was protective against IBD-related ED use. No difference existed between patients diagnosed with Crohn disease and ulcerative colitis regarding all ED visits and IBD-related ED visits.

Patients with recently elevated calprotectin levels or low hemoglobin levels had significantly more gastrointestinal (GI) clinic visits compared to patients with normal calprotectin levels or normal hemoglobin levels. However, multivariable analysis demonstrated that GI clinic visits did not protect against IBD-related ED visits in patients with low hemoglobin levels or elevated calprotectin levels. Patients with more GI clinic visits were noted to have statistically more IBD-related utilization although no difference was present when considering ED visits for non-IBD issues. No association was seen in the physician global assessment and IBD-related ED use as well as in the number of GI clinic visits in patients with active disease versus quiescent disease.

This study demonstrates that certain risk factors such as multiple ED visits just before and after a diagnosis of IBD may predict future ED use. Perhaps such risk factors can be alleviated by quality improvement measures. The finding of lack of laboratory data being protective against ED utilization is likely due to such patients with IBD having relatively less severe disease.

Resnick H., Moran C. Prior Emergency Department Visits Predict Future Emergency Department Use in Pediatric Inflammatory Bowel Disease. Journal of Pediatric Gastroenterology and Nutrition 2026; 82:1019-1028.

Risk Factors for Pediatric Food Allergies

The authors of this meta-analysis evaluated risk factors for the development of pediatric food allergies worldwide. Studies in pediatric food

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allergies were evaluated using the Grading of Recommendations Assessment, Development, and Evaluation system (GRADE), Cochrane analysis, Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), and Meta-Analysis of Observational Studies in Epidemiology (MOOSE) in order to determine evidence quality. All research in any language regarding pediatric food allergies during the period from 1974 to 2025 was considered. Potential risk factors for pediatric food allergies were determined from any cohort, case-control, or cross-sectional study that considered one or more variables associated with IgE-related food allergies in children 6 years of age or younger. All included studies had to consist of multivariable analyses which had patient age, sex, and food challenge to confirm food allergies. Risk of study bias was determined by the Quality in Prognosis Studies (QUIPS) tool.

The initial systemic search identified 11,826 potential studies which included a total of 2,750,495 patients. Using the inclusion criteria of this meta-analysis, 156 cohort studies, 22 case-control studies, and 12 cross-sectional studies were available. It was noted that 174 studies determined risk factors for pediatric food allergies, 14 studies determined the incidence of food allergies, and 2 studies considered both risk factors and incidence. Sample sizes of included studies ranged from 459 to 2834 subjects, and 40 countries were part of the analysis.

The authors found that the incidence of IgE-mediated food allergy worldwide is 4.7% (95% CI, 3.2%-6.9%) with the highest incidence occurring in Australia (10.2%) and the lowest incidence occurring in Africa (1.8%). The biggest risk factors for developing food allergies included pre-existing allergic disease (specifically atopic dermatitis and eczema) occurring in the first year of life, allergic rhinitis, conjunctivitis, and wheezing. Milder food allergies occurred in children with atopic dermatitis persistence in the first 3 years of life. Increased transepidermal water loss from the skin and loss-of-function filaggrin (epidermal structural protein) gene mutations also were risk factors for food allergies.

A delay in peanut introduction until after 12 months of age was associated with the development of food allergies. A delay in eating fish, eggs, and fruit also was associated with development of food allergies. Infant antibiotic use in the first month of life, male sex, being the firstborn child, and pertinent family history (any allergy, reactive airway disease, atopic dermatitis, food allergy, and allergic rhinitis) were associated with the development of food allergies. The family history risk was highest when either/both parents and siblings had allergies. Migration of parents before birth, children born and raised in the same country, and black ethnicity increased the risk of food allergies.

Birth by cesarean delivery, increased maternal age, birth weight less than 2500 grams, birth at 42 weeks or later, limited breastfeeding, maternal fish or cheese intake while pregnant, maternal stress during infancy, and higher household income were not relevant factors in the development of pediatric food allergies. Many low-certainty risk factors for developing pediatric food allergies including specific body locations for atopic dermatitis, pollution exposure, and various social history and birth-related factors were noted.

This meta-analysis is helpful because it includes a very large number of studies that underwent subsequent strict review to determine study strength. However, it should be kept in mind that the authors found that 66% of the included studies had a risk of bias, often due to inconsistency of methods used.

Islam N, Chu A, Sheriff F, Foroutan F, Guyatt G, Brignardello-Petersen R, Oykhman P, Iorio A, Izcovich A, Morrison K, Benitez Y, Couban R, Borovsky D, Zhang Y, Ologundudu L, Pasumarthi K, Farooq S, Tong K, Tang W, Faisal H, Kahlid M, Asif M, French S, Waserman S, Chinthrajah S, Sampson H, Mustafa S, Lieberman J, Jarvinen K, Bailey S, Begin P, Sicherer S, Gerdts J, Carver M, Mithchell L, Cleary K, Greenhawt M, Wang J, Anagnostou A, Shaker M, Chandra-Puri A, Fulkerson P, Wood R, Chu D. Risk Factors for the Development of Food Allergy in Infants and Children: A Systematic Review and Meta-Analysis. JAMA Pediatrics 2026; 180: 486-499.