

Social Determinants of Health and Inpatient Outcomes in Eosinophilic Esophagitis: A Literature Review Comparing Pediatric and Adult Populations

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Background

- Eosinophilic esophagitis (EoE) is a chronic immune-mediated inflammatory disease of the esophagus characterized by eosinophil infiltration and esophageal dysfunction.
- The prevalence of EoE has increased substantially over the past two decades, making it one of the most commonly diagnosed causes of dysphagia and food impaction in both children and adults.
- Patients with EoE may require hospitalization for complications such as severe dysphagia, food impaction, esophageal strictures, or diagnostic and therapeutic endoscopic procedures.
- Hospitalizations for EoE contribute to healthcare utilization and costs, with outcomes such as length of stay (LOS) and total hospital charges commonly used to measure inpatient burden.
- Health outcomes during hospitalization may be influenced by social determinants of health, including insurance status, socioeconomic status, and geographic access to healthcare resources.
- Differences in disease presentation and management between pediatric and adult populations may also influence hospitalization patterns and clinical outcomes.
- Understanding how social and demographic factors influence inpatient outcomes in EoE may help identify disparities in care and inform future health policy and clinical management strategies.

Methods

- A structured literature review was conducted to evaluate inpatient outcomes and the role of social determinants of health in patients with eosinophilic esophagitis (EoE), with particular focus on differences between pediatric and adult populations.
- Electronic database searches were performed in PubMed, Web of Science, Embase, and Google Scholar to identify relevant peer-reviewed studies published between 2000 and 2025.
- Search terms included combinations of:**
- “eosinophilic esophagitis,” “hospitalization,” “inpatient outcomes,” “length of stay,” “hospital charges,” “healthcare utilization,” “disparities,” and “National Inpatient Sample.”
- Studies were screened using a PRISMA-style selection framework. Records were first screened by title and abstract, followed by full-text review to determine eligibility.
- Inclusion criteria consisted of studies reporting EoE hospitalization outcomes or healthcare utilization, studies involving pediatric and/or adult patient populations, and peer-reviewed clinical or epidemiological research.
- Exclusion criteria included basic science studies, non-human research, review articles, case reports or small case series, and studies without hospitalization or utilization outcome data.
- After removal of duplicates and completion of screening and eligibility assessment, 14 studies were included in the final qualitative synthesis examining hospitalization trends, inpatient outcomes, and disparities related to social determinants of health in EoE.

Results

Study Selection

- Database searches identified 1,140 records across PubMed, Web of Science, Embase, and Google Scholar.
- After duplicate removal and screening, 122 full-text articles were assessed for eligibility.
- 14 studies met inclusion criteria and were included in the final qualitative synthesis.

Hospitalization Trends

- EoE hospitalizations increased substantially over the past decade.
- Prevalence rose from 6.6 to 15.5 hospitalizations per 100,000 admissions (2010–2019).
- Mortality remains rare, indicating the disease burden is driven primarily by morbidity and healthcare utilization.

Pediatric vs Adult Differences

- Pediatric patients had longer average hospital stays (5 days vs 4 days in adults).
- Adults were more frequently admitted through the emergency department, often due to food bolus impaction.
- Pediatric cases were more commonly managed in academic teaching hospitals.

Social Determinants of Health

- Higher socioeconomic deprivation and rural residence were associated with delayed diagnosis and reduced access to specialty care.
- Disparities in race, insurance status, and geographic access were linked to more severe disease at presentation.

Discussion

- Eosinophilic esophagitis–related hospitalizations have increased substantially, reflecting rising disease prevalence and recognition.
- Pediatric and adult patients demonstrate distinct patterns of disease, with pediatric admissions driven more by inflammatory complications and adult admissions more often related to fibrostenotic disease and food impaction.
- Social determinants of health, including socioeconomic status and geographic access to care, appear to influence disease severity and hospitalization outcomes.
- These findings highlight the need for improved access to specialized care and further research into disparities affecting patients with eosinophilic esophagitis.
- These findings highlight the potential for future quantitative analyses using national datasets to further examine disparities in EoE hospitalization outcomes.

References

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Future Research

Further research is needed to better understand how social determinants of health influence hospitalization outcomes in patients with eosinophilic esophagitis. Future studies should utilize large national datasets, such as the Healthcare Cost and Utilization Project National Inpatient Sample, to evaluate how factors including insurance status, socioeconomic status, and geographic hospital characteristics affect inpatient outcomes such as length of stay and hospital charges. In particular, research comparing pediatric and adult populations may help clarify how disparities in access to care and healthcare utilization influence disease severity and hospitalization patterns across different age groups.

