



Diagnosing and treating patients with eosinophilic oesophagitis: Tackling the difficulties

Practice aid for treatment of eosinophilic oesophagitis

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Identify

Recognizing EoE in the clinic

Clinical manifestations of EoE vary with age

INFANTS AND TODDLERS¹

- Feeding aversion/ intolerance
- Vomiting
- Food refusal
- Choking during meals
- Failure to thrive
- Sleep disturbance

CHILDREN¹

- Dysphagia
- Food impactions
- Vomiting/regurgitation
- Choking/gagging with coarse textures
- Abdominal/chest pain
- Throat pain
- Nausea
- Sleep disturbance
- Decreased appetite

ADOLESCENTS/ADULTS²

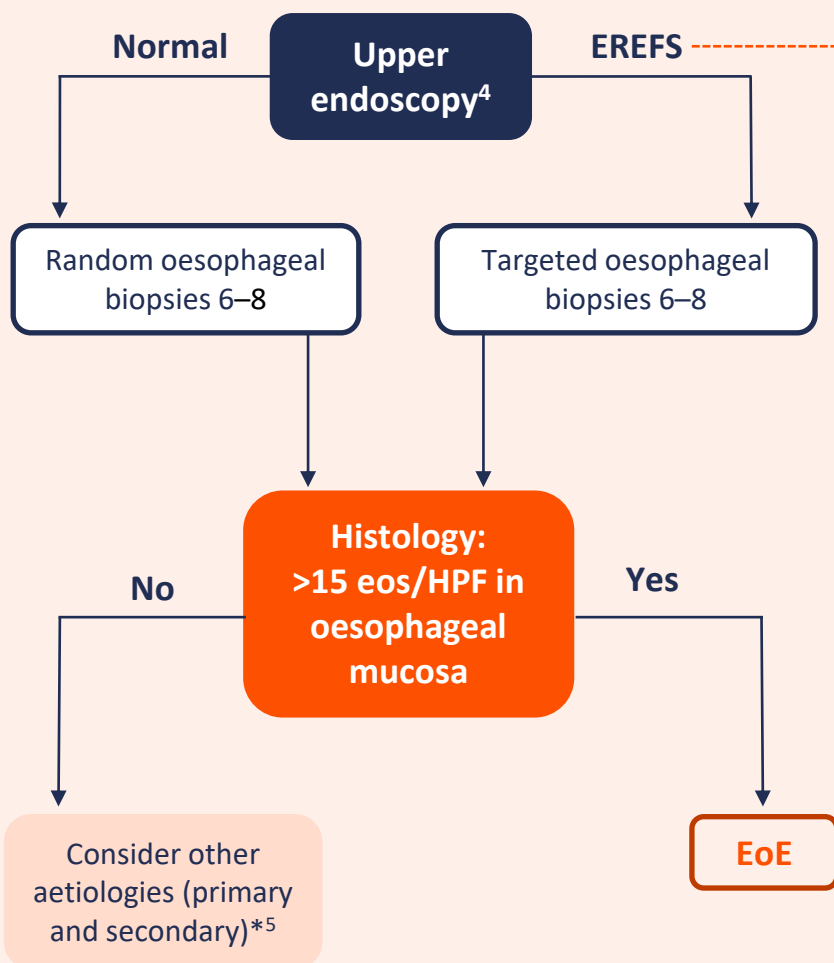
- Dysphagia
- Food impactions
- GORD symptoms

Differential diagnostic features for EoE and GORD³

Feature	EoE	GORD
Dominant symptoms	Dysphagia	Heartburn, regurgitation
Food impaction	Common	Uncommon
Sex	Male predominance	Male = female
Associated atopic conditions	Allergic asthma, atopic dermatitis and allergic rhinitis	No association with atopic conditions

Diagnose

Endoscopy and histology diagnostic workup

EREFs scoring system⁶

Oedema	
Absent	0
Mild: Loss of clarity of vascularity	1
Severe: Absent vascularity	2
Concentric Rings	
Absent	0
Mild: Visible on insufflation only	1
Moderate: Visible without insufflation; allows passage of adult endoscope	2
Severe: Inability to pass adult endoscope	3
White Exudates	
Absent	0
Mild: White exudate <10% of oesophageal surface area	1
Severe: White exudate >10% of oesophageal surface area	2
Longitudinal Furrows	
Absent	0
Mild: Vertical lines without visible depth	1
Severe: Vertical lines with mucosal depth (indentation)	2
Strictures	
Absent	0
Present	1

*Primary disorders associated with eosinophilia other than EoE include GORD, achalasia, Crohn's disease, fungal or viral infections and pill oesophagitis; secondary disorders include hyper-eosinophilic syndrome, drug hypersensitivity reactions and connective tissue diseases.⁵

Treat

Biologics for patients with EoE

- Therapy options for EoE include: PPIs, STCs, dietary interventions, endoscopic dilation and biologic therapy (dupilumab)^{7,8}
- Where biologic therapy is approved, it should be considered as:
 - **First-line therapy** for patients with multiple comorbid atopic conditions or a strong preference to avoid dietary restriction or STCs⁸
 - **Step-up therapy** in difficult-to-treat EoE, patients with failure to thrive, poor growth or significant weight loss, frequent use of rescue therapies, severe diet restriction or requiring amino acid formula, clinically significant oesophageal strictures and patients who are refractory to or have adverse events with current therapy⁸

Approved biologics for EoE^{9–12}

Dupilumab

- **IL-4/IL-13 receptor antagonist**
- The first therapy approved for treatment of EoE
- Approved by the FDA (2022) and the EC (2023) to treat adults ≥ 12 years; FDA expanded the indication in 2024 to include paediatric patients aged 1–11 years
- Approvals were based on the results of the phase III LIBERTY EoE TREET study and the phase III EoE KIDS trial

Selected agents in development for EoE

Cendakimab^{13,14}

- **Anti-IL-13 antibody**
- Phase III trials: NCT04753697/NCT04991935
- Study completion: **October 2024/September 2026**
- Age of participants: 12–75 years

Tezepelumab^{13,14}

- **Anti-thymic stromal lymphopoietin antibody**
- Phase III trial: NCT05583227 (CROSSING)
- Study completion: **January 2027**
- Age of participants: 12–80 years

Etrasimod^{13,14}

- **Sphingosine-1-phosphate receptor modulator**
- Phase II trial: NCT04682639 (VOYAGE)
- Study completion: **June 2023**
- Age of participants: 18–65 years

Barzolvolimab^{14,15}

- **Receptor tyrosine kinase KIT inhibitor**
- Phase II trial: NCT05774184 (EvolveE)
- Study completion: **August 2025**
- Age of participants: ≥ 18 years

Abbreviations and references

Abbreviations

EC, European Commission; EoE, eosinophilic oesophagitis; eos, eosinophils; EREFS, endoscopic reference score; FDA, US Food and Drug Administration; GORD, gastro-oesophageal reflux disease; hpf, high-power field; IL, interleukin; PPI, proton pump inhibitor; STC, swallowed topical corticosteroid.

References

1. Carr S, et al. *Allergy Asthma Clin Immunol*. 2018;14:58.
2. Barni S, et al. *Ital J Pediatr*. 2021;47:230.
3. Attwood SE. *Br J Hosp Med (Lond)*. 2019;80:132–8.
4. Visaggi P, et al. *Therap Adv Gastroenterol*. 2021;14:1–17.
5. Sorge A, et al. *Curr Treat Options Gastroenterol* 2023;21:256–71.
6. Hirano I, et al. *Gut*. 2013;62:489–95.
7. Feo-Ortega S, Lucendo AJ. *Therap Adv Gastroenterol*. 2022;15:17562848211068665.
8. Aceves SS, et al. *Ann Allergy Asthma Immunol*. 2023;130:371–8.
9. The PharmaLetter. 2023. Available at: www.thepharmalatter.com/article/ec-approval-for-dupixent-in-eosinophilic-esophagitis (accessed 26 January 2024).
10. FDA. 2022. Available at: www.fda.gov/news-events/press-announcements/fda-approves-first-treatment-eosinophilic-esophagitis-chronic-immune-disorder (accessed 26 January 2024).
11. Joszt L. 2024. Available at: www.ajmc.com/view/fda-approves-dupilumab-to-treat-eoe-for-children-under-12-years (accessed 26 January 2024).
12. Rothenberg ME. *J Allergy Clin Immunol*. 2022;150:1325–1332.
13. Racca F, et al. *Front Physiol*. 2022;12:815842.
14. ClinicalTrials.gov. Available at: <https://clinicaltrials.gov/>; all clinical trials searchable by NCT number (accessed 26 January 2024).
15. Clinical Trials Arena. 2023. Available at: www.clinicaltrialsarena.com/news/celldex-first-patient-barzolvolimab/ (accessed 30 January 2024).

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