Supplementary Material 1 - Survey addressed to the panel of clinicians involved

EPIDEMIOLOGY

1. **What do you think is the most realistic estimate of the prevalence of paediatric patients affected by EoE in the Italian context, considering the European rate of 20.5 per 100,000* and the global rate of 32.9 per 100,000*?**

   ☐ 20.5 per 100,000
   ☐ 32.9 per 100,000

   * Hahn JW, Lee K, Shin JI, Cho SH, Turner S, Shin JU, Yeniova AÖ, Koyanagi A, Jacob L, Smith L, Fond G, Boyer L, Lee SW, Kwon R, Kim S, Shin YH, Rhee SY, Moon JS, Ko JS, Yon DK, Papadopoulos NG. Global Incidence and Prevalence of Eosinophilic Esophagitis, 1976-2022: A Systematic Review and Meta-analysis. Clin Gastroenterol Hepatol. 2023 Dec;21(13):3270- 3284.e77. doi: 10.1016/j.cgh.2023.06.005. Epub 2023 Jun 17. PMID: 37331411.

2. **In your clinical experience, considering prevalent patients, what percentage of paediatric patients with EoE are correctly diagnosed?**

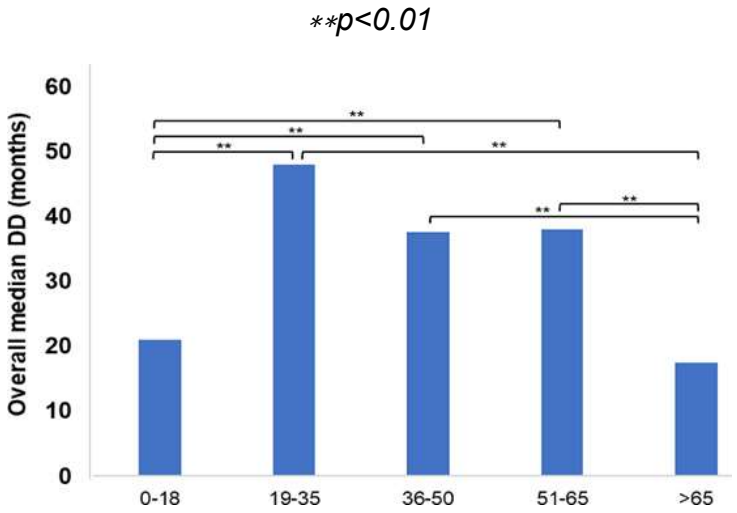
3. **What percentage of diagnosed paediatric patients do you think actually receive treatment?**

DIAGNOSTIC PATHWAY

4. **In your experience, on average, how long is the diagnosis of EoE delayed in paediatric patients?**

   In the article Lenti et al., 2021, the graph below (Figure 1) shows an average of 3 years for diagnostic delay in adults and an average of 20 months for diagnostic delay in children. Do you think these estimates reflect reality?

   Figure 1 - Bar graph showing overall diagnostic delay by age group5



5. **What is the role of adaptive behaviours in determining the diagnostic delay of EoE in paediatric patients?**

6. **Are there differences in adaptive behaviour patterns and their impact on diagnostic delay when comparing paediatric and adolescent EoE patients?**

7. **Please complete the template below by identifying clinical, endoscopic and histological red flags that should prompt further diagnostic evaluation for EoE, along with the recommended actions for achieving an accurate and timely diagnosis.**

	RED FLAGS	RECOMMENDED ACTIONS
CLINICAL ASSESSMENT		
ENDOSCOPIC ASSESSMENT		
HISTOLOGIC ASSESSMENT		

8. **During the diagnostic process, are other type 2 inflammatory conditions considered as possible comorbidities of EoE?**

9. **Transcriptomic analysis is becoming increasingly popular as a diagnostic tool for EoE. Do you think it could become an established practice in the future?**

☐ Yes
☐ No

THERAPEUTIC APPROACHES

10. Considering diagnosed and treated paediatric patients, what percentage of the following first-line therapeutic approaches are used?

Diet	%
Proton Pump Inhibitor (PPI) monotherapy	%
Monotherapy with topical corticosteroids (TCS)	%
PPI + TCS combination therapy	%
Oesophageal dilatation	%
Other	%
TOTAL	**100%**

11. In the management of the paediatric patient with EoE, which of the listed elements are taken into account for the therapeutic choice (PPI/TCS/Biologic)?

- Presence of GERD
- Short stature
- Presence of concomitant type 2 diseases
- Candidiasis/recurrent infections
- Immunodepression
- Vaccination schedule
- Other

12. If the use of TCS is considered the most appropriate therapeutic approach, is the annual cumulative dosage considered in relation to possible adverse events (infections, candidiasis, growth retardation)?

☐ Yes
☐ No

13. Considering the compulsory vaccination schedule for children between 2 and 4 years of age, is the option of treatment with TCS still considered for children with EoE in this age group?

☐ Yes
☐ No

14. To which of the following factors would you primarily associate treatment discontinuation in paediatric/adolescent patients? *(specify per drug)*

☐ Lack of adherence to the treatment protocol

☐ Poor tolerability
☐ Loss of efficacy
☐ Prevention of side effects
☐ Other (specify_)

FOLLOW UP

15. **How is the effectiveness of treatment in controlling the disease assessed?**

☐ Clinical evaluation
☐ Endoscopic evaluation
☐ Histological evaluation
☐ Clinical evaluation+ endoscopic / histological evaluation (specify)

16. **To assess the response to treatment and monitor remission of the condition, the Guidelines recommend performing an endoscopy with biopsy 8-12 weeks after the start of therapy and after each therapeutic change. In addition, they suggest performing a new endoscopy with biopsy within one year after the start of treatment. Do you think the above correctly reflects clinical practice?**

☐ Yes
☐ No

UNMET NEED

17. **How do you define a patient who is not a candidate for treatment with TCS?**

18. **How do you define a patient who is not a candidate for treatment with PPIs?**

19. **What are the main adverse events associated with TCS in the paediatric/adolescent population that lead to the identification of the patient as non-tolerant?**

20. **What are the main adverse events associated with PPIs in the paediatric/adolescent population that lead to the identification of the patient as non-tolerant?**

21. **How would you define an inadequately controlled patient?**

22. **According to data reported in the literature, it has emerged that between 27.3% and 30.3% of paediatric patients are not adequately controlled, are intolerant or are not eligible for conventional medical therapy (PPI-TCS)*. Do you think this correctly represents clinical practice?**

*Oliva, Salvatore et al. "Characterization of Eosinophilic Esophagitis From the European Pediatric Eosinophilic Esophagitis Registry (pEEr) of ESPGHAN." Journal of paediatric gastroenterology and nutrition vol. 75,3 (2022): 325-333. doi:10.1097/MPG.0000000000003530

☐ Yes
☐ No

23. In the determination of an inadequately controlled patient, are clinical, endoscopic and histological outcomes taken into account? Of these, which do you consider to be of greater importance?

24. In the current treatment pathway of the paediatric/adolescent patient with EoE, what are the main Unmet Needs?

THE ROLE OF NEWLY APPROVED BIOLOGIC

25. What are the most representative elements of the value of the newly approved biologic in the treatment of paediatric/adolescent patients with EoE?

26. Based on your clinical experience, to which type of paediatric patient with EoE would you administer biologic therapy?

27. When defining the therapeutic strategy for the paediatric/adolescent patient, considering the chronic and progressive nature of the disease, are factors such as the patient's quality of life and the impact on family members and caregivers involved in the management of the patient taken into account?

28. Given the progressive nature of the disease, in order to prevent fibro-stenotic evolution, how relevant do you consider biological treatment to be in the paediatric patient?

☐ Not at all relevant
☐ Not very relevant
☐ Relevant
☐ Very relevant
☐ Fundamental

Supplementary Material 2 - Survey administered to the president of the ESEO Italia patient association

DAILY MANAGEMENT AND QUALITY OF LIFE

1. **How would you describe the impact of EoE on patient and family quality of life, considering aspects such as emotional, social, and physical well-being?**

2. **What is the factor that most impacts the quality of life of the patient with EoE?**
   ☐ Reduced desire and/or ability to eat
   ☐ Poor weight gain
   ☐ Missed school days
   ☐ Sleep disturbances/fatigue
   ☐ Eating anxiety
   ☐ Isolation
   ☐ Anxiety and insecurity
   ☐ Lack of treatment alternatives
   ☐ Numerous visits and checkups
   ☐ Other (specify)

3. **How has EoE affected the daily routine of the pediatric/adolescent patient and his or her family members?**

4. **What is the level of emotional and psychological stress associated with the management of EoE?**

5. **Is the diagnosis of EoE in pediatric/adolescent patients associated with an increased likelihood of developing eating disorders (EODs)?**

6. **What are the physical and practical limitations caused by EoE for the pediatric/adolescent patient and family? (e.g., in terms of attending school, playing sports, social life, etc.)**

7. **How is eating out managed?**

8. **Does the frequency and mode of therapy acquisition impact quality of life?**

9. **Should diet be the recommended therapeutic approach, what are the main difficulties encountered in adopting and maintaining this diet?**

10. **How does EoE affect the pediatric/adolescent patient's and family's family and social relationships?**

11. **What are the main concerns regarding the pediatric/adolescent patient's health and well-being?**

12. **Does difficulty in eating worry parents as they fear it may cause a slowdown in the child's growth?**
    ☐ Yes
    ☐ No

13. **What are the most significant challenges family members/caregivers face in caring for a pediatric/adolescent patient with EoE?**

14. **What is the level of uncertainty and anxiety about the pediatric patient's future and EoE management?**

DIAGNOSIS AND SYMPTOMATOLOGY

15. **What are the main difficulties encountered in the diagnostic process of EoE in the pediatric patient? (e.g.: physician's lack of knowledge of the pathology, inability to perform endoscopy on children <12 years old)**

16. **Is it possible for EoE to be confused with eating disorders during the diagnostic process?**

17. **What are the difficulties associated with performing endoscopy in the pediatric/adolescent patient compared with the adult patient?**

18. **At the time of diagnosis, is psychological support offered to the patient?**

19. **What symptoms manifest early and usually lead to suspicion of EoE in pediatric patients?**

20. **Which of the following disorders occur most frequently in the pediatric/adolescent patient?**

Patients 0-11 years of age	**Patients 12-18 years of age**

☐ Gastroesophageal reflux ☐ Difficulty swallowing ☐ Anxiety ☐ Depression ☐ Subfeeding problems ☐ Retro-sternal pain ☐ Abdominal pain ☐ Vomiting ☐ Nausea ☐ Regurgitation ☐ Dysphagia ☐ Refusal of food ☐ Poor growth ☐ Other (specify)	☐ Gastroesophageal reflux ☐ Difficulty swallowing ☐ Anxiety ☐ Depression ☐ Sub-alimentary problems ☐ Retro-sternal pain ☐ Abdominal pain ☐ Vomiting ☐ Nausea ☐ Regurgitation ☐ Dysphagia ☐ Refusal of food ☐ Poor growth ☐ Other (specify)

21. **What comorbidities occur most frequently in the pediatric/adolescent patient diagnosed with EoE?**

(For example: seasonal allergy, food allergies, asthma, allergic rhinitis, auto-immune diseases, food intolerances, chronic rhinosinusitis, allergic rash, atopic dermatitis, chronic rhinosinusitis with nasal polyps, atopic keratoconjunctivitis).

22. **Can the pediatric/adolescent patient diagnosed with EoE experience episodes that require emergency room access or hospitalization?**
    ☐ Yes
    ☐ No

23. **What are the most common side effects of EoE in pediatric/adolescent patients?**

24. **Considering the current treatment options available to treat EoE in pediatric patients, how would you rate the overall tolerability profile of these treatments?**

COSTS AND SERVICES

25. **Does the pediatric/adolescent patient require medications, specific products, or specialist visits not covered by the National Health Service to manage EoE?**

26. **What are the main expenses incurred by the family to manage the pediatric/adolescent patient's EoE? (For example: medical expenses, special food, transportation for medical visits, etc.).**

27. **Are there support services available for pediatric/adolescent patients with EoE?**

28. **How do you assess access to medical services and support resources for EoE?**

29. **How would you assess the level of confidence of patients and family members/caregivers in the health care system and treatments currently available to manage EoE?**

TREATMENT NEEDS

30. **What are the main unmet therapeutic needs faced by the pediatric/adolescent patient and family in the management of EoE?**

31. **Please indicate on a scale of 1 to 5 what you think are the most important unmet health needs associated with the condition of eosinophilic esophagitis:**
1=not at all important; 5= extremely important

	1	2	3	4	5
Lack of uniformity in treatment approach					
Lack of targeted therapy					
Not being aware of the next steps to carry out for treatment					
Losing confidence in the therapy one is undergoing					
Impact of pathology related to physical pain					
Impact of pathology on the psychological sphere					

FURTHER CONSIDERATIONS

32. **What characteristics would the ideal drug for EoE have for pediatric and adolescent patients?**

33. **What advice or suggestions would you like to provide to physicians and pharmaceutical companies in order to improve the management of EoE and the quality of life of patients with this condition?**