Gastroenterology Year in Review

Maireade McSweeney, MD, MPH

9/4/2025

Aerodigestive Center

Boston Children's Hospital

Disclosures

- None

Outline

- Gastroesophageal reflux
- Eosinophilic esophagitis
- Two newly released GI guidelines
- Enteral tube feeding
- Aero “potpourri”
- Future considerations

Gastroesophageal Reflux

Ten-Year Trends in Pharmacologic Management of Gastroesophageal Reflux Disease and Pediatric Feeding Disorders in Young Children

Suzanna Hirsch, MD[1], Enju Liu, MD, PhD[2], Samuel Nurko, MD, MPH[1], and Rachel Rosen, MD, MPH[1]

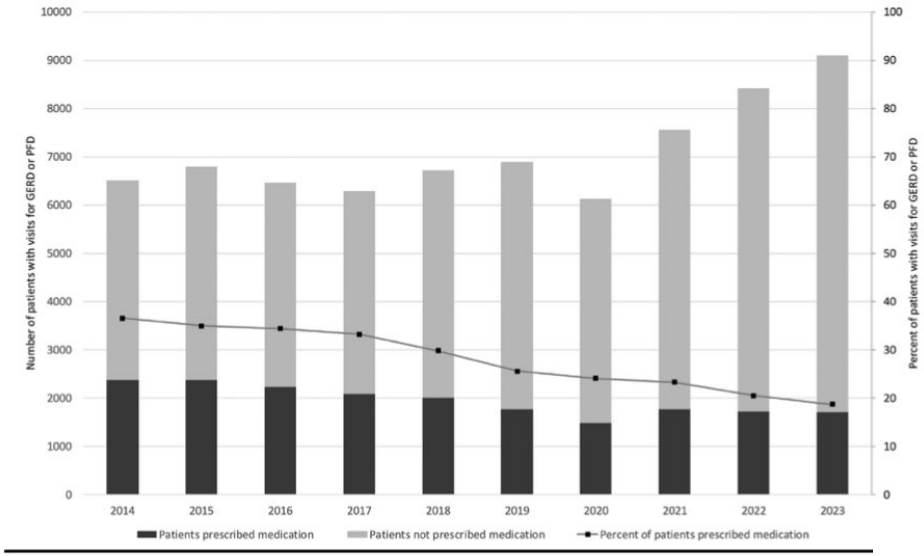
J Pediatr 2025; 283.

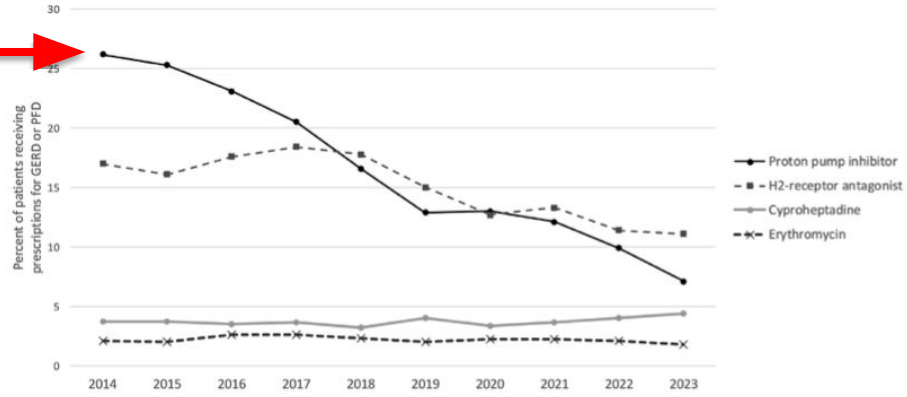
- Retrospective review
- Prescription use in children </= 2 yrs with ICD-9/-10 codes: GERD and feeding disorders
- Jan 2014-Dec 2023
- N= 49,483 patients
- Excluded post-surgical, GI bleeding, or pts needing empiric antacid treatment (e.g. steroid tx)

Ten-Year Trends in Pharmacologic Management of Gastroesophageal Reflux Disease and Pediatric Feeding Disorders in Young Children

Suzanna Hirsch, MD[1], Enju Liu, MD, PhD[2], Samuel Nurko, MD, MPH[1], and Rachel Rosen, MD, MPH[1]

J Pediatr 2025; 283.





Proton Pump Inhibitors and Risk of COVID-19 Infection in Children

Suzanna Hirsch, MD[1], Enju Liu, PhD[2], and Rachel Rosen, MD, MPH[1]

J Pediatr 2024; 274.

- Retrospective case-control study
- Children </=21 yrs age who had a COVID-19 infection (based on PCR testing)
  - Exposures: current, past, or “never” use of PPI
- 116,209 pts with 234,867 COVID tests
- 5,540 (5%) current PPI uses, 940 (1%) past users, 109,729 (94%) non-users at time of first COVID test

Proton Pump Inhibitors and Risk of COVID-19 Infection in Children

Suzanna Hirsch, MD[1], Enju Liu, PhD[2], and Rachel Rosen, MD, MPH[1]

J Pediatr 2024; 274.

- No increased risk found with PPI use and COVID infection

Table V. Risks of hospitalization after COVID-19 infection

	Univariable		Multivariable	
Risk factor	**RR (95% CI)**	***P* value**	**RR (95% CI)**	***P* value**
PPI use				
Nonuser	1.00		1.00	
Past user	4.48 (2.53, 7.94)	<.001	0.70 (0.40, 1.22)	.21
Current user	5.15 (3.84, 6.92)	<.001	0.85 (0.64, 1.13)	.26
Age				
0-2, % (n)	1.00			
2-5, % (n)	0.82 (0.58, 1.15)	.25	0.88 (0.65, 1.21)	.43
5-12, % (n)	0.51 (0.36, 0.72)	<.001	0.65 (0.47, 0.90)	.01
>12, % (n)	1.21 (0.92, 1.59)	.17	1.13 (0.87, 1.45)	.36
Number of comorbidities				
0	1.00		1.00	
1	8.75 (6.03, 12.69)	<.001	8.34 (5.73, 12.15)	<.001
2	19.83 (13.46, 29.20)	<.001	19.16 (12.98, 28.28)	<.001
3+	34.99 (25.73, 47.59)	<.001	36.49 (26.37, 50.48)	<.001

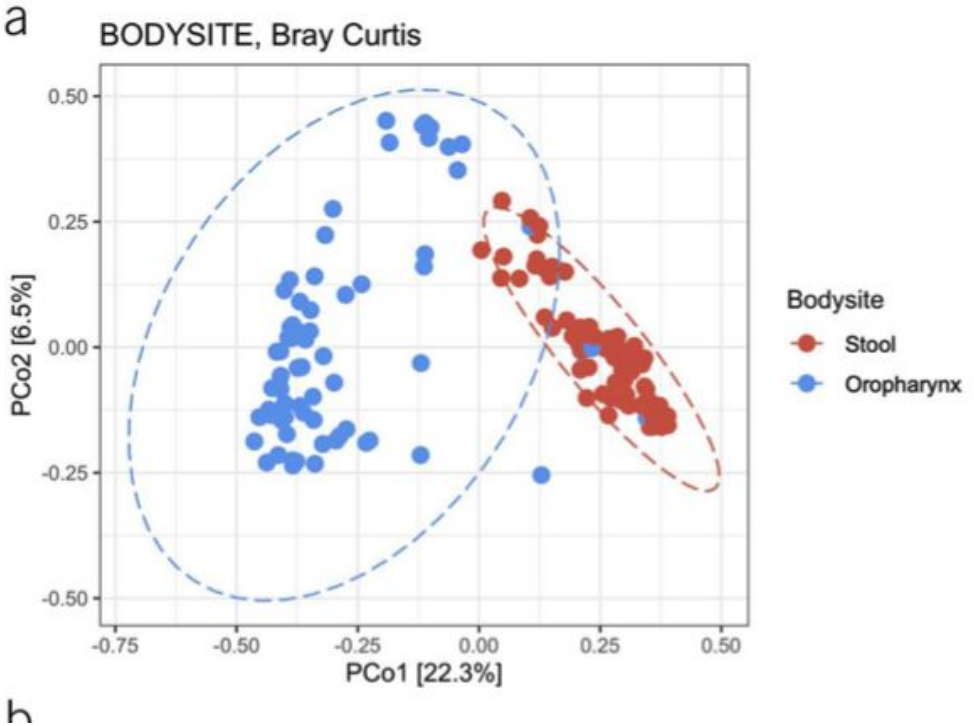
CI, confidence interval; *RR*, relative risk.

Longitudinal Microbiome Changes in Children Exposed to Proton Pump Inhibitors

Yanjia Jason Zhang, MD, PhD[1,2], Sarah Connearney, RN, MSN, CPNP[1], Lisa Hester, RN, BSN, CPNP[1], Maritha Du, BS[1], Andrea Catacora, BS[1], Anna Akkara, BS[1], Anna Wen, BS[1], Lynn Bry, MD, PhD[3,4], Eric J. Alm, PhD[2] and Rachel Rosen, MD[1]

Clinical and Translational Gastroenteorlogy 2024; 15

- 34 patients (mean age 9.6 yrs)
- Paired samples of oropharyngeal swabs and stool samples:
  - Before PPI
  - 8 wks after starting PPI



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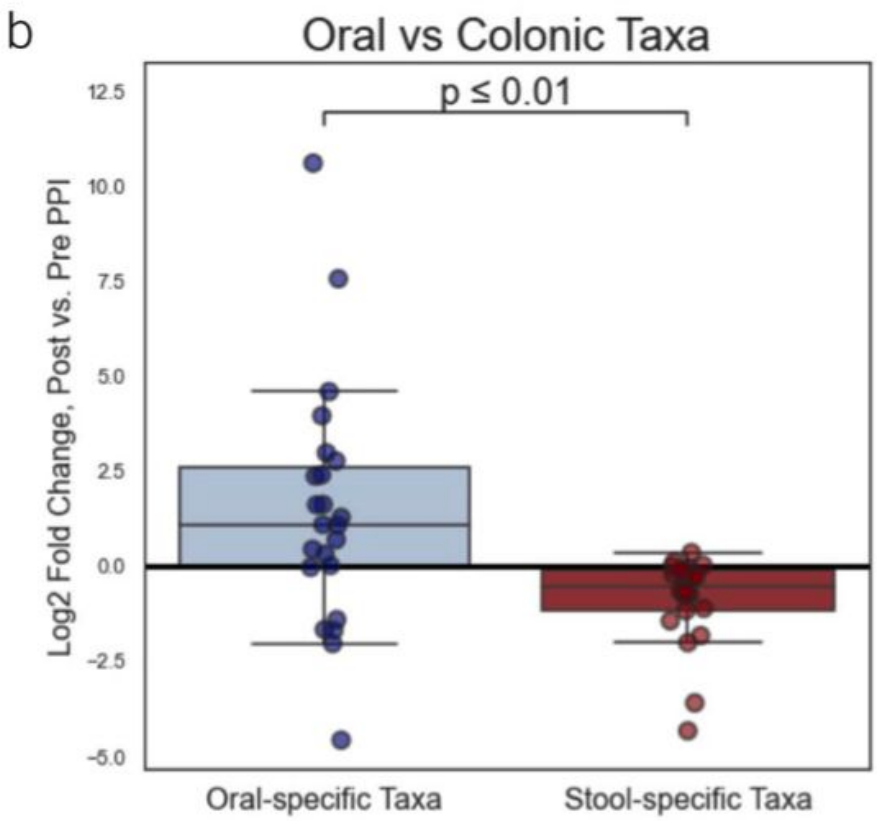
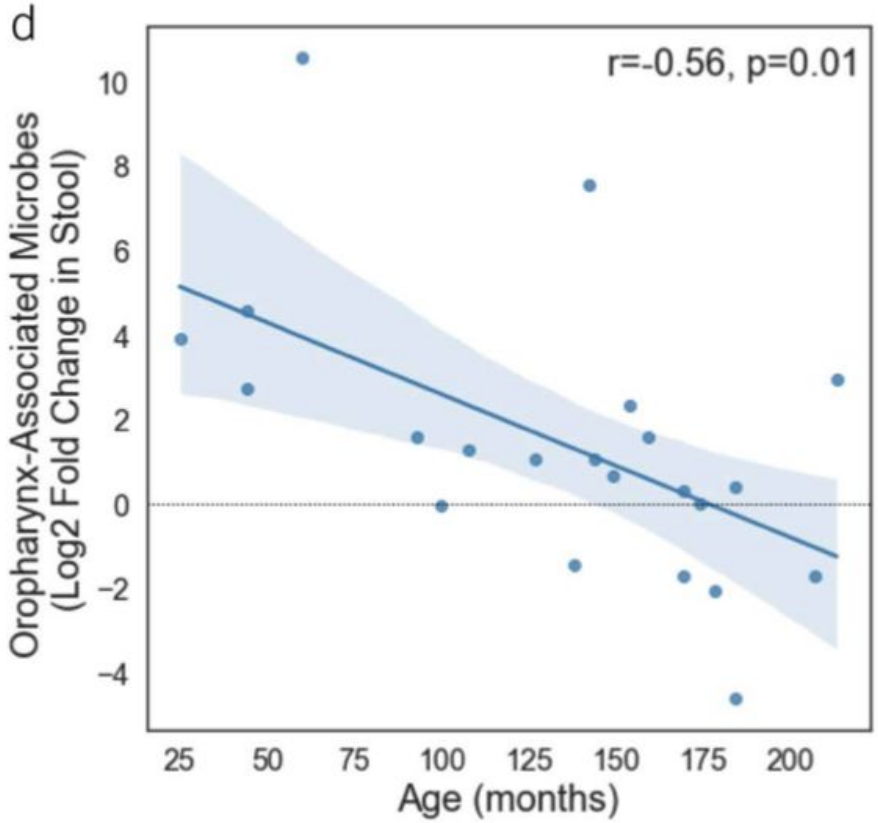
Clinical and Translational Gastroenteorlogy 2024; 15





Eosinophilic Esophagitis

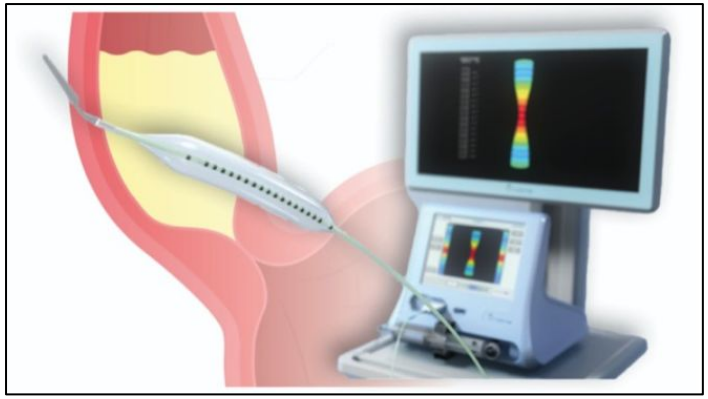
ORIGINAL ARTICLE
Gastroenterology: Eosinophilic Gastrointestinal Disease

EndoFLIP distensibility index correlates with histologic findings in children with eosinophilic esophagitis

Erik Almazan[1] | Tom Z. Liang[2] | Brenna Hohl[3] | Brett J. Hoskins[4] | Jacqueline E. Birkness-Gartman[5] | Kenneth Ng[6]

JPGN 2025; 80: 824-831.

- Retrospective study comparing:
  - Validated, composite eosinophilic esophagitis histology scoring system (EoEHSS) **vs**
  - Distensibility Index from Endoluminal functional lumen imaging probe (Endoflip) **vs**
  - Eosinophilia counts/HPF



https://www.gastroendonews.com/PrintArticle/73043

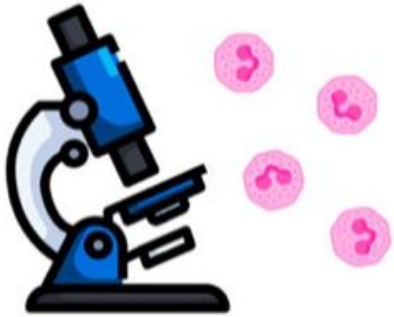
COMPARING ENDOFLIP DISTENSIBILITY INDEX TO THE EOSINOPHILIC ESOPHAGITIS HISTOLOGY SCORING SYSTEM

The Eosinophilic Esophagitis Histology Scoring System (EoEHSS) is used to diagnose and characterize eosinophilic esophagitis (EoE)

Distensibility index at the 30 mL setting measured by EndoFLIP correlated with EoEHSS subscores indicative of esophageal remodeling

EndoFLIP may complement EoEHSS in evaluation of EoE-associated esophageal remodeling, which may occur independent of eosinophilia

- Retrospective review
- 126 EGDs, biopsies, & EndoFLIP
- Patients grouped by normal/reactive, reflux, or EoE diagnoses



Almazan, et al. EndoFLIP distensibility index correlates with histologic findings in children with eosinophilic esophagitis. J Pediatr Gastroenterol Nutr. (2025)

JPGN Journal of Pediatric Gastroenterology and Nutrition

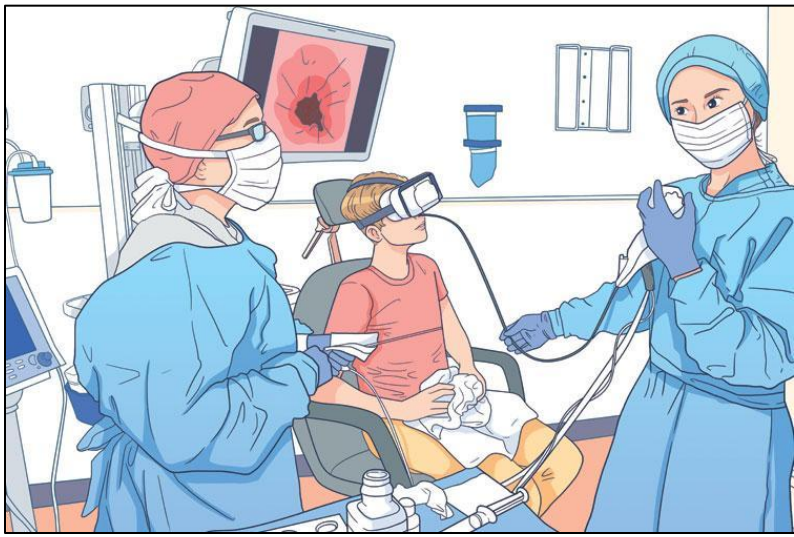
JPGN 2025; 80: 824-831.

Adverse events are lower in unsedated transnasal esophagoscopy versus sedated esophagogastroduodenoscopy

Yeshai T. Dollin[1] | Jacob A. Mark[1,2] | Rachel Andrews[2,3] | Zhaoxing Pan[3,4] | Courtney Ort[2] | Robert E. Kramer[1,2] | Nathalie Nguyen[1,2,3]

JPGN 2025; 81: 140-145.

- Retrospective review of AE data (over 7 yrs) within 72 hrs:
  - 10,023 sedated diagnostic upper endoscopies (EGD) on 7,786 patients
  - 927 unsedated transnasal endoscopies (TNE) on 492 patients



https://gikids.org/tests-procedures/transnasal-endoscopy/

Adverse events are lower in unsedated transnasal esophagoscopy versus sedated esophagogastroduodenoscopy

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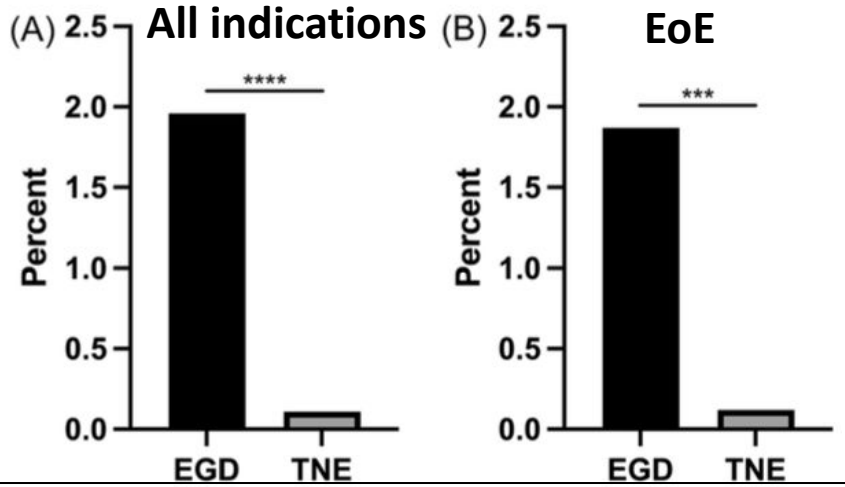
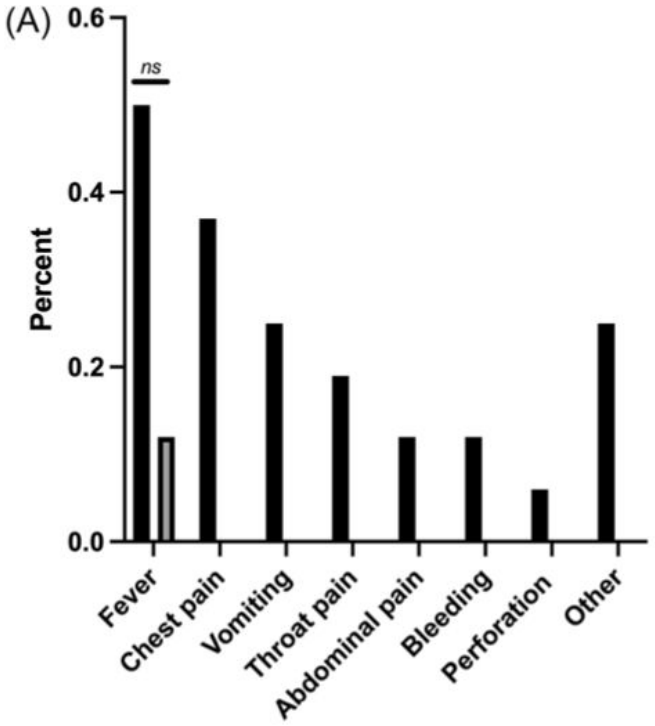




- Authors noted limitation of not reporting tolerability or incomplete procedures

The mouth or the nose: the past, present, and future of ultra-slim gastroscopy of the upper gastrointestinal tract in pediatrics

Paul Tran[1]*, Rose Lee[2], Ali Mencin[3], Matthew Ryan[4], Joel A. Friedlander[5] and Michael A. Manfredi[4]

[1]Division of Pediatric Gastroenterology, Phoenix Children's Hospital, Phoenix, AZ, United States, [2]Division of Pediatric Gastroenterology, The Medical College of Wisconsin, Wisconsin, WI, United States, [3]Division of Pediatric Gastroenterology, Columbia University Vagelos College of Physicians and Surgeons, New York, NY, United States, [4]Division of Gastroenterology, Hepatology and Nutrition, Children's Hospital of Philadelphia, Philadelphia, PA, United States, [5]EvoEndo, Inc., Centennial, CO, United States

Frontiers in Pediatrics July 2025. Review article

Newly released GI Guidelines

North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition 2025 guidelines for management of cyclic vomiting syndrome in children

JPGN. 2025. 80: 1028-1061.

Katja Karrento[1] | John M. Rosen[2] | Sally E. Tarbell[3] | Robert M. Issenman[4] | Amy A. Gelfand[5] | Heidi Gamboa[6] | Sumit Parikh[7] | Kathleen Adams[8] | Wojtek Wiercioch[9] | B U. K. Li[1]

- Provides up-to-date recommendations from an expert panel on the management of cyclic vomiting
- Revision from the prior 2008 NASPGHAN consensus statement

Updated Practice Guidelines for Managing Pediatric Cyclic Vomiting Syndrome

Managing pediatric cyclic vomiting syndrome (CVS) has been challenging due to the lack of evidence-based treatment regimens

Multidisciplinary panel

Experts and a patient representative

Grading of Recommendations Assessment, Development and Evaluation Evidence-to-Decision frameworks

Evidence-based guidelines for managing pediatric CVS

Highlights of 16 recommendations for abortive (acute) and prophylactic (preventive) interventions

Strong recommendation

Abortive CVS: Anti-migraine agents (triptans, NSAIDs) for patients with a personal or family history of migraine

Conditional recommendations

Abortive CVS

- Early presentation for treatment
- 5-HT_3 and NK-1 receptor antagonists (oral/IV)

Prophylactic CVS

- Prescribe supplements and avoid triggers
- Utilize biobehavioral and neuromodulation interventions

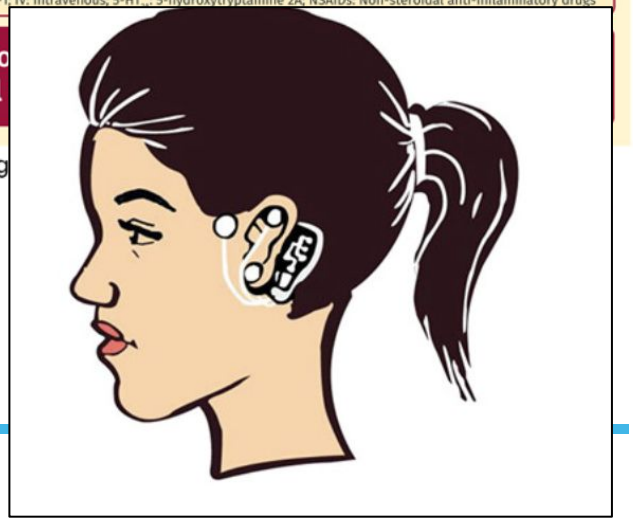
Prophylactic pharmacological

- β-blockers, NK-1 and 5-HT_{2A} receptor antagonists
- Tricyclic antidepressants for refractory cases

5-HT_3: 5-hydroxytryptamine 3; NK-1: Neurokinin-1; IV: Intravenous; 5-HT_{2A}: 5-hydroxytryptamine 2A; NSAIDs: Non-steroidal anti-inflammatory drugs

The updated evidence-based guidelines fo
pharmacological and non-pharmacological

Karrento, et al. North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition 2025 g
management of cyclic vomiting syndrome in children. J Pediatr Gastroenterol Nutr. (2025)



The San Diego Consensus for Laryngopharyngeal Symptoms and Laryngopharyngeal Reflux Disease

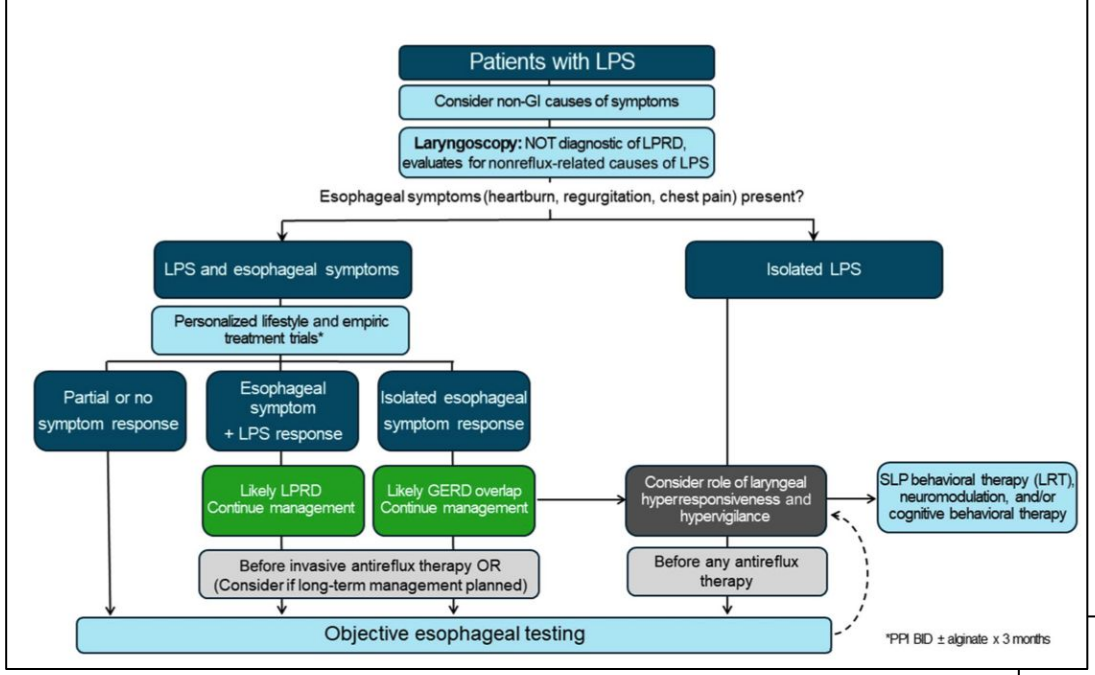
Rena Yadlapati, MD, MS, MSHS, FACG[1], Philip Weissbrod, MD[2], Erin Walsh, CCC-SLP, IBCLC, BCS-S[2], Thomas L. Carroll, MD, PhD[3,4], Walter W. Chan, MD, MPH, FACG[5], Jackie Gartner-Schmidt, PhD, CCC-SLP[6], Livia Guadagnoli, PhD[7], Marie Jette, PhD[8], Jennifer C. Myers, PhD[9], Ashli O'Rourke, MD, MS[10], Rami Sweis, MD, PhD[11], Justin Wu, MD[12], Julie M. Barkmeier-Kraemer, PhD, CCC-SLP[13], Daniel Cates, MD[2], Chien-Lin Chen, MD, PhD[14], Enrique Coss-Adame, MD[15], Gregory Dion, MD[16], David Francis, MD, MS[17], Mami Kaneko, PhD[18], Jerome R. Lechien, MD, PhD, MS[19], Stephanie Misono, MD[20], Anais Rameau, MD[21], Sabine Roman, MD, PhD[22,23,24], Anne Vertigan, PhD[25,26,27], Yinglian Xiao, MD[28], Frank Zerbib, MD, PhD[29], Madeline Greytak, BA[1], John E. Pandolfino, MD, MS, MSCI, FACG[6] and C. Prakash Gyawali, MD, FRCP, FACG[30]

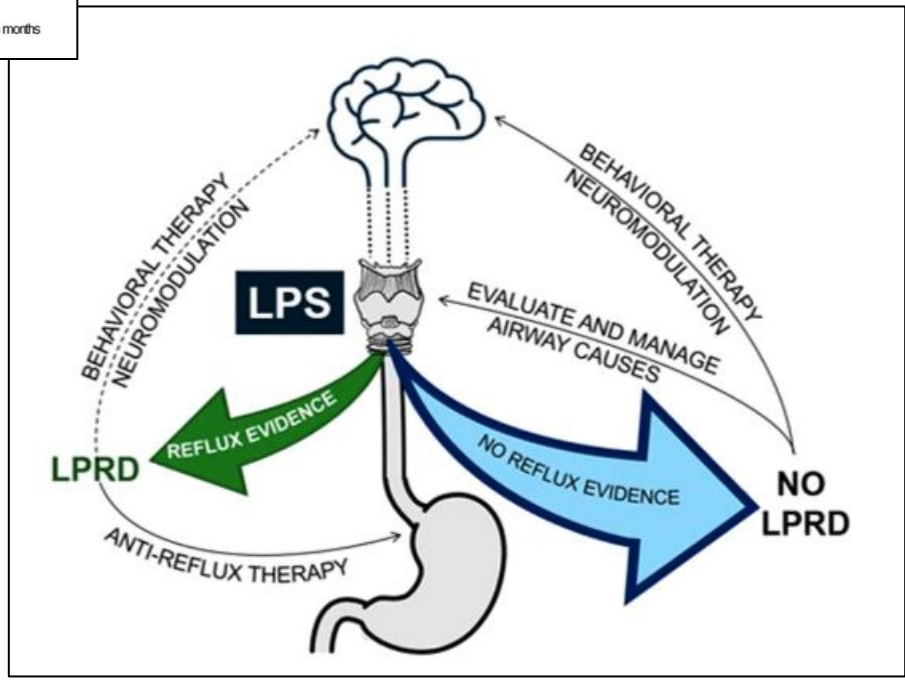
- LPS refer to chronic and frequent throat and upper airway

- Laryngoscopy is a necessary part of evaluation of LPS to assess for other nonreflux-related otolaryngologic processes including malignancy; however, LPRD cannot be diagnosed based on laryngoscopy findings alone.

- A diagnosis of LPRD requires chronic troublesome LPS and objective evidence supporting the relationship between symptoms and gastroesophageal reflux.
- The presence of LPS does not equate to LPRD.

American J Gastroenterol. April 2025.





American J Gastroenterol. April 2025.

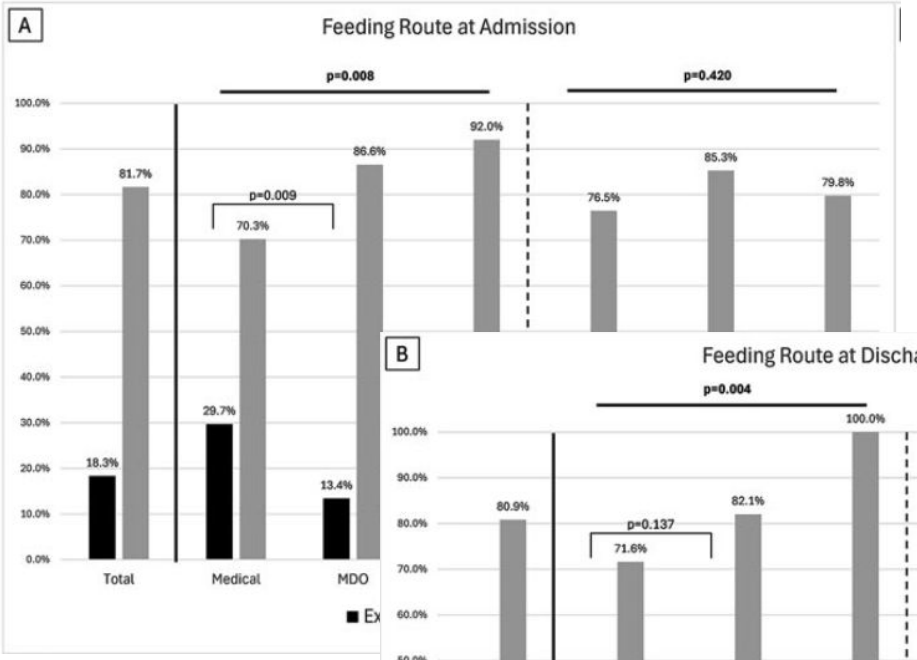
Enteral Tube Feeding

Short-term and four-year feeding and respiratory outcomes of infants with micrognathia

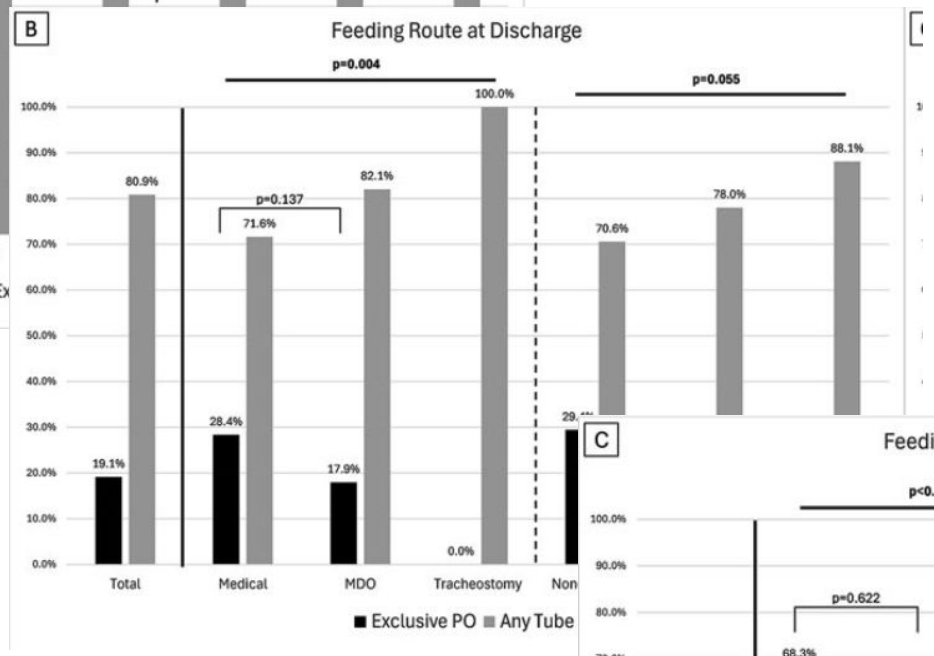
Kuan-Chi Lai[1,2]✉, Laura M. Walker[3], Kevin Moran[1], Jordan W. Swanson[4], Jesse A. Taylor[4], Janet Lioy[1] and Christopher M. Cielo[5]

J Perinatology. 2025. 45: 1119-1128.

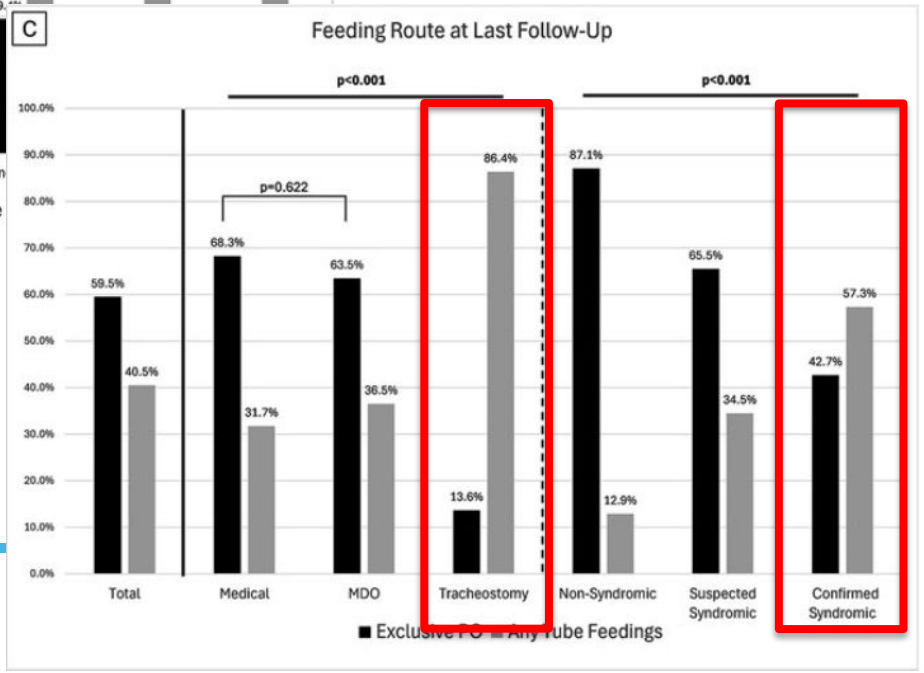
- Retrospective study
- 218 infants (<1yr age) admitted with congenital micrognathia
- Outcomes of micrognathia treatment (medically managed, mandibular distraction osteogenesis, or tracheostomy)
  - Longer term tube feeding needs
  - Whether a genetic syndrome was present



Admission



Discharge



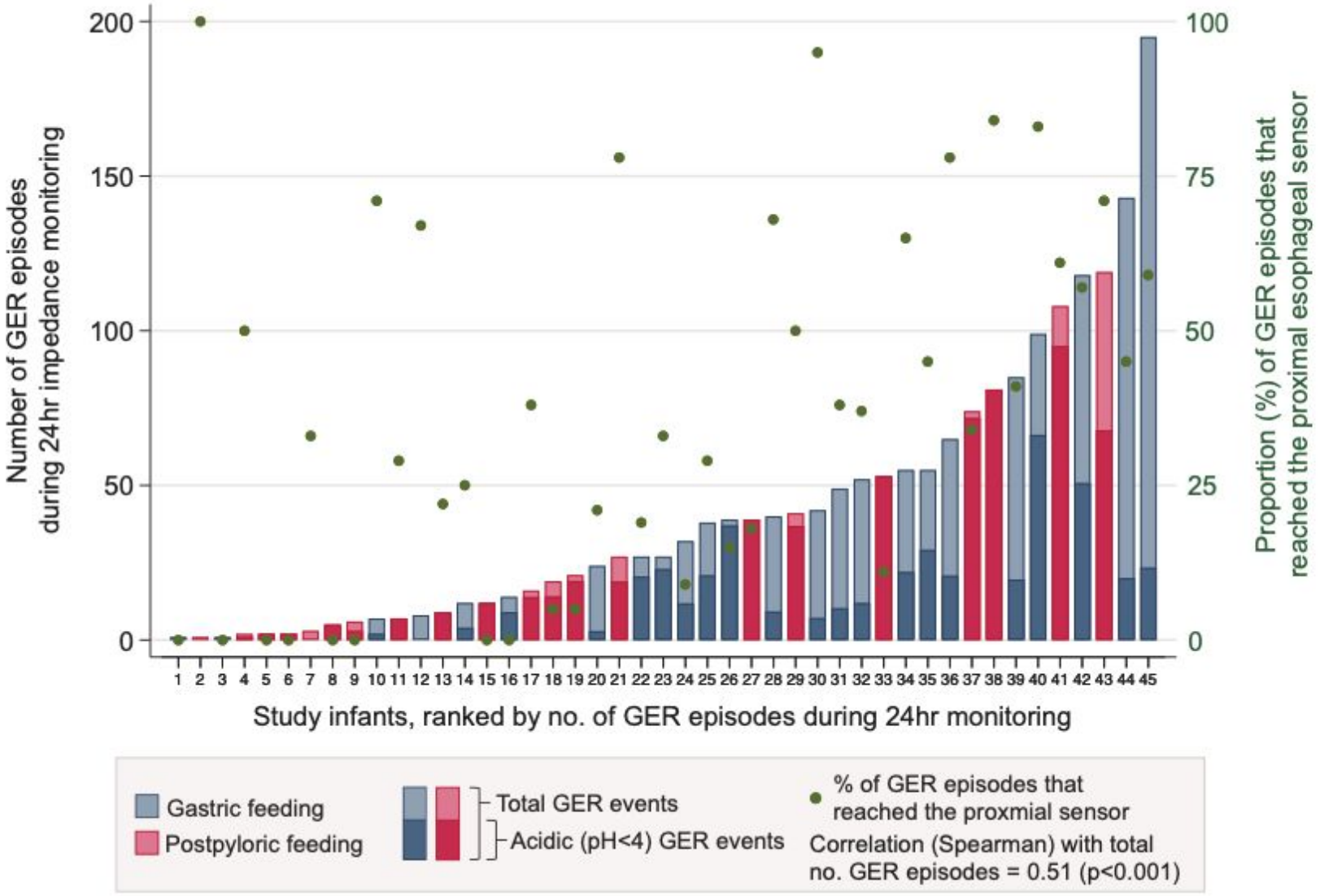
Follow-up
(Median age 3.7yrs)

Gastroesophageal reflux during postpyloric versus gastric tube feeding in preterm infants with bronchopulmonary dysplasia

Erik A. Jensen[1]✉, Carolyn M. Orians[1], Kathleen Gibbs[1] and Matthew Ryan[2]

J Perinatol. April *2025*

- Prospective study
- 45 infants in NICU diagnosed with bronchopulmonary dysplasia (BPD) and enterally fed
  - 21 postpyloric
  - 24 gastric fed
- Compared pH-MII monitoring outcomes in infants postpyloric vs gastric fed



J Perinatol. April *2025*

Gastroesophageal reflux during postpyloric versus gastric tube feeding in preterm infants with bronchopulmonary dysplasia

Erik A. Jensen[1]✉, Carolyn M. Orians[1], Kathleen Gibbs[1] and Matthew Ryan[2]

Result	Gastric feeding ($n = 24$)	Postpyloric feeding ($n = 21$)	p-value[a]
Impedance analysis			
Total no. reflux episodes, *n*	40 (19–60)	16 (5–41)	0.07
>70 reflux episodes, n (%)	5 (20.8)	4 (19.0)	1.0
>100 reflux episodes, n (%)	3 (12.5)	2 (9.5)	1.0
Proportion of reflux episodes reaching the proximal sensor, %	40 (20–66)	29 (5–50)	0.28
Time proximal sensor exposed to reflux, min	0.77 (0.16–1.8)	0.1 (0.005–0.6)	0.045
Proximal reflux index, %	0.05 (0.01–0.13)	0.007 (0.0003–0.04)	0.04
Proportion of impedance reflux episodes with pH < 4, %	31 (16–54)	91 (70–100)	<0.001
pH probe analysis (pH < 4)			
Total no. of pH only episodes, *n*	37 (14–59)	55 (21–96)	0.35
Total reflux time, min	45.5 (12.8-79.2)	55.0 (27.2–101.4)	0.39
Acid reflux index, %	2.9 (1.0–5.8)	3.7 (1.9–7.2)	0.29
Acid reflux index >7%, *n* (%)	4 (16.7)	6 (28.6)	0.48
Acid reflux index >10%, *n* (%)	4 (16.7)	4 (19.0)	1.0

J Perinatol. April *2025*

Evaluating gastric emptying in pediatric patients with prior gastrostomy: A retrospective cohort study

Ryan Shargo[1] | Morgan Ekblad[2] | Jerry M. Brown[3] | Jessica V. Baran[3] | Kimberly Fagan[4] | Emily Coughlin[1] | Jamie Fierstein[5] | Peter L. Lu[6] | Michael Wilsey[1,7]

- Retrospective review
- 238 patients undergoing gastric emptying study (either liquid or solid)
- Compared patients:
  - Prior g-tube placement
  - No prior g-tube placement

JPGN. Aug *2025*

Evaluating gastric emptying in pediatric patients with prior gastrostomy: A retrospective cohort study

Ryan Shargo[1] | Morgan Ekblad[2] | Jerry M. Brown[3] | Jessica V. Baran[3] | Kimberly Fagan[4] | Emily Coughlin[1] | Jamie Fierstein[5] | Peter L. Lu[6] | Michael Wilsey[1,7]

No differences in gastric emptying between patients with prior g-tube placement (vs no prior g-tube)

TABLE 2 Outcomes by prior gastrostomy status.

Variable	No prior gastrostomy ($N = 179$)	Prior gastrostomy ($N = 59$)	p-Value	N
Positive diagnosis of gastroparesis	38 (21.3%)	10 (16.9%)	0.466	$N = 237$
Presence of gastroesophageal reflux (positive)	29 (16.7%)	19 (32.8%)	0.009	$N = 232$
GES T½	82.5 (42.1)	85 (47)	0.836	$N = 233$
% Gastric retention at 1 h	66 (21)	71 (28)	0.721	$N = 227$
% Gastric retention 1.5 h	51 (25)	52.5 (17.5)	0.932	$N = 193$
% Gastric retention 2 h	46 (23.5)	43.35 (34.75)	0.130	$N = 118$

Note: Median (IQR) values are reported. Cells highlighted in orange indicate statistical significance at $p < 0.05$.

Abbreviations: %, percent; GES, gastric emptying scintigraphy; IQR, interquartile range; T½, gastric half-emptying time.

JPGN. Aug *2025*

Blenderized Feeds

- Ongoing hot area of GI research
  - Home blenderized feed or commercially food based blended formulas
- >10 new articles involving “blend” and “tube” and “children” in 2025 to date!

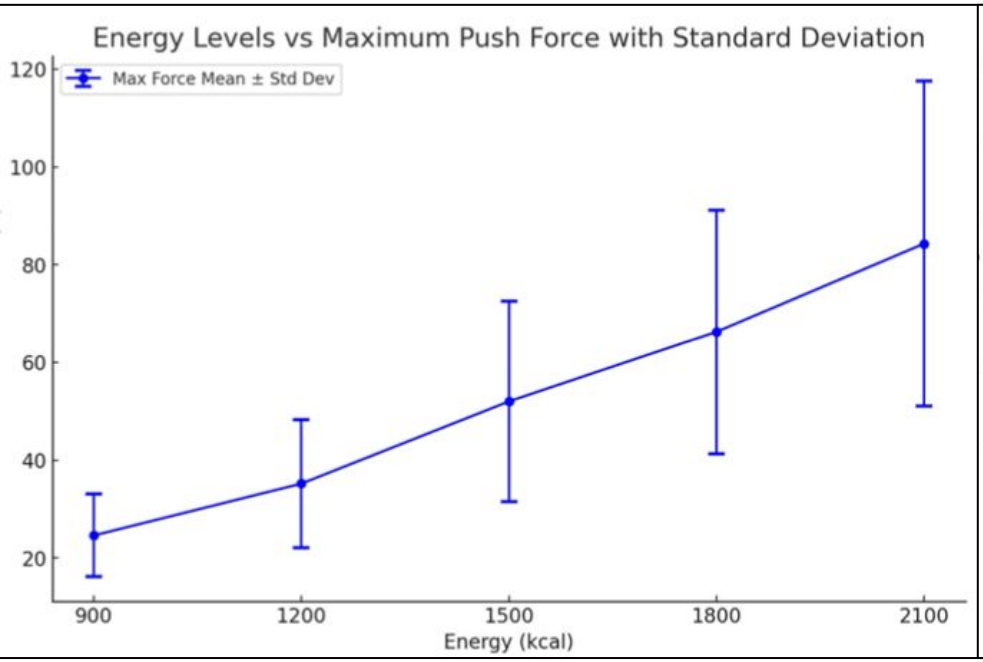
https://gikids.org/featured/blenderized-tube-feeding/

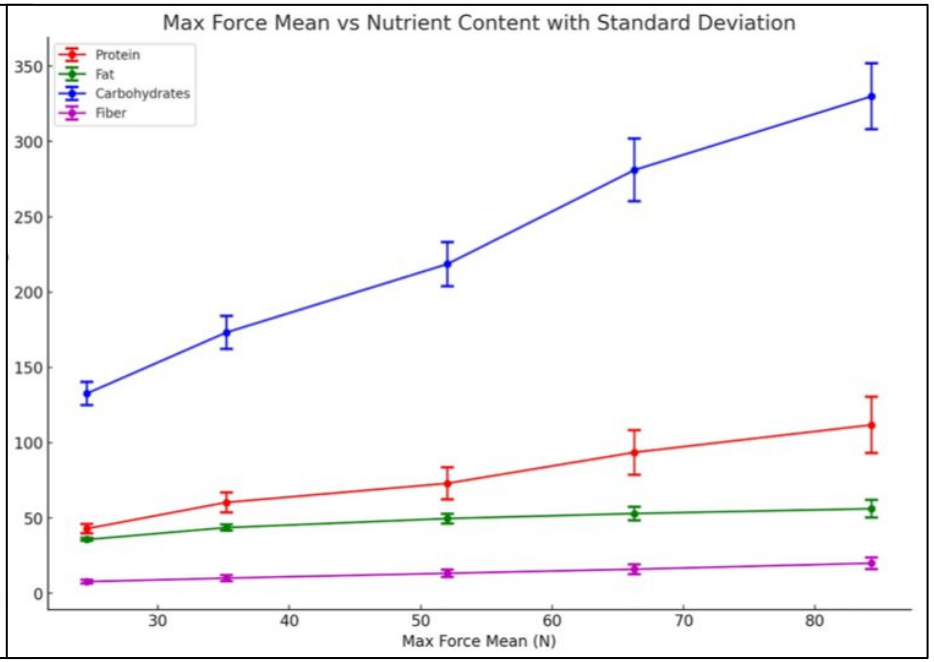
JPGN. Mar *2025: 80 (3): 501-509*

Optimizing pureed diets via texture analysis: A study on the impact of different energy levels and ingredient ratios on nasogastric tube patency

Muxi Chen[1,2], Dongyu Mu[1], Yi Cheng[1], Lingli Zhang[3,4], Lei Shi[1], Yuan Liu[1]*

PLOS One. Aug 2025: 1-19





Aero “Potpourri”

Recurrent croup

https://www.pbs.org/wnet/nature/blog/seal-fact-sheet/

Esophageal pathology and the aerodigestive triple endoscopy for pediatric recurrent croup

Stephen Liangtjan Trisno [a], Michael Carver [b], Douglas Sidell [c,d], Seema Khan [a,*]

[a] Division of Pediatric Gastroenterology, Hepatology & Nutrition, Lucile Packard Children's Hospital, School of Medicine, Stanford University, CA, USA
[b] Department of Pediatric Gastroenterology, Children's Hospital of New Orleans, New Orleans, LA, USA
[c] Department of Otolaryngology–Head and Neck Surgery, Stanford University School of Medicine, Stanford, CA, USA
[d] Lucile Packard Children's Hospital Stanford Aerodigestive and Airway Reconstruction Center, Stanford, CA, USA

Int J Pediatr Otorhinolaryngol 2025. June: 193.

- Retrospective review of Aero center pts (Jan 2018- Oct 2024)
- 68 recurrent croup
  - 47 had dual or triple endoscopy
- 7 (14.8%) had EoE
- 9 (19.1%) had reflux esophagitis
- 1 (2.1%) had fungal esophagitis

All EoE pts had GI symptoms pre-procedure and more frequent h/o food allergies

Esophageal pathology and the aerodigestive triple endoscopy for pediatric recurrent croup

Stephen Liangtjan Trisno [a], Michael Carver [b], Douglas Sidell [c,d], Seema Khan [a,*]

[a] Division of Pediatric Gastroenterology, Hepatology & Nutrition, Lucile Packard Children's Hospital, School of Medicine, Stanford University, CA, USA
[b] Department of Pediatric Gastroenterology, Children's Hospital of New Orleans, New Orleans, LA, USA
[c] Department of Otolaryngology–Head and Neck Surgery, Stanford University School of Medicine, Stanford, CA, USA
[d] Lucile Packard Children's Hospital Stanford Aerodigestive and Airway Reconstruction Center, Stanford, CA, USA

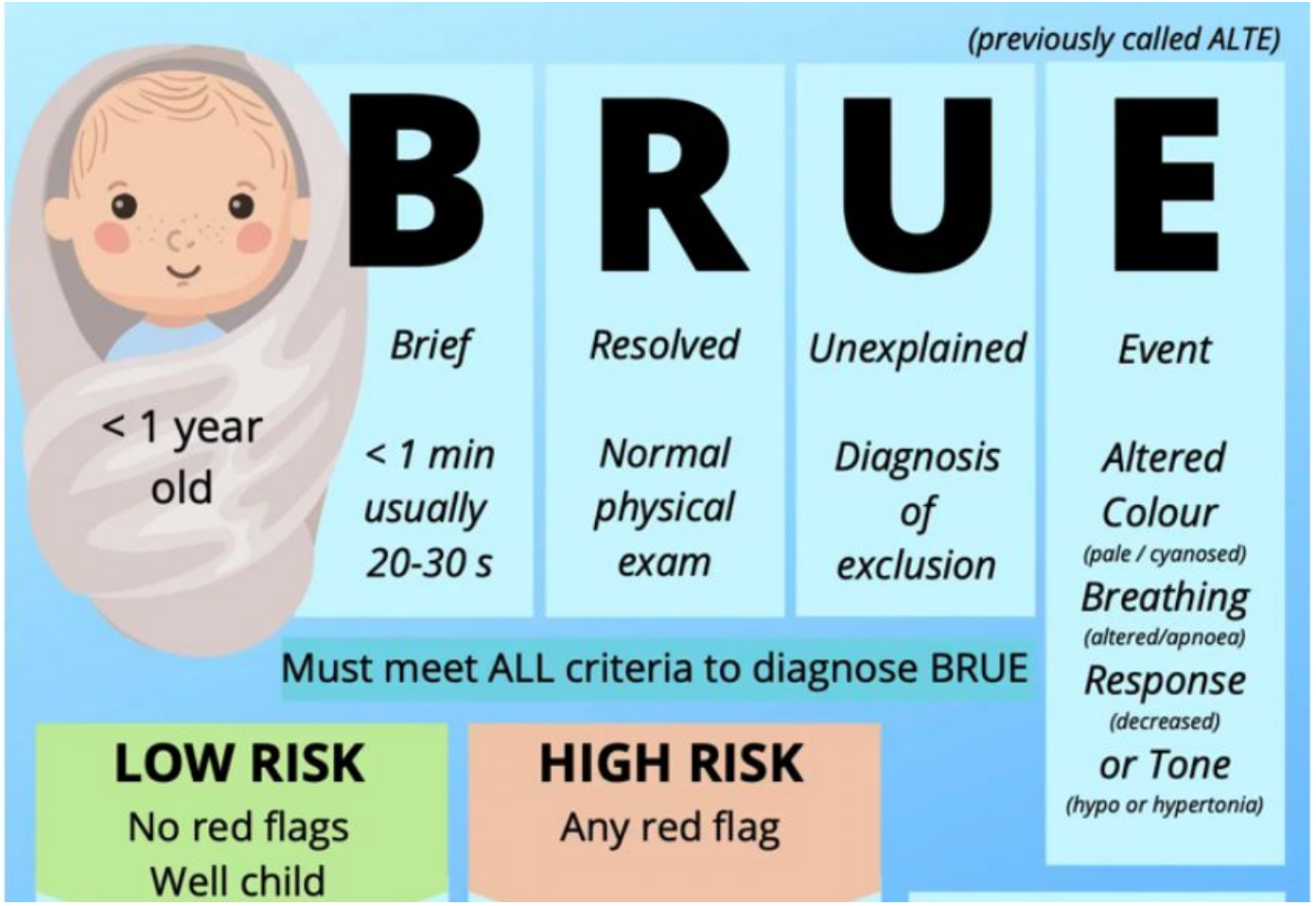
Int J Pediatr Otorhinolaryngol 2025. June: 193.

Results of airway portion of aerodigestive evaluation.

Characteristic	Overall N = 47[a]	No Esophageal disease N = 30[a]	Other Esophageal disease N = 10[a]	EoE N = 7[a]	p-value[b]
Abnormal MDLB	39 (83 %)	26 (87 %)	7 (70 %)	6 (86 %)	0.5
Abnormal FB	34 (81 %)	21 (75 %)	8 (89 %)	4 (80 %)	>0.9
No FB performed	5	2	1	2	
Tonsillar/Adenoid hypertrophy[c]	15 (32 %)	10 (33 %)	3 (30 %)	2 (29 %)	>0.9
Glossoptosis[c]	10 (21 %)	7 (23 %)	0 (0 %)	3 (43 %)	0.078
Interarytenoid notch	12 (26 %)	8 (27 %)	3 (30 %)	1 (14 %)	0.8
Laryngeal cleft	4 (8.5 %)	3 (10 %)	0 (0 %)	1 (14 %)	0.6
Laryngeal web	1 (2.1 %)	1 (3.3 %)	0 (0 %)	0 (0 %)	>0.9
Subglottic cysts	3 (6.4 %)	2 (6.7 %)	1 (10 %)	0 (0 %)	>0.9
Subglottic stenosis	1 (2.1 %)	0 (0 %)	1 (10 %)	0 (0 %)	0.4
Subglottic shelves	7 (15 %)	4 (13 %)	1 (10 %)	2 (29 %)	0.5
Laryngomalacia	6 (13 %)	3 (10 %)	1 (10 %)	2 (29 %)	0.4
Tracheo/bronchomalacia	12 (26 %)	8 (27 %)	2 (20 %)	2 (29 %)	>0.9
Tracheal compression from artery	9 (19 %)	3 (10 %)	1 (10 %)	5 (71 %)	0.003
Vascular ring	1 (2.1 %)	0 (0 %)	1 (10 %)	0 (0 %)	0.4
Glottic/Subglottic inflammation	6 (13 %)	3 (10 %)	1 (10 %)	2 (29 %)	0.4
Tracheal/bronchial inflammation	23 (49 %)	15 (50 %)	5 (50 %)	3 (43 %)	>0.9
Pouch from TEF repair	1 (2.1 %)	1 (3.3 %)	0 (0 %)	0 (0 %)	>0.9

TEF (tracheoesophageal fistula).

BRUE



https://www.peminfographics.com/infographics/brue

Outcomes for infants with BRUE diagnosed with oropharyngeal dysphagia or gastroesophageal reflux disease: a multicenter study from the Pediatric Health Information System Database

Daniel R. Duncan[1,2] · Enju Liu[2,3] · Clare Golden[1] · Amanda S. Growdon[2,4] · Dionne A. Graham[2,4] · Christopher P. Landrigan[2,4,5] · Rachel L. Rosen[1,2]

Eur J Pediatr 2025. Jan: 184 (2): 134.

- R
- 1 h
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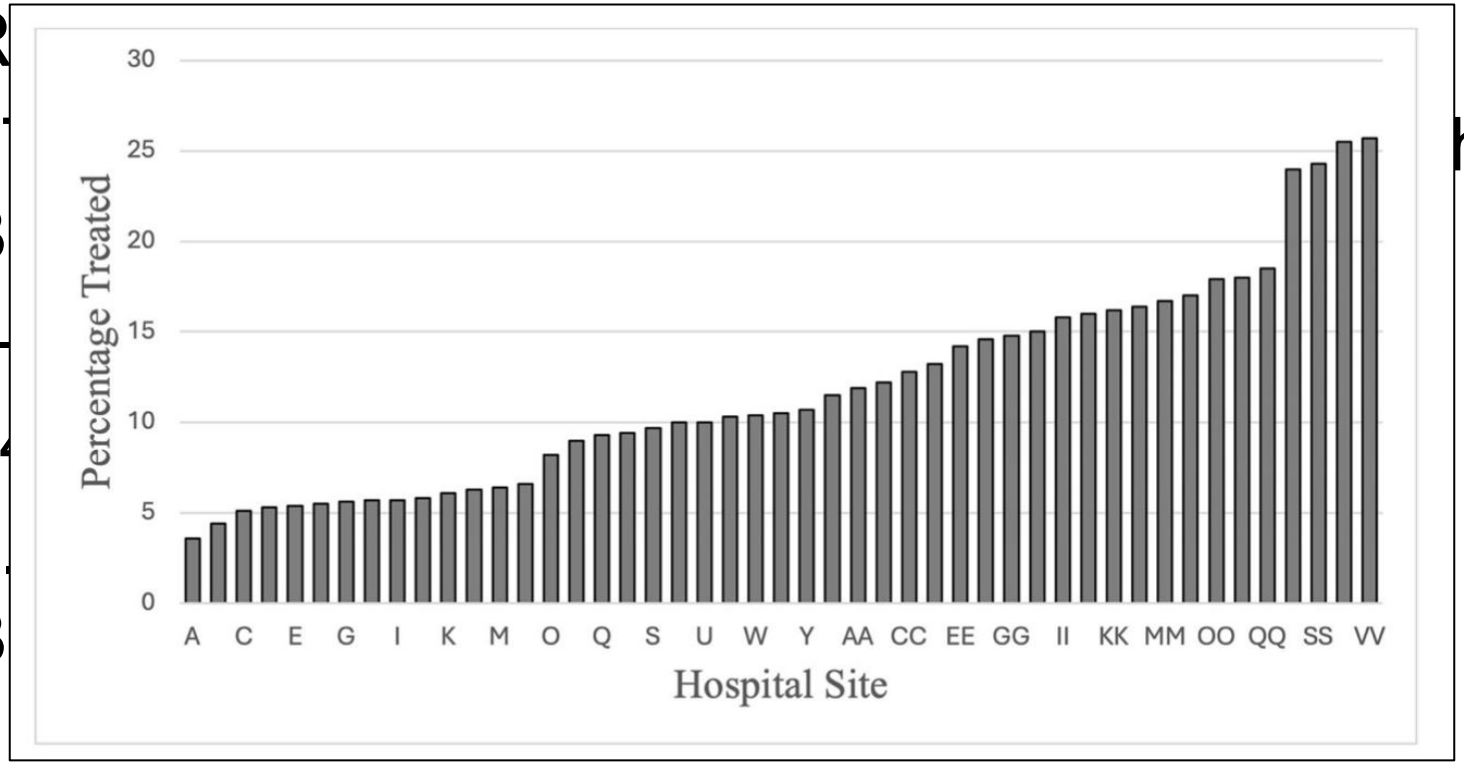


Table 4 Association between patient demographic and clinical characteristics and repeat hospital visit within 6 months of initial encounter for BRUE

	n/*N*[##]	Univariable		Multivariable[#]	
		Odds ratio (95% CI)	*p* value	Odds ratio (95% CI)	*p* value
Sex					
Male	820/8454	1.00		1.00	
Female	861/9104	0.97 (0.88–1.08)	0.59	0.97(0.88–1.08)	0.60
Age	1681/17,558	0.98 (0.96–1.01)	0.14	0.98 (0.95–1.00)	0.07
History of prematurity	171/1138	1.75 (1.47–2.07)	<0.001	1.46 (1.22–1.75)	<0.001
ICU admission	100/1090	0.95 (0.77–1.18)	0.64		
Length of stay					
1 night	1040/12,860	1.00			
2 nights	367/2995	1.59 (1.40–1.80)	<0.001	1.33 (1.16, 1.51)	<0.001
≥3 nights	274/1703	2.18 (1.89–2.52)	<0.001	1.39 (1.19, 1.64)	<0.001
Feeding consult	467/2989	2.04 (1.82–2.29)	<0.001	1.36 (1.20, 1.56)	<0.001
GI consult	7/42	1.89 (0.84–4.27)	0.12		
Impedance study obtained	27/172	1.77 (1.17–2.68)	0.007	0.85 (0.55, 1.33)	0.48
VFSS obtained	101/413	3.19 (2.53–4.01)	<0.001	1.23 (0.94, 1.61)	0.13
H2RA treatment	385/1734	3.20 (2.82–3.63)	<0.001	2.08 (1.80, 2.40)	<0.001
PPI treatment	137/563	3.22(2.64–3.93)	<0.001	1.88 (1.51, 2.34)	<0.001
Explanatory diagnosis of gastroesophageal reflux disease	878/5933	2.34 (2.12–2.59)	<0.001	1.66 (1.48, 1.86)	<0.001
Explanatory diagnosis of oropharyngeal dysphagia	72/238	4.24 (3.20–5.61)	<0.001	2.13 (1.55, 2.91)	<0.001

[#]Age, sex, and variables with $p < 0.05$ in univariate analysis were entered into the final multivariable model

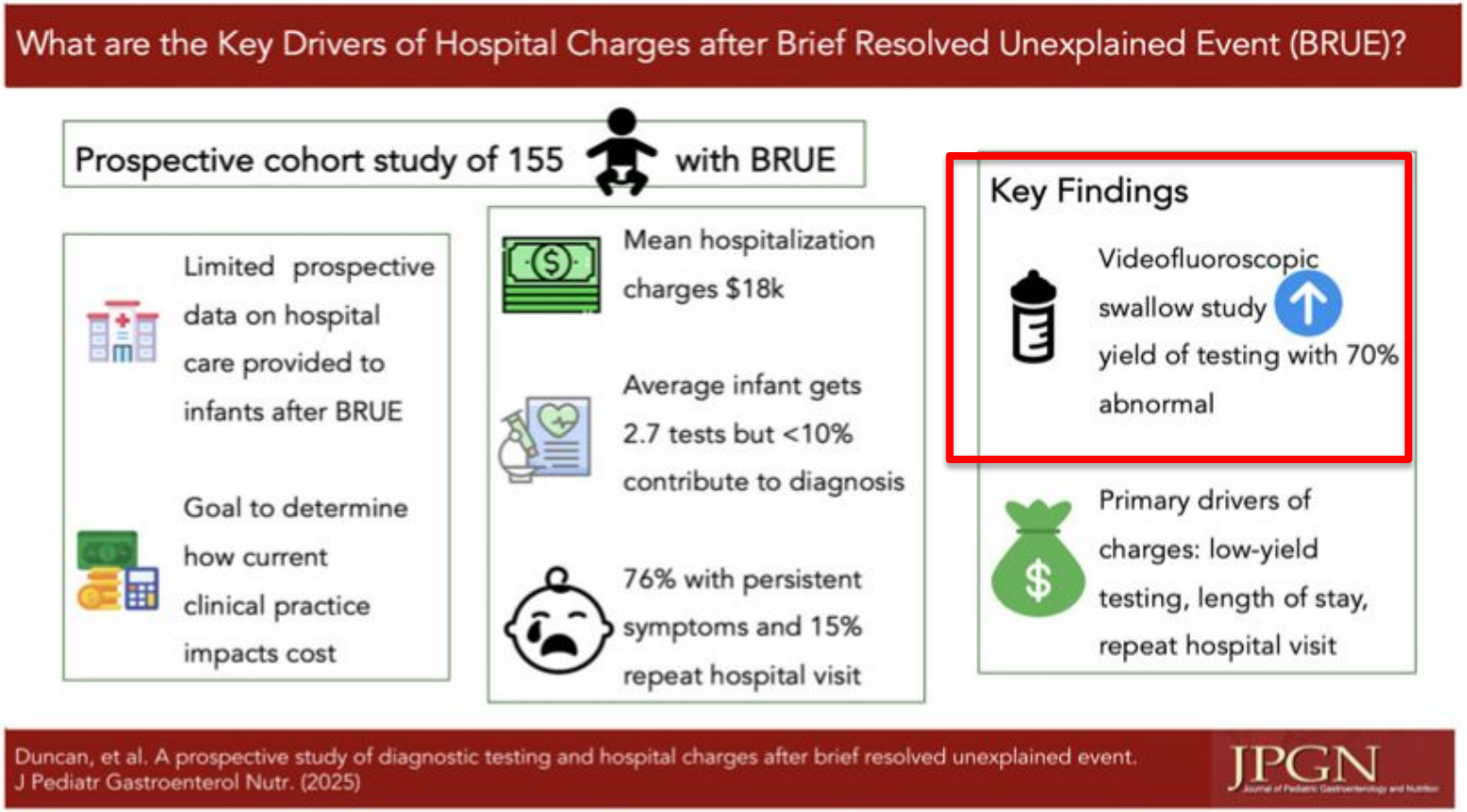
[##] Small *n*'s represent the number of patients with the outcome and capital *N*'s represent the number of patients with the characteristics listed in the row

Eur J Pediatr 2025. Jan: 184 (2): 134.

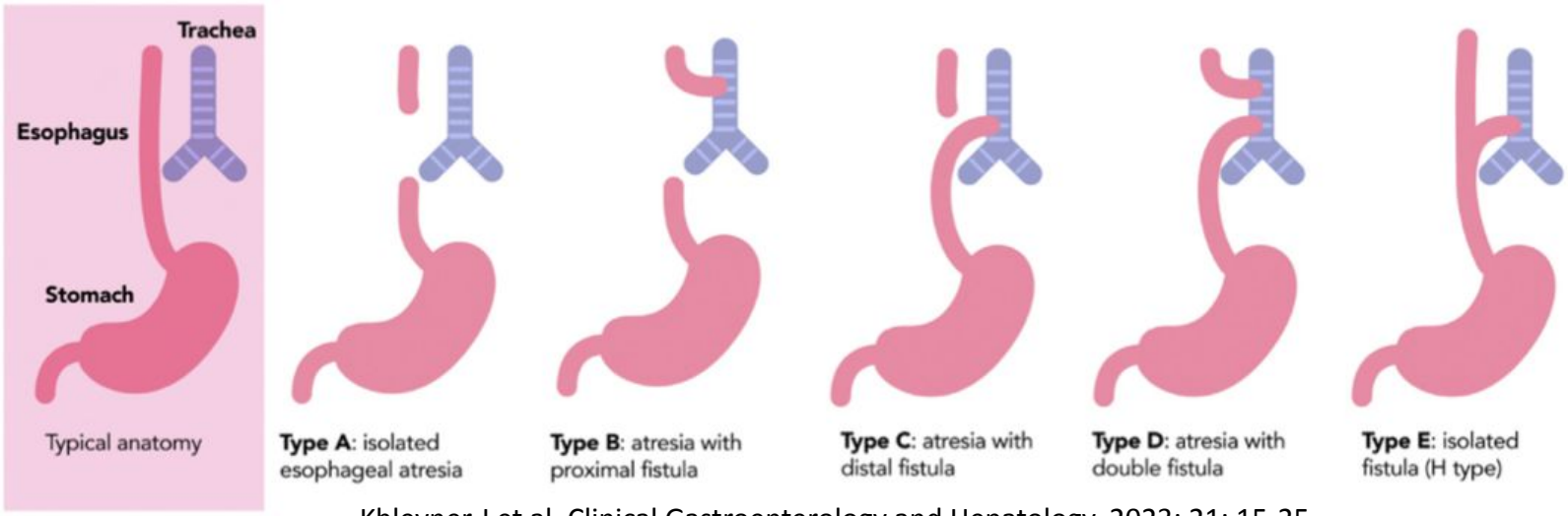
A prospective study of diagnostic testing and hospital charges after brief resolved unexplained event

Daniel R. Duncan[1] | **Clare Golden**[1] | **Kara Larson**[1] | **Amanda S. Growdon**[2] | **Enju Liu**[3]

JPGN. 2025. 80 (4): 62-632.



Esophageal Atresia



Khlevner J et al. Clinical Gastroenterology and Hepatology. 2023: 21: 15-25.

The prevalence of iron deficiency in pediatric esophageal atresia

Kelly Kiremidjian[1,2] | **Steven J. Staffa**[3] | **Denis Chang**[1] | **Michael Manfredi**[4] | **Jessica L. Yasuda**[1]

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[2]School of Medicine, University of Connecticut, Farmington, Connecticut, USA

[3]Department of Anesthesiology, Critical Care, and Pain Medicine; Boston Children's Hospital, Boston, Massachusetts, USA

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JPGN. July 2025.

- Higher risk population due to poor feeding and often need for chronic antacid use
- Cross-sectional review
- 110 children with EA (ages 12-71 mos)
- To assess the prevalence of iron deficiency and iron deficiency anemia vs NHANES data

Outcome	Our cohort $n = 110$	General population $n = 1437$	p-Value
Iron deficiency	30.9% (95% CI: 22.4%, 40.4%)	7.1% (95% CI: 5.8%, 8.6%)	<0.001*
IDA	15.5% (95% CI: 9.3%, 23.6%)	1.1% (95% CI: 0.6%, 1.8%)	<0.001*

Note: Prevalence of iron deficiency and IDA in esophageal atresia patients compared to general pediatric population data acquired from the National Health and Examination survey (NHANES) 2007–2010.[4,5] *p*-Values were calculated using a two sample *Z* test for binomial populations.

Abbreviations: CI, confidence interval; IDA, iron deficiency anemia.

*Denote statistical significance.

No differences found based on age, weight, if on acid suppression (H2 blockers or PPI), presence of erosive esophagitis, or GT fed

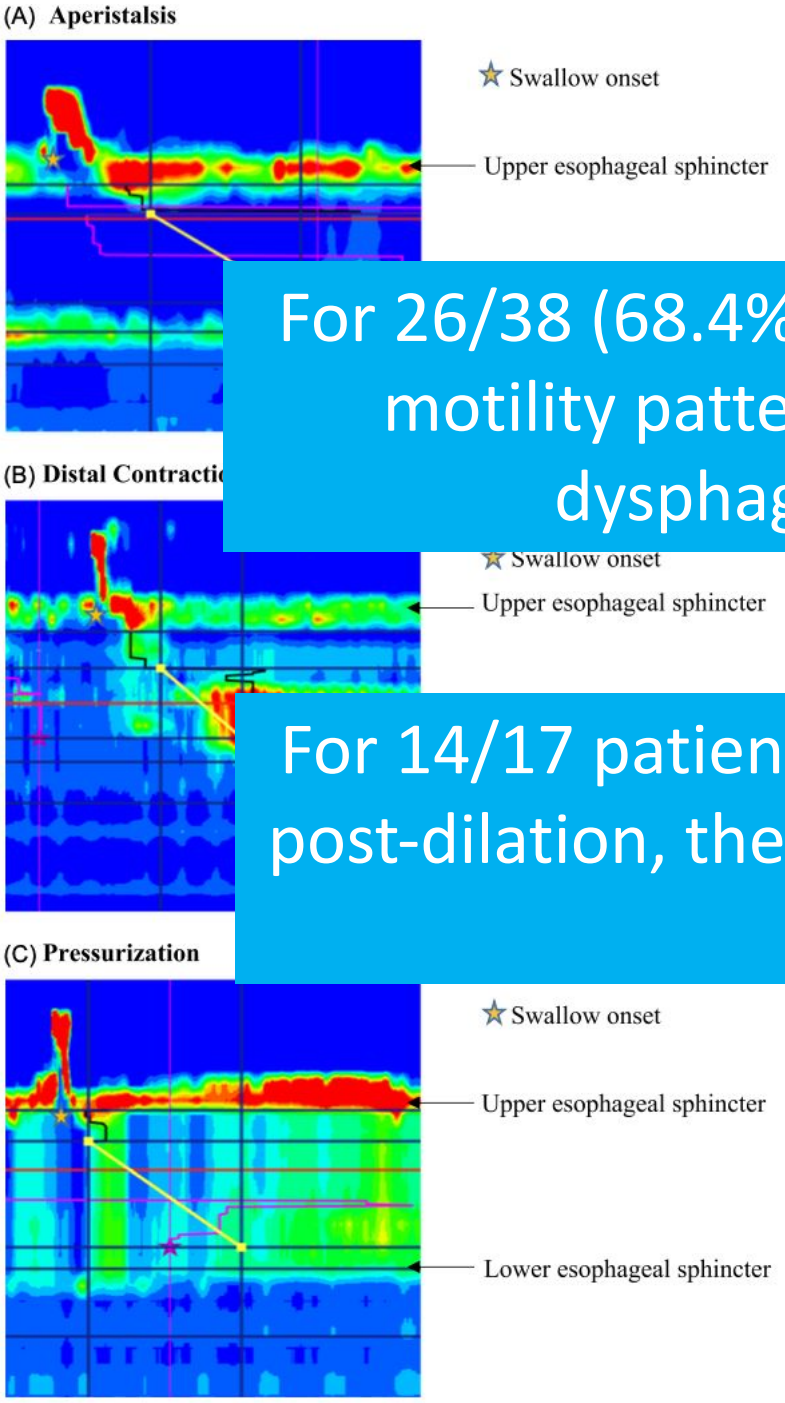
JPGN. July 2025.

Distinct and reproducible esophageal motility patterns in children with esophageal atresia

Sharman P. Tan Tanny[1,2,3] | Assia Comella[1,2,4] | Lisa McCall[5] | John M. Hutson[1,2,3] | Sue Finch[6] | Mark Safe[1] | Warwick J. Teague[1,2,3] | Taher I. Omari[5] | Sebastian K. King[1,2,3]

JPGN. 2025.

- Prospective, longitudinal study
- 75 pts < 18 yrs with EA who had high-resolution impedance manometry
  - 133 HRIM studies performed over time
  - Caregivers completed a validated dysphagia questionnaire at time of manometry
- Comparisons if manometry was done pre- and post- esophageal dilation



26/72 (36.1%)

25/72 (34.7%)

2/72 (2.8%)

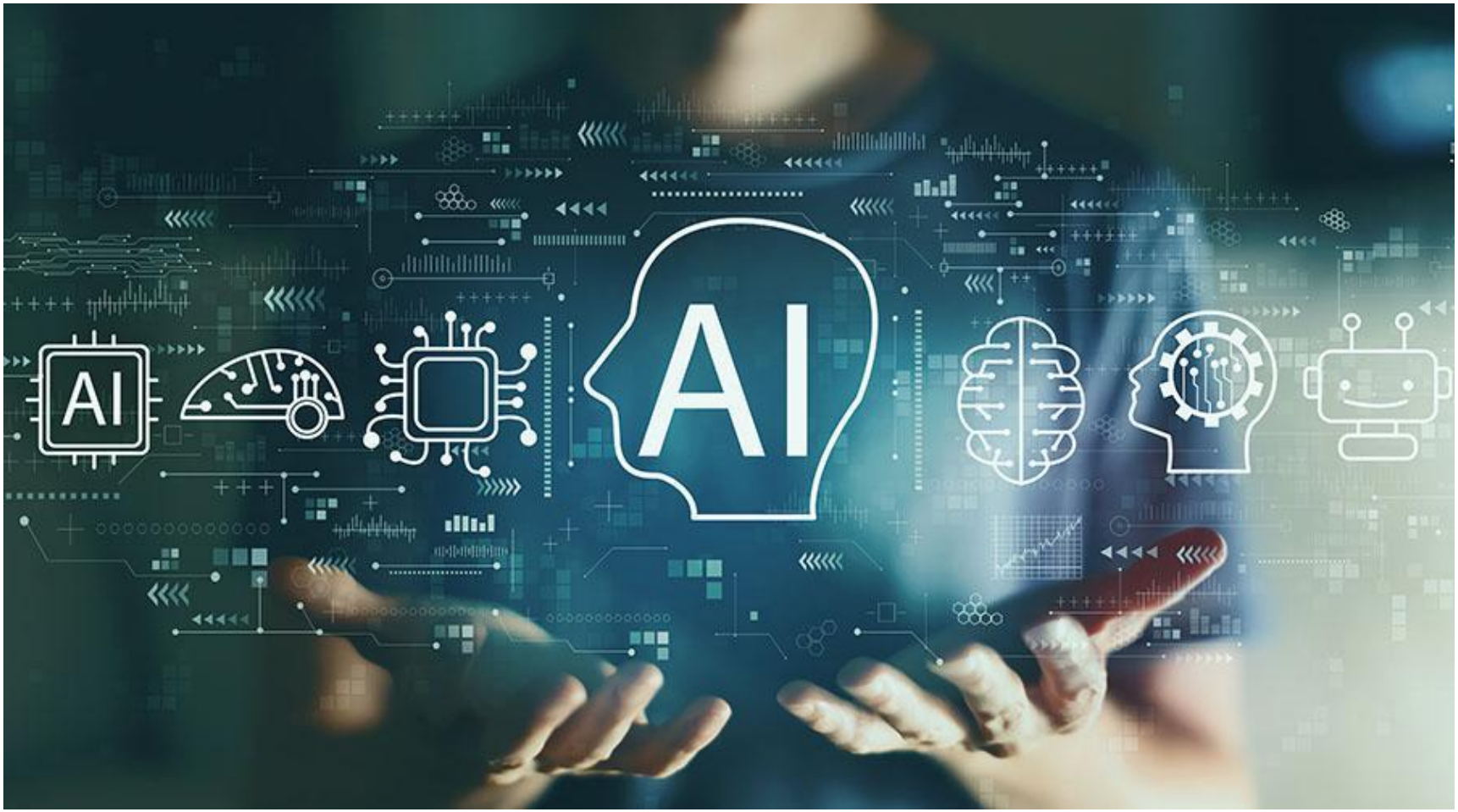
6/72 (8.3%)

For 26/38 (68.4%) patients with repeat testing, motility patterns remained consistent & dysphagia scores unchanged

For 14/17 patients (82.4%) with testing pre-and post-dilation, the dominant motility pattern also unchanged

JPGN. 2025.

The Future!



https://pg-p.ctme.caltech.edu/blog/ai-ml/the-future-of-ai-a-comprehensive-guide

Parental education in pediatric dysphagia: A comparative analysis of three large language models

Bülent Alyanak[1] | Burak Tayyip Dede[2] | Fatih Bağcıer[3] | Mazlum Serdar Akaltun[4]

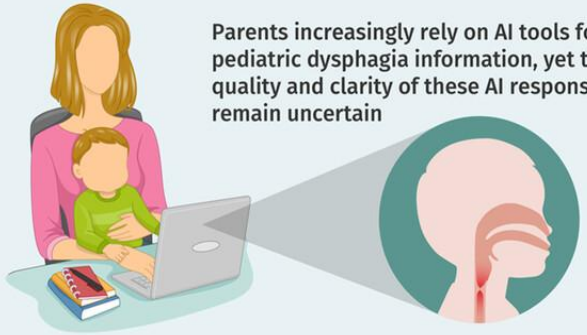
JPGN. 2025. 81: 18-26

- Assessment of the accuracy, reliability, and readability of 3 major chatbots available on-line offering parental advice on pediatric dysphagia:
  - CHatGPT (OpenAI)
  - Copilot (Microsoft)
  - Gemini (Google)

TABLE 1 LLMs' response accuracy evaluated on a Likert scale.

		ChatGPT-4 Months			Copilot Months			Gemini Months		
	Questions	Aug	Sep	Oct	Aug	Sep	Oct	Aug	Sep	Oct
1	Why do babies have difficulty swallowing?	4	4	4	4	2	3	3	3	3
2	What are the symptoms of dysphagia in babies?	5	5	5	3	2	4	4	4	4
3	What causes dysphagia in children?	3	3	3	3	3	3	3	3	3
4	How to recognize dysphagia in children?	5	5	5	4	4	4	5	4	4
5	Is difficulty sucking dysphagia?	4	4	3	4	4	4	3	4	3
6	How to feed a baby with dysphagia?	5	5	5	3	3	3	4	4	4
7	What should a child with dysphagia eat?	4	3	4	4	4	3	4	4	4
8	What should be the nutrition program for children with dysphagia?	4	4	4	4	4	4	4	4	4
9	Can a child with pediatric dysphagia eat solid foods?	4	4	4	3	3	3	4	4	4
10	Are dysphagia and milk allergy related?	4	4	4	4	4	4	4	4	4
11	Does dysphagia cause failure to gain weight?	4	4	4	3	3	4	3	2	4
12	Are dysphagia and reflux related?	4	5	4	3	5	4	5	4	5
13	Does the pediatrician take care of dysphagia?	4	4	4	2	2	2	4	4	4
14	How is dysphagia diagnosed?	5	5	5	2	2	2	4	3	5
15	Which doctor should I see for dysphagia?	3	4	3	2	3	3	3	2	3
16	What tests are performed for dysphagia?	3	4	4	3	3	3	4	4	4
17	What are the tools used in the treatment of dysphagia?	4	4	4	2	2	2	4	4	4
18	How long does dysphagia last in babies?	3	3	3	2	3	2	5	3	4
19	How to treat dysphagia in babies?	2	4	3	4	3	2	3	3	3
20	How long does it take to treat dysphagia in children?	5	5	5	2	2	2	5	5	5
21	Can a child with dysphagia go to school?	5	4	4	2	3	3	4	5	5
22	Can a child with dysphagia play sports?	5	5	5	3	4	4	5	5	5
23	What is the role of families in the treatment of dysphagia?	4	4	4	4	4	4	4	4	4
24	Is there a link between premature birth and dysphagia?	4	4	4	2	4	3	3	3	4
25	What is important to know about dysphagia?	4	3	4	3	3	3	2	2	3

Artificial Intelligence (AI) Tools for Parental Education in Pediatric Dysphagia: A Comparative Analysis



Parents increasingly rely on AI tools for pediatric dysphagia information, yet the quality and clarity of these AI responses remain uncertain

25 frequently asked questions on pediatric dysphagia (Google Trends)

LLMs tested: ChatGPT-4, Copilot, and Gemini

Evaluations

- Accuracy: 5-point Likert scale
- Reliability: EQIP and DISCERN scales
- Readability: FKGL scores and FRE scores

August–October 2024

Expert review and assessment

LLMs: Large language models; EQIP: Ensuring quality information for patients; FKGL: Flesch–Kincaid grade level; FRE: Flesch reading ease; DISCERN: Determining information sources critically evaluated, related to new and evolving issues or non-evidence-based new information

Evaluation metric ($p < 0.05$)	ChatGPT-4	Copilot	Gemini
Accuracy	4.1 ± 0.7 (best)	3.1 ± 0.7	3.8 ± 0.8
Reliability	High	Lower	High
Readability	Moderate	Moderate	Best

ChatGPT-4 leads in accuracy and reliability, while Gemini excels in readability. AI tools can help educate parents, but refinement is essential for improved quality and safe use

Alyanak, et al. Parental education in pediatric dysphagia: A comparative analysis of three large language models.
J Pediatr Gastroenterol Nutr. (2025)

JPGN Journal of Pediatric Gastroenterology and Nutrition

JPGN. 2025. 81: 18-26

My Aero ChatGPT inquiry

what's new in pediatric aerodigestive disorders in the last year

In Summary

This past year has seen meaningful progress across diagnostics, AI, imaging, pharmacotherapy, and care delivery for pediatric aerodigestive disorders. Are you interested in diving deeper into any specific area—such as AI diagnostics, feeding programs in your region, or medication management?

Let me know, and I'd be happy to explore further!

Thank you!