

Inside Out: Gastroenterology & Hepatology Workshop

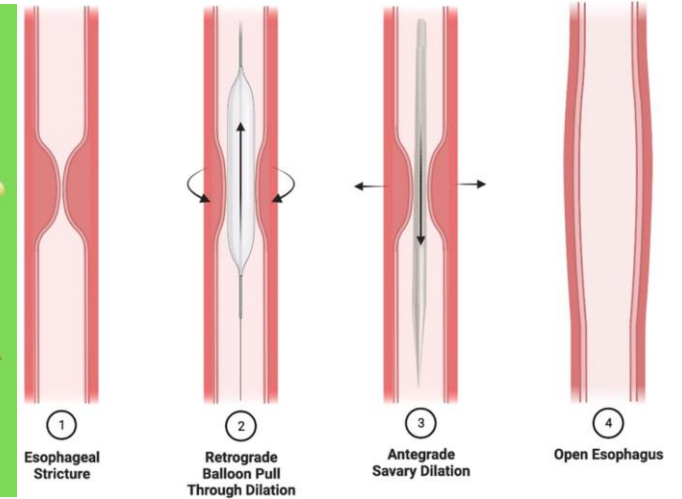
Saturday 25 October 2025
Clinical Skills Development Service |
RBWH



Dysphagia/ Eosinophilic Oesophagitis

Dr Richard Kai Yuan Cheng
*Director of Gastroenterology
Redcliffe Hospital*





Eosinophilic Oesophagitis and Dysphagia

Dr Richard Kai Yuan Cheng

Director of Gastroenterology, Redcliffe Hospital

Agenda

01 Introduction to Mr JR: Case Study

02 Pathophysiology and Natural History

03 Diagnosis

04 Treatment

05 Questions



Mr JR: 54M

Thank you for seeing [REDACTED] for an opinion
These notes are from my patient records:

iron deficiency anaemia
Possible altered stools with dark motions
History eosinophilic oesophagitis
Last scopes years ago

- Dec 2024: GP Referral: Hb 134 Ferritin 12 MCV 84
- Clinic Review:
 - Reflux: breakthrough 1/26 despite Somac 40mg, typically nocturnal aluminum/magnesium carbonate liquid; diclofenac once per month – no other Rfx
 - Dysphagic Episodes to meat; ?Schatzki Ring, Dx 2010 RBWH; No elimination diet, swallowed fluticasone/budesonide slurry, onset in 20s
 - IDA: no overt bleeding, eats red meat, No FHx CRC
- Plan for Gastroscopy and Colonoscopy

9/2010: Gastroscopy
RBWH

- Moderate Schatzki Ring at GOJ; Bx
- Mucosal changes including **ringed oesophagus** and **longitudinal furrows** were found in the entire oesophagus; Bx

Pathophysiology

Increasing incidence (beyond increased recognition bias)

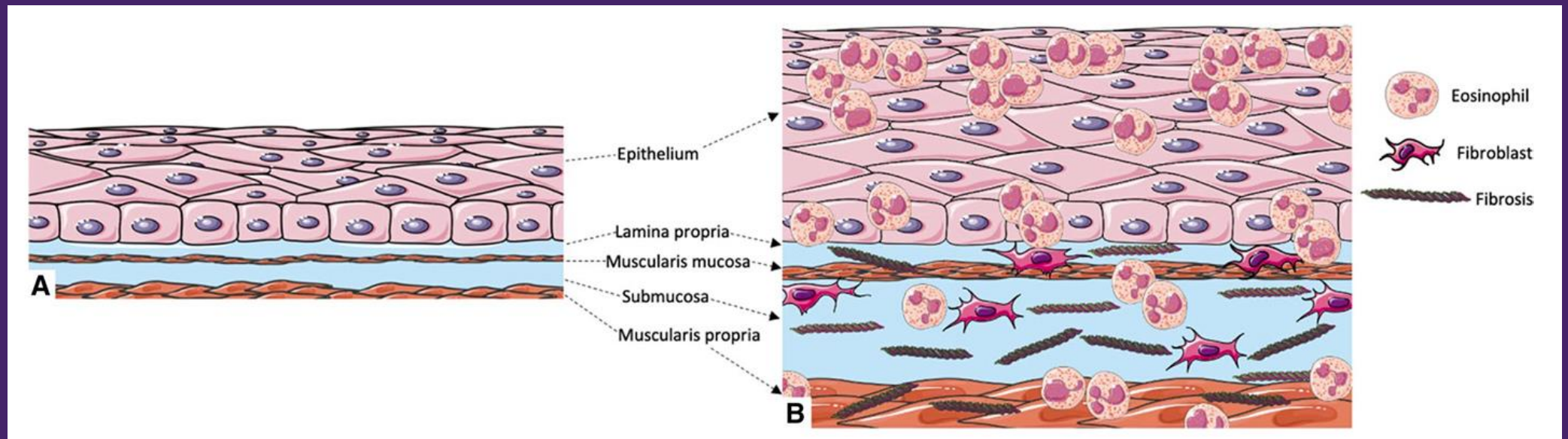
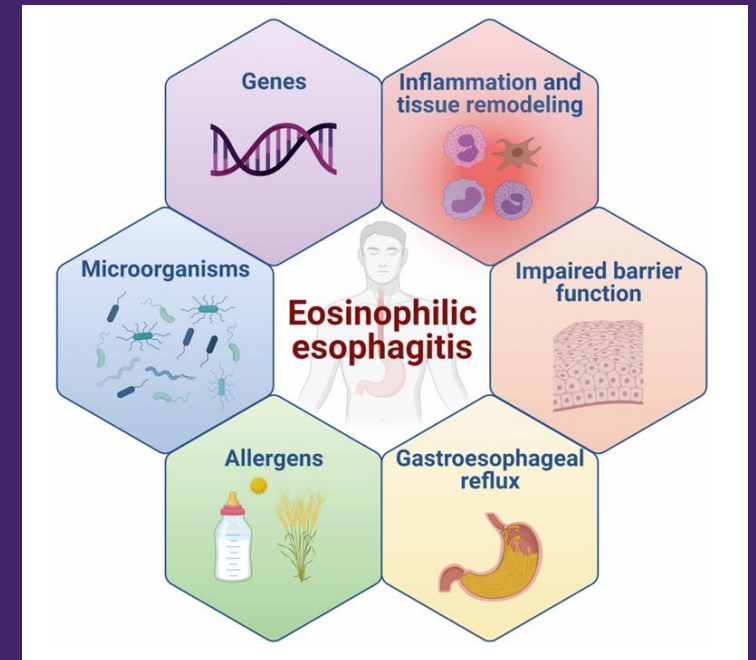
Male Sex

Adults: 20s-30s

Factors:

Risk: Antibiotic exposure, acid suppression, paed ICU admission

Protective: H pylori, breast milk exposure



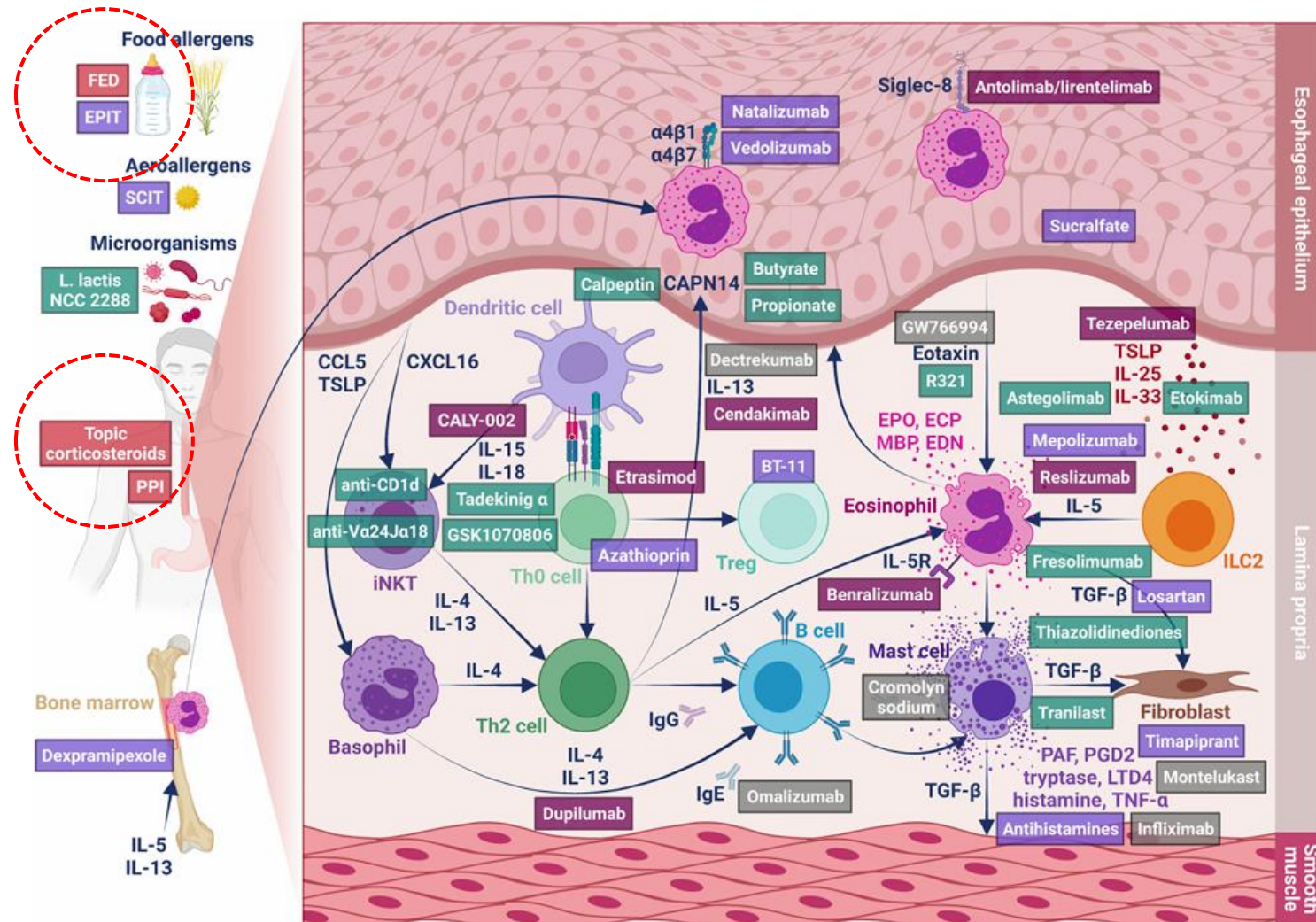
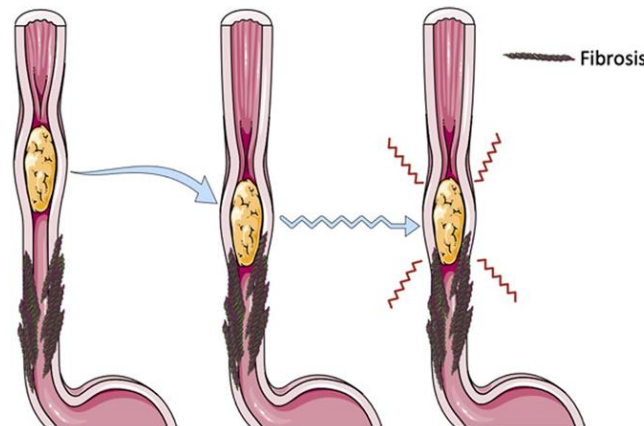
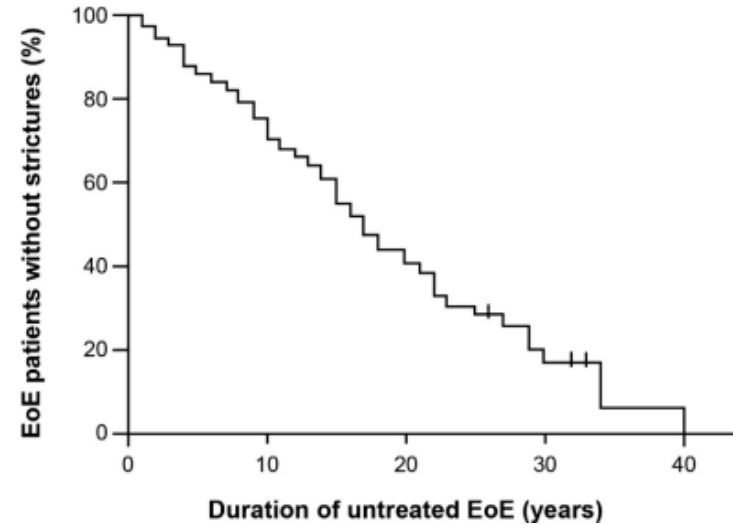
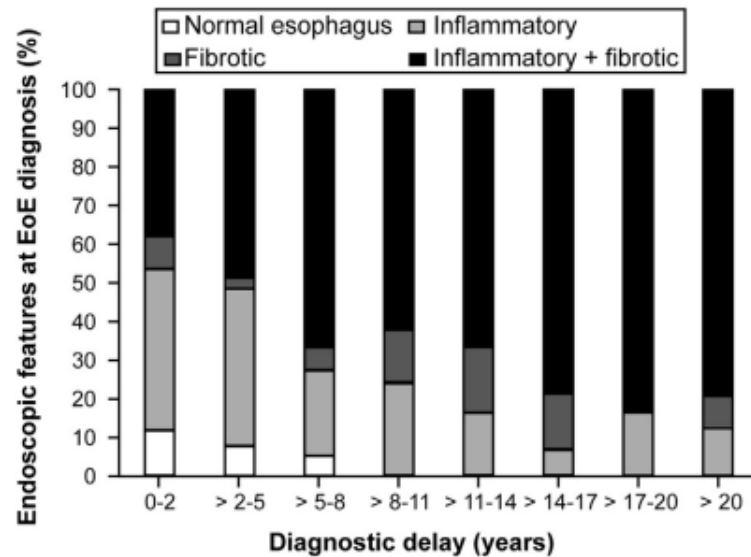


FIGURE 4 | Type 2 inflammation in EoE. The figure represents the involved cells and mediators and the therapeutic approaches described in the review. The drugs are colored as follows: Red tag: first-line therapy, Plum tag: orphan drugs, Lilac tag: drugs with reported results on human patients, Green tag: drugs without reported results on human patients, Gray tag: drugs that failed to obtain significant results on human patients.

Natural History



Presentation (n=325)

Dysphagia (93%)
Food impaction (62%)
Heart burn (23.6%)

Allergic history (51.6%)
Peripheral EoE (30.8%)

IMPACT

- Imbibing fluids with meals to lubricate foods
- Modifying food (cutting into small pieces)
- Prolonged meal times
- Avoidance of hard textured foods (eg bread, meats)
- Chewing excessively
- Turning away pills

Mr JR: Endoscopic Findings (Jan 25)

not actual patient



northstargastro.com.au

DR RICHARD KAI YUAN CHENG

MBBS (Uni of Melb), BMed Sc, FRACP
Provider No. 5885296X

DR RIAZ SHAIK

MBBS, FRACP
Provider No. 5447874A

SERVICES

Gastroenterology
Bowel Cancer Screening
Liver Disease
Inflammatory Bowel Disease
Hepatitis B & Hepatitis C
Colonoscopy
Endoscopy/Gastroscopy

PROCEDURE LOCATIONS

NORTH WEST PRIVATE HOSPITAL
(Everton Park)

PENINSULA PRIVATE HOSPITAL
(Kippa-Ring)

NORTH LAKES DAY HOSPITAL
Monseratt (North Lakes)

GASTROSCOPY REPORT

Procedure Date: 16-Jan-25

Medicare Billing Code: 30473

Patient Name: [REDACTED]

DOB: [REDACTED]

Proceduralist: Dr Richard Kai Yuan Cheng

Location: North West Private Hospital

Referral Source: [REDACTED]

Indication: Eosinophilic Esophagitis (PPI and Gaviscon only); Iron deficiency Anemia (Ferritin 12 Hb 134)

Medicine: Monitored anaesthesia care.

Procedure: After I obtained the patient's informed consent, the scope was passed under direct vision. Throughout the procedure, the patient's blood pressure, pulse, and oxygen saturations were monitored continuously. The gastroscope was introduced through the mouth and advanced to the second part of duodenum. The gastroscopy was performed without difficulty. The patient tolerated the procedure well.

Complications: No immediate complications.

Findings:

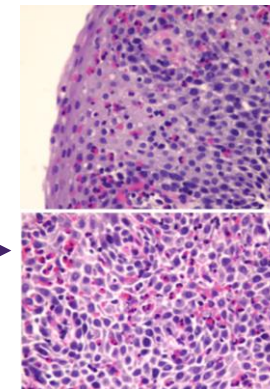
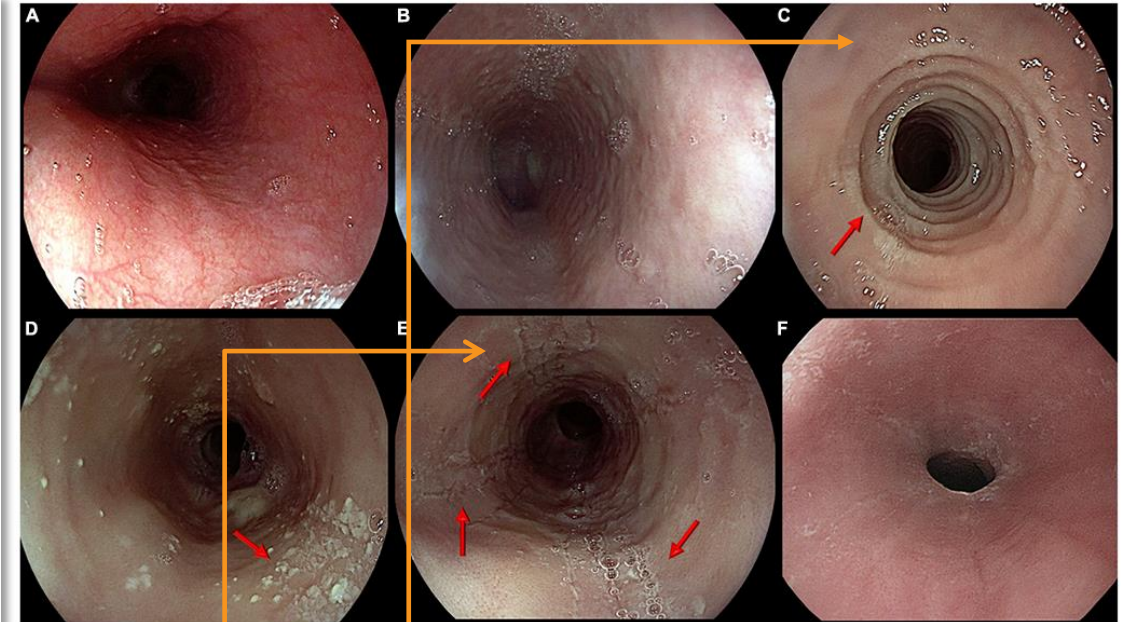
- The Z line is measured at 40 cm
- The examination of the oesophagus was showed longitudinal furrows and circular rings in the low oesophagus. No evidence of stricture. Biopsies for purposes of histology was performed from mid, lower, and upper oesophagus to confirm active eosinophilic esophagitis.
- The examination of the stomach was normal. Biopsies (HUT/CLO test) for Helicobacter Pylori was performed in the stomach.
- The examined duodenum was normal. Biopsies was performed for assessment of coeliac disease from first and second parts of the duodenum

Impression:

Eosinophilic Esophagitis

Histology: (Envoi Pathology)

- Upper oesophagus: No specific abnormality
- Mid oesophagus: No specific abnormality
- Lower oesophagus: Oesophageal eosinophilia (16/HPF)
- Duodenum D1: No specific abnormality
- Duodenum D2: No specific abnormality
- Urease: Negative



not actual patient

EoE Diagnostic Criteria

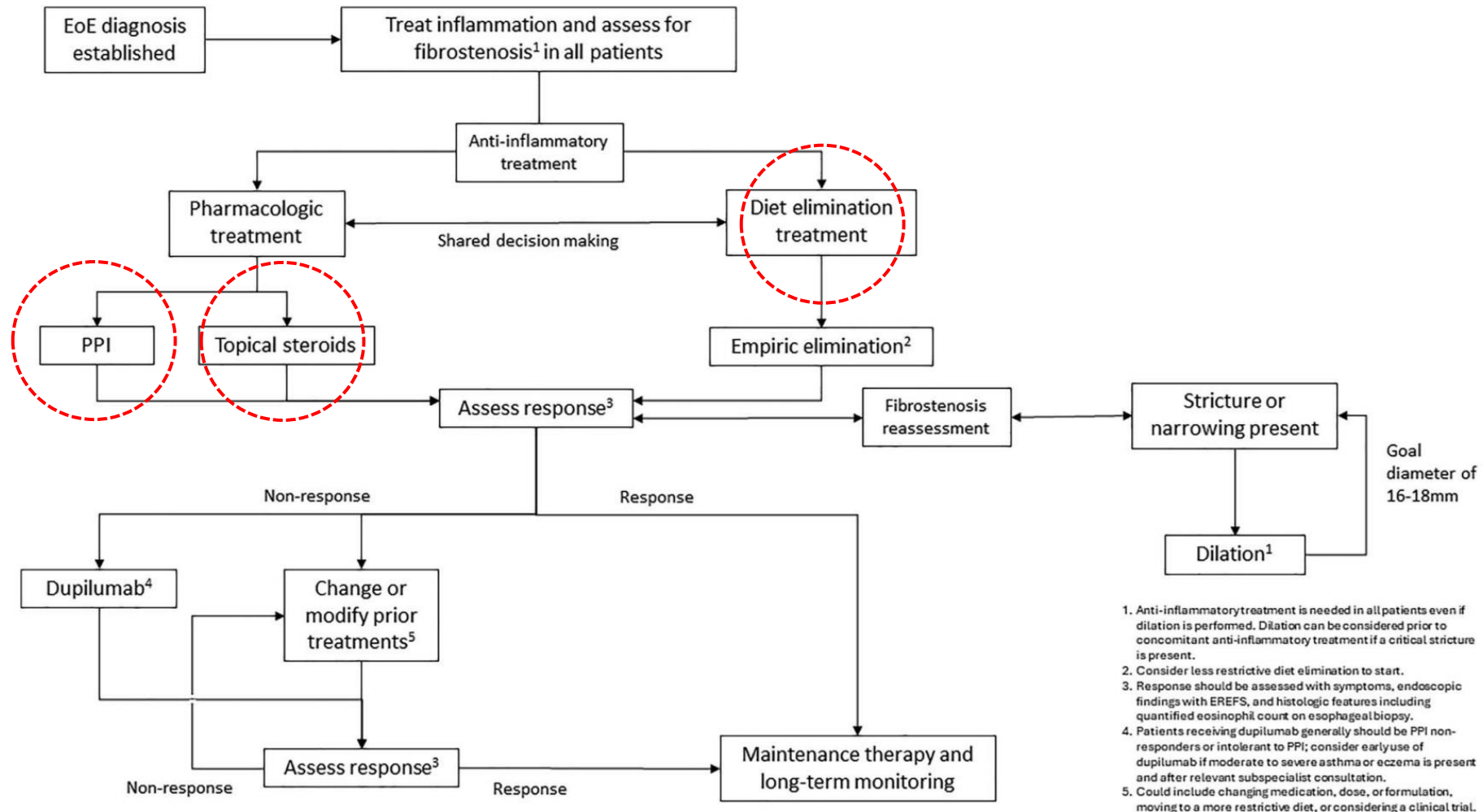
- Symptoms related to esophageal dysfunction.
- Eosinophil-predominant inflammation on esophageal biopsy, characteristically consisting of a peak value of ≥ 15 eosinophils per high power field (HPF) (or 60 eosinophils per mm²).
- Exclusion of other causes that may be responsible for or contributing to symptoms and esophageal eosinophilia

Mr JR: Further Findings (Jan 25)

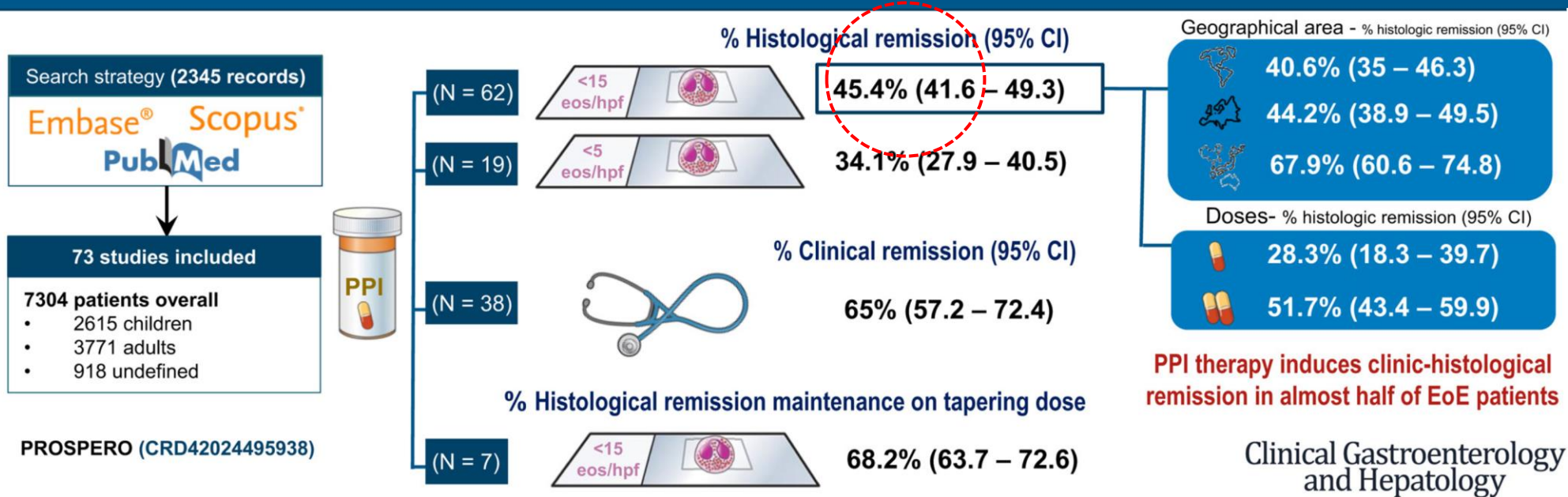
- Colonoscopy: Haemorrhoids otherwise normal
- Iron Infusion in theatre recovery same day

?Further management

Initial Treatment: Anti-inflammatory



Proton Pump Inhibitors for Inducing and Maintaining Remission in Eosinophilic Esophagitis: An Updated Systematic Review and Meta-Analysis



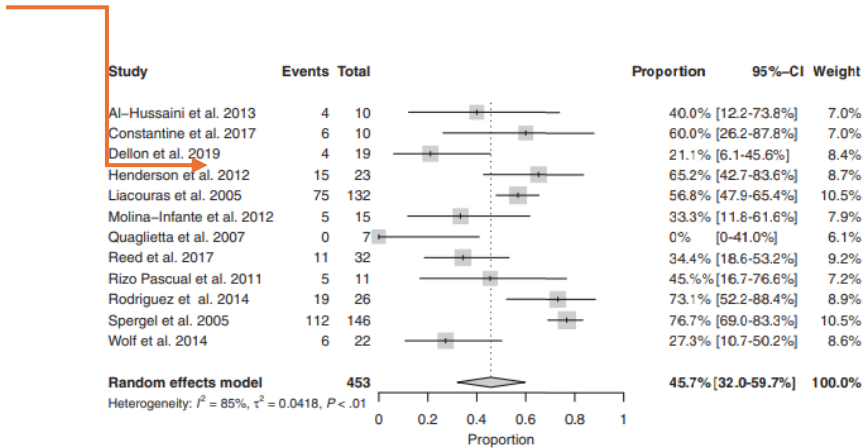
Induction:

Double the approved reflux dose per day:

Omeprazole 20mg BD / 40mg daily

Food Elimination Diet (FED): Diminishing Returns?

Diet	Details	Efficacy
1FED	Dairy elimination alone; aka. Animal milk elimination	35-45%
2FED	Dairy and wheat	40-45%
4FED	Dairy, wheat, egg, and soy elimination	40-50%
6FED	Dairy, wheat, egg, soy, nuts, and seafood elimination	40-70%
Elemental Formula	Amino acid-based hypoallergenic formula	>90% (if adherent)
Allergy test-directed	Not recommended	----



Skin prick or patch testing in Meta-Analysis:

- 12 Studies: Remission 32.2%
- Lower than 1 FED response of 51.4%

FED considerations

- Adherence is poor: needs dietitian input/nutrition assessment
- Elemental Diet very effective for induction but unfeasible maintenance
- 1 FED (eg dairy) is as good as more restrictive & avoids gastroscopy
- Symptom control ≠ Treatment response

This information is for people completing the six food elimination diet (6FED). It should be used with the resource Elimination diet for Eosinophilic Oesophagitis in adults which describes the disease process, diagnosis, elimination diet options and other treatments.

The Six Food Elimination Diet (6FED) involves strict removal of the following for 6-8 weeks:

- Animal Milk
- Egg
- Nuts
- Wheat
- Soy
- Fish and Shellfish



How do I remove milk from my diet?

- Avoid all animal milks (e.g., cow, goat, sheep) and foods made from milk, such as cheese, yoghurt, butter, or ghee.
- Read the labels on foods and drinks to check for milk or milk products.
- Look for hidden names: milk solids non-fat, milk solids, milk powder, whey protein, milk, casein, curd – these are added to some processed and ready-made foods.

What about calcium?

It can be hard to get enough calcium when avoiding milk. Calcium is important for bone health. Your bones can become weak if you are not eating enough calcium rich foods. You can do the following to make sure you get enough calcium:

- Include milk alternatives with added calcium (e.g., oat, rice, or coconut milks).
- Include sesame seeds, tahini, dried figs, green leafy vegetables (e.g., bok choy, broccoli, or spinach), baked beans and legumes (excluding soy beans).

How do I remove wheat from my diet?

- Avoid any food made from wheat and foods that have wheat in the ingredients list such as bread, pasta, biscuits, noodles, soy sauce, or Worcestershire sauce.
- Read the labels on foods and drinks to check for wheat.



**Gastro
Specialist**

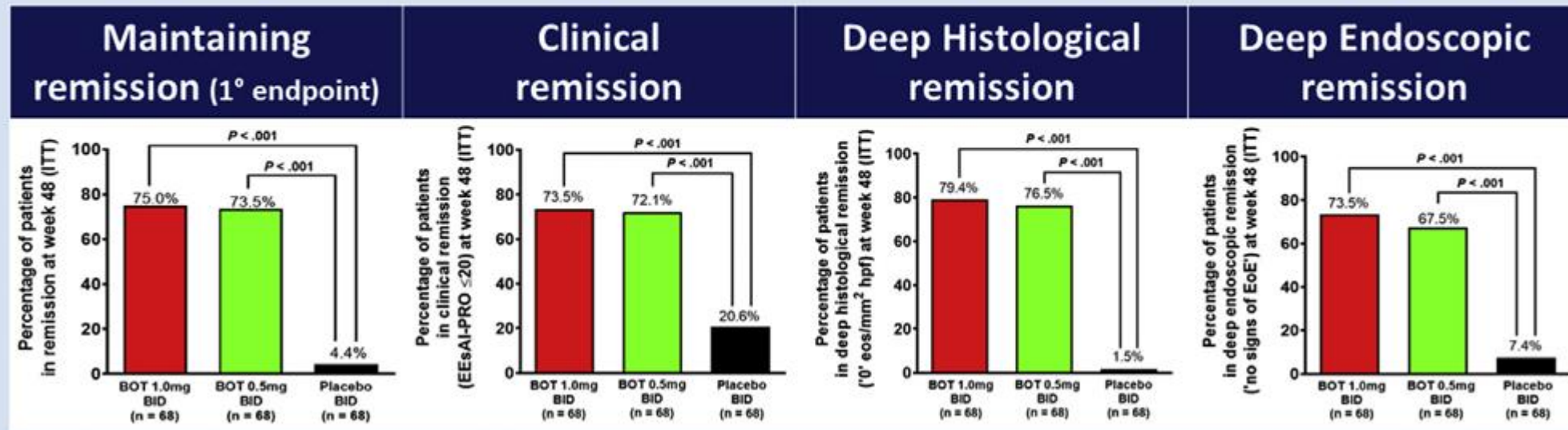
Jorveza

**PPI
6 FED
Fluticasone
Budesonide
Slurry**

Budesonide Orodispersible Tablets (BOTs) Maintain Remission in a Randomized, Placebo-Controlled Trial of Patients With Eosinophilic Esophagitis

Quiescent eosinophilic esophagitis

A 48-weeks twice daily treatment with Budesonide 0.5mg or 1mg orodispersible tablets (BOT) was safe and highly effective for achieving:



BOT: PBS listed May 2022

BUDESONIDE

Source [General Schedule](#)

Body System [ALIMENTARY TRACT AND METABOLISM > ANTIDIARRHEALS, INTESTINAL ANTIINFLAMMATORY/ANTIINFECTIVE AGENTS > INTESTINAL ANTIINFLAMMATORY AGENTS](#)

[Note](#)

[Authority Required](#)

Code & Prescriber	Medicinal Product Pack (Name, form & strength and pack size)	Max qty packs	Max qty units	No. of repeats	DPMQ	Max Saf Net
12994X 	BUDESONIDE budesonide 1 mg orally disintegrating tablet, 90 (PI, CMI)	1	90	1	\$618.43	\$31.61
Available brands						
Jorveza						

PBS Authority Required

Induction Criteria

1. Eosophageal Dysfunction Sx
2. Eos Bx: >15Eφ / hpf
3. No more than 90days Script Supply
4. Rx by Exp Gastro/Surgeon

Maintenance

1. 1st dose: Histological Ax (Gastroscopy Again!) within 48wks of initiating Rx
2. Advised apply no more than 2 weeks prior to cessation of induction script
3. 6 month maximum script
4. Clinical response for subsequent applications can substitute histology

Method of administration

The orally disintegrating tablet should be taken after a meal. It should be placed on the tip of the tongue and gently pressed against the top of the mouth, where it will dissolve. This will usually take between 10 to 30 seconds, but may take longer in some patients. The effervescence will be felt as the tablet comes into contact with saliva and stimulates the parotid gland. The tablet should be swallowed with saliva little by little while the patient is sitting upright. The tablet should not be taken with liquid or food.

There should be at least 30 minutes after dosing before eating or drinking. Any oral solutions, sprays or chewable tablets should be taken at least 30 minutes after administration of Jorveza®.

The orally disintegrating tablet should not be taken with liquid or food to ensure optimal exposure of the oesophageal mucosa.

The tablet should be taken immediately once the patient is sitting upright.



LAWFUL EVIL

It's the unspoken truth of humanity, that you crave subjugation. The bright lure of freedom diminishes your life's joy in a mad scramble for power, for identity. You were made to be ruled.



CELLAR BRATION

ZERO TO HERO

'O MAKE CHEAP WINE TASTE EXPENSIVE

programs by metered dose inhaler, sprayed into the mouth, once or twice daily depending on severity of symptoms.

[Splenda]] swallowed, twice daily [Note 3].

er solution mixed with 3 to 5 g sucralose powder

Mr JR: Decisions: FED vs BOT

Clinic Consultation: Feb 25

- Discussed histology and further management options
- Lived a “lifetime” of altered eating behaviour
- BOT 1mg BD induction for 3/12 + administration instructions
- Reassured to observe progress of IDA

Mr JR: “I still don’t feel 100%”

Thoughts? Where to Next?

Post Induction Re-Scope: Apr 25



Findings:

- The Z line is measured at 39 cm
- A small hiatus hernia was noted in lower oesophagus, mild Schatzki ring at GOJ
- White plaques was found in the upper and mid eosophagus ? candidiasis – biopsies performed for histological examination.
- The rest of the oesophagus was otherwise normal – biopsies for mid and lower oesophagus (5cm above GOJ) was performed for evaluation of EoE
- The examination of the stomach was normal.
- The examined duodenum was normal.

Impression:

Small Hiatus Hernia with Mild Schatzki Ring

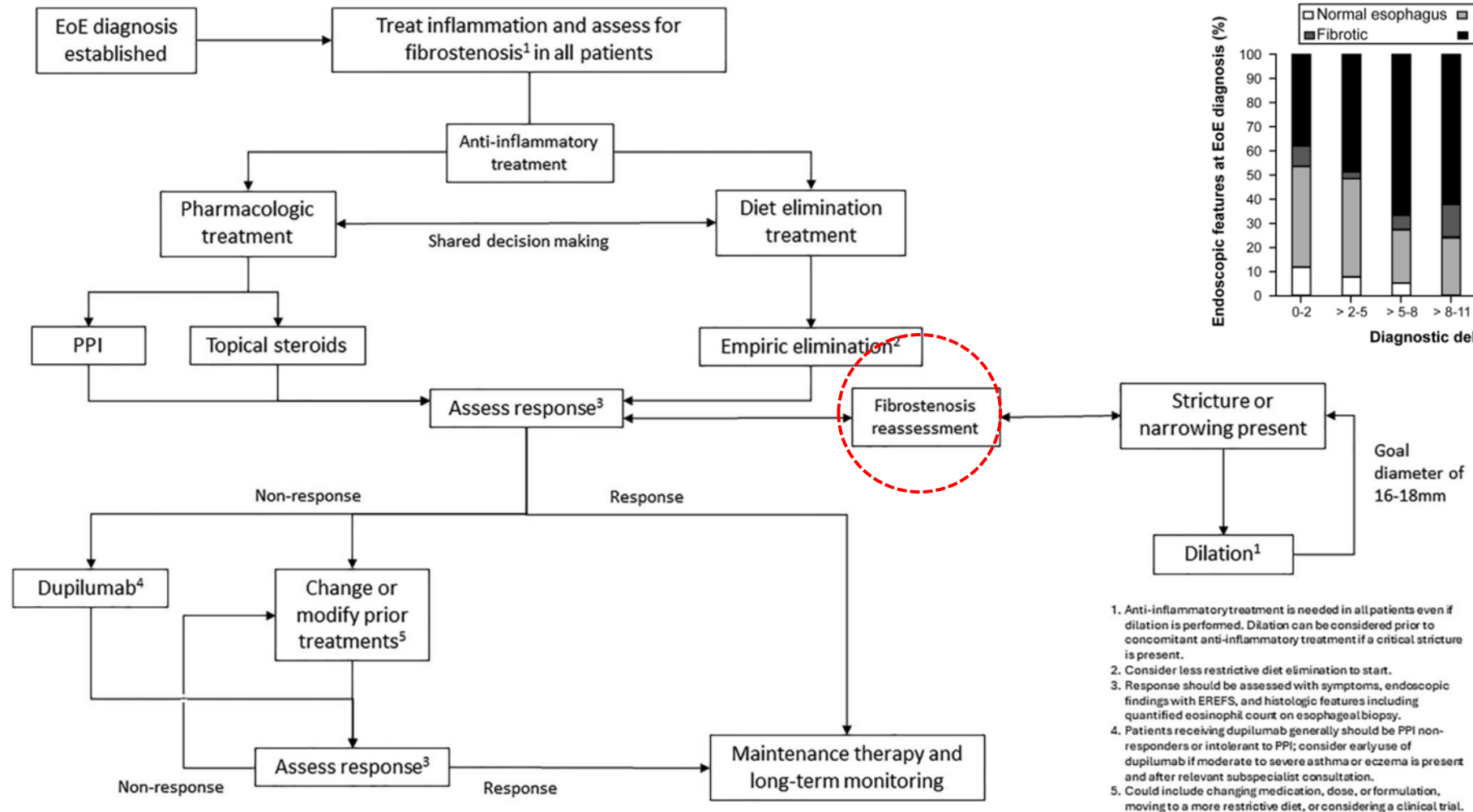
Oesophageal Candidiasis

Histology: (Envoi Pathology)

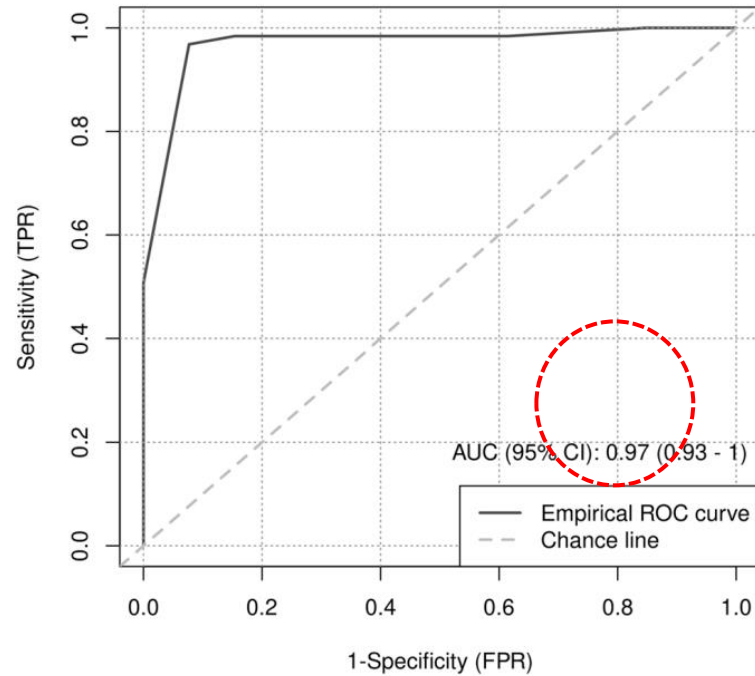
1. Mid oesophagus: No specific abnormality
2. Lower oesophagus: No specific abnormality
3. Lower oesophagus white plaque: Candidiasis

- Ascertained administration, PBS re-app, Amphotericin
- IDA resolved: Hb 151 Ferritin 259

Suboptimal response: Fibrostenosis excluded?



An Esophageal Luminal Diameter of 16mm Predicts Dysphagia Resolution in Eosinophilic Esophagitis



ROC analysis of esophageal lumen diameter size that predicts dysphagia in patients with eosinophilic esophagitis in histologic remission with a stricture.

ELD of <16 mm was found to have a 96.8% sensitivity and 92.3% specificity with accuracy of 96.1% to predict dysphagia.

- N=289, single centre
- Majority of asymptomatic patients (92.3%) had an ELD $\geq$ 16 mm.
- Of the 58 (76.3%) patients with stricture who underwent endoscopic dilation, luminal diameter prior to and post-dilation were **13.3 $\pm$ 2.1 mm and 16.4 $\pm$ 2.1 mm**, respectively.
- Dysphagia resolved in 84.5% of patients post dilation. All patients with resolution of dysphagia were dilated to a diameter of 15 mm or more

MR JR

• Relook Gastroscopy + Intent to Dilate: Sep 25



not actual patient



Findings:

- The Z line is measured at 40 cm
- The examination of the oesophagus was normal – no active endoscopic changes of eosinophilic oesophagitis
- Bougie Dilators with through the scope guidewire was introduced at 15, 16, and 18mm. Post dilation endoscopic examination showed no mucosal break at GOJ, but there was a superficial mucosal disruption at 15cm from the incisor in the upper oesophagus.
- The examination of the stomach was normal.
- The examined duodenum was normal.

Impression:

Dilation of Oesophagus 18mm – mucosal disruption at upper oesophagus

Histology: (Envoi Pathology)

No biopsy specimen taken

Known Eosinophilic Oesophagitis

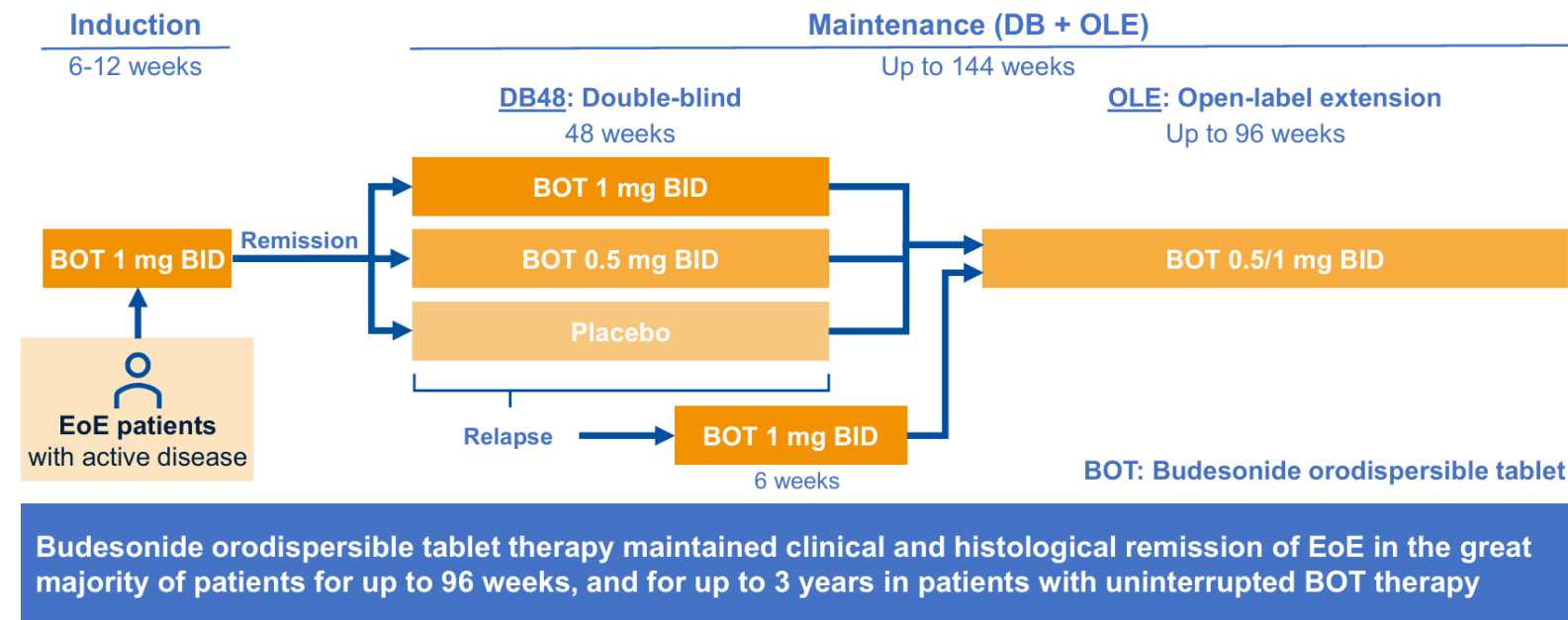
ACG Guidelines 2024 re: Dilation

- High level suspicion for strictures/ narrowing in EoE, especially with dysphagia.
- Can be difficult to detect
- “Start low and go slow”
- Combine dilation with anti-inflammatory treatment

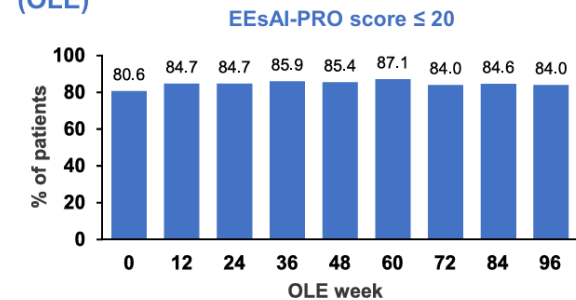
- Low Complication Rates :
- 2017 Meta-Analysis of 2034 dilations in 977 patients (37 studies):
- 0.033% perf per procedure (n=9)
- 0.689% admission
- No deaths

Long Term Efficacy (3y) of Budesonide Orodispersible tablets

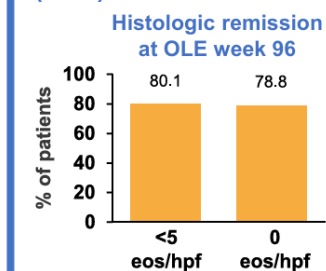
Budesonide orodispersible tablets in eosinophilic esophagitis: open-label extension study up to 3 years



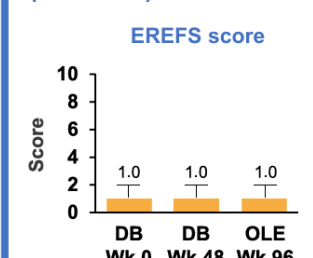
Clinical remission: 96 weeks (OLE)



Histology: Week 96 (OLE)



EREFS: 144 weeks (DB+OLE)



BID, twice daily; BOT, budesonide orodispersible tablet; DB, double-blind; EEsAI-PRO, EoE Symptom Activity Index Patient Reported Outcome; EoE, eosinophilic esophagitis; eos, eosinophils; EREFS, EoE endoscopic reference score; hpf, high power field; OLE, open-label extension; Wk: week

Clinical Gastroenterology
and Hepatology

Long Term Safety (3y) of Budesonide Orodispersible tablets

Total (N=186; Total Person-years of exposure 320.9)

Localised Candidiasis (18.3%, n=34)

- Oesophageal (n=9), Oral (n=17); Oropharyngeal (n=17)
- None serious, majority mild intensity, all treated successfully

5 cases of Oesophageal Food impaction – 2 requiring endoscopy

Non-clinically relevant reduction in Cortisol (3.2%) – no signs of adrenal insufficiency

1 case of dysgeusia and depression; 2 cases of weight increase

Non-response: What's on the horizon?

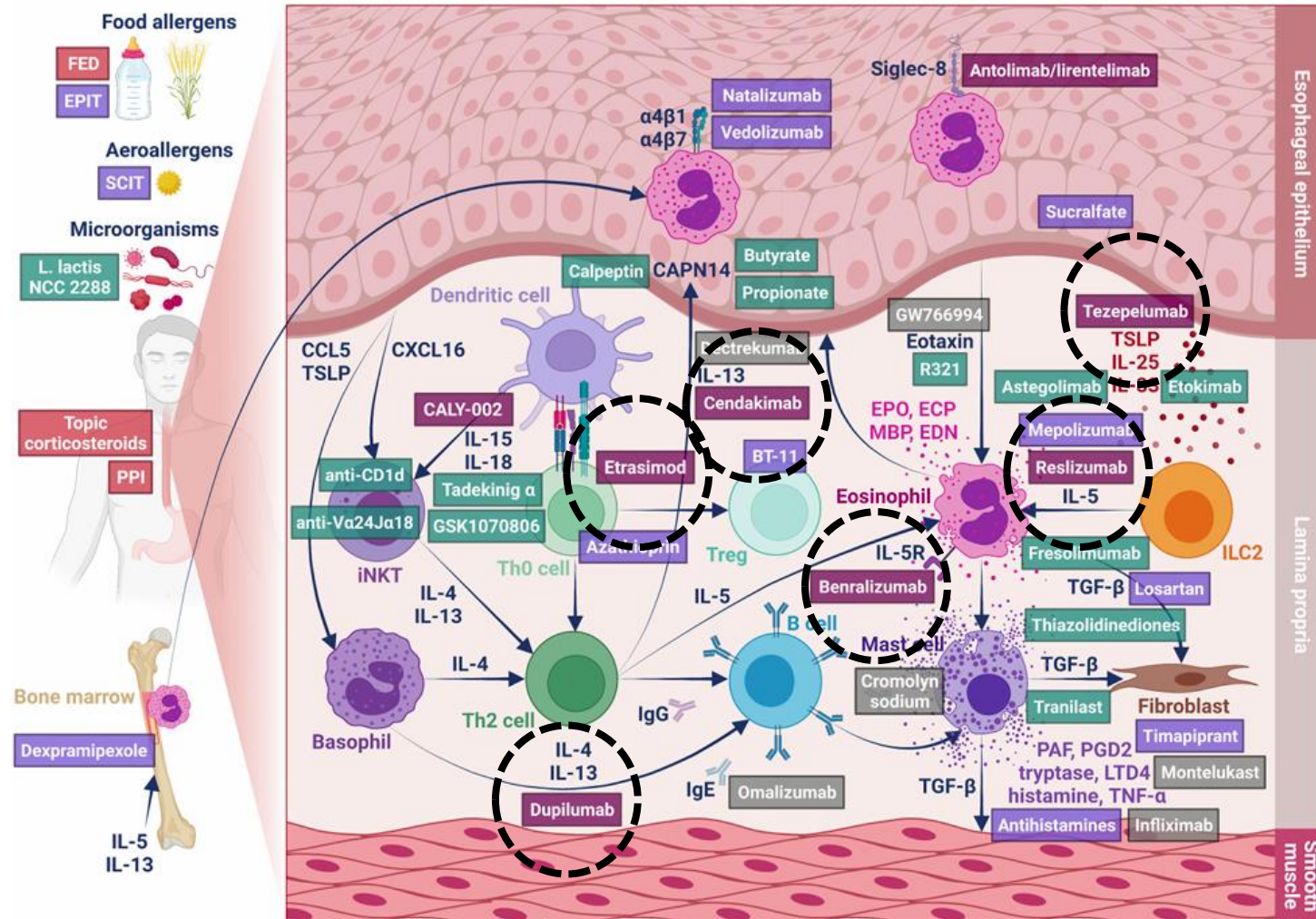
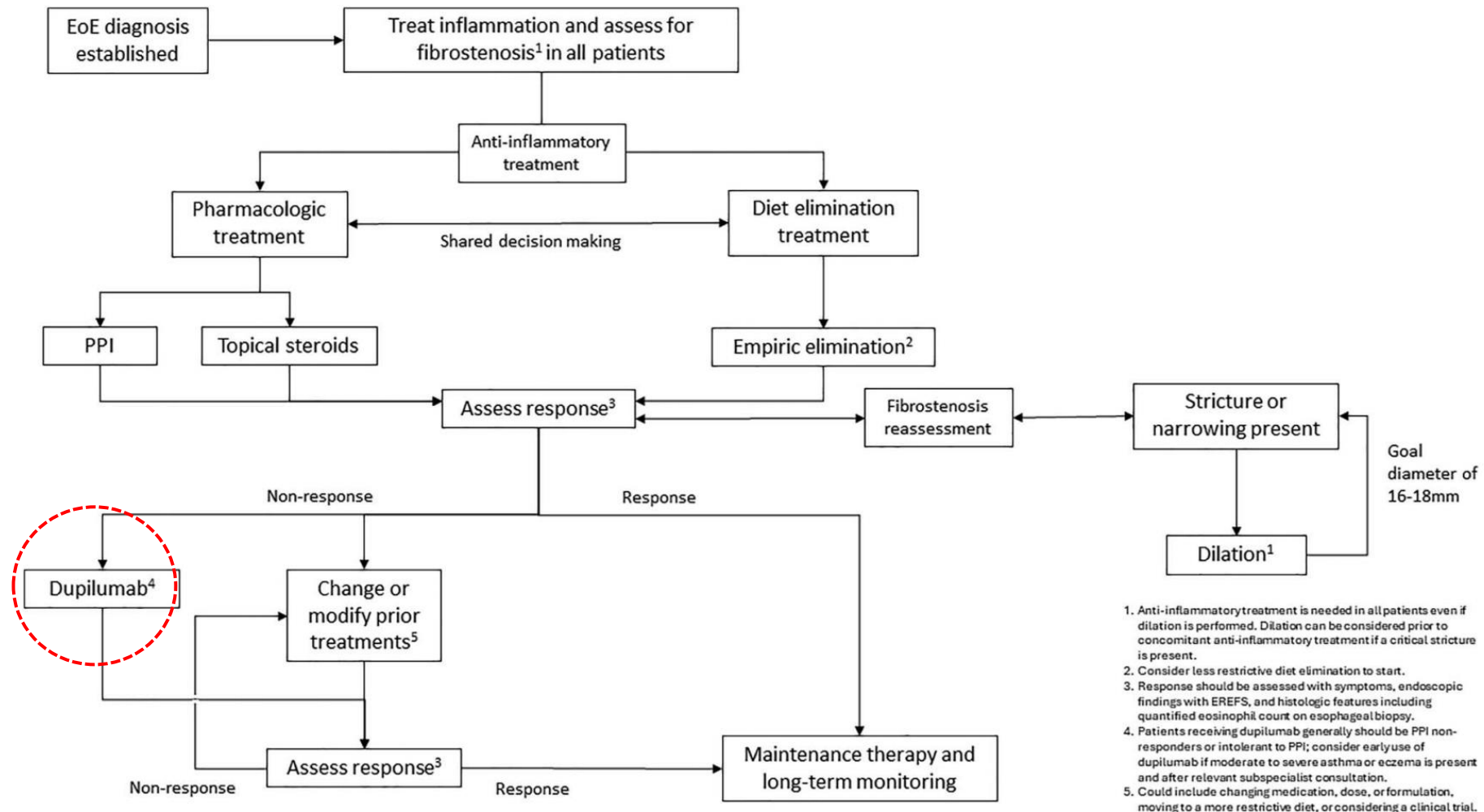


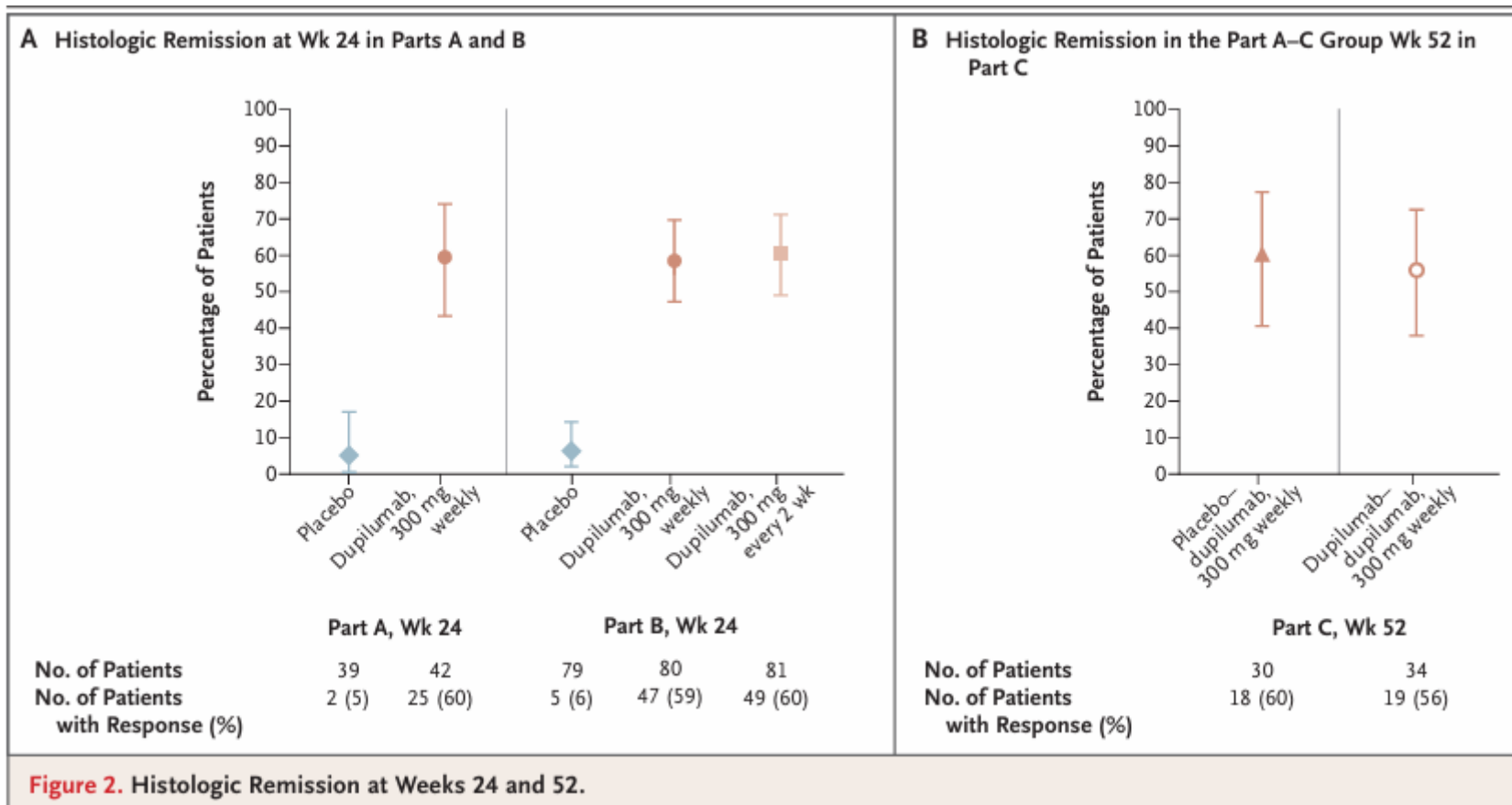
FIGURE 4 | Type 2 inflammation in EoE. The figure represents the involved cells and mediators and the therapeutic approaches described in the review. The drugs are colored as follows: Red tag: first-line therapy, Plum tag: orphan drugs, Lilac tag: drugs with reported results on human patients, Green tag: drugs without reported results on human patients, Gray tag: drugs that failed to obtain significant results on human patients.

Non-response: USA



Non-response: Consider Dupilumab (Anti-IL4/IL13)

- PBS listed for: 1. Chronic Severe Atopic Dermatitis; 2. Uncontrolled severe asthma;
- ... **NOT FOR EoE IN AUS**



NEJM 2022: 3 Part, Phase 3 trial randomisation for Dupilumab vs Placebo

FDA: minimum 12yo +40kg weight

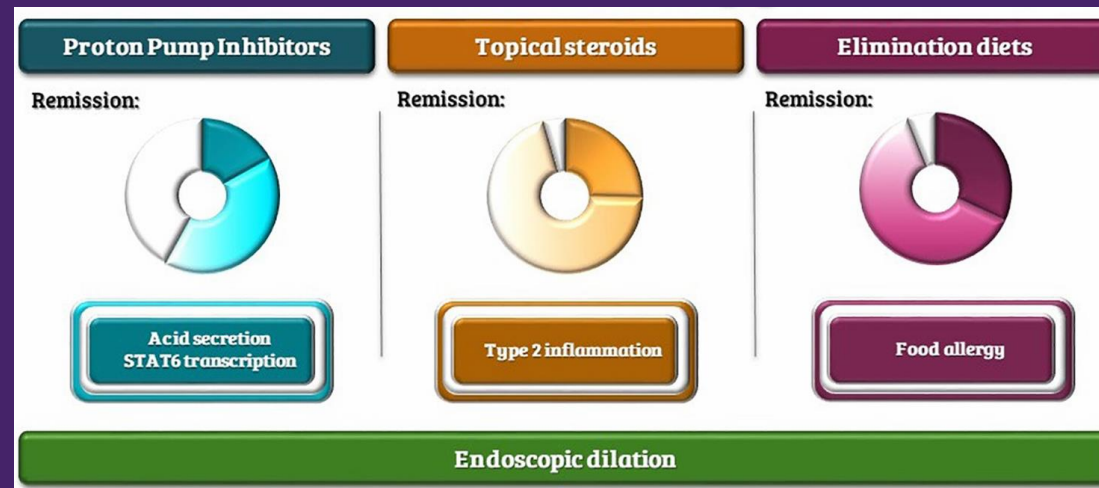
No risk for infection, No required screening for TB/HIV/Hepatitis

SE: injection site discomfort/erythema; arthralgias

60% histologic response rate despite refractory to all previous treatment and improvement in Esophageal diameter

Questions and Discussion

- Eosinophilic esophagitis (EoE) is a chronic allergen-induced, type 2 immune-mediated disease of the esophagus
- Treatment Logarithm as established currently:



⚠️

Page not yet adapted for Brisbane North

🏠

/

Medical

/

Gastroenterology

/

Dysphagia

Dysphagia

See also:

Managing Swallowing Difficulties

Foreign Bodies Ingested by Children

Foreign Bodies Inhaled by Children

Red flags

Total food obstruction with inability to swallow saliva

Dysphagia increasing over a few weeks in an older person

Associated weight loss

Background

About dysphagia

Assessment

Practice point

Prioritise referral of food obstructions

Do not delay specialist assessment of food obstructions by arranging investigations, as this increases the risk of aspiration and oesophageal perforation.

1. Exclude acute obstruction:

Determine the cause of the obstruction, e.g. food bolus, foreign body such as chicken or fish bone.

Determine whether the patient can swallow saliva. If not, this is a total obstruction which requires urgent transport to hospital for endoscopic removal of food bolus.

Do not arrange X-ray – it is not useful and may delay specialist assessment and treatment.

2. Take a history – Ask about:

symptoms

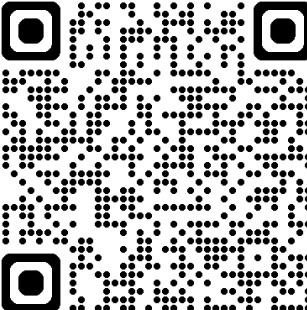
smoking history, alcohol, gastro-oesophageal reflux (GORD).

medications, e.g. dopamine agonists, anticholinergics, bisphosphonates.

medical history

3. Assess for risk factors and symptoms of head and neck cancers

WORK IN PROGRESS



Dysphagia/Odynophagia

Emergency department referrals

All urgent cases must be discussed with the on call Gastroenterology Registrar to obtain appropriate prioritisation and treatment. Contact through

- Royal Brisbane and Women's Hospital (07) 3646 8111
- The Prince Charles Hospital (07) 3139 4000
- Redcliffe Hospital (07) 3883 7777
- Caboolture Hospital (07) 5433 8888

Urgent cases accepted via phone must be accompanied with a written referral and a copy faxed immediately to the Central Patient Intake Unit: 1300 364 952.

If any of the following are present or suspected, refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- Potentially life-threatening symptoms suggestive of:
 - acute upper GI tract bleeding
 - acute severe lower GI tract bleeding
 - oesophageal foreign bodies/food bolus
 - acute Severe Colitis*
 - bowel obstruction
 - abdominal sepsis
- Severe vomiting and/or diarrhoea with dehydration

*Acute severe colitis as defined by the Truelove and Witts criteria - all patients with ≥ 6 bloody bowel motions per 24 hours plus at least one of the following:

- temperature at presentation of > 37.8°C,
- pulse rate at presentation of > 90 bpm,
- haemoglobin at presentation of < 105 gm/l, CRP >30mg/dl at presentation (or ESR > 30 mm/hr)

Does your patient wish to be referred? ?

Minimum referral criteria

Does your patient meet the minimum referral criteria?

Category 1 Appointment within 30 days is desirable	- For optimal care, patients should be seen within 1 week: - suspected GI cancer on clinical examination or abnormal imaging - dysphagia with poor oral intake - Significant dysphagia
Category 2 Appointment within 90 days is desirable	No category 2 criteria
Category 3 Appointment within 365 days is desirable	No category 3 criteria

[+ Other Gastroenterology conditions](#)

Send referral

Hotline: 1300 364 938

Electronic:

[GP Smart Referrals \(preferred\)](#)

[eReferral system templates](#)

Medical Objects ID: MQ40290004P

HealthLink EDI: qldmnhs

Mail:

Metro North Central Patient Intake
Aspley Community Centre
776 Zillmere Road
ASPLEY QLD 4034

Health pathways ?

Access to Health Pathways is free for clinicians in Metro North Brisbane.

For login details email:
healthpathways@brisbanenorthphn.org.au

Login to Brisbane North Health Pathways:
brisbanenorth.healthpathwayscommunity.org

Locations

[Caboolture Hospital](#)

[Redcliffe Hospital](#)

[Royal Brisbane and Women's Hospital](#)

[The Prince Charles Hospital](#)

Resources

[Specialists list](#)

[General referral criteria](#)



Queensland Government



Smart Referrals



Dr Fred Findacure

Patient name: Nicole METRONORTH **DoB:** 29 Sep 1977

Request information

Request date	21 Oct 2025			
* Request type	New referral	Update	Continuation	Request for advice
* Reason for referral	☒ New condition requiring specialist consultation ☐ Deterioration in condition, recently discharged from outpatients < 12 months ☐ Other			
* Priority	Urgent	Routine		
* Provider	QHSR	Private		

Consents

* Date patient consented to request	21 Oct 2025			
* Patient is willing to have surgery if required?	Yes	No	Not applicable	
* Condition and Specialty	Gastroenterology - Dysphagia (Gastroenterology) (Adult)		HealthPathways ▶	
Suitable for Telehealth?	Yes	No		
* Are you the patient's usual GP?	Yes	No		

Request recipient

* Service/Location	Please select
Specialist name	
Organisation details	

Condition specific clinical information

Show emergency referral criteria

Minimum Referral Criteria

* Minimum referral criteria

	Please select	
Gastroenterology	ROYAL BRISBANE & WOMEN'S HOSPITAL	6.4 km
Gastroenterology	THE PRINCE CHARLES HOSPITAL	12.2 km
Gastroenterology	REDCLIFFE HOSPITAL	31.5 km
Gastroenterology	CABOOLTURE HOSPITAL	47.4 km
Gastroenterology	PRINCESS	1.8 km
		Out of catchment
	☐ Request clinical override of minimum referral criteria	