



Update in Paediatric Inflammatory Bowel Disease (pIBD)

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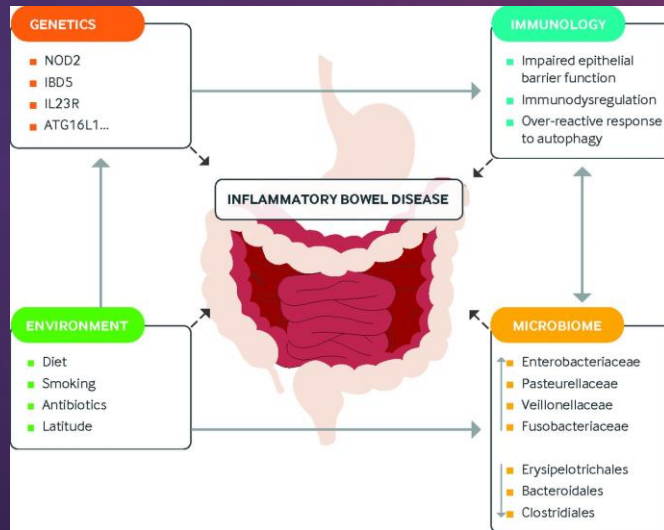
ROYAL LONDON HOSPITAL

Aims

- ▶ Symptoms and Red flag signs
- ▶ Investigations
- ▶ Role of Faecal Calprotectin
- ▶ Treatment including Biologics/Biosimilars and Novel Biologics
- ▶ Future challenges

PIBD

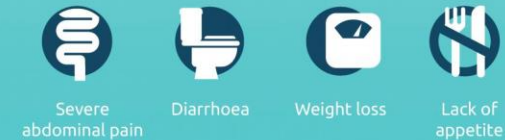
- ▶ Detailed History and Examination
- ▶ 25% IBD age < 16
- ▶ VEOIBD different entity monogenic



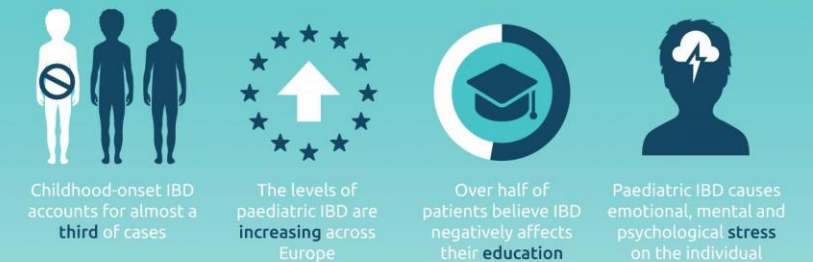
PAEDIATRIC INFLAMMATORY BOWEL DISEASE (IBD)

IBD is a chronic disorder of the gut that primarily affects people in adolescence or early adulthood. The two most common forms of IBD are ulcerative colitis and Crohn's disease.

Symptoms of IBD



Causes of IBD



References

United European Gastroenterology Journal. (1) Farthing M, Roberts S, Samuel D, Williams D, et al. Survey of digestive health across Europe. *United European Gastroenterology Journal*. 2014; 2: 139-143.

Red Flag signs

- Bloody Diarrhoea
- Nocturnal diarrhoea
- Arthritis
- Perianal disease
- Involuntary weight loss
- Deceleration of linear growth
- Delayed puberty
- Unexplained fever
- Family history of IBD
- Coeliac disease
- Peptic ulcer disease
- Persistent RUQ or RIF pain
- Dysphagia
- Odynophagia
- Persistent vomiting

***Clinical judgment should be according to detailed history and examination.**

Investigations

Secondary Care

- ▶ FBC
- ▶ U &E/Bone/LFTs
- ▶ CRP+ESR
- ▶ TFTS
- ▶ Stool M C +S
- ▶ FCP

Ferritin

Coeliac and Igs

Vit D B12 Folate Zinc

Tertiary Care

- ▶ As per Secondary
- ▶ Upper Endoscopy
- ▶ Ileocolonoscopy
- ▶ Mri Abdo

Video Capsule

Faecal Calprotectin

- ▶ NOT DIAGNOSTIC
- ▶ Do not use age <2 years
- ▶ Validated in children with known IBD for response to treatment
- ▶ Useful BUT raised in
 - ▶ NSAIDS
 - ▶ Infection
 - ▶ Polyps
 - ▶ Helicobacter pylori
 - ▶ Constipation with Anal tear/Fissure

Referral Criteria

- ▶ History + Examination
- ▶ Chronic Bloody Diarrhoea –negative cultures
- ▶ NB markers in UC often normal
- ▶ Anaemia with high platelets, Low albumin Abnormal Inflammatory markers
- ▶ Raised FCP – *in context*
- ▶ Isolated Perianal Disease
- ▶ *Family History IBD or Autoimmune*
- ▶ If unsure please call Paed Gastro 😊

Endoscopy



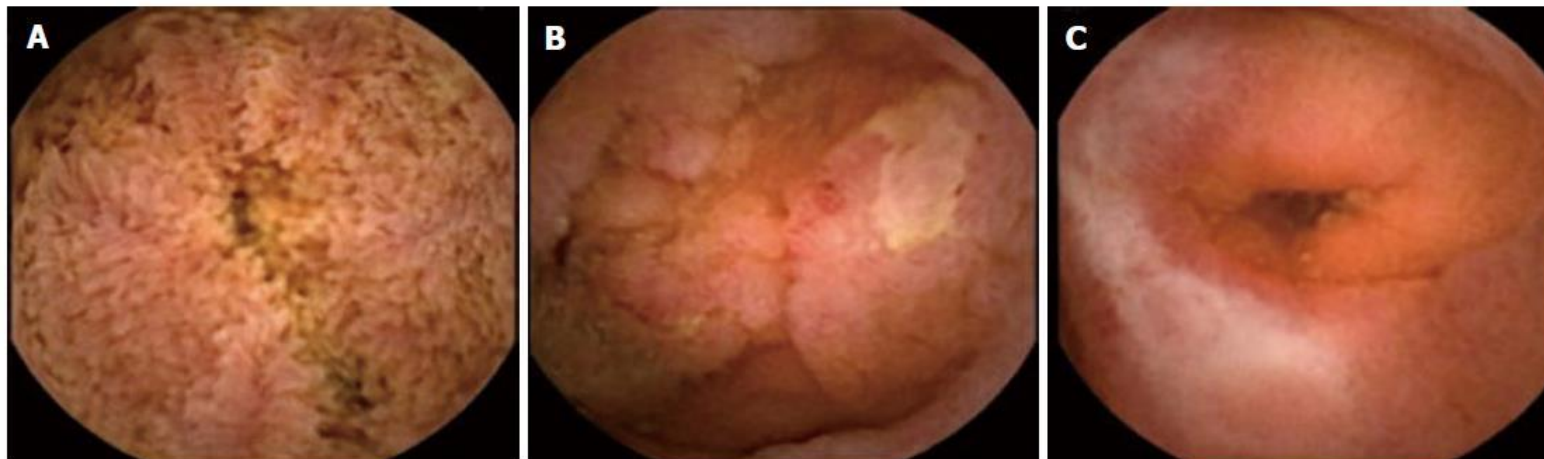
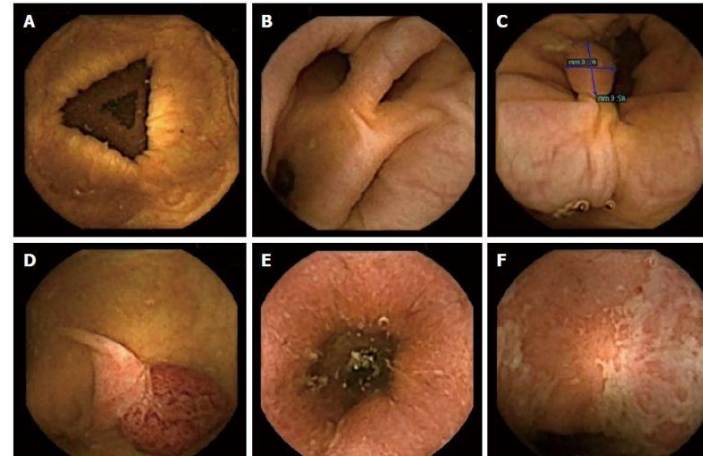
MRI



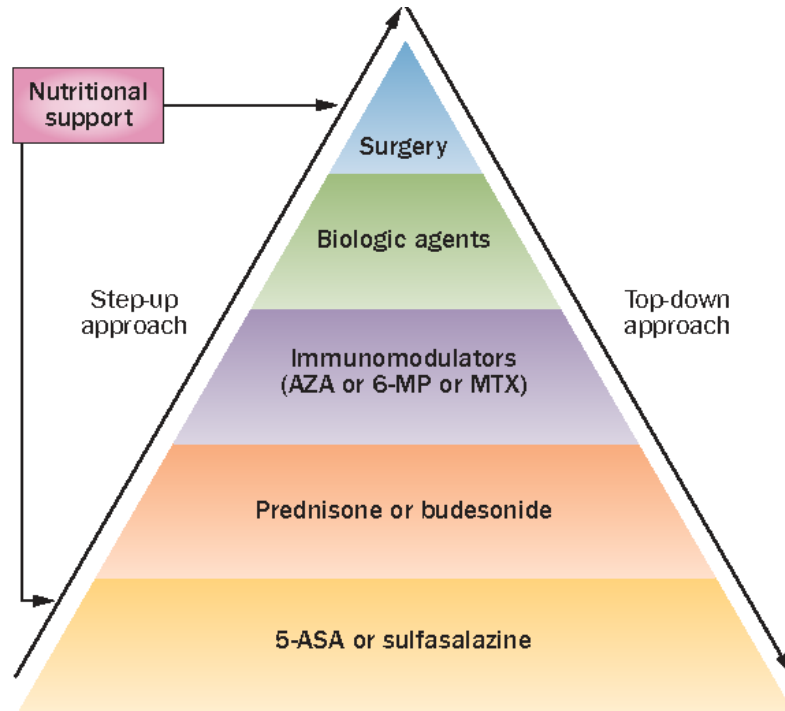
BaFT



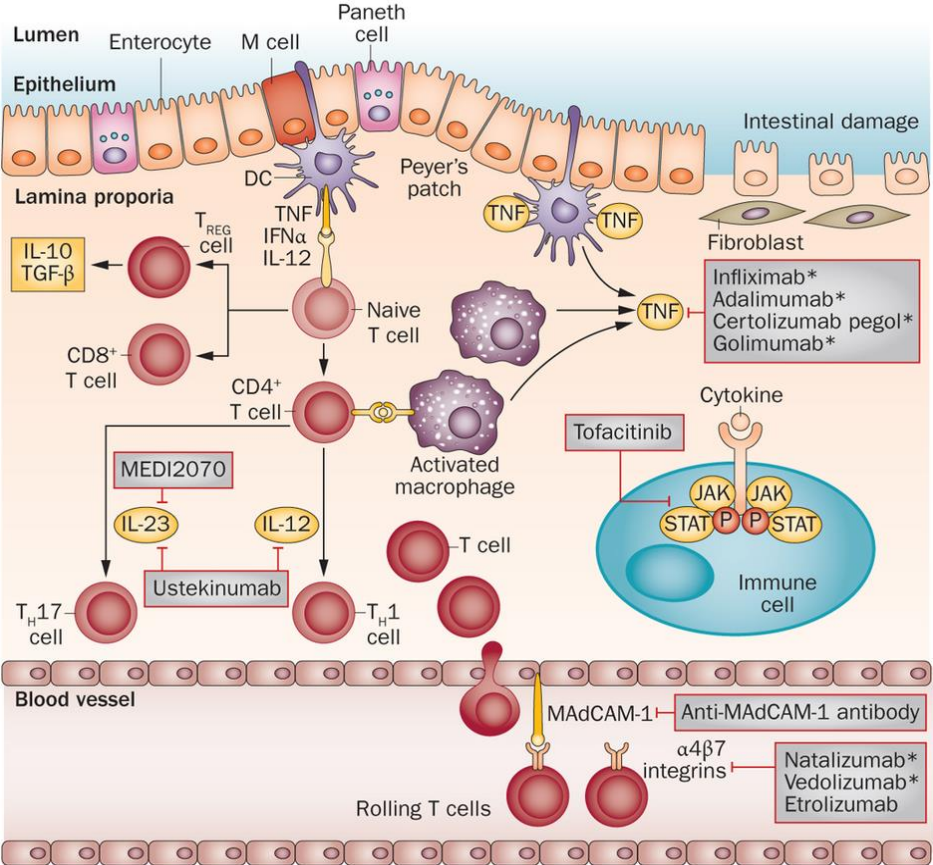
Video Capsule Endoscopy



Treatment

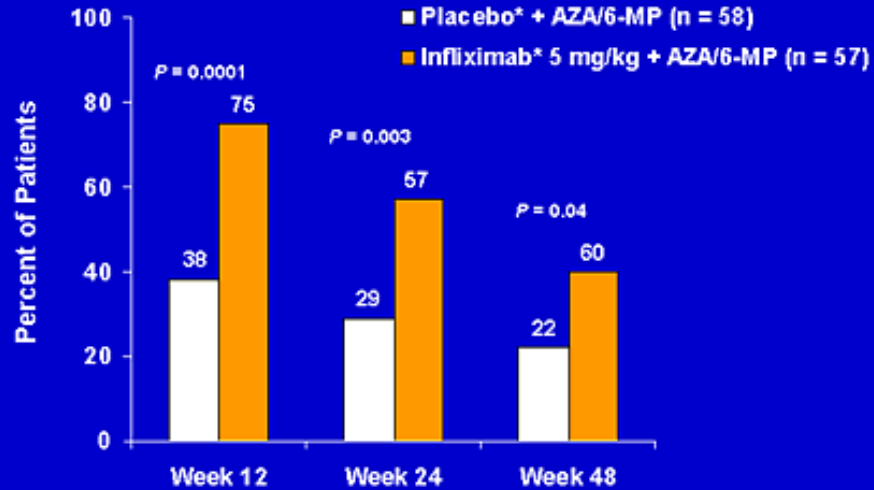


Gut Immunology



Steroid-Free Remission

Remission (CDAI <150) and Discontinuation of Steroids



*Placebo and infliximab were administered at weeks 0, 2, and 6.
Lemann M, et al. *Gut*. 2003;52(Suppl VI):A44.

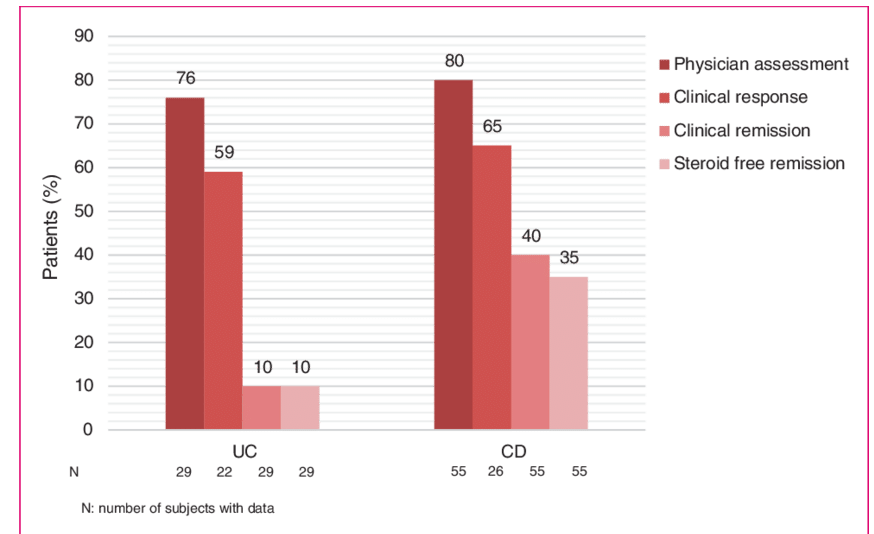
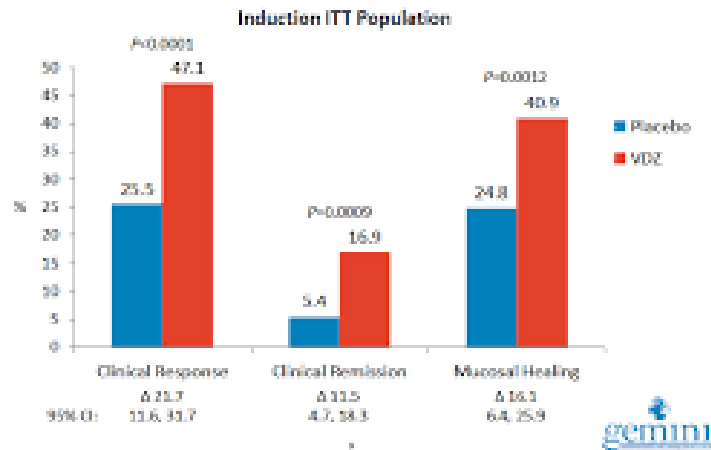
Infliximab in Pediatric Crohn's Disease (REACH)

- Multicenter, randomized, open-label study
(Hyams *et al.* 2007. *Gastroenterology*)
- Children with Crohn's disease on stable doses of medications / immunomodulator
 - N = 112 (6 - 17 yrs)
- Results
 - Week 10: 88% with response; 59% remission
 - Week 54: 64% with response; 56% remission
- *Key points:
 - Steroid-sparing regimen
 - Positive effect on growth

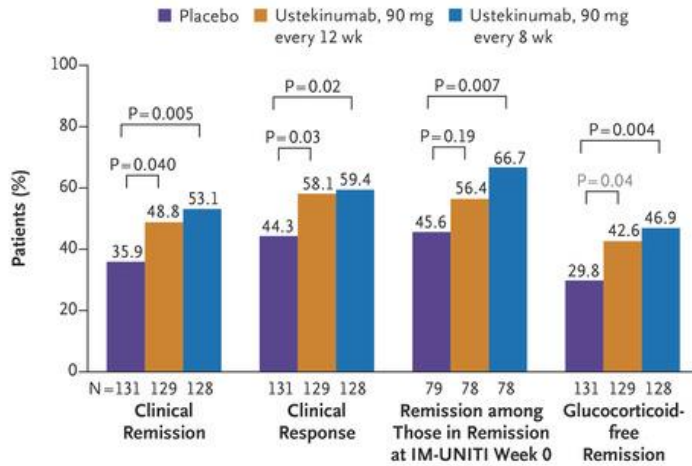
INFLIXIMAB

Vedolizumab

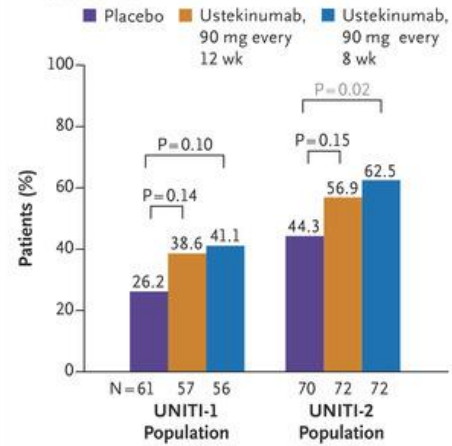
Clinical Response, Remission, Mucosal Healing at 6 Weeks



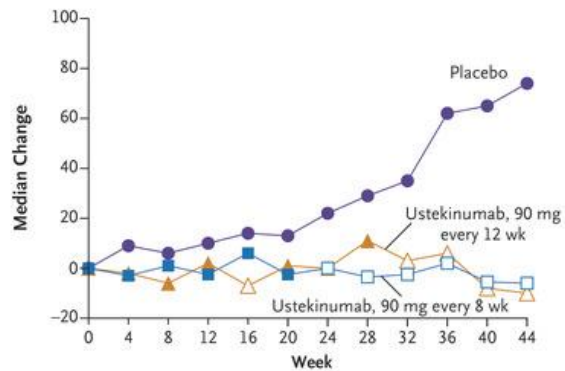
A Primary and Major Secondary End Points in IM-UNITI



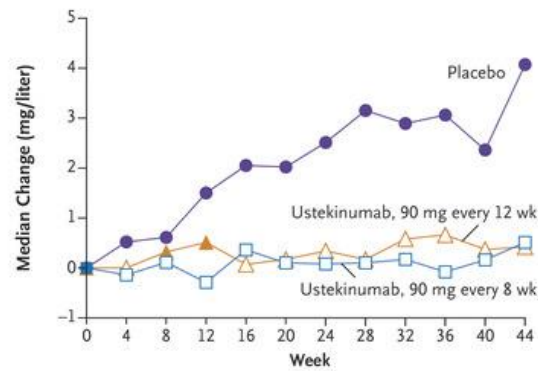
B Remission in UNITI-1 and UNITI-2 Subgroups in IM-UNITI



C Change in CDAI Score from Week 0 of IM-UNITI



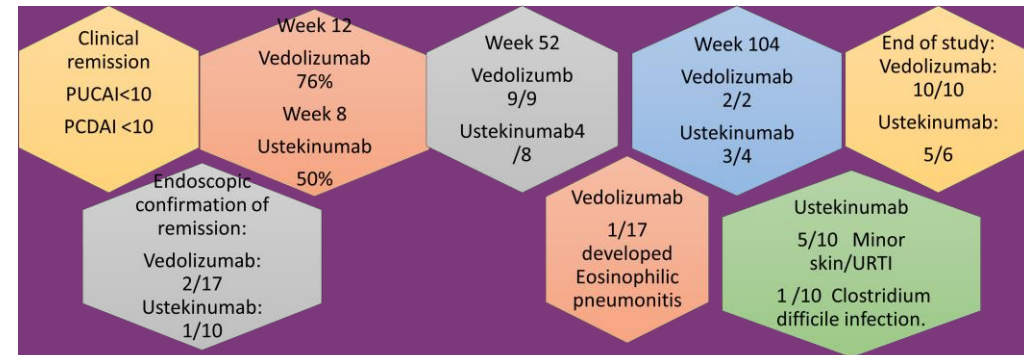
D Change in CRP from Week 0 of IM-UNITI



Ustekinumab

Vedolizumab and Ustekinumab in children

RESULTS	Vedolizumab	Ustekinumab
N (*Data expressed as median and range)	17 (1 patient received both drugs)	10
Median age at diagnosis (years)	9.1 (4.7 – 14.4)	7.0 (4.0 – 12.4)
Diagnosis n	UC 13/17 IBDU 2/17 CD (2/17 - research)	CD 10/10
Disease location (Paris classification) n	E4 14/17 E2 1/17 L2L4apG0 2/17	L3 8/10 L2 2/10 Upper involvement 50% Peri anal disease 70% Growth failure 70%
Length of prior anti-TNF treatment (months)	4.8 (0 – 44.7)	24.3 (6.8 – 50.3)
Treatment length (months)	13.5 (2.6 – 41.2)	22.0 (7.1 – 28.1)
Follow up length (years)	4.1 (2.0 – 12.4)	8.0 (2.8 – 11.9)



At 2 years follow up, 55% (15/27) remained in remission on treatment.

50% were primary non-responders and 50% had secondary loss of response

All colitis who failed Vedo had colectomy

Future Challenges

- ▶ National Equity-PGHAN AUDIT
- ▶ Access to medications
- ▶ Research and Ethics
- ▶ Funding
- ▶ Guidelines:
- ▶ <https://www.ecco-ibd.eu>
- ▶ <https://www.espghan.org/knowledge-center/publications/Gastroenterology/2020-The-Medical-Management-of-Paediatic-Crohn-s-Disease--an-ECCO-ESPGHAN-Guideline-Update>