# Gastroenterology updates

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## Disclosures

• None

## **IBD** topics

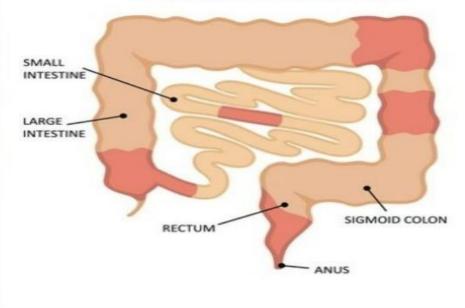
- IBD treatments in NZ anything new?
- Pregnancy and IBD
- Managing acute UC flare

## INFLAMMATORY BOWEL DISEASE (IBD)

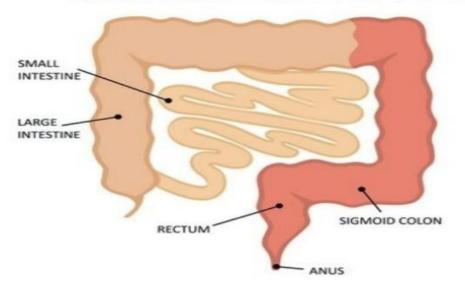
#### **CROHN'S DISEASE**

### **ULCERATIVE COLITIS**

PATCHY INFLAMMATION THROUGHOUT SMALLAND LARGE BOWEL



CONTINUOUS AND UNIFORM INFLAMMATIONIN THE LARGE BOWEL



### Crohn's disease

- Steroids
  - Prednisone
  - Budesonide
  - Colifoam enema, Proctofoam
- Mesalazine
  - Asacol
  - Pentasa
  - Sulfasalazine

### **Ulcerative colitis**

- Steroids
  - Prednisone
  - Cortiment (not funded)
  - Colifoam enema, Proctofoam
- Mesalazine
  - Asacol
  - Pentasa
  - Sulfasalazine

### Crohn's disease

- Immunomodulators
  - Azathioprine / Mercaptopurine / Thioguanine
  - Methotrexate

### **Ulcerative colitis**

- Immunomodulators
  - Azathioprine / Mercaptopurine / Thioguanine

- Biologics
  - Infliximab
  - Adalimumab i.e. Humira

- Biologics
  - Infliximab

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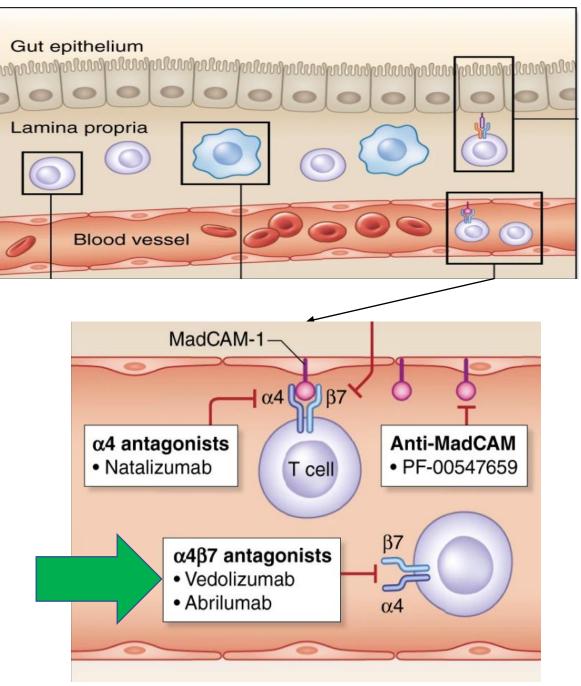
- Biologics
  - Infliximab
  - Adalimumab i.e. Humira / Amgevita (from 2022)
  - Vedolizumab (from 1 Feb 2023)
  - Ustekinumab (from 1 Feb 2023)

### • Biologics

- Infliximab
- Adalimumab i.e. Amgevita (from 2022)
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## Vedolizumab

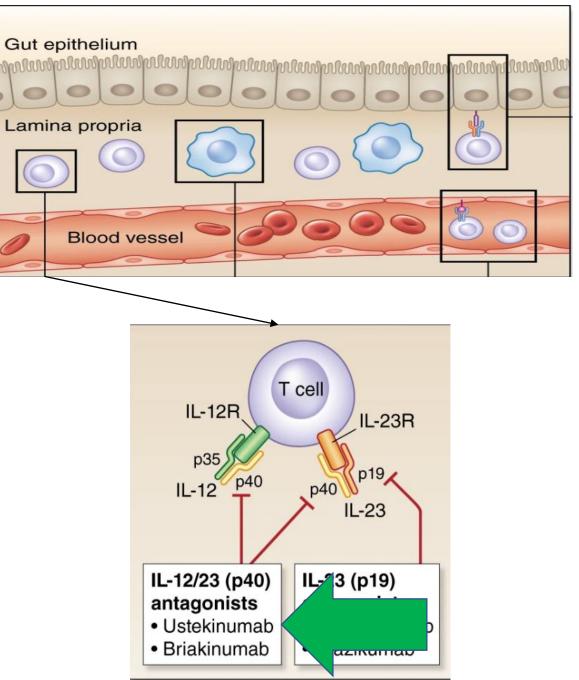
- Anti-integrin
  - Humanised monoclonal Ab against  $\alpha 4\beta 7$  on cells in GI tract (gut specific)
- Funded as 1<sup>st</sup> line for
  - Crohn's disease
  - Ulcerative colitis
- Administration
  - Induction: Infusion @ week 0, 2 & 6
  - Maintenance: Infusion every 8 weeks
- Excellent safety profile
  - SEs: nasopharyngitis, sinusitis
  - Elderly, comorbid patients



The current state of the art for biological therapies and new small molecules in inflammatory bowel disease. Mucosal Immunol 2018

## Ustekinumab

- Anti IL-12 / IL-23
  - Human IgG antibody binding to p40 protein subunit found in cytokines IL-12 & IL-23
- Funded as 2<sup>nd</sup> line biologic i.e. biologic experienced patients
  - Crohn's disease
  - Ulcerative colitis
- Administration
  - Induction: 1 infusion at week 0
  - Maintenance: subcut injection every 8 weeks
- SEs: Similar to anti-TNF



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# IBD patients on immunomodulators / biologics should have

- Yearly flu vaccination
- COVID vaccinations
- 5 yearly pneumococcal vaccination
- Yearly skin checks
- Regular pap smear

## Ms CD

- 28 year old woman with ileocolonic Crohn's disease on Azathioprine & Ustekinumab who wants to start a family
- What are the chances of my child developing IBD?
- Should I stop all my medications?
- What are my chances of having a successful pregnancy?

## Family planning and IBD

- Chance of a child developing IBD
  - 1 parent with IBD: ~5-8%
  - Both parents with IBD: ~35%
- IBD in remission = normal fertility
  - Ileoanal pouch surgery associated with 2-3 times increased risk of infertility
- Active IBD results in up to 3 fold increased infertility
- IBD does not affect fertility in men
  - Sulfasalazine and methotrexate may cause reduced sperm count

- 2/3 of patients in remission at time of conception remain in remission throughout pregnancy
- Disease activity = most significant risk factor for pregnancy complications in IBD patients
  - Patients should be counselled re importance of disease control with medications before conception & during pregnancy
- Active disease at conception strongly associated with disease relapse during pregnancy
  - OR = 7.66, CI: 3.77-15.54 (De Lima-Karagiannis et al, Am J Gastro 2016)
- Active IBD increases risk of spontaneous abortion, IUGR & pre term birth
  - Absolute risk: 19.5% low birth weight:, 29.3% pre term birth in women with active UC (Kammerlander et al, IBD 2017)

Which of these drugs are contraindicated in pregnancy?

a) Mesalazine

e) Infliximab

- b) Azathioprine
- c) Methotrexate

- f) Adalimumab
- g) Vedolizumab

d) Prednisone

h) Ustekinumab

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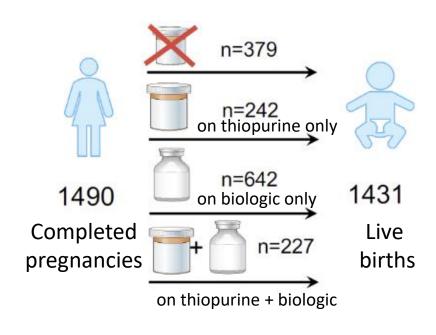
h) Ustekinumab

 Mesalazine, thiopurine and biologics are safe in pregnancy and should be continued

## Pregnancy and IBD – PIANO registry

 Prospective multicentre study of pregnancy in IBD and neonatal outcomes in USA

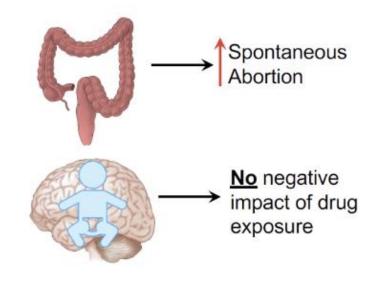
> PIANO: Pregnancy and Neonatal Outcomes after Fetal Exposure To Biologics and Thiopurines among Women with Inflammatory Bowel Disease



No increase in:

- Congenital malformations
- Spontaneous abortions
- Preterm birth
- Low Birth Weight
- Infections in year
  - But 1 with

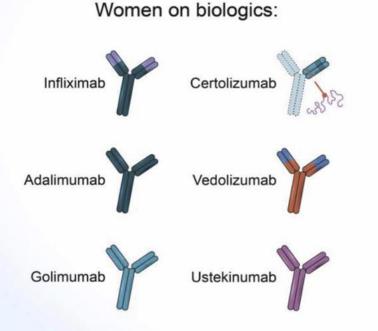
preterm birth



## **Biologics and safety in IBD pregnancies**

Studies included

Study group

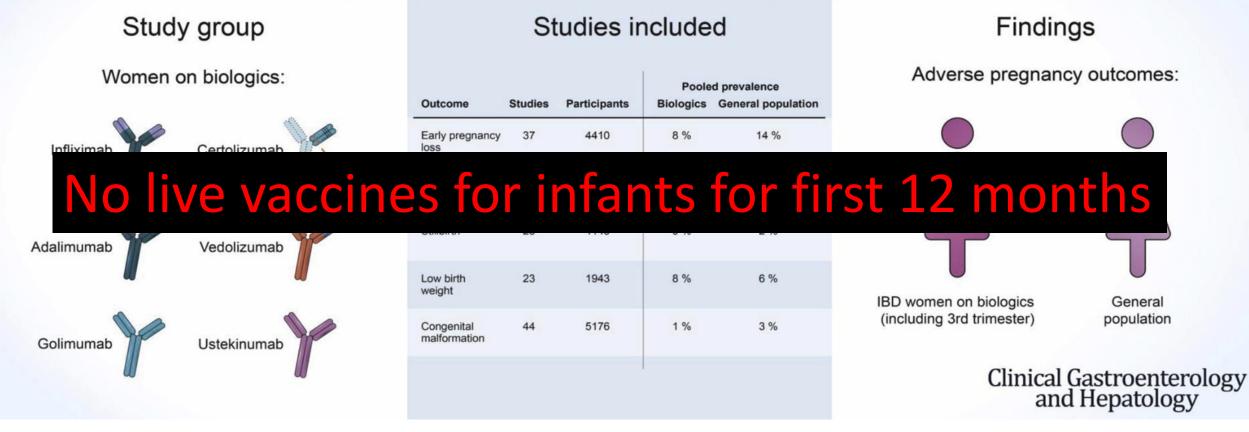


Outcome	Studies	Participants		d prevalence General population
Early pregnancy loss	37	4410	8 %	14 %
Preterm birth	32	3466	9 %	11 %
Stillbirth	25	4143	0 %	2 %
Low birth weight	23	1943	8 %	6 %
Congenital malformation	44	5176	1 %	3 %

## Findings Adverse pregnancy outcomes: IBD women on biologics General (including 3rd trimester) population Clinical Gastroenterology and Hepatology

Biologics for inflammatory bowel disease and their safety in pregnancy: a systematic review and meta-analysis. Clin Gastroenterol Hepatol 2022

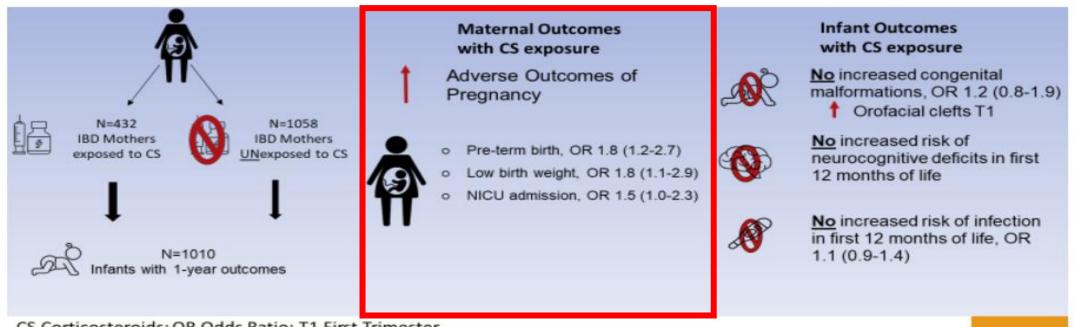
## **Biologics and safety in IBD pregnancies**



Biologics for inflammatory bowel disease and their safety in pregnancy: a systematic review and meta-analysis. Clin Gastroenterol Hepatol 2022

• Corticosteroids can be used but better to prevent active disease

### Exposure to Corticosteroids in Pregnancy is Associated with Adverse Perinatal Outcomes Among Infants of Mothers with Inflammatory Bowel Disease: Results From The PIANO Registry



CS Corticosteroids; OR Odds Ratio; T1 First Trimester



Gut

• Corticosteroids can be used but better to prevent active disease

### Exposure to Corticosteroids in Pregnancy is Associated with Adverse Perinatal Outcomes Among Infants of Mothers with Inflammatory Bowel Disease: Results From The PIANO Registry



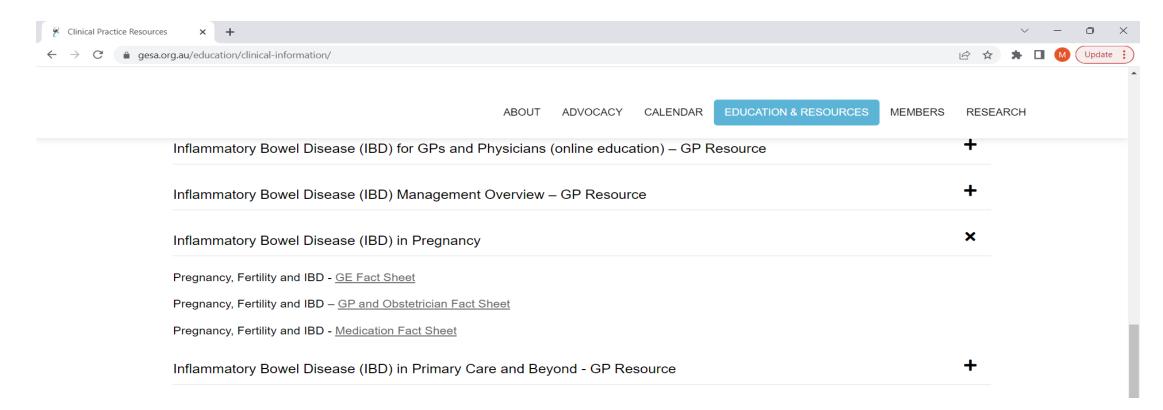
Odufalu FD Gut 2021. doi: 10.1136/gutjnl-2021-325317



Gut

## Pregnancy and IBD - resource

 GESA clinical practice resources (https://www.gesa.org.au/education/clinical-information/)



# Mr UC

- 25 year old man with ulcerative colitis on Mesalazine 2g bd
  - Flare 4 weeks ago which responded to 2 week course of Prednisone
  - 6-7 bloody BM per day for past week
- Obs: T 37.3, BP 100/70, HR 95
- Investigations
  - Hb 103, platelets 400, WCC 9
  - Na 140, K 3.4, urea 6.7, Cr 80
  - CRP 40
  - Ferritin 5
  - Calprotectin 808
  - Stool MC&S including C.difficile negative

- What would be your management?
- a) Tapering course of Prednisone over 8 weeks
- b) Organise Ferinject
- c) Send an e-Referral for urgent Gastro OP review
- d) a), b) and c)
- e) Refer to local hospital for inpatient management

Truelove & Witts criteria for acute severe ulcerative colitis (ASUC)

• > 6 bloody BM per day

- Mr UC
  - 6-7 bloody BM per day

- PLUS
- 1 or more of the following
  - T >37.8
  - HR >90
  - Hb <105
  - ESR >30 (often substitute with CRP)

- T 37.3
- HR 95
- Hb 103
- CRP 40

## Acute severe ulcerative colitis (ASUC)

- Is a life threatening emergency
- Greater the number of clinical criteria associated with >6 episodes of bloody diarrhoea, the higher the chance of patient requiring colectomy would be

10000	elove e Witts criteria irrhea with blood: >6 episodes/day + Heart rate: > 90 bpm; Temperature: > 37.8° C; Hemoglobin: < 10.5 g/dl Erythrocyte sedimentation rate: > 30 mm/h	Colectomy rate (n = 294 hospitalizations)
	+ 1	9% (11/129)
	+ 2	31% (29/94)
	+ 3	48% (29/60)
	+ 4	45% (5/11)

The pattern and outcome of acute severe colitis. J Crohns Colitis 2010

# Questions?