

# La décroissance thérapeutique dans les MICI

Pourquoi  
Quand  
Comment



EM-140528

**8<sup>ème</sup> Journée d'échanges cliniques en  
MICI**

Jeudi 21 septembre 2023

Edouard LOUIS

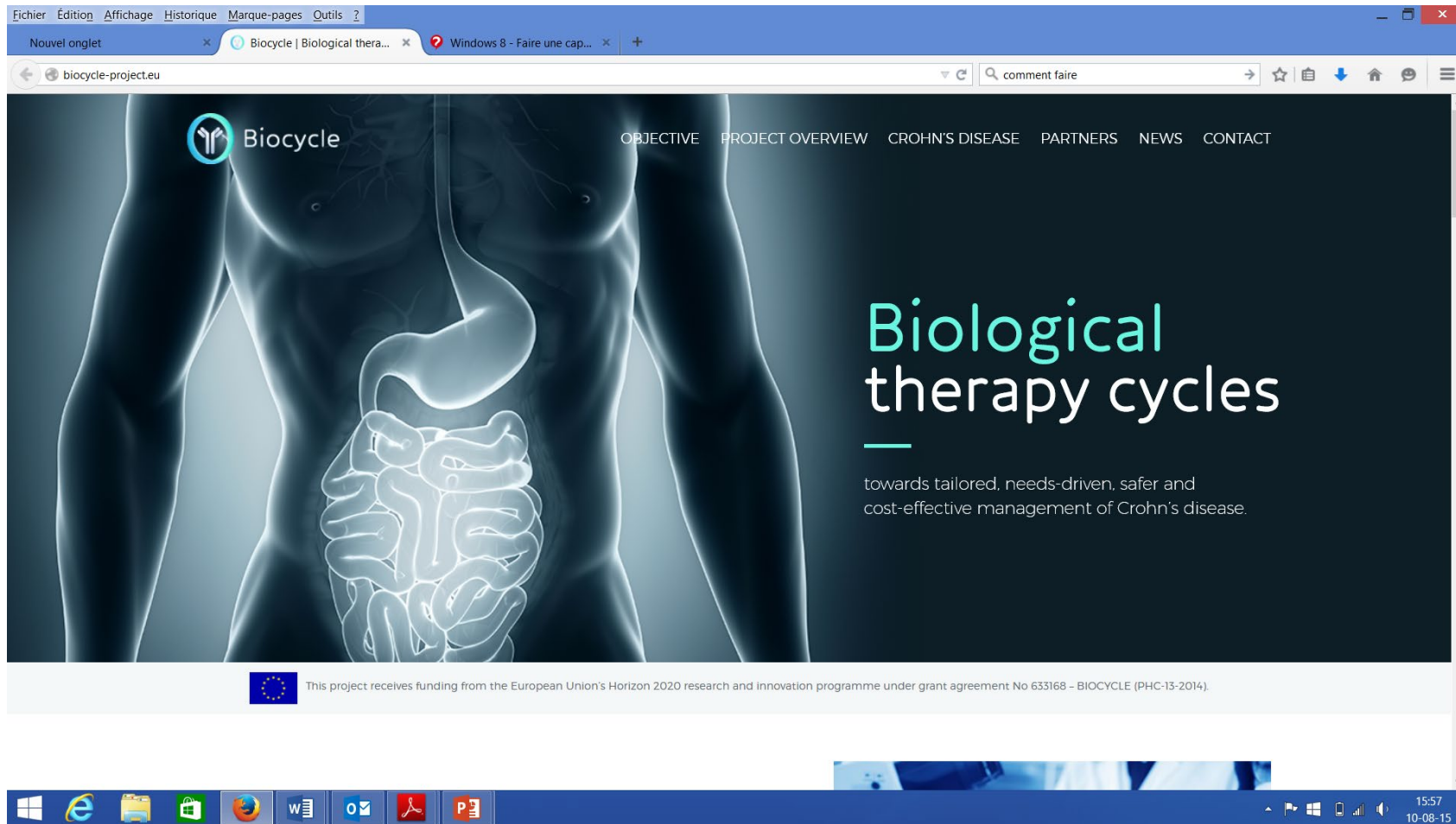
# Disclosures

- E Louis has received fees for:
  - **Research Grant:** Takeda, Pfizer
  - **Educational Grant:** Abbvie, MSD, Takeda, Janssen
  - **Speaker Fees:** Abbvie, Ferring, MSD, Falk, Takeda, Hospira, Janssen, Pfizer, Celgene
  - **Advisory Board:** Abbvie, Ferring, MSD, Takeda, Celltrion, Celgene, Hospira, Janssen
  - **Consultant:** Abbvie

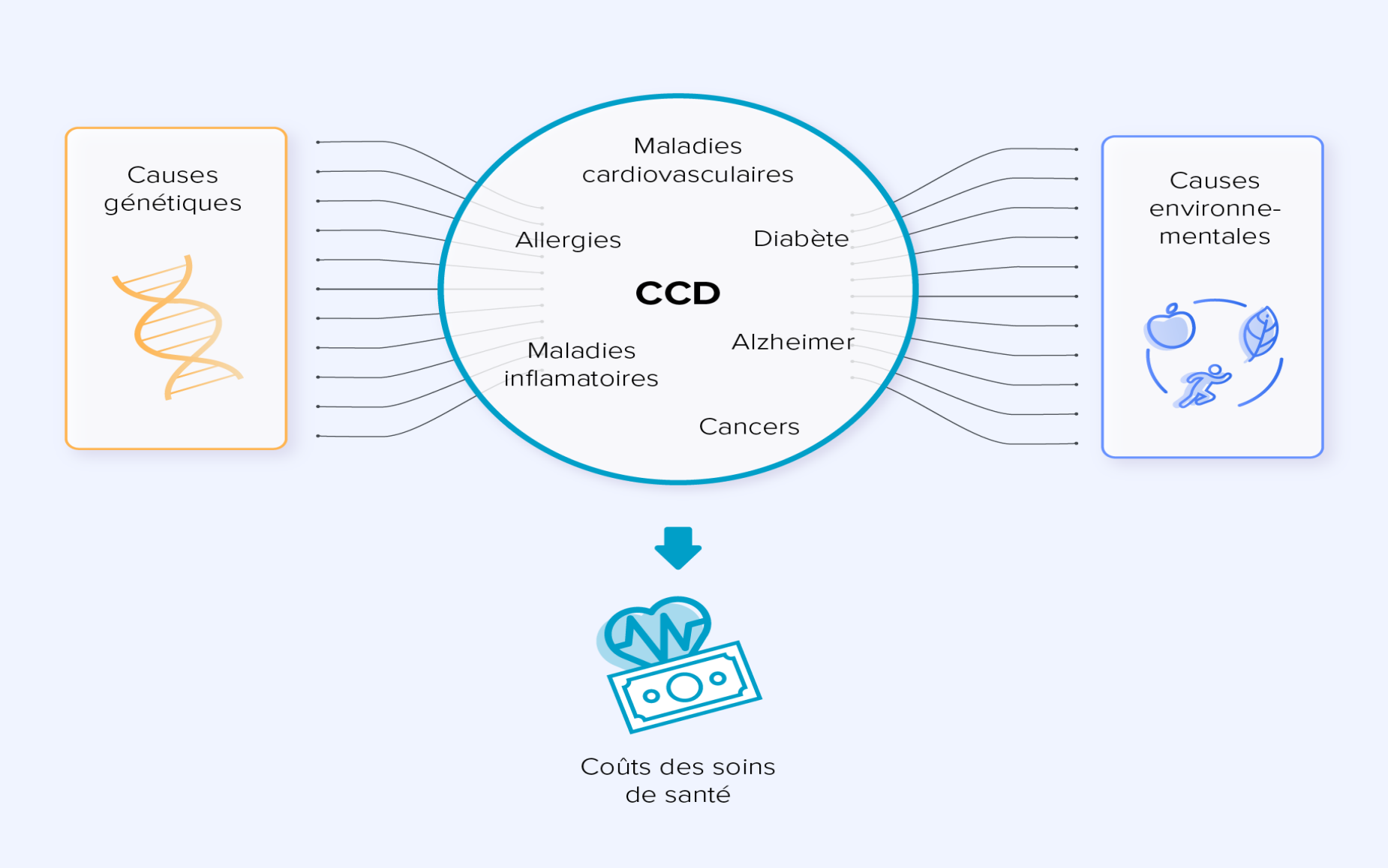
# Disclaimer

- This is a medical education event with the support of Janssen-Cilag NV.
- This presentation represents the opinion of the speaker and not necessarily the opinion of Janssen.
- This presentation may include discussions on off-label use of drugs.

Biocycle Website: <http://biocycle-project.eu/>

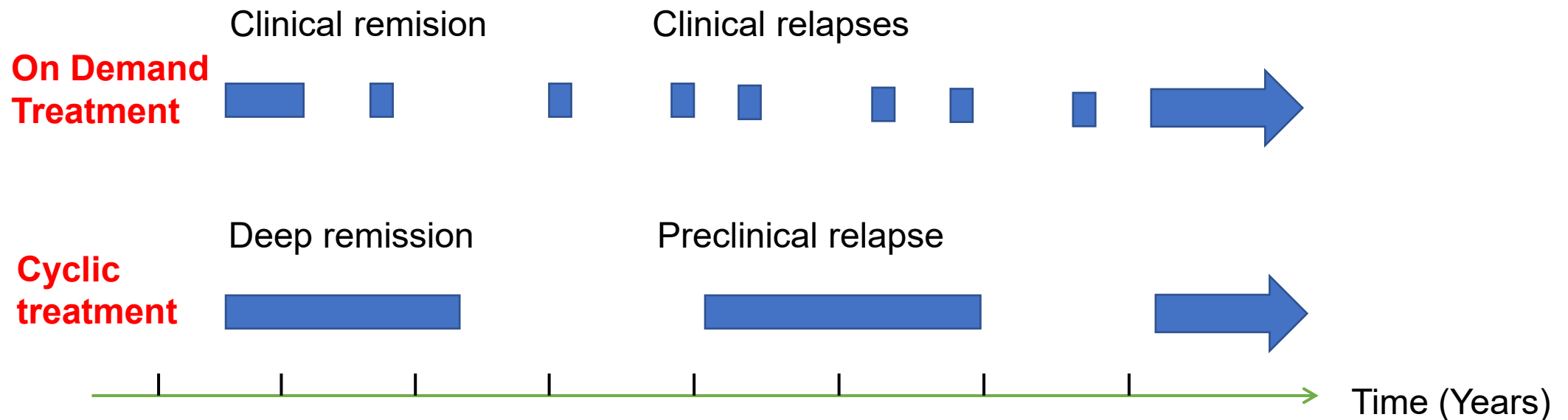


Les maladies résultent d'une rupture de l'homéostasie de l'organisme avec une focalisation préférentielle sur l'un ou l'autre organe



# Cyclic treatment **is not** on demand treatment

- First and undisputable aim of IBD treatment is **full disease control**
- The idea of the Cyclic treatment is to aim at the **lowest IS/biological use** still compatible with full disease control



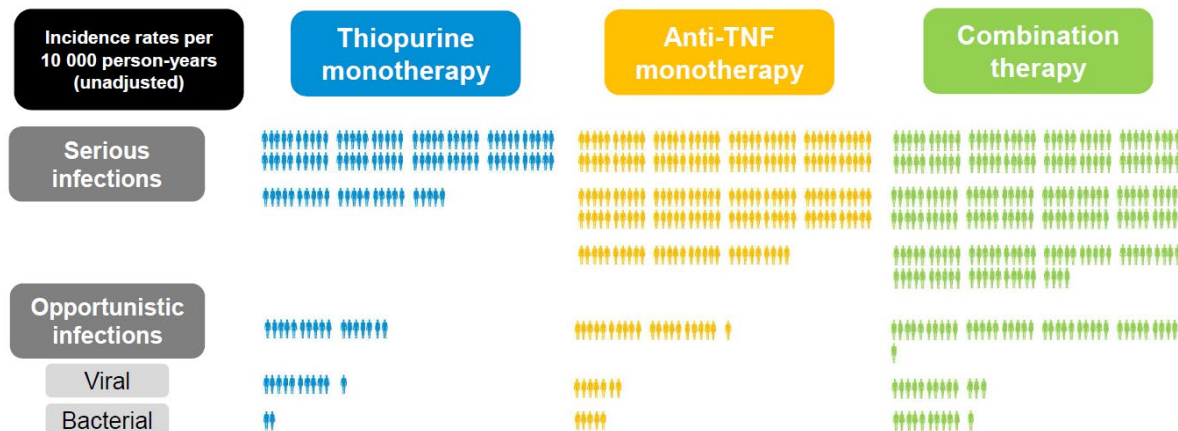
# Reasons to contemplate **Treatment de-escalation** in IBD

- Safety
- Specific situations
- Patients concerns
- Adherence
- Cost

# Long term side effects with purines and anti-TNF

HRs comparing the risk of lymphoma in patients exposed to thiopurine monotherapy, anti-TNF monotherapy, and combination therapy vs unexposed patients

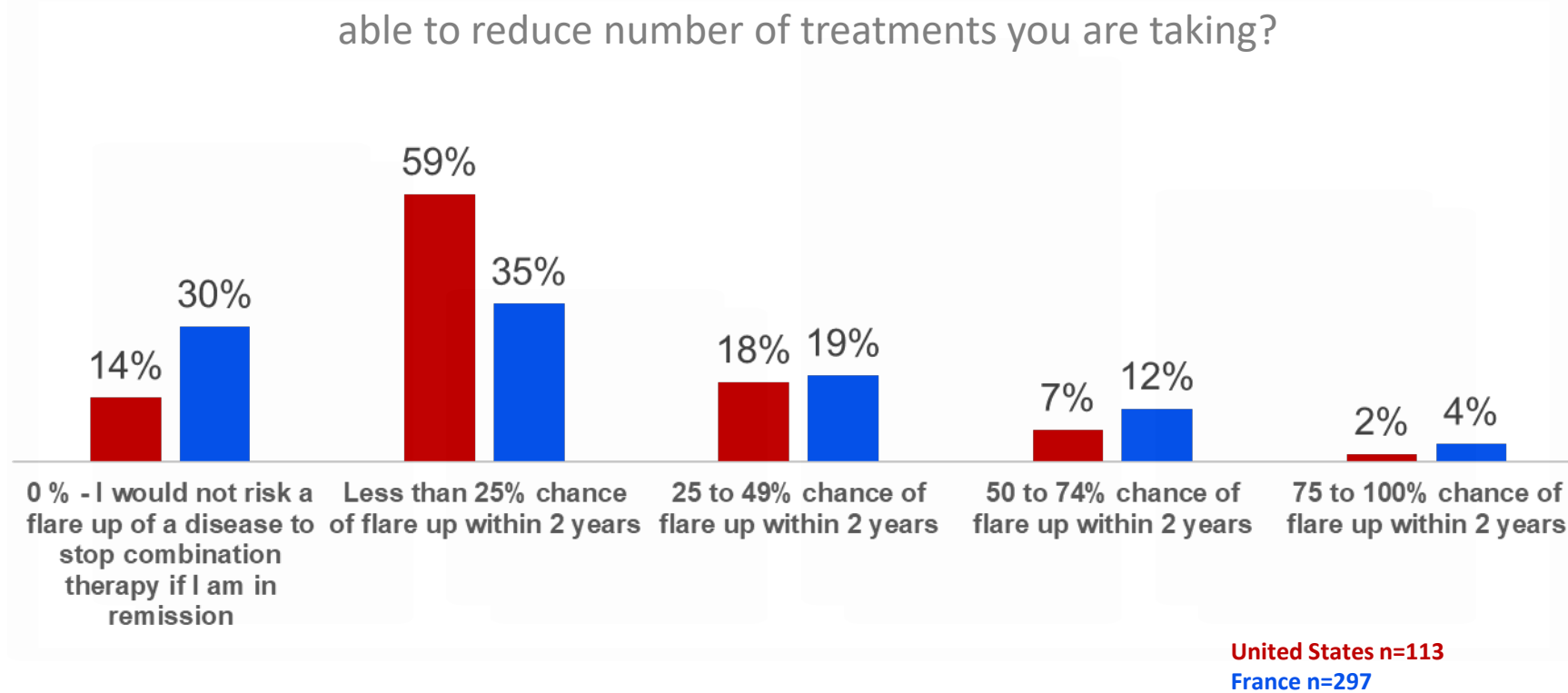
	Exposed to thiopurine monotherapy vs unexposed to thiopurines or anti-TNF agents		Exposed to anti-tnf monotherapy vs unexposed to thiopurines or anti-TNF agents		Exposed to combination therapy vs unexposed to thiopurines or anti-TNF agents	
Lymphoma Type	Crude HR (95% CI)	Adjusted HR (95% CI)	Crude HR (95% CI)	Adjusted HR (95% CI)	Crude HR (95% CI)	Adjusted HR (95% CI)
<b>All Patients</b>						
All lymphoma	2.06 (1.58-2.70)	2.06 (1.96-3.44)	1.57 (1.08-2.28)	2.41 (1.60-3.64)	3.60 (2.10-6.19)	6.11 (3.46-10.8)
Hodgkin lymphoma	2.78 (1.45-5.33)	2.83 (1.37-5.84)	2.21 (0.92-5.35)	2.23 (0.81-6.13)	11.1 (4.76-27.2)	12.1 (4.46-33.1)
Non-Hodgkin lymphoma	1.95 (1.45-2.62)	2.57 (1.90-3.49)	1.47 (0.97-2.22)	2.48 (1.58-3.89)	2.38 (1.17-4.84)	4.48 (2.15-9.34)





# Acceptance for flare risk among French and American patients

What is the maximum level of risk you are willing to accept that you would experience a flare up (return of symptoms) within 2 years of stopping combination therapy in order to be able to reduce number of treatments you are taking?



$\chi^2(4, N=410) = 22.612, p=.000$



## Suivi Crohn - 1 an sans traitement

21 Juillet 2023 10:51

Expéditeur : [REDACTED]

À: Edouard Louis

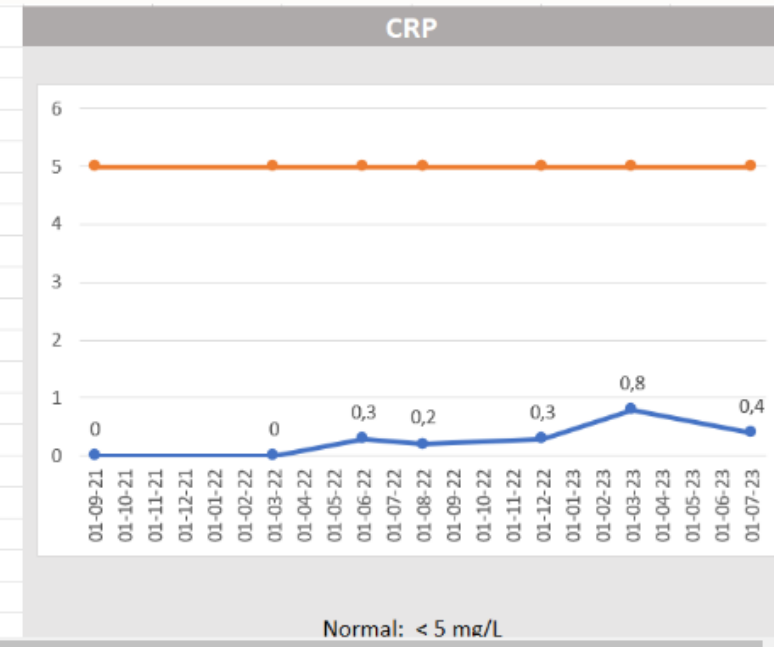
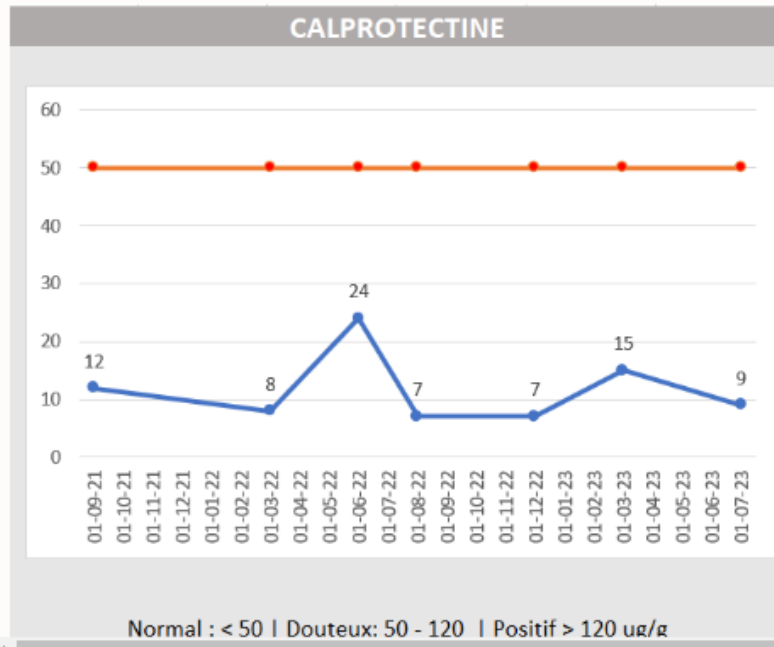
Bonjour Monsieur Louis,

Je me permets de vous adresser un petit message car j'ai reçu cette semaine mes derniers résultats CRP & Calprotectine qui sont excellents. Ceci marque ma première année de vie avec la maladie de Crohn sans traitement. Atteindre cet objectif, 15 ans après le diagnostic, est une réelle victoire pour moi et je souhaitais la partager avec vous!

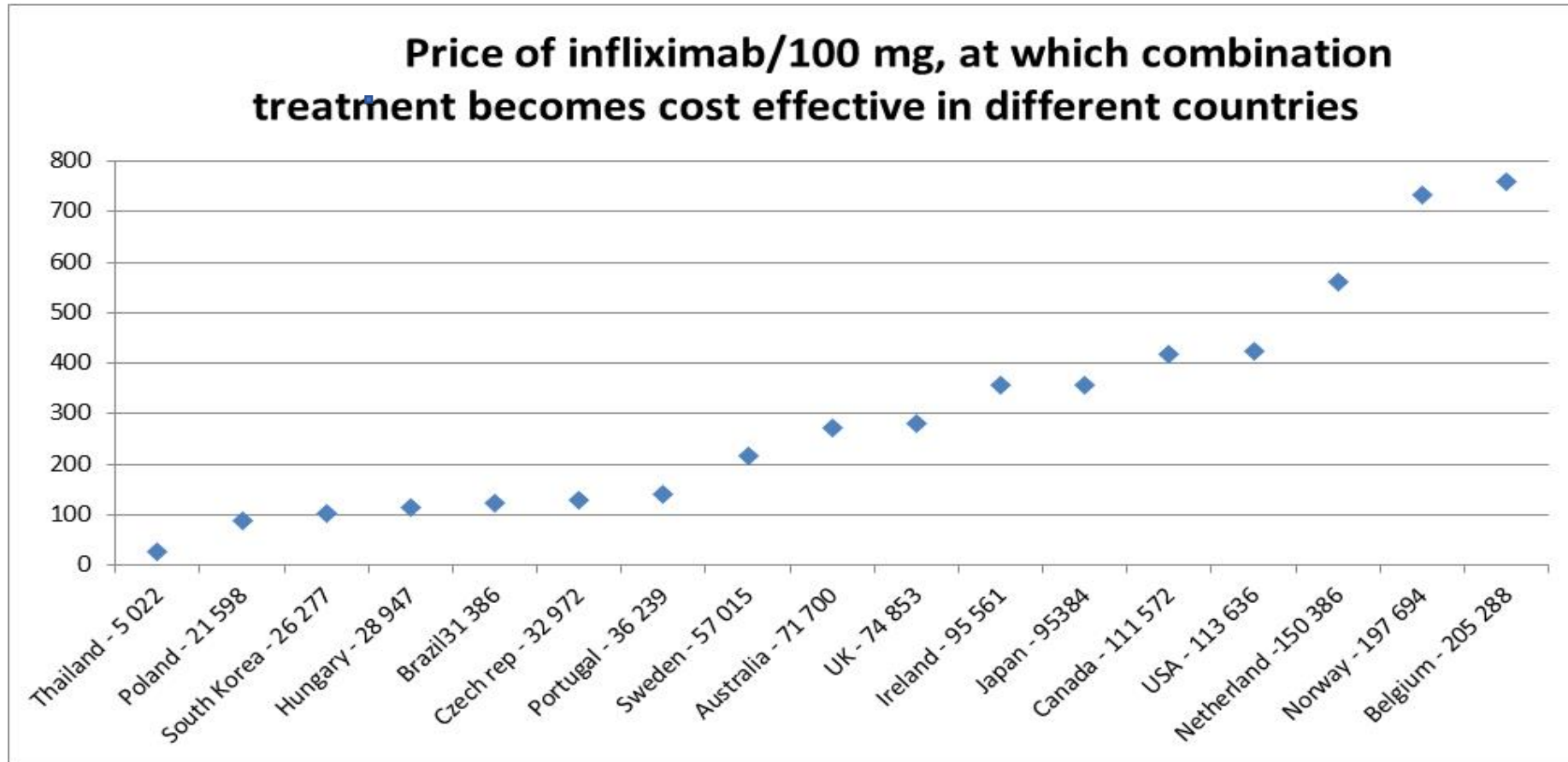
Je tiens à vous remercier sincèrement pour votre prise en charge et votre accompagnement.

Je vous souhaite un bel été et on se revoit en janvier pour ma visite de contrôle.

Bien à vous,

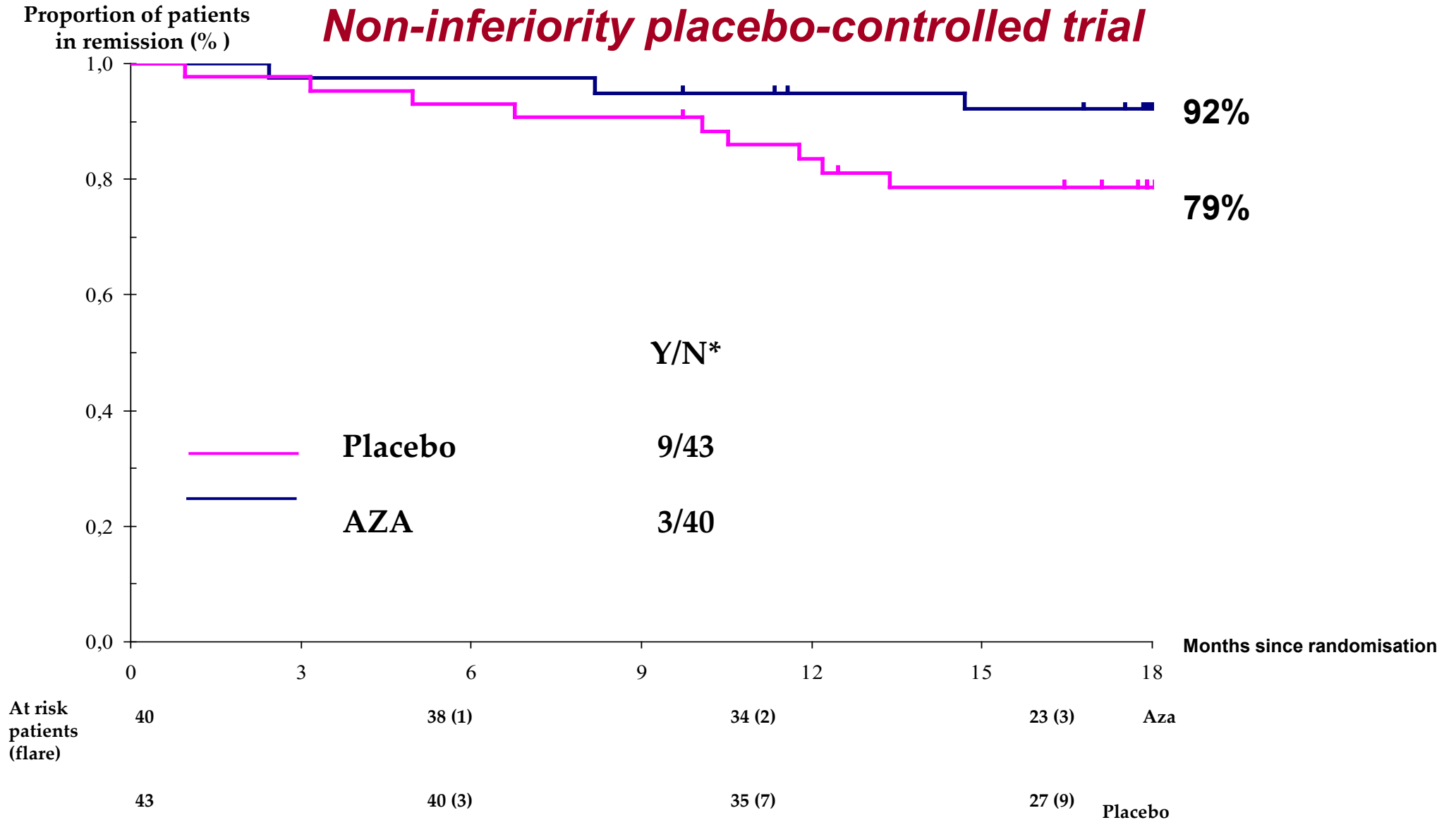


# Cost-effectiveness of infliximab combo continuation in sustained remission in CD

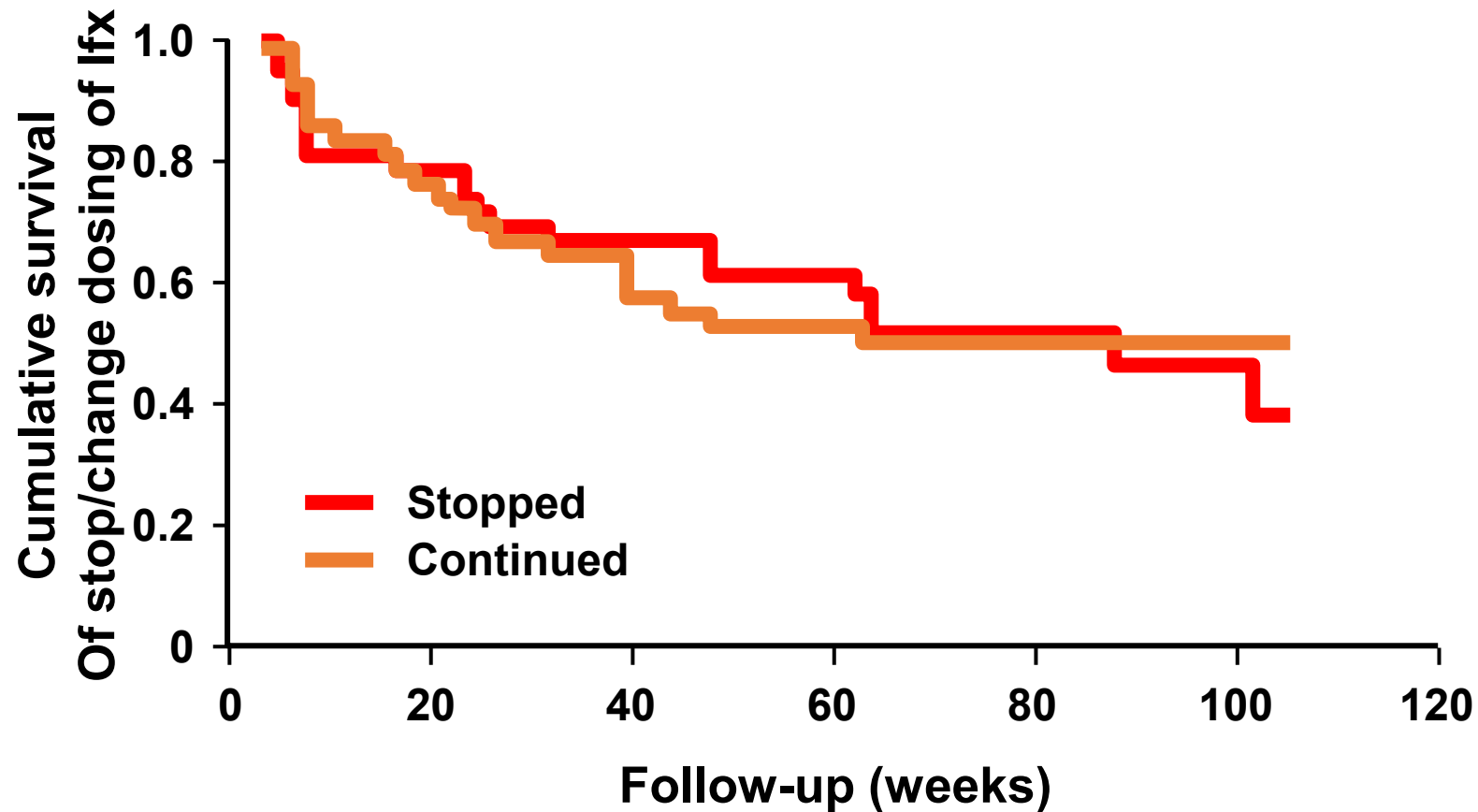


# AZA withdrawal

## Non-inferiority placebo-controlled trial

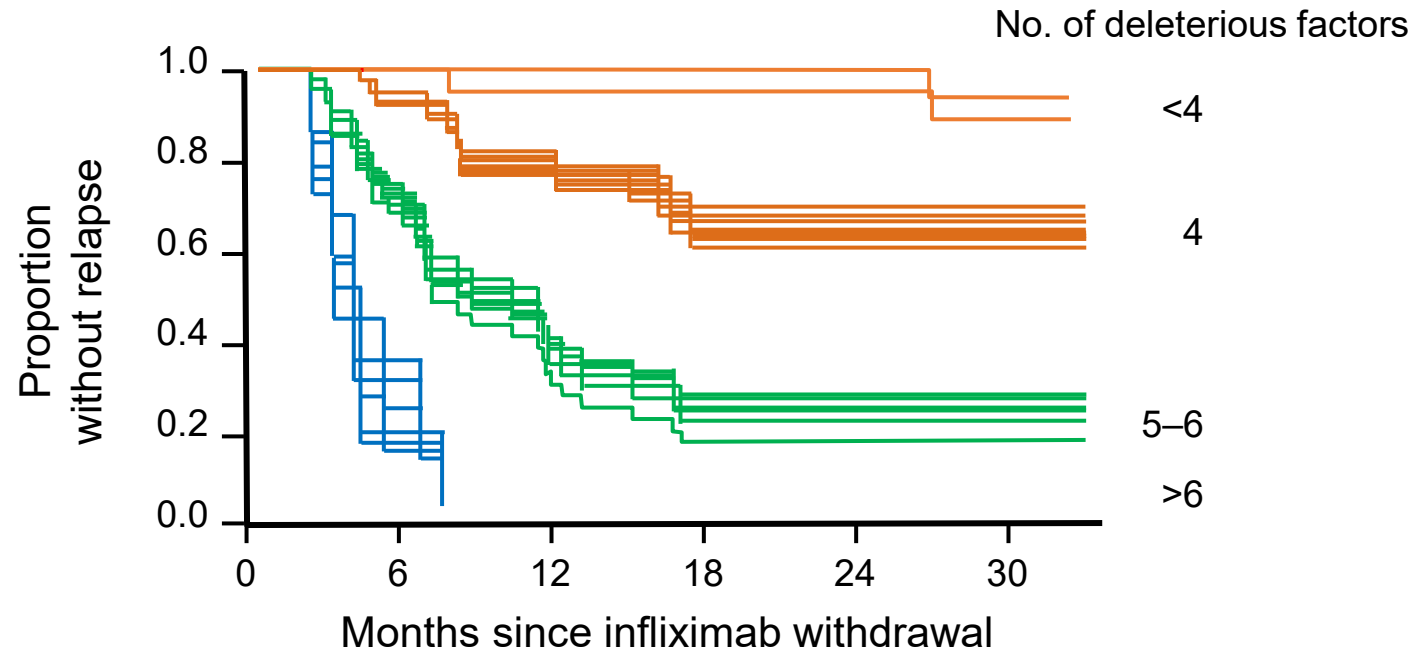


# Stopping immunosuppressant **at least 6 months** after starting infliximab



# Time-to-relapse after infliximab withdrawal in patients continuing on IS

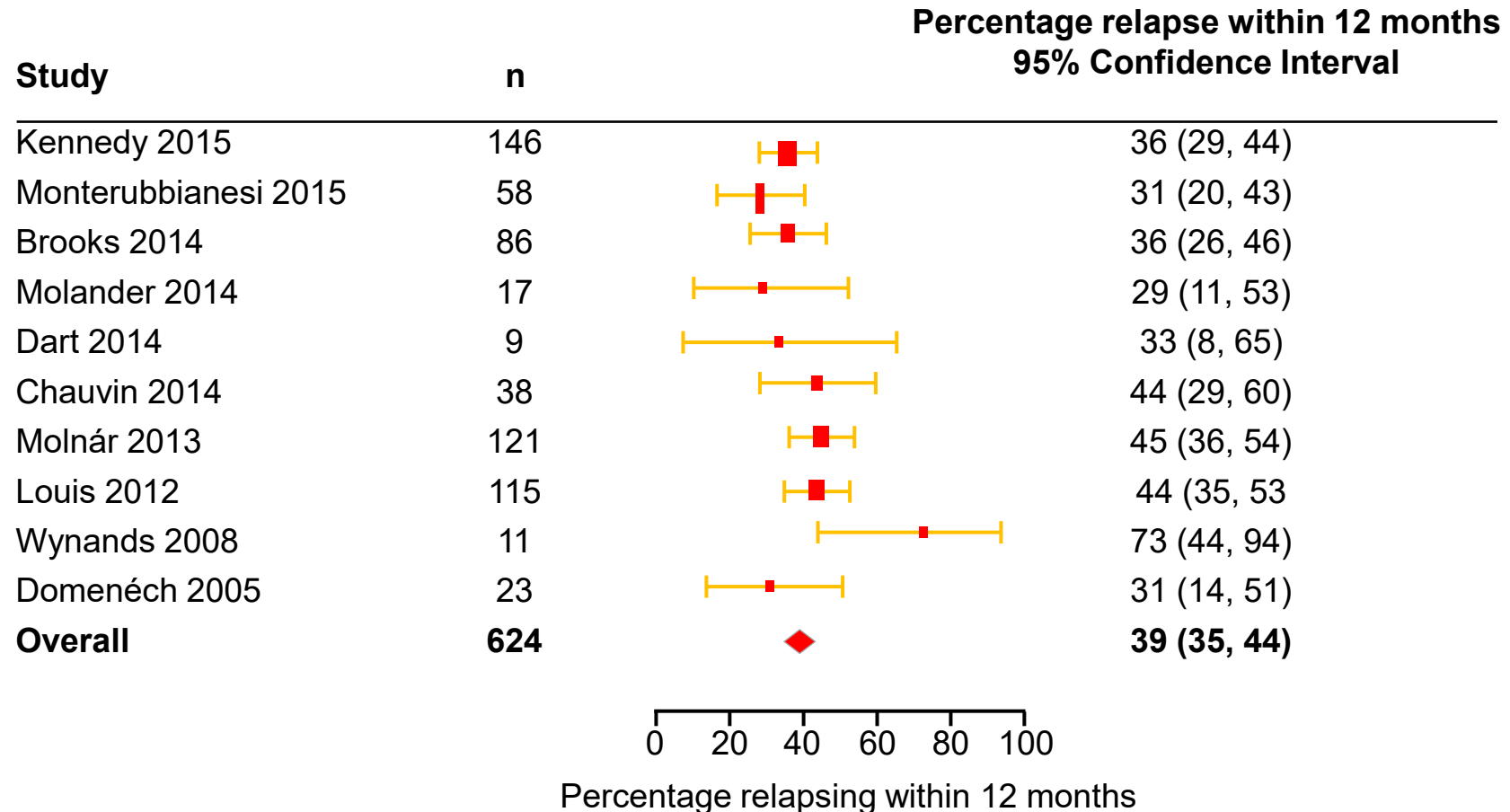
*Results from the STORI cohort according to predictive model*



### Deleterious factors were:

no previous surgery, steroid use within 12-6 months before infliximab withdrawal, male gender, haemoglobin  $\leq 14.5$  g/dl, leukocyte count  $>6 \times 10^9/l$ , hsCRP  $\geq 5$  mg/l, faecal calprotectin  $\geq 300$   $\mu\text{g/g}$ , CDEIS  $>0$ , infliximab trough  $\geq 2$  mg/l

# Meta-analysis: CD relapse by 12m



Heterogeneity:  $I^2=12\%$ ,  $p=0.19$

# Large Spanish multicenter experience of anti-TNF withdrawal

- 1055 patients
- **CD:**
  - Incidence of relapse: **19%/year**
  - Predictors:
    - Ada vs IFx (HR=1.29; 95% CI= 1.01-1.66)
    - Elective vs Top Down (HR=1.9; 95% CI= 1.07-3.37)
    - Intolerance vs Top Down (HR=2.33; 95% CI=1.27-2.02)
    - Colonic vs Ileal (HR=1.51; 95% CI= 1.13-2.02)
    - B2 vs B1 (HR=1.5; 95% CI=1.09-2.05)
    - No Immunomodulator after stop (HR=1.49; 95% CI=1.15-1.96)
    - Younger age (HR=1.02; 95% CI= 1.01-1.03)
- **UC:**
  - Incidence of relapse: **17%/year**
  - Predictors: No



ORIGINAL ARTICLE

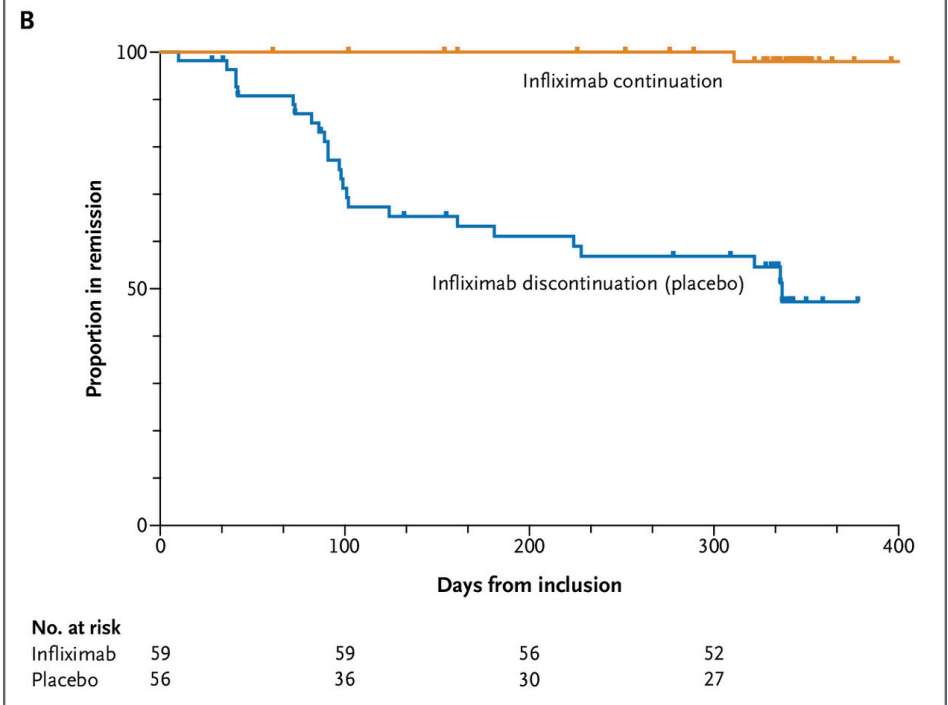
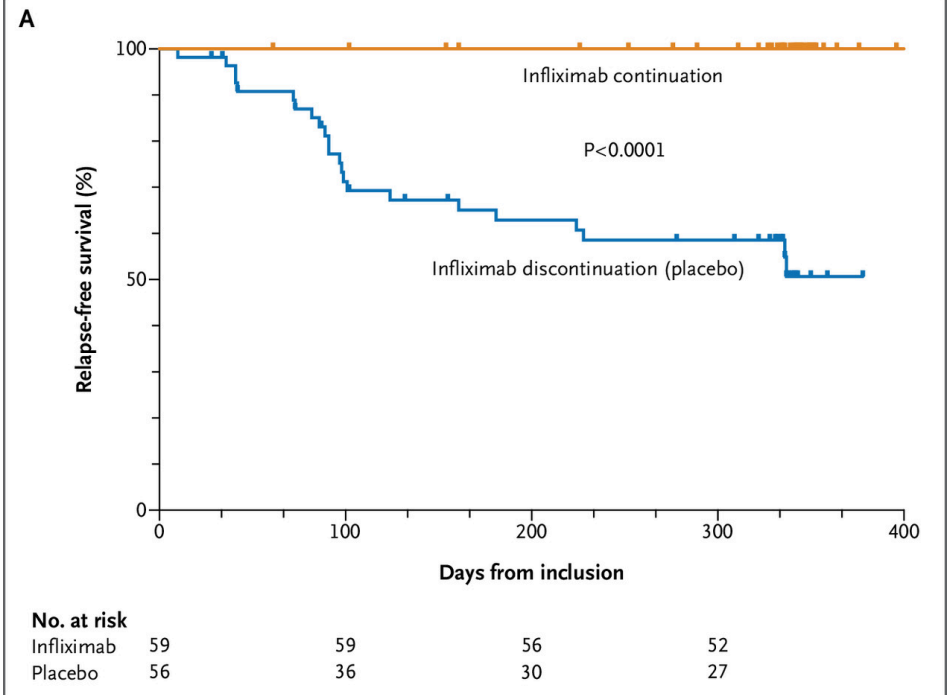
# Discontinuation of Infliximab Therapy in Patients with Crohn's Disease

Sine Buhl, M.D.<sup>1</sup>, Casper Steenholdt, M.D.<sup>1</sup>, Jørn Brynskov, M.D.<sup>1</sup>, Katrine Risager Christensen, M.D.<sup>1</sup>, Maria Dorn-Rasmussen, M.D.<sup>1</sup>, Ole Østergaard Thomsen, M.D.<sup>1</sup>, Klaus Bendtzen, M.D.<sup>2</sup>, Tobias Wirenfeldt Klausen, M.Sc.<sup>1</sup>, Jens Frederik Dahlerup, M.D.<sup>3</sup>, Niels Thorsgaard, M.D.<sup>4</sup>, ... , for the Stop Infliximab Treatment (STOP-IT) Study Group\*

Show More

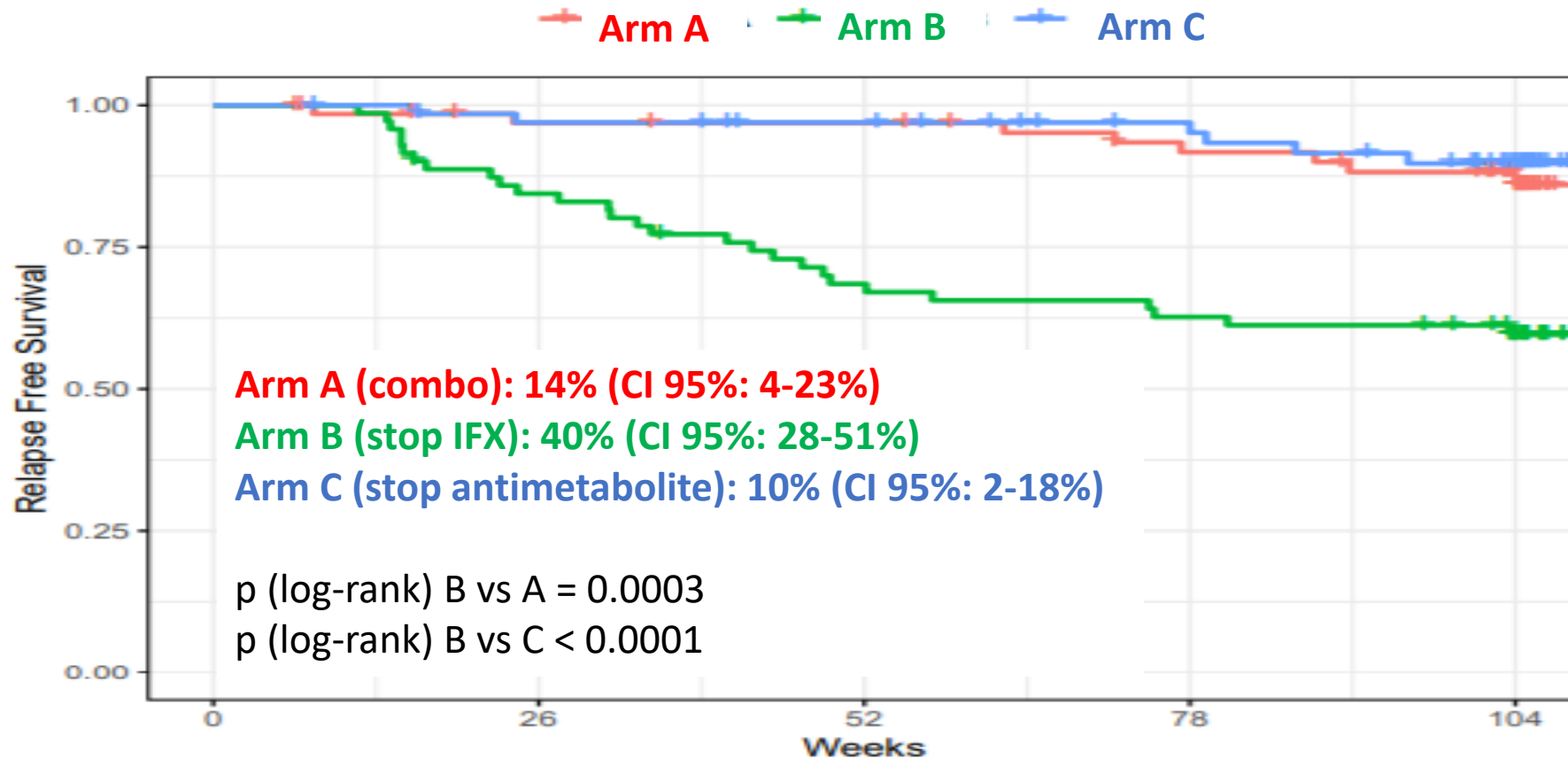
Tweet

Published June 14, 2022  
 NEJM Evid 2022; 1 (8)  
 DOI: <https://doi.org/10.1056/EVIDoa2200061>  
 Issue >



First co-primary endpoint

# Time to relapse

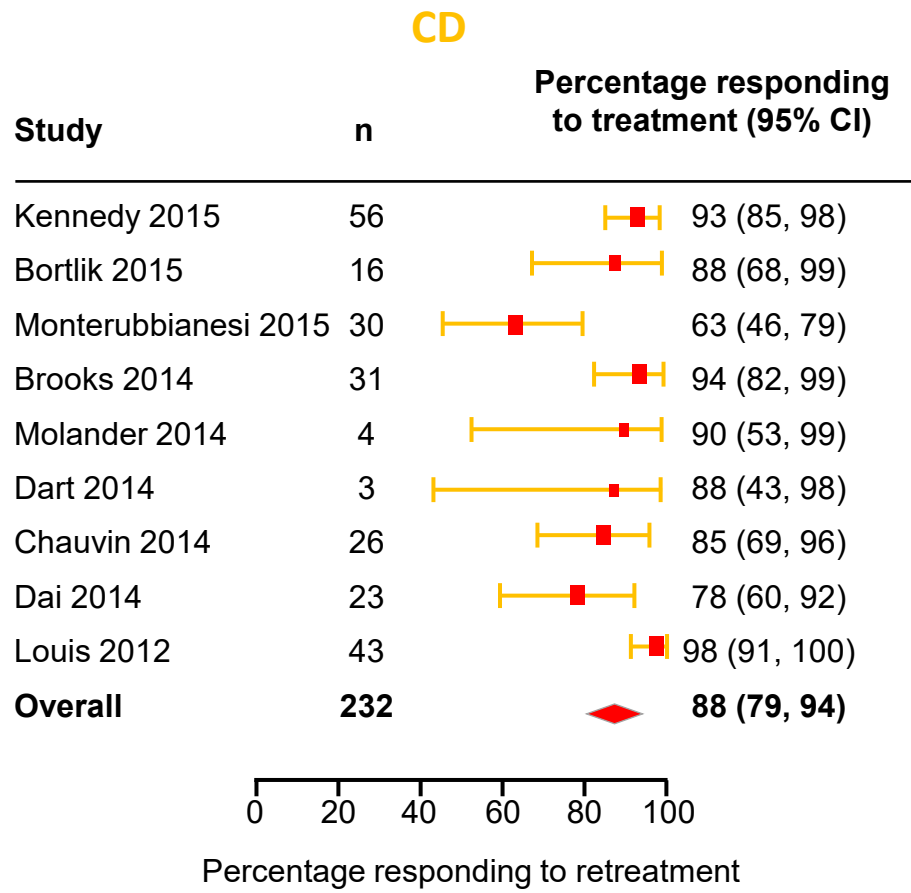


Number at risk

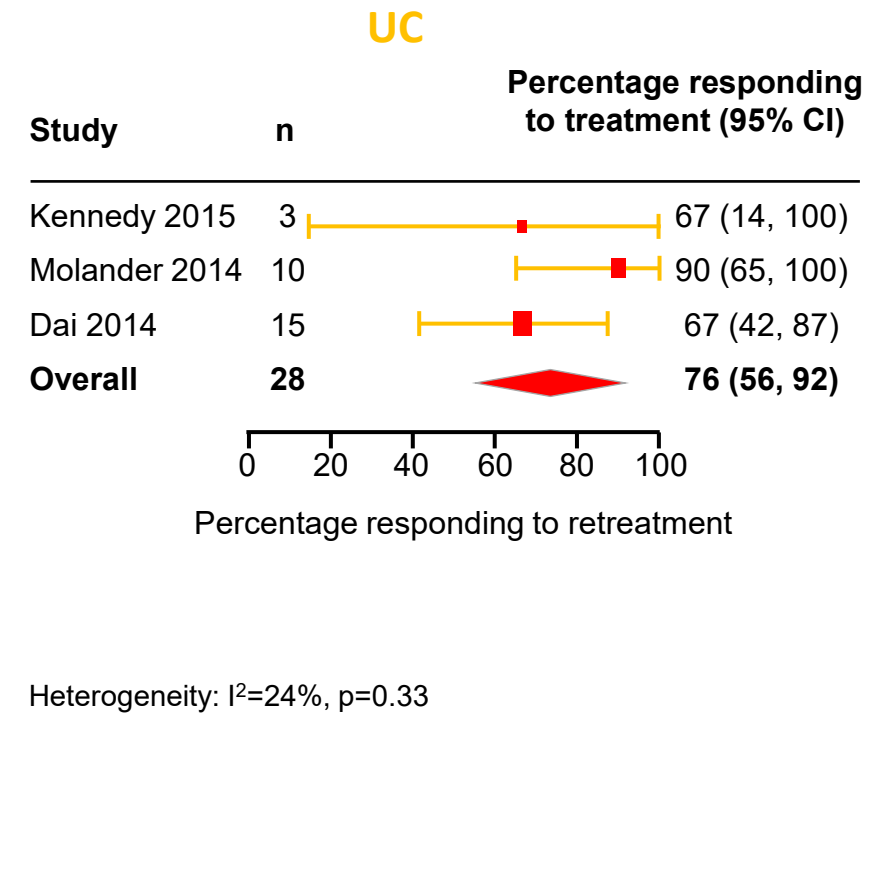
Arm A	67	60	59	53	39
Arm B	71	59	47	43	29
Arm C	67	63	60	54	39
	0	26	52	78	104

Weeks

# Response to retreatment after infliximab withdrawal



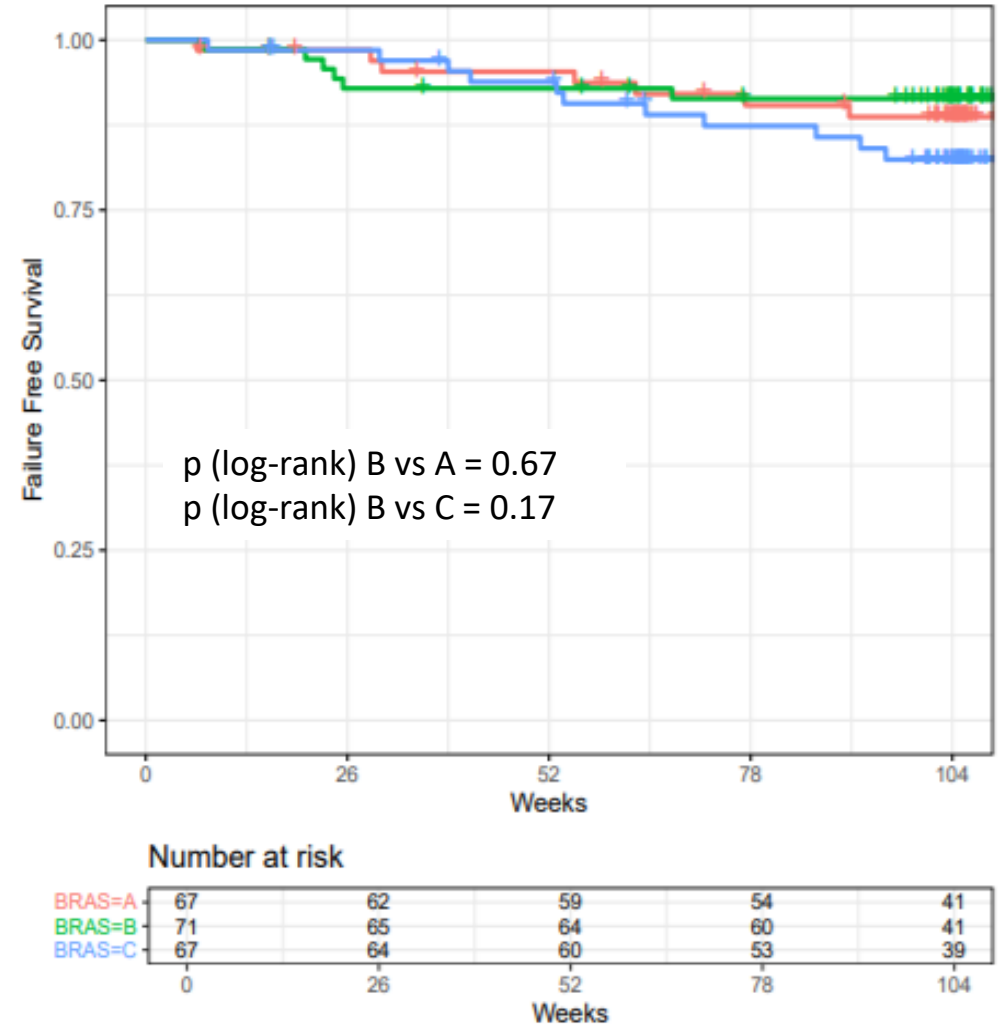
Heterogeneity:  $I^2=64\%$ ,  $p<0.01$



Heterogeneity:  $I^2=24\%$ ,  $p=0.33$

# Treatment Failure

- A treatment failure was observed in:
  - 7/67 (10.4%) in **arm A** (combo)
  - 6/71 (8.4%) 1 in **arm B** (stop IFX)
  - 11/67 (16.4%) in **arm C** (stop antimet)

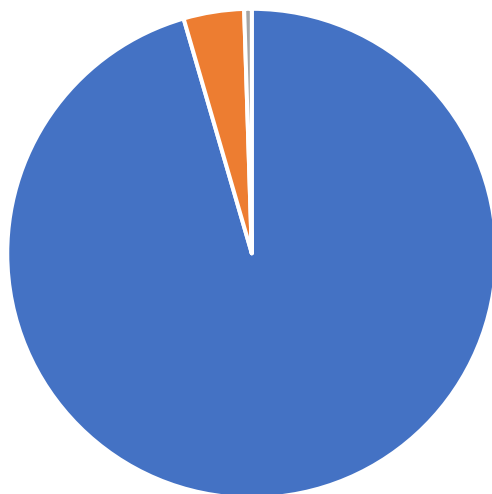


2nd co-primary  
endpoint

# Mean time spent in remission over 2 years

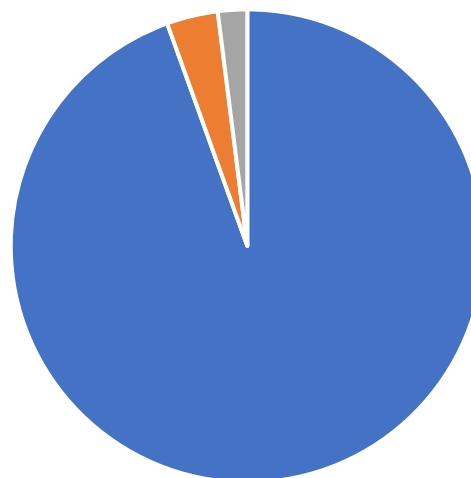


Arm A (combo)



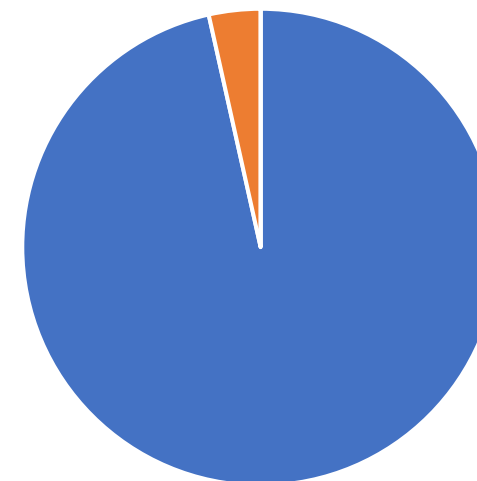
■ mean ■ IC95% ■ Tot ■  
**1.91 years (1.83-1.99)**

Arm B (stop IFX)



■ mean ■ IC95% ■ Tot ■  
**1.89 years (1.82-1.96)**

Arm C (stop antimetabolite)



■ mean ■ IC95% ■ Tot ■  
**1.93 years (1.86-2.0)**

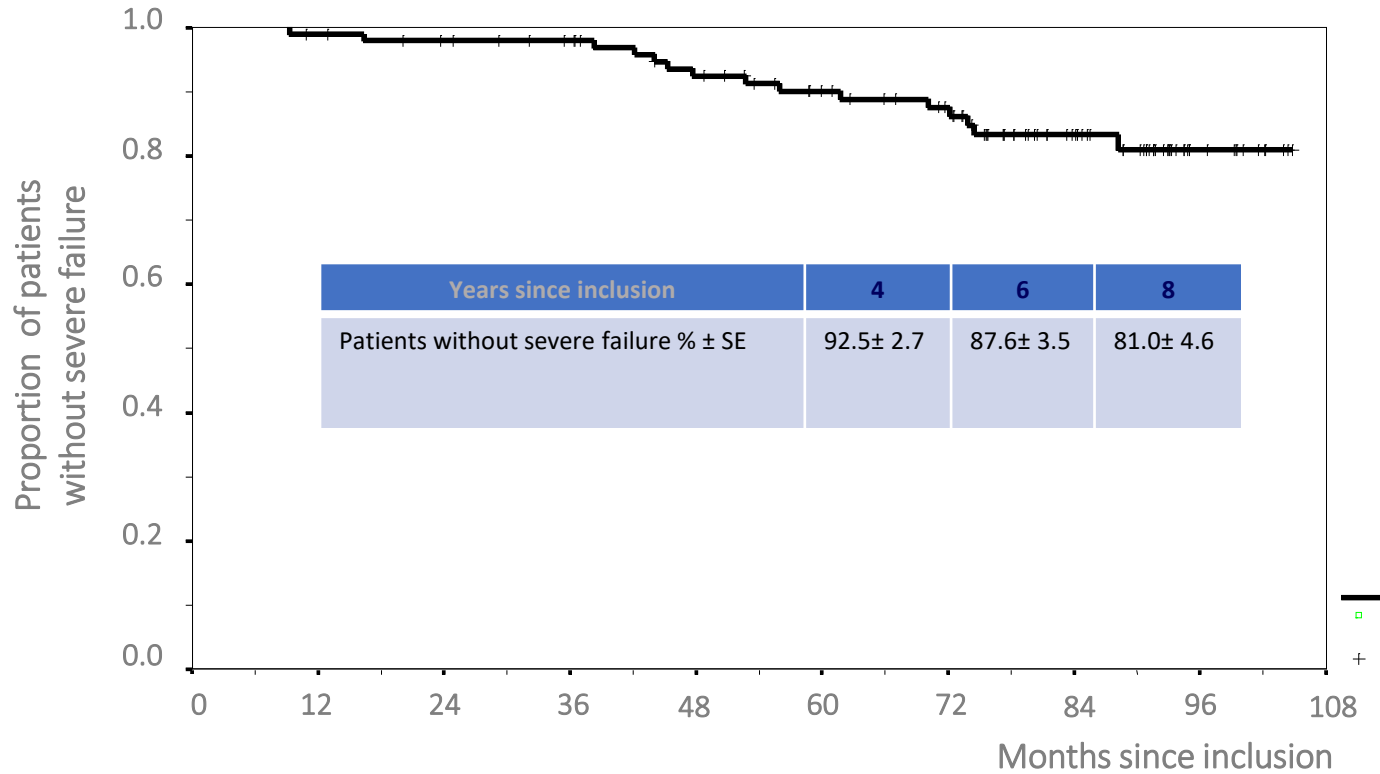
Arm A vs Arm B = **6 days** (95%CI: -33 - **44** days)

Arm C vs Arm B = **14 days** (95%CI: -21 - **69** days)

The prespecified non-inferiority threshold was **34 days**. As the 95%CI overlapped the threshold, the hypothesis was rejected

# Stori long term: Time to surgical resection or new complex perianal disease

Kaplan-Meier curve of severe relapse (n=15/102)  
Median  $\pm$  SE follow up time 81  $\pm$  5 months



# At risk

102

96

83

65

11

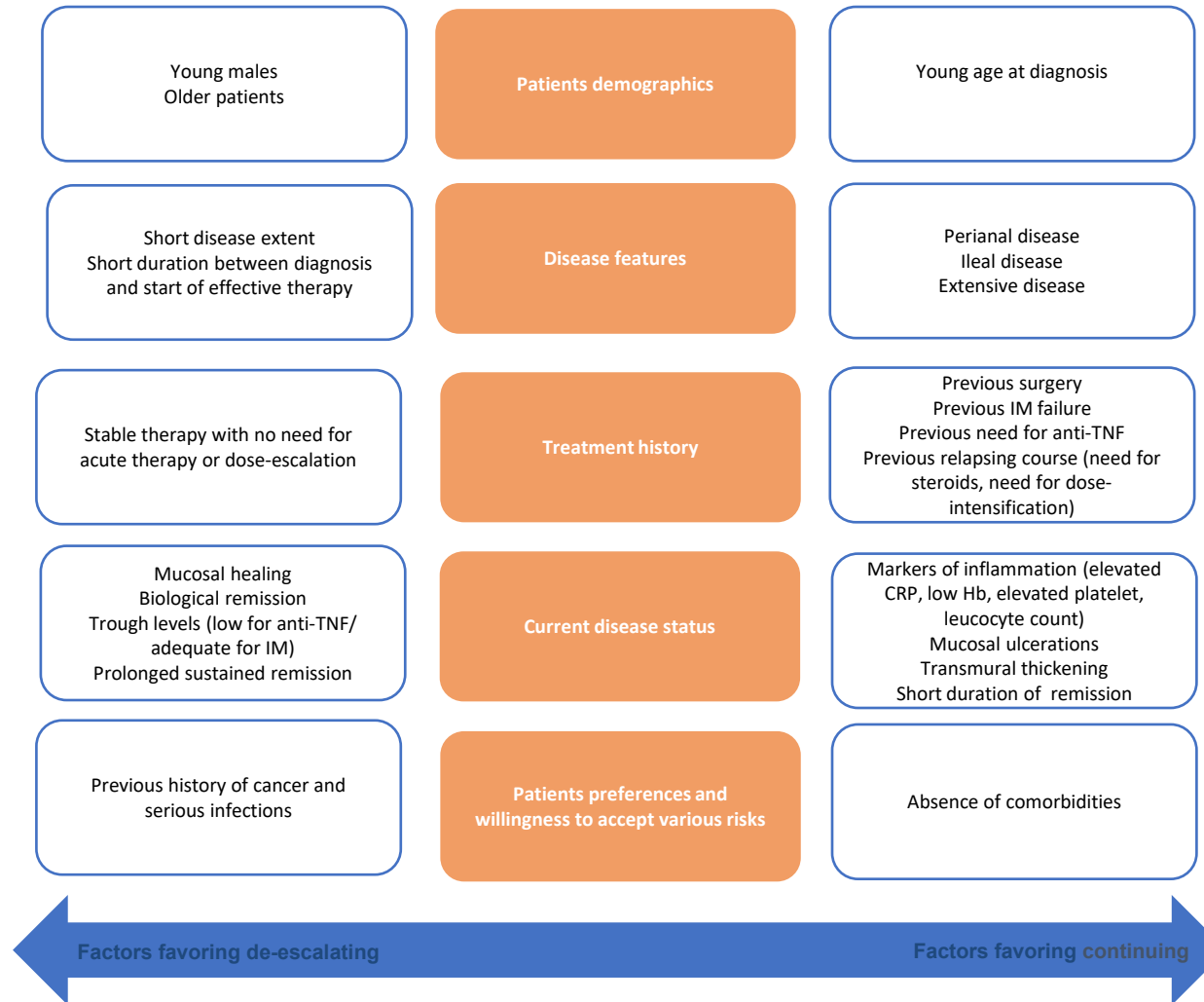
# Two important questions

- What is the risk of relapse ?
  - Mainly defined by persisting signs of inflammation/intestinal lesions/immune activation/...
- What could be the consequences in case of relapse ?
  - Mainly defined by previous medical history, previous treatment responses, disease location (including perianal) and previous complications, previous surgeries

# A multidimensional decision

- Putting in perspective:
  - Patients wishes and priorities
  - Risk of relapse
  - Potential consequences of a relapse





# Decision grid fo treatment withdrawal

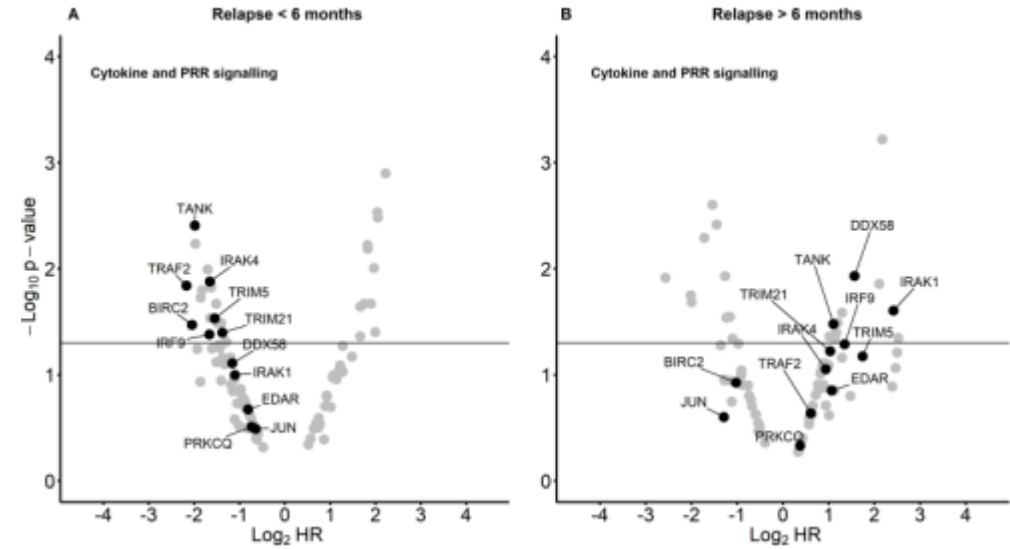
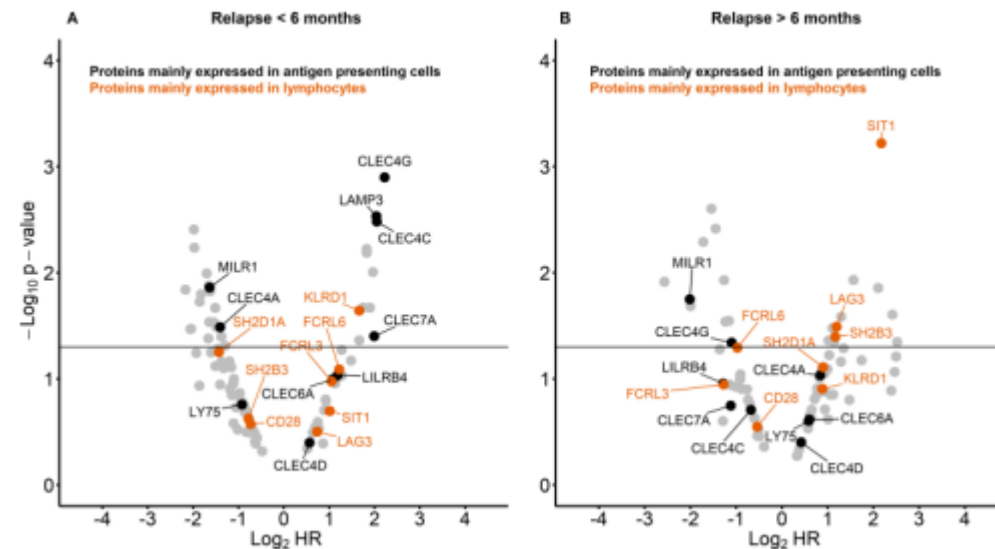
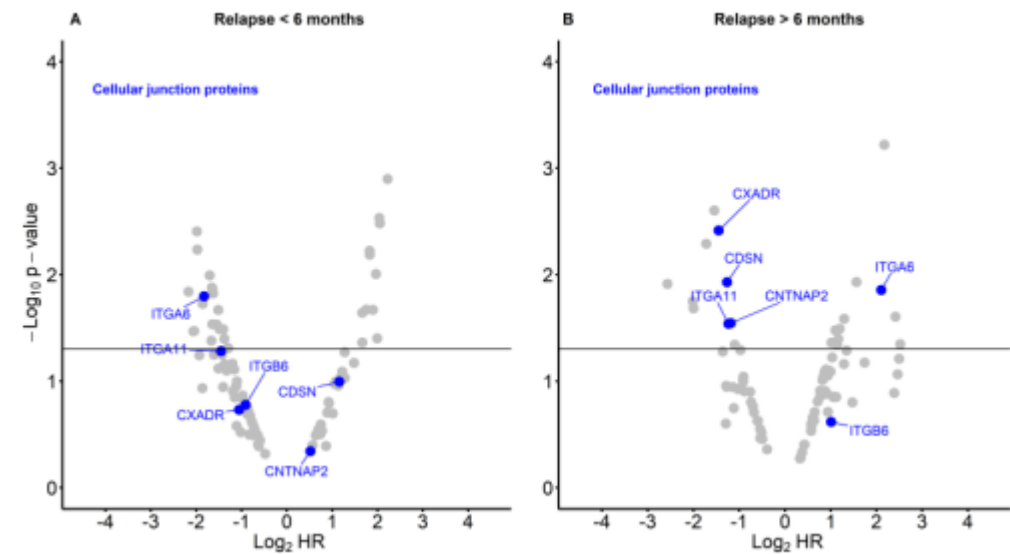
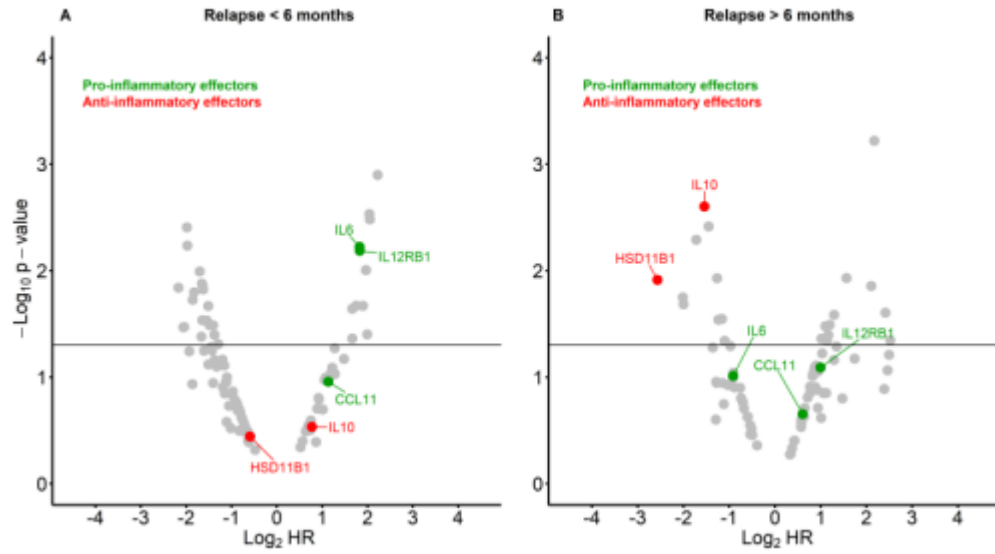
	Successive interruptions and cycles of biological therapy (Biocycling)	Continuation of current therapy
Clinical characteristics	<b>Absence of all the following:</b>	<b>Presence of at least one of the following:</b>
	<ul style="list-style-type: none"> <li>• Absence of perianal disease, AND</li> </ul>	<ul style="list-style-type: none"> <li>• Perianal disease, OR</li> </ul>
	<ul style="list-style-type: none"> <li>• First ever anti-TNF agent (or second anti-TNF agent for reasons other than primary non-response or secondary loss of response), AND</li> </ul>	<ul style="list-style-type: none"> <li>• Second anti-TNF agent (after primary non-response or secondary loss of response on the first anti-TNF agent), OR</li> </ul>
	<ul style="list-style-type: none"> <li>• Absence of inflammatory comorbidity requiring biologic treatment, AND</li> </ul>	<ul style="list-style-type: none"> <li>• Any inflammatory comorbidity requiring biologic treatment, OR</li> </ul>
	<ul style="list-style-type: none"> <li>• No use of corticosteroids in the past 6 months, AND</li> <li>• No history of surgical resection</li> </ul>	<ul style="list-style-type: none"> <li>• Treatment with corticosteroids in the past 6 months</li> <li>• Previous surgical resection</li> </ul>
Biomarker characteristics	<b>Sustained remission:</b>	<b>Active disease:</b>
	<ul style="list-style-type: none"> <li>• Absence of symptoms of active disease, AND</li> <li>• Two consecutive FC results in the target range in the previous 6 months, OR</li> </ul>	<ul style="list-style-type: none"> <li>• Symptoms of active disease, OR</li> <li>• FC out of target range in the previous 6 months, OR</li> </ul>
	<ul style="list-style-type: none"> <li>• Confirmed endoscopic remission in the previous 6 months</li> </ul>	<ul style="list-style-type: none"> <li>• Endoscopically confirmed disease activity in the previous 6 months</li> </ul>

# Decision grid fo treatment withdrawal

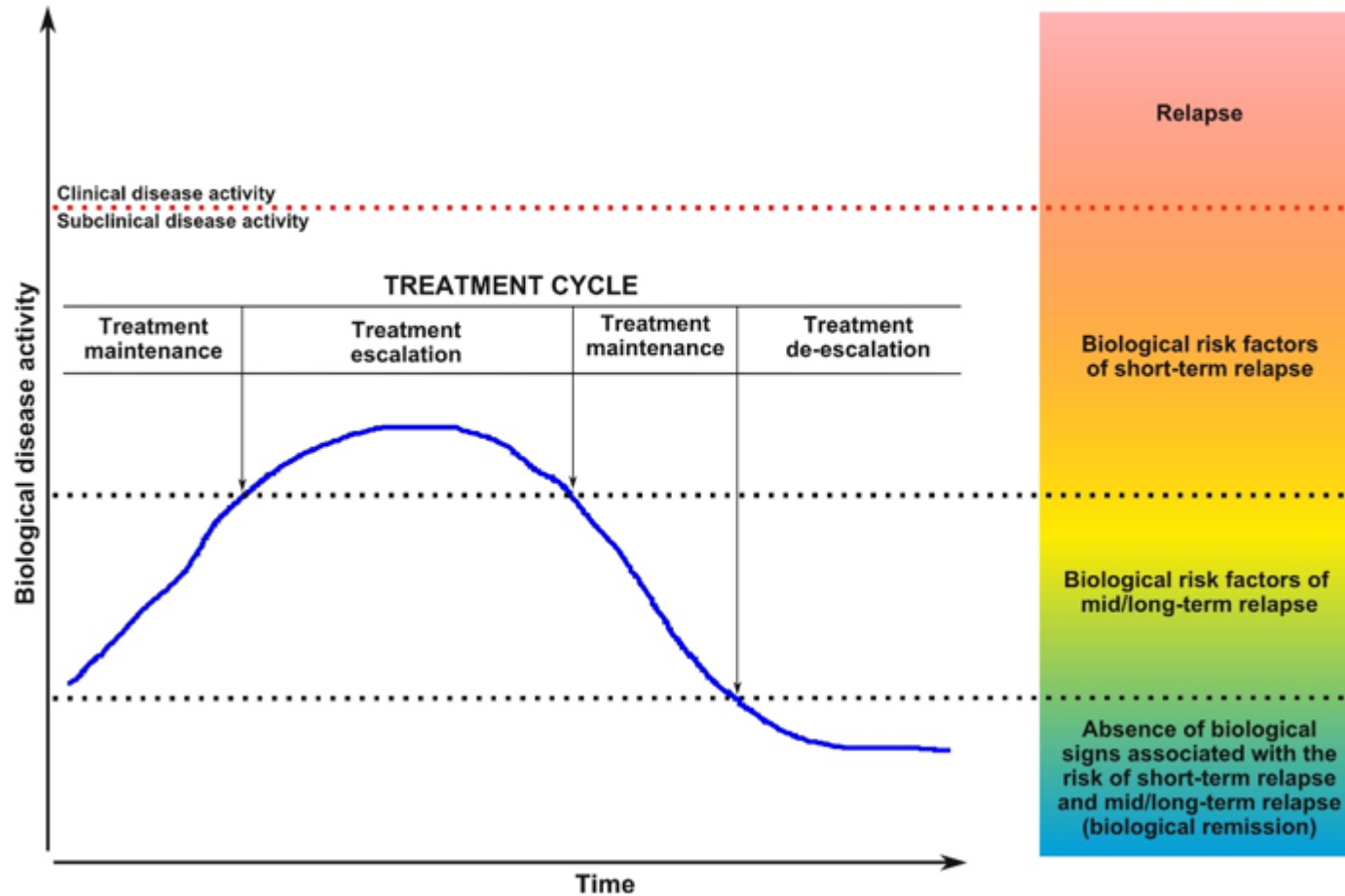
Successive interruptions and cycles of biological therapy (Biocycling)		Continuation of current therapy
	<b>Interrupted drug exposure</b>	<b>Unchanged exposure to biological therapy</b>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>• One year after discontinuation, no new drug-related skin reactions.</li> <li>• After discontinuation, the susceptibility for infection is reduced.<sup>4</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Among those who do not interrupt their therapy, approximately 10 people out of 100 develop skin reactions.</li> <li>• Among those who do not interrupt their therapy, the susceptibility for infection remains unchanged.</li> </ul>
<b>Safety risks</b>	<ul style="list-style-type: none"> <li>• One year after discontinuation, approximately 40 people out of 100 experience a clinical relapse.</li> <li>• Among the patients who experience a clinical relapse after discontinuation, approximately 90% can be successfully retreated with the same drug.</li> </ul>	<ul style="list-style-type: none"> <li>• Among those who do not interrupt their therapy, approximately 10 people out of 100 experience a clinical relapse over one year .</li> <li>• Among patients who experience relapse despite continuous treatment, approximately 50 out of 100 regain remission with treatment optimisation</li> </ul>
	<b>Discontinuation and cycling of biologic therapy</b>	<b>Continuation of current therapy</b>
<b>Patient self test</b>	1 I wish to stop because of potential long term side effects	1 I am more concerned about the risks of stopping than the potential side effects
<b>Which is the preferred statement?</b>	2 I accept the risk of a flare and trust that it can be controlled when the medication is reintroduced	2 I do not want to risk a flare of disease
	3 I accept that re-capturing remission may require a course of steroid medication	3 I do not want to receive another course of steroid medication

# Prédicteurs biologiques de la rechute

Pierre N, et al, Gut 2023



# Comprendre la Biologie de la rechute et adapter les traitements



Europe  
Crohn's  
Organisation

# What follow-up do you plan:

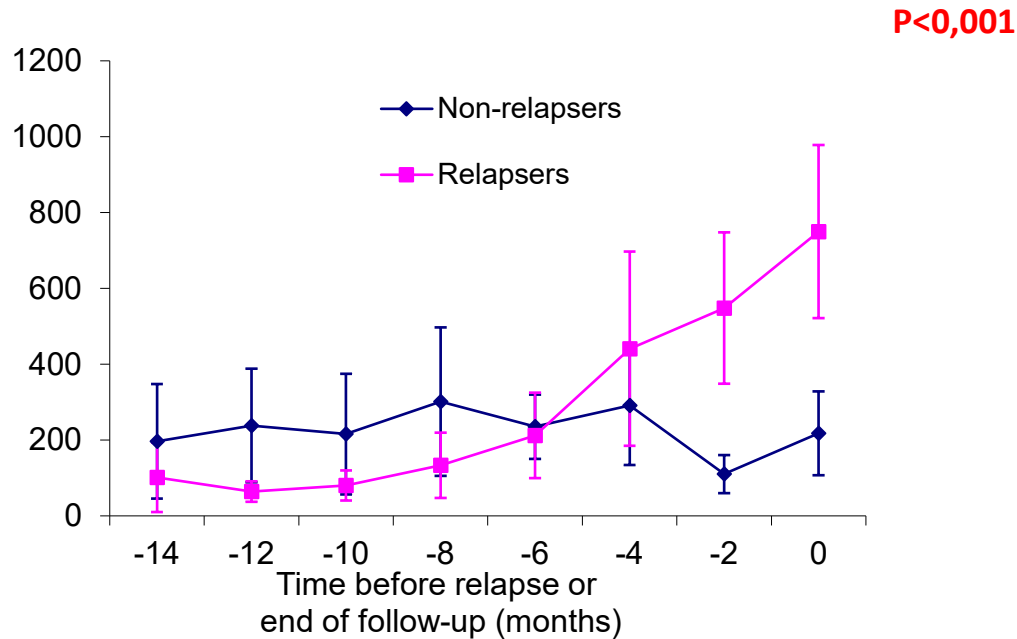
- PRO2
- Weight
- CRP and blood tests
- Fecal calprotectin
- Ultrasound
- MR-enterography
- Ileocolonoscopy
- Capsule endoscopy
- ...

# Calpro and CRP monitoring after anti-TNF withdrawal in CD

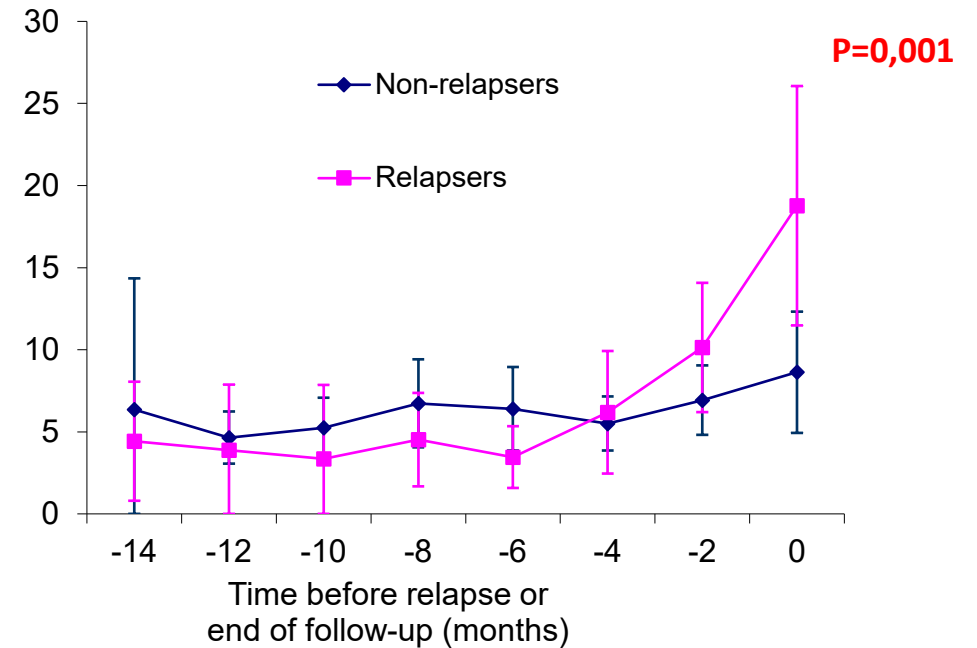


*Preliminary results of an exploratory analysis of longitudinal follow-up of the STORI-GETAID cohort*

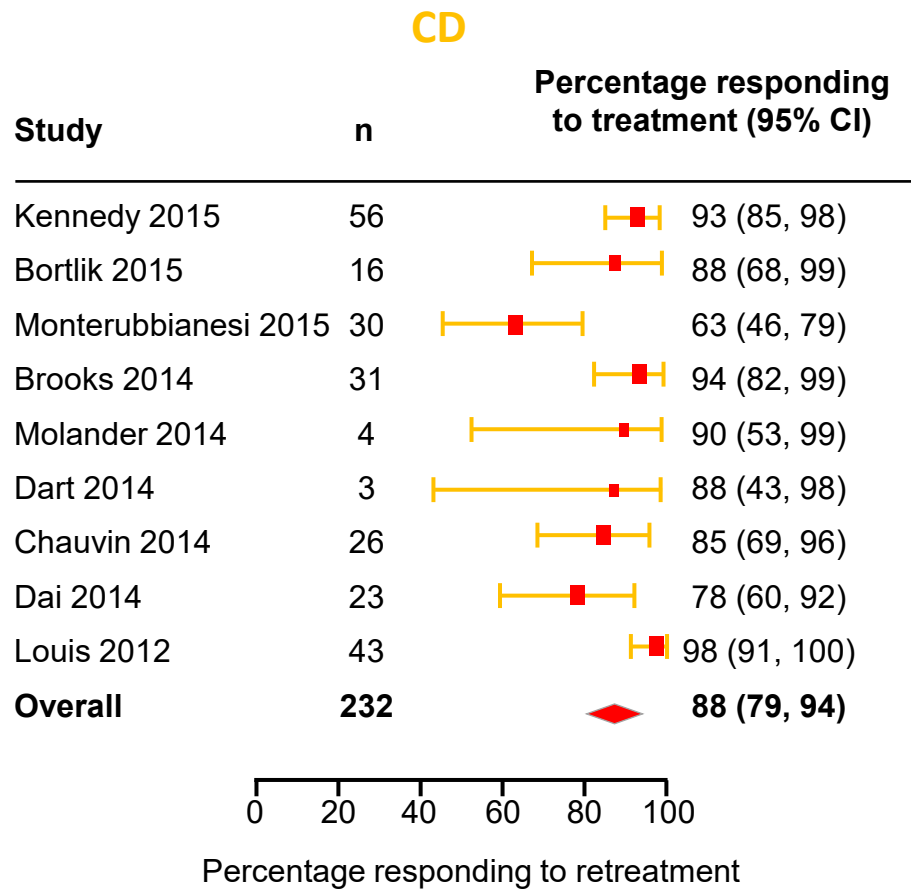
### CRP (mg/L)



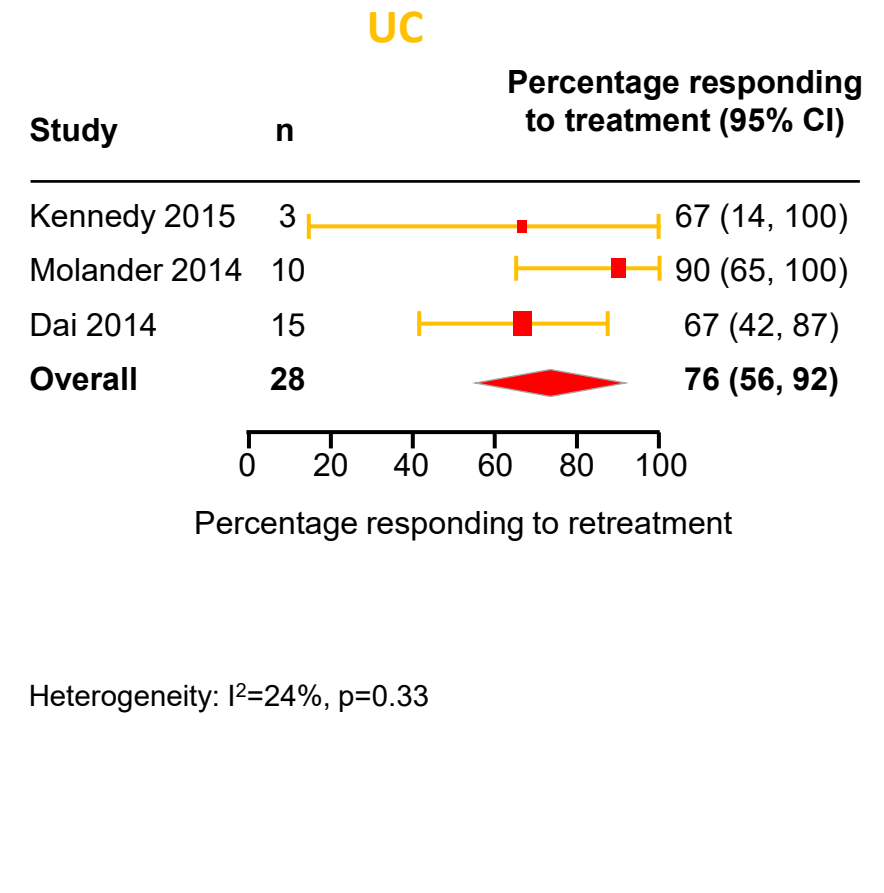
### Calpro ( $\mu\text{g/g}$ )



# Response to retreatment after infliximab withdrawal



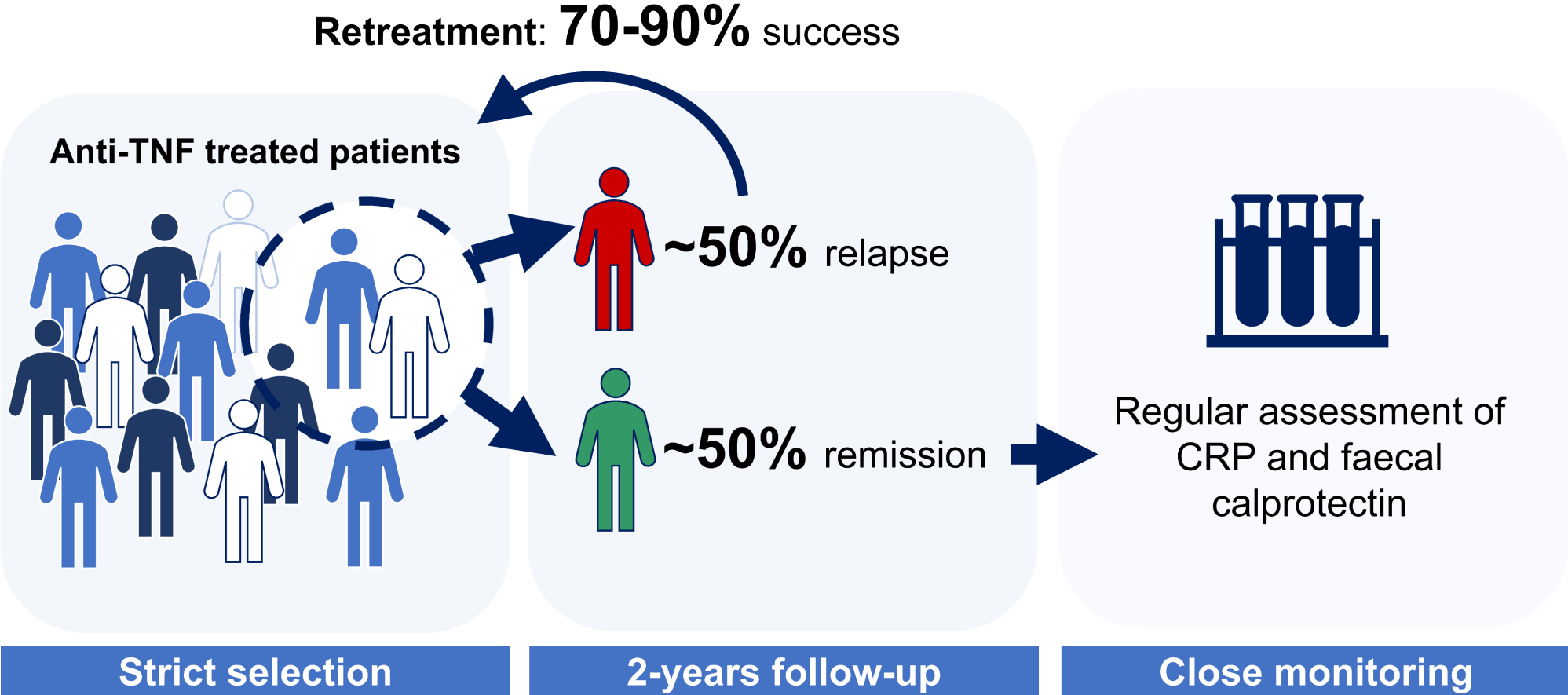
Heterogeneity:  $I^2=64%$ ,  $p<0.01$



Heterogeneity:  $I^2=24%$ ,  $p=0.33$

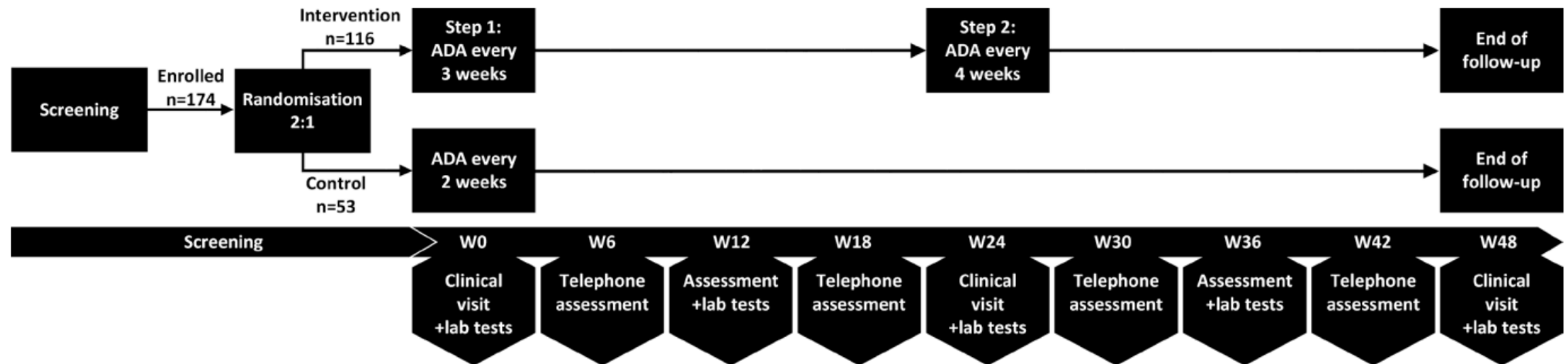


# Summary: anti-TNF withdrawal



# Clinical outcomes of increased versus conventional adalimumab dose intervals for Crohn's disease : the LADI trial

## Matériel et méthodes



**Figure 2** Schematic presentation of the trial design. ADA, adalimumab; W0, week 0; W6, week 6 and so on. Lab tests include haemoglobin, leucocytes, thrombocytes, albumin, C-reactive protein, calprotectin.

# Clinical outcomes of increased versus conventional adalimumab dose intervals for Crohn's disease : the LADI trial

## Résultats

### Objectif primaire

<b>SCHEMA ALLONGE</b>	3/109 (3 %)	pooled adjusted risk difference (paRD): 1.86%, 90% confidence interval (CI): [-0.36%; + 4.12%].
<b>SCHEMA CONVENTIONNEL</b>	0/60 (0 %)	

**→ Poussées persistantes : non-infériorité du schéma allongé (différence incidence cumulée < 15 %)**

# Clinical outcomes of increased versus conventional adalimumab dose intervals for Crohn's disease : the LADI trial

## Résultats

Van Linschoten R, et al. UEG 2022.

### Objectifs secondaires

*Poussées transitoires*

*Rémission clinique S48*

**SCHEMA  
ALLONGE**

2/109 (1,8 %)

74/105 (71 %)

**SCHEMA  
CONVENTIONNEL**

0/60 ( 0 %)

52/57 (91 %)

paRD: 2.68%,  
95% CI: [-0.93%; 6.30%])

paRD: -16.3%  
95% CI: [-30.9%; -1.82%]

# Le futur de la décroissance thérapeutique

- Agir sur les facteurs environnementaux
- Affiner les prédicteurs de rechute à court terme et à long terme (comprendre la dynamique de la rechute et le retour à m'équilibre homéostatique)
- Privilégier le maintien de traitement de fond les plus sécurisants (vedo, anti-IL23...)
- Monitoring serré et cycles de petites molécules (non immunogènes) très actives (JAKi...)

# Conclusions

- La décroissance thérapeutique a du sens dans les maladies chroniques sans destruction d'organe
- Elle correspond à une aspiration des patients
- Elle peut améliorer le coût-bénéfice
- Elle nécessite une meilleure compréhension de la dynamique de la pathologie
- Elle peut s'articuler sur des traitements de maintenance très bien tolérés et des cycles de traitements très efficaces