



MICI: bilan prétraitement et suivi, comment optimaliser

Dr Marc Girardin

Actualités et controverses en gastroentérologie – CHUV 02/2016

Plan

- ▶ **Introduction**
 - ▶ Quels sont les but thérapeutiques et de prise en charge?
- ▶ **Bilan pré-traitement**
 - ▶ Bilan de la maladie
 - ▶ Traitement
 - ▶ Immunomodulateurs
 - ▶ Biologiques
- ▶ **Stratégies de suivi**
 - ▶ Invasives ou non invasives
- ▶ **Conclusion**



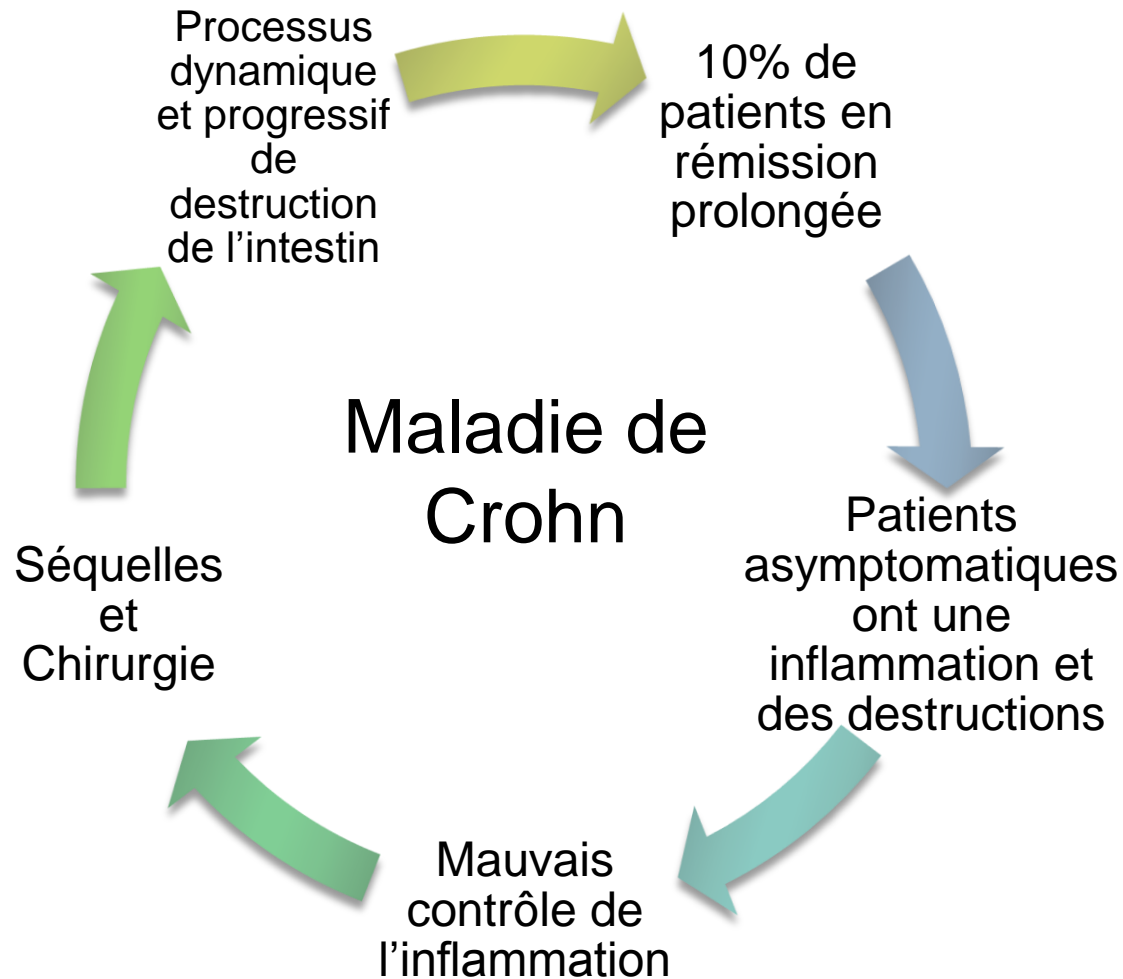
Prise en charge de la maladie de Crohn



«Traditionnelle»
Intensification du
traitement basée
sur les
symptômes

Mauvaise corrélation symptôme-lésion; délai avant
traitement efficace; séquelles-destruction-invalidité

Processus des MICI



Bilan des MICI

- ▶ **Bilan de Base**

- ▶ Localisation de la maladie
- ▶ Intensité de la maladie
- ▶ Catégorie de risque de la maladie



Outils validés

- ▶ **Traitement dédié précisément à ce patient-cette maladie**



Outils validés

- ▶ **6 mois, Evaluation de l'efficacité**

- ▶ **OUI**

- ▶ Poursuite
- ▶ Évaluation périodique



Outils validés

- ▶ **NON**

- ▶ Ré-évaluation → Bilan de Base



Bilan de base de la maladie

1. Iléo-coloscopie
2. Gastroskopie
3. Entéro-IRM
4. US

ECCO statement 2F

For suspected CD, ileocolonoscopy and biopsies from the terminal ileum as well as each colonic segment to look for microscopic evidence of CD are first line procedures to establish the diagnosis [EL1b, RG A]. Irrespective of the findings at ileocolonoscopy, further investigation is recommended to examine the location and extent of any CD in the upper gastrointestinal tract or small bowel [EL5, RG D].

ECCO statement 2G

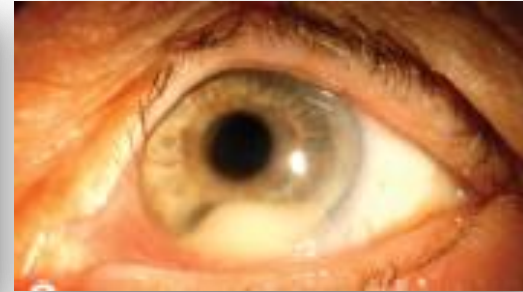
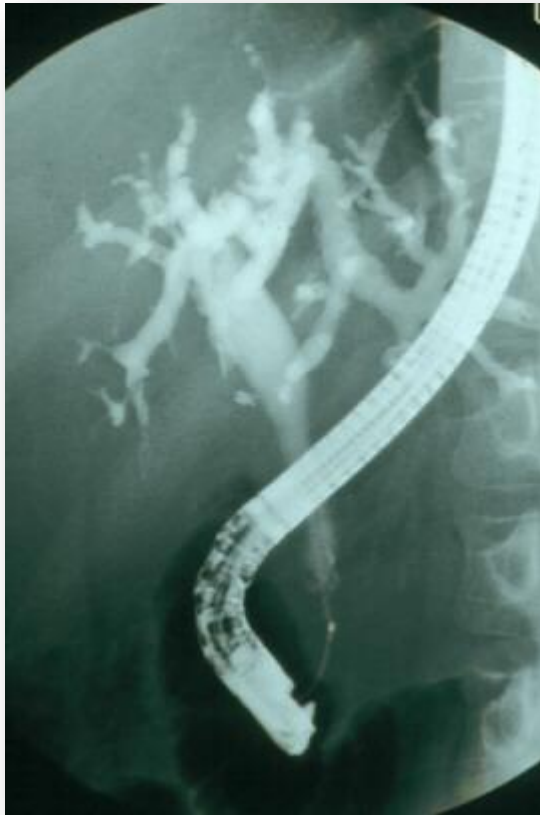
MR and CT enterography or enteroclysis is an imaging technique with the highest diagnostic accuracy for the detection of intestinal involvement and penetrating lesions in CD [EL1b, RGB]. Radiation exposure should be considered when selecting techniques. Because of the lower sensitivity of barium studies, alternative techniques are preferred if available. Transabdominal ultrasonography is a useful additional technique for assessing bowel inflammation.

Classification de Montréal

Age / Location / Behavior	
A1	< 16 years
A2	17 - 40 years
A3	> 40 years

Extent	Anatomy
E1: Ulcerative proctitis	Limited to the rectum
E2: Left sided Ulcerative colitis	Distal to the splenic flexure
E3: Extensive Ulcerative colitis	Proximal to the splenic flexure
B1	Non stricturing non penetrating
B2	Strituring
B3	Penetrating
P	Perianal disease

Atteintes extra-intestinales



Atteintes extra-intestinales

- ▶ 6% - 47%
- ▶ 25% ont plusieurs EIM
- ▶ Après 30 ans de maladie 50% des patients ont eu au moins un EIM

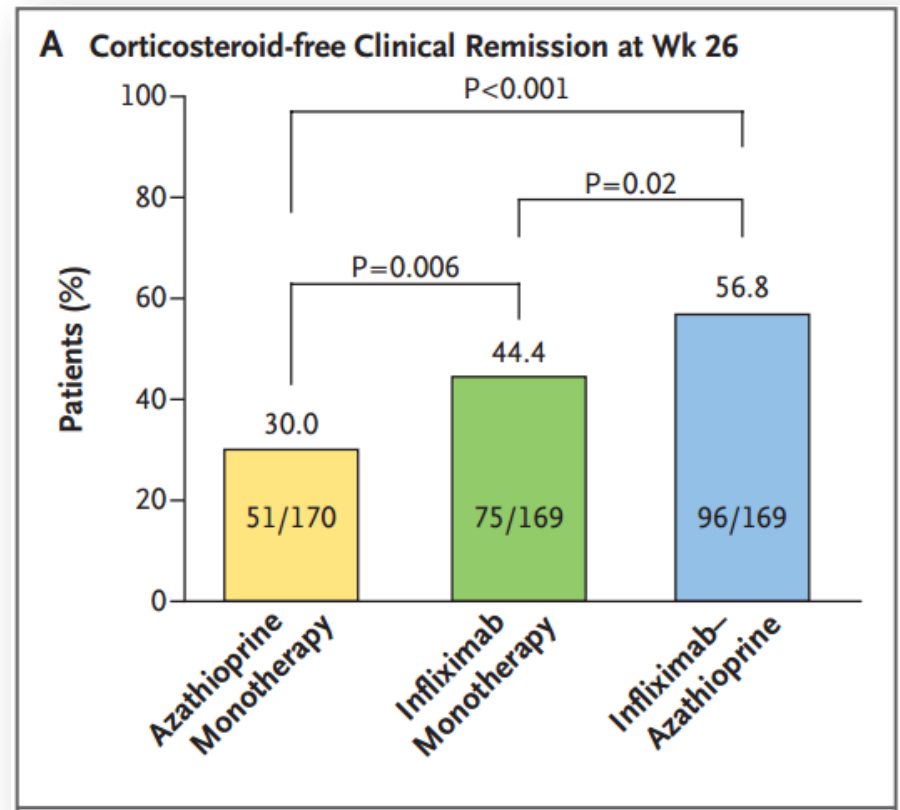
Type	Fréquence
Arthrite	40 %
Arthrite périphérique	5-20 %
Arthrite axiale	3-25 %
Erythème noueux	10-15 %
Pyoderma G.	0.4-2 %
Orales (Aphtes)	10 %
Oculaires	2-5 %

EIM	1 ^{ère} ligne	2 ^{ème} ligne
Arthrites périphérique	Stéroïdes, sulfasalazine, AINS, immunomodulateurs	Anti-TNF
Pyoderma gangrenosum	Stéroïdes, cyclosporine, immunomodulateurs	Anti-TNF
Uvéites	Stéroïdes, cyclosporine	Anti-TNF

- ▶ Vavricka SR et al. Inflamm Bowel Dis. 2015; 21: 1982-92

Critères de gravité – SONIC

- ▶ Maladie à évolution mutilante («disabling»)
 - ▶ CRP élevée
 - ▶ Ulcères creusants
 - ▶ Atteinte pancolique
 - ▶ Age jeune (< 40 ans)
 - ▶ Maladie diffuse grêle
 - ▶ Maladie périanale
 - ▶ Maladie perforante
 - ▶ Stéroïdes d'emblée
- ▶ Bilan approfondi
- ▶ Patients bénéficiant particulièrement d'une thérapie anti-inflammatoire



- ▶ agressive
- ▶ Colombel JF et al. NEJM 2010; 362: 1383-95

E 25 

Lausanne
Genève
Lyon 



E 35 

Milano
Lugano
Locarno
Bellinzona Sud



E 35 

Gotthard
Luzern
Zürich
Rothrist



e-Centre
ction
ernets

Z.I. Acacias



 Altstätten
Kriessern

St.Gallen
St.Margrethen 

E 23 

Lausanne 42 km
Orbe 12 km

E 62 

Genova 

Milano 

Domodossola 

Brig
Martigny

E 25 

St.Gallen 250 km
Zürich 169 km
Basel 140 km
Bern 47 km

Meersburg

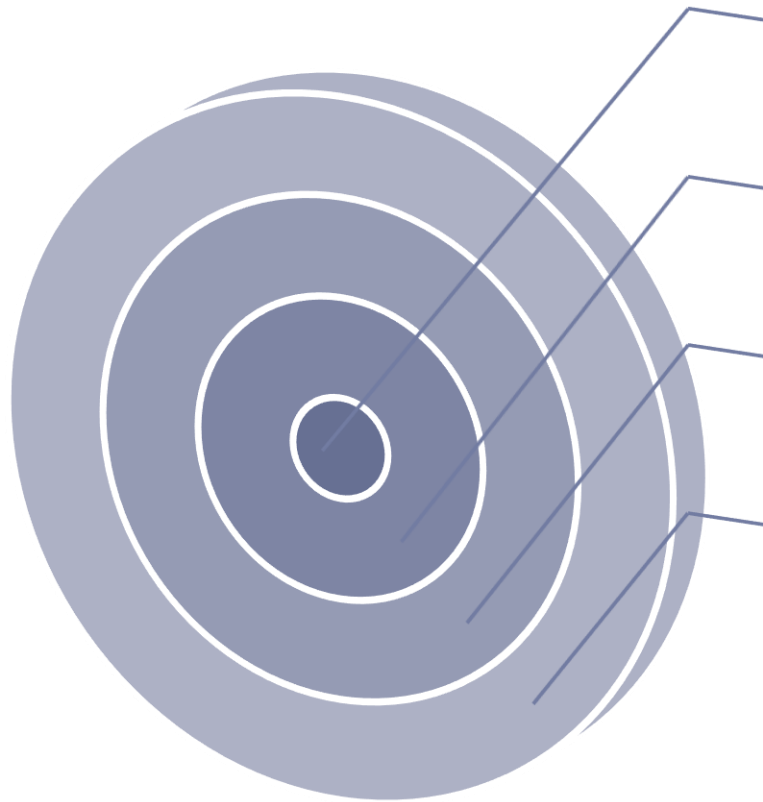




de-Fonds
res 

aux-de-Fonds
t-du-Loche

Cible – améliorer un résultat à long terme



Pression sanguine
(HTA)
Hb glyquée (diabète)

Bilan des MICI

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Outils validés

▶ 6 mois, Evaluation de l'efficacité

▶ OUI

- ▶ Poursuite
- ▶ Évaluation périodique

Outils validés

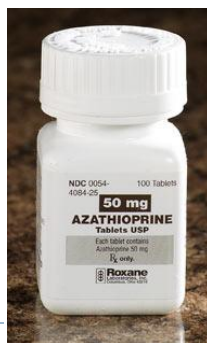
▶ NON

- ▶ Ré-évaluation → Bilan de Base



Traitement – Bilan
Outils validés – Suivi

Quel bilan pré-traitement?



Bilan en général

- ▶ Maladies infectieuses
 - ▶ Tuberculose latente
 - ▶ HBV
 - ▶ HPV
 - ▶ Varicelle
- ▶ Cancer
 - ▶ AP

Journal of Crohn's and Colitis (2014) 8, 443–468



Available online at www.sciencedirect.com

ScienceDirect



CONSENSUS/GUIDELINES

Second European evidence-based consensus on the prevention, diagnosis and management of opportunistic infections in inflammatory bowel disease



J.F. Rahier^{a,*}, F. Magro^{b,c,d}, C. Abreu^e, A. Armuzzi^f, S. Ben-Horin^g, Y. Chowers^h, M. Cottoneⁱ, L. de Ridder^j, G. Doherty^k, R. Ehehalt^l, M. Esteve^m, K. Katsanosⁿ, C.W. Lees^o, E. MacMahon^p, T. Moreels^q, W. Reinisch^{r,s}, H. Tilg^t, L. Tremblay^u, G. Veereman-Wauters^v, N. Vigtet^w, Y. Yazdanpanah^x, R. Eliakim^y, J.F. Colombel^z, on behalf of the European Crohn's and Colitis Organisation (ECCO)

Patient identification

2. PHYSICAL EXAMINATION

Remember to look for and ask about s

3. TUBERCULOSIS SCREENING

Normal chest X-ray

Tuberculin skin test (TST) > 5mm

TST Booster

IFN- γ release assay

QuantiferON, ELISPOT (best discussed with diseases specialist)

1.

Infection history

Bacterial

Fungal

Viral

HSV (cold sores, genital)

VZV (chickenpox and/or shingles)

Other

Parasitic

Treatment for latent or active tuberculosis

Immunization status

BCG (live vaccine)

Environmental risks

Tuberculosis

Potential contact with TB patients

At-risk country of origin or prolonged stay in an endemic area

Plans to travel to TB-endemic area

Other infections

Prolonged stay or plans to travel to tropics or endemic areas

4. LABORATORY TESTS

POS NEG

Serology

EBV

Hep. A V (physician discretion)

Hep. B V

Ag Hbs

Ag Hbe

Ab anti-HBs

Ab anti-HBc

Hep. C V

HIV (after appropriate counselling)

Measles (physician discretion)

Strongyloidiasis (for travellers returning from highly endemic zones²)

VZV (in patients without reliable history of varicella)

Urinalysis

(for patients with history of urinary tract infection or urinary symptoms)

Stool examination for ova, cysts, parasites

(for returning travellers)

5. VACCINATION⁴

NO YES

Date (mm/yyyy)

Routine vaccination²

Diphtheria

____/____/____

Tetanus

____/____/____

Poliomyelitis

____/____/____

Pertussis

____/____/____

HPV vaccine

____/____/____

Ideally at IBD diagnosis

HBV vaccine (seronegative patients)

____/____/____

VZV vaccine (live vaccine - seronegative patients without reliable history of chickenpox/shingles)

____/____/____

Prior to immunomodulation

Inactivated trivalent influenza vaccine (to be administered once a year)

____/____/____

Pneumococcal vaccine (PCV13)

____/____/____

Pneumococcal polysaccharide vaccine (PPSV23)

____/____/____

Booster injection

Pneumococcal polysaccharide vaccine (PPSV23) (single booster injection 5 years later)

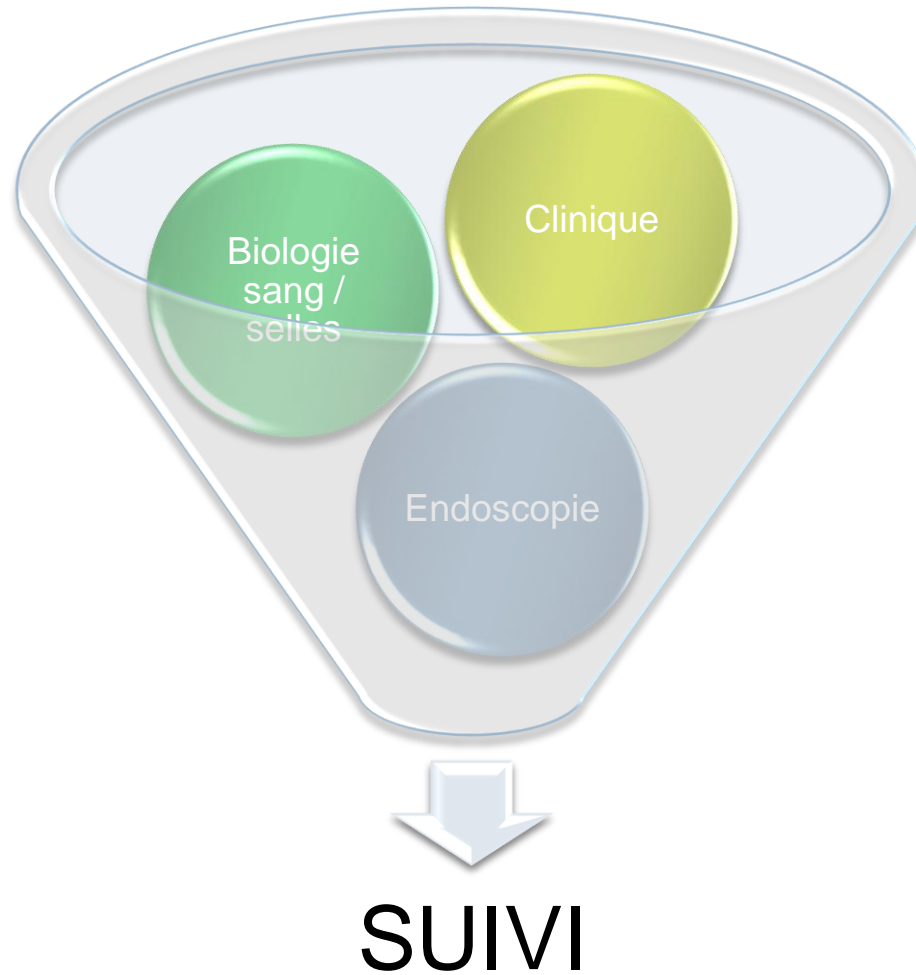
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Bilan spécifique

- ▶ Azathioprine
 - ▶ TPMT
 - ▶ EBV
- ▶ Méthotrexate
 - ▶ Tests hépatiques
 - ▶ HCV
- ▶ Biologiques
 - ▶ Anti-TNF
 - ▶ Insuffisance cardiaque
 - ▶ AP ou AF de sclérose en plaque
 - ▶ Anti-intégrine
 - ▶ Atteintes neurologiques

Examens	Avant thérapie
Hémoglobine, MCV Leucocytes ($< 3 \times 10^3/\mu\text{l}$: Diff.), Thrombocytes	+
Créatinine, transaminases	+
Sérologie hépatite B, C, HIV	+
Albumine	+
Dosage d'acide folique	+
Radiographie du thorax	+
Fonction pulmonaire avec capacité de diffusion	facultatif

Suivi



Buts du suivi

▶ Médical

- ▶ Moins d'hospitalisation
- ▶ Moins de chirurgie
- ▶ Moins d'effets secondaires (infections et cancer)

▶ Qualité de vie

- ▶ Moins de symptôme
- ▶ Travail
- ▶ Loisirs



Médicaments

- ▶ Methotrexate
 - ▶ Tests hépatiques
 - ▶ Pulmonaire
- ▶ Azathioprine
 - ▶ Tests sanguins

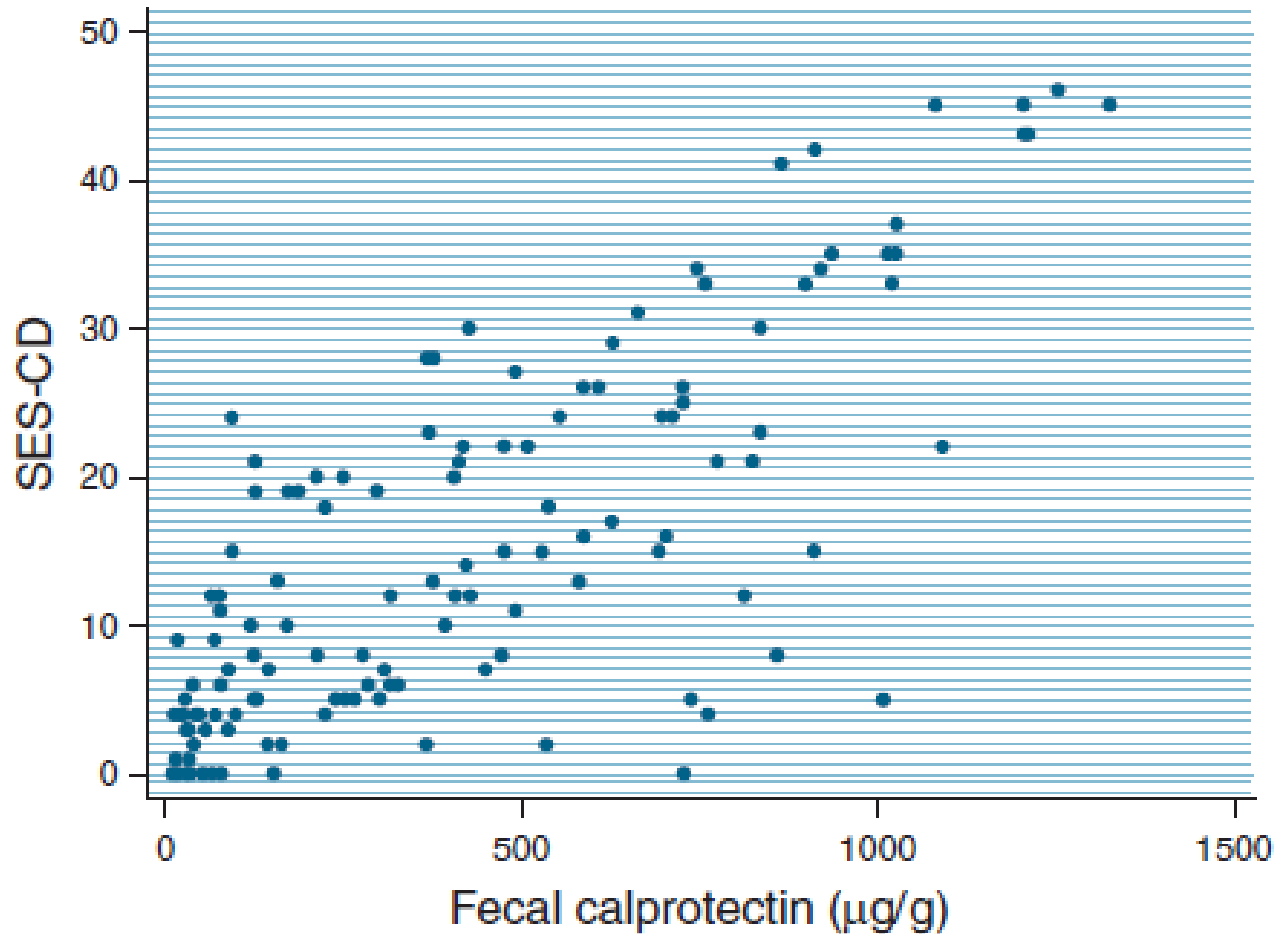
Examens	1er mois	2ème mois	A partir du 3ème mois
Hémoglobine, MCV Leucocytes (< 3 x 10 ³ /µl: Diff.), Thrombocytes	Chaque semaine	chaque 2 semaines	chaque 1 à 2 mois
Créatinine, transaminases	Chaque semaine	chaque 2 semaines	chaque 2 mois
Sérologie hépatite B, C. HIV			
Albumine			chaque 3 à 6 mois

Monitoring

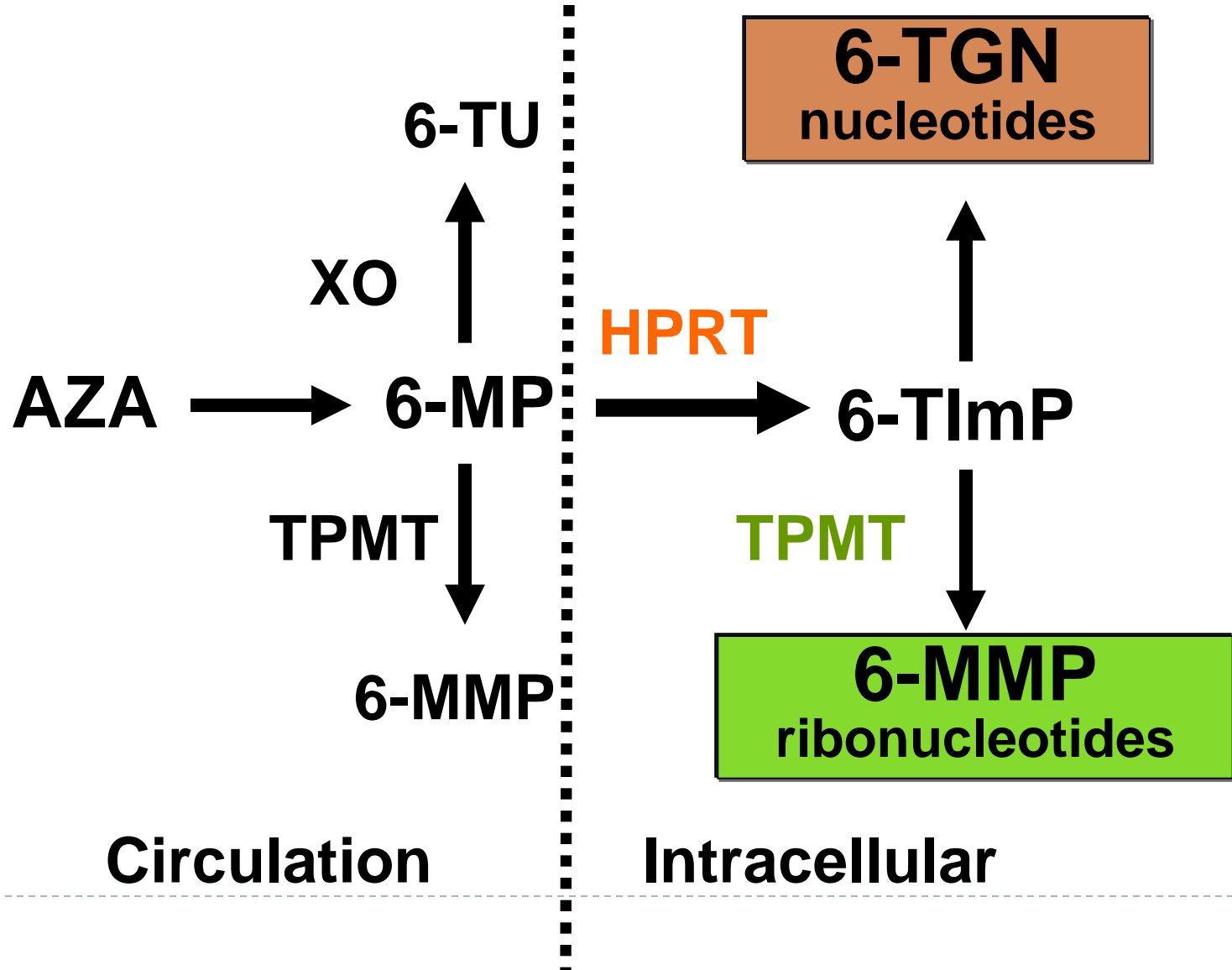
- ▶ Vérifier la compliance
- ▶ Optimiser la prise d'un traitement
 - ▶ Coûts
- ▶ Optimiser l'effet du traitement
 - ▶ Clinique
 - ▶ Le dosage ou l'intervalle
 - ▶ Eviter les effets secondaires
 - ▶ Endoscopique: «mucosal healing»
 - ▶ Immunogénéicité: combothérapie
- ▶ Aider à la prise de décision



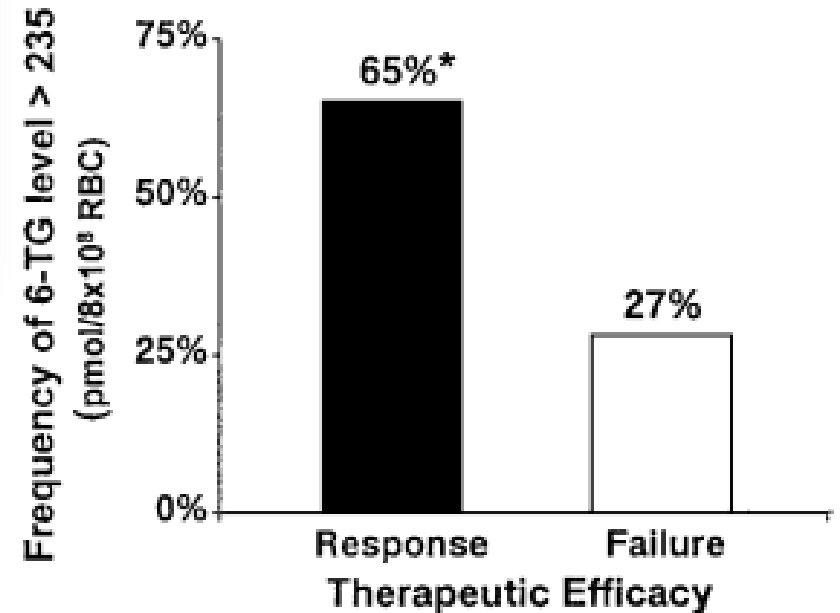
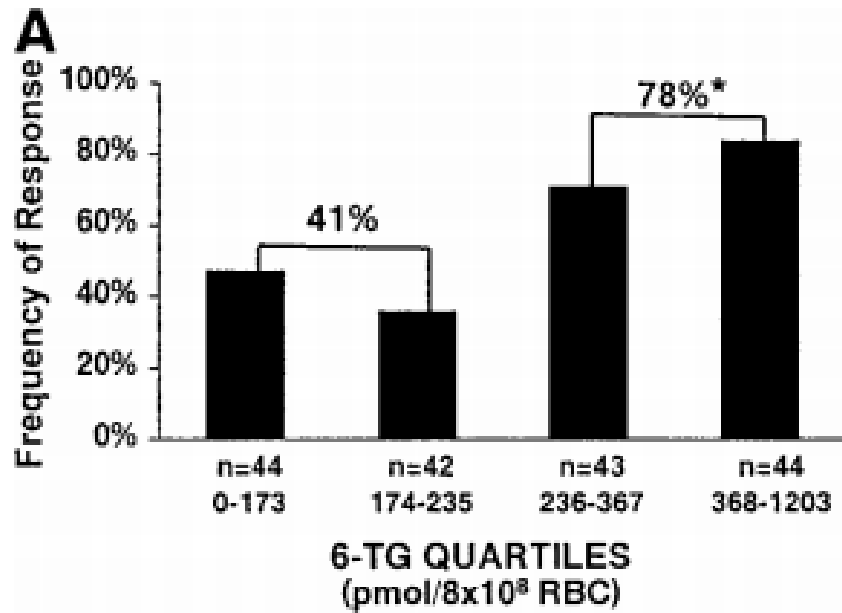
Calprotectine



Thiopurines – 6-TGN / 6-MMP



Metabolite Measurement for thiopurine

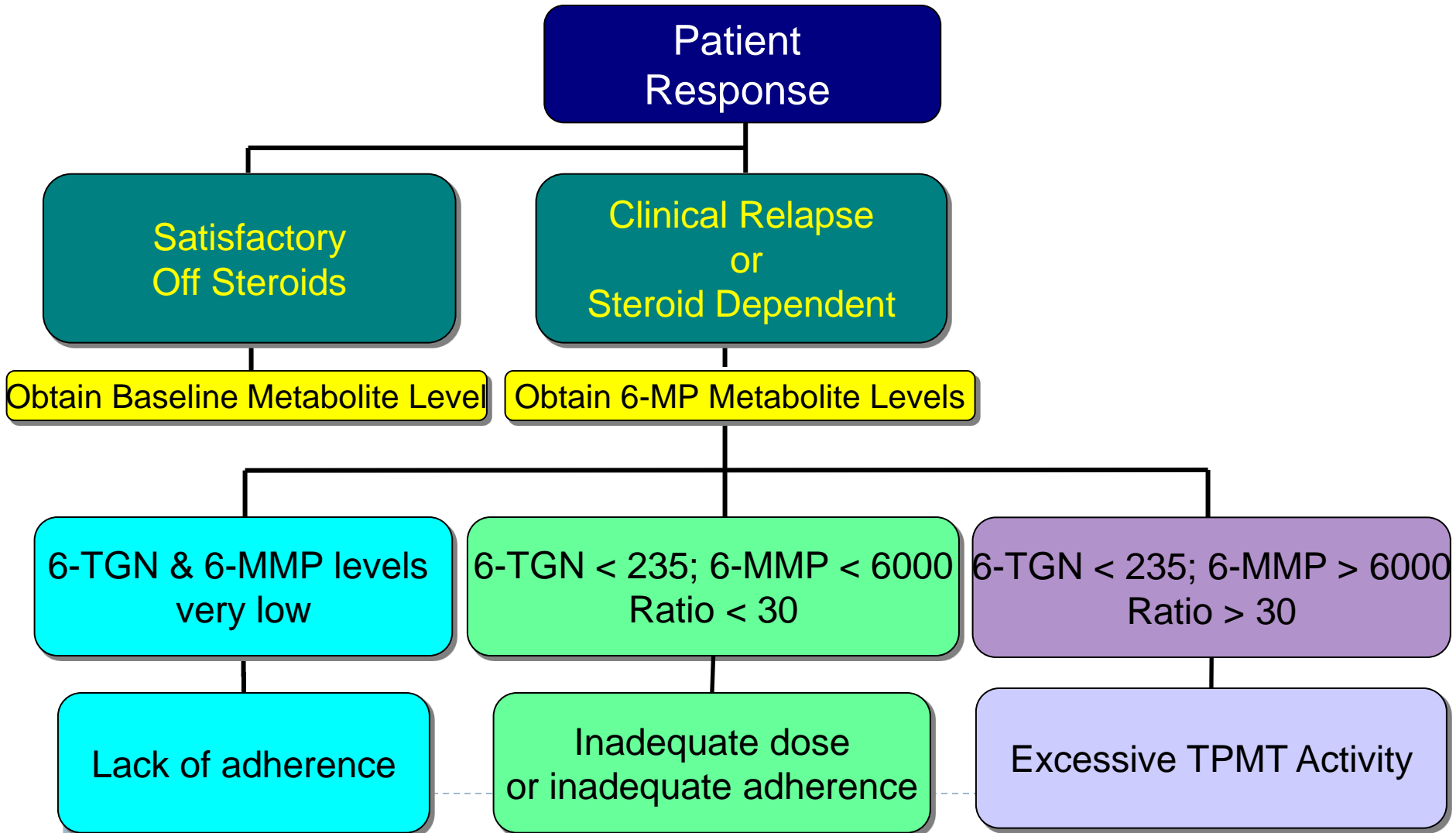


6-MMP/6-TG Ratio Reflects TPMT Activity & Therapeutic Outcomes

6-MMP / 6-TGN	TPMT genotype	Likelihood of Clinical Response (potential toxicity)
<3	Deficient (heterozygote)	High (myelotoxicity)
3-30	Normal (wild type)	Very good
30 to >100	Excessive (wild type)	Low to Very low (hepatotoxicity)

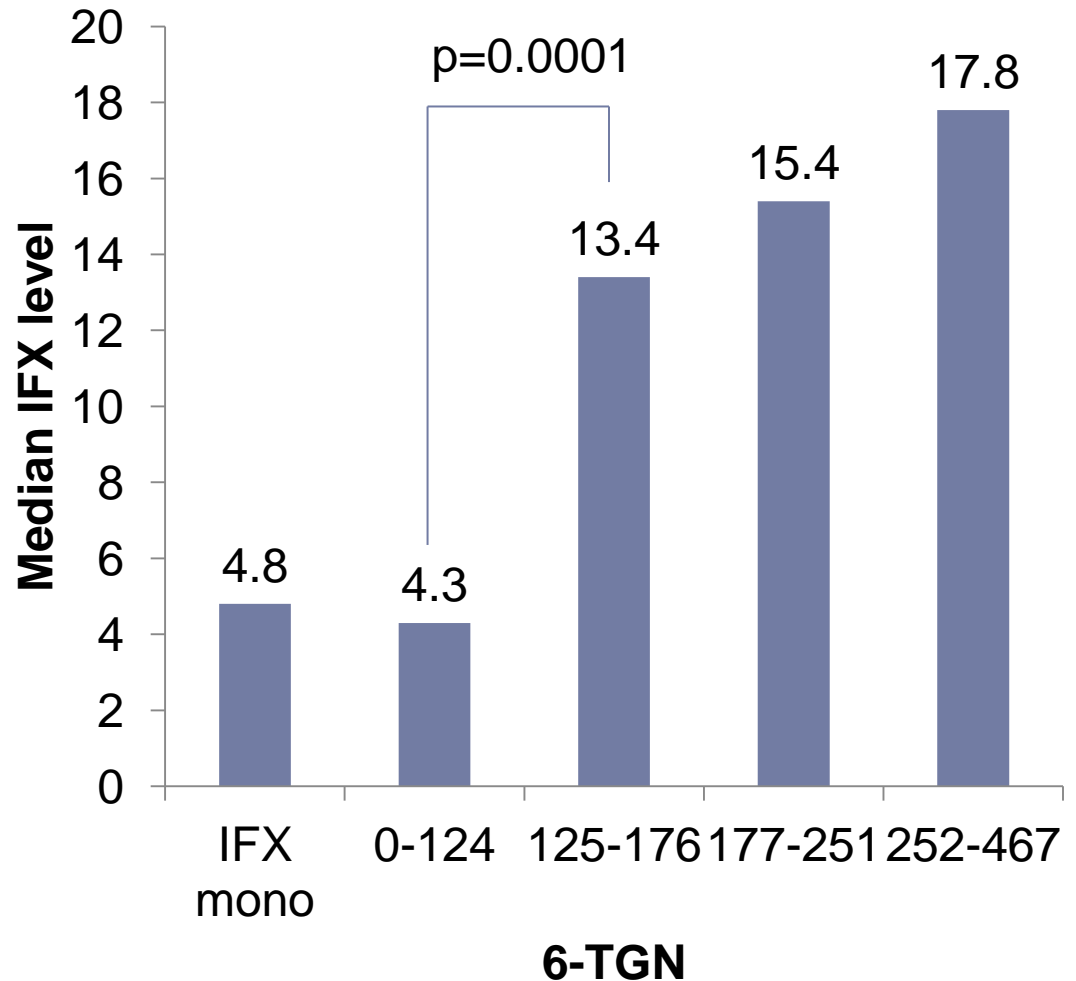


Algorithm to Interpret 6-MP Metabolite Levels



Taux de 6-TGN – TL IFX

- ▶ 72 patients
- ▶ Maintien sous combothérapie
- ▶ Groupe contrôle avec IFX seul
- ▶ ATI → 6-TGN plus bas
- ▶ 6-TGN < 125 → ATI
- ▶ TL > 8 → mucosal healing



TL pour prédire la rémission (SONIC)

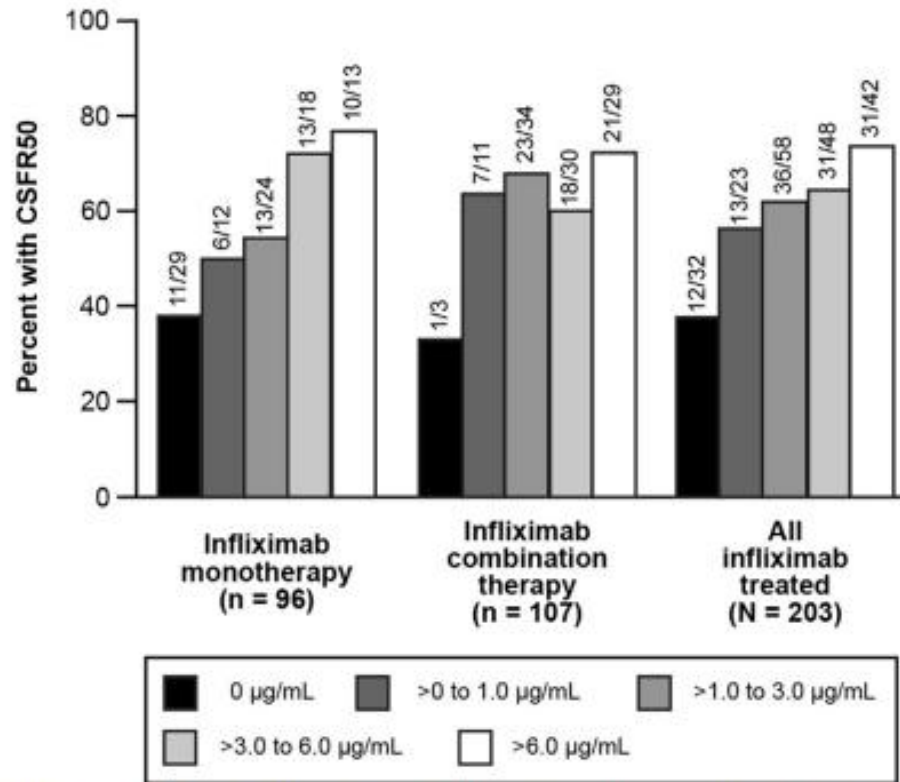
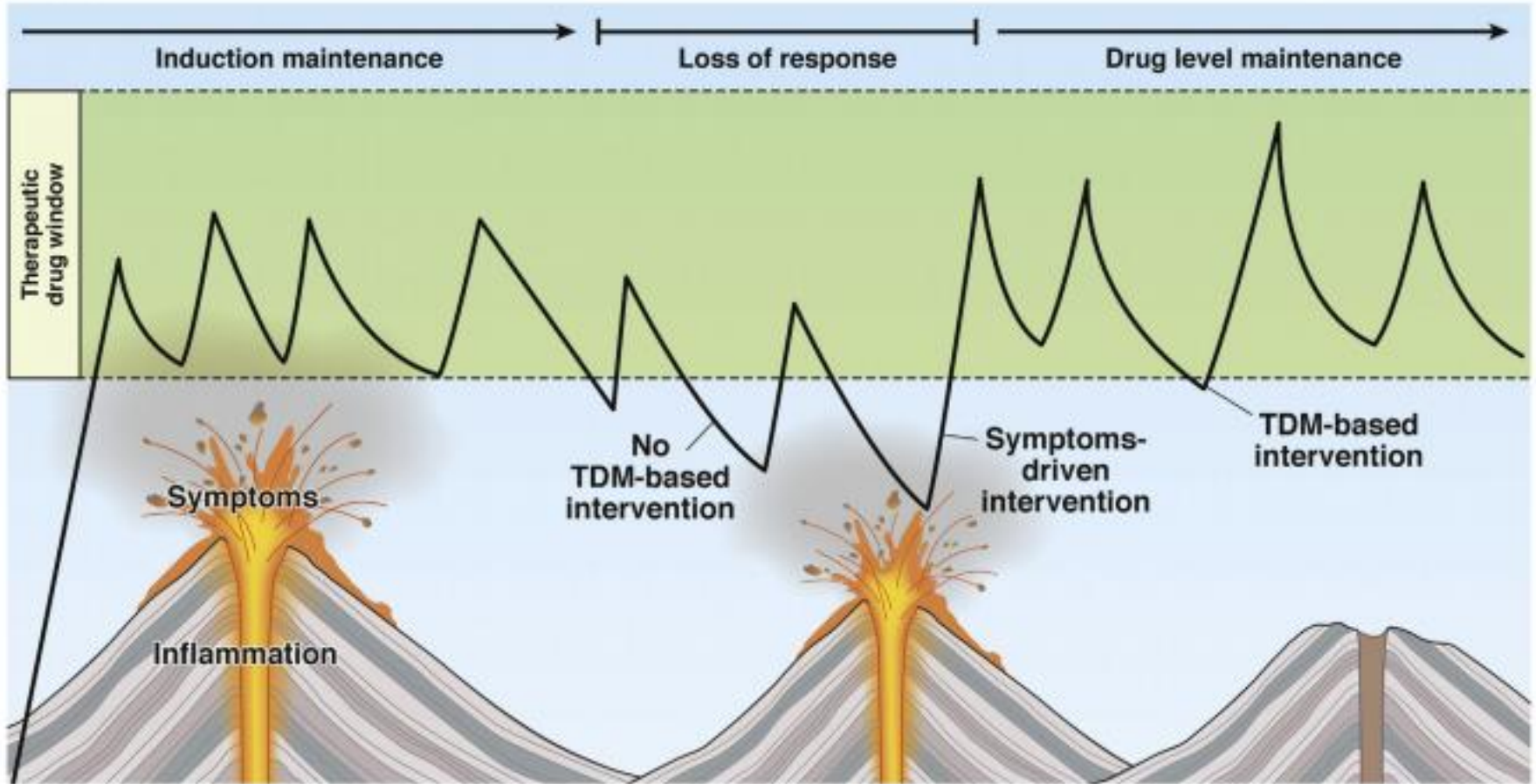


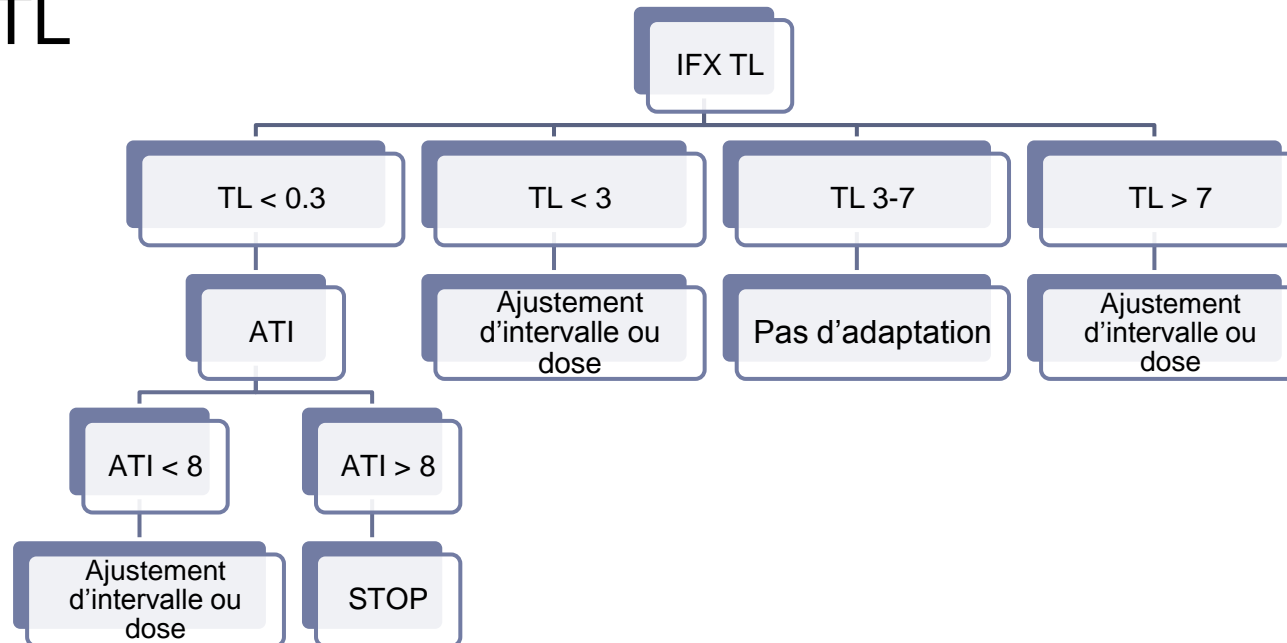
Figure 3. Association of CSFR50 using selected SIC30 ranges. Note: Patients with infliximab concentrations less than .1 µg/mL, are classified as zero. SIC30, serum infliximab concentration at week 30; CSFR50, corticosteroid-free remission at week 50.

Suivi: TL ou clinique?

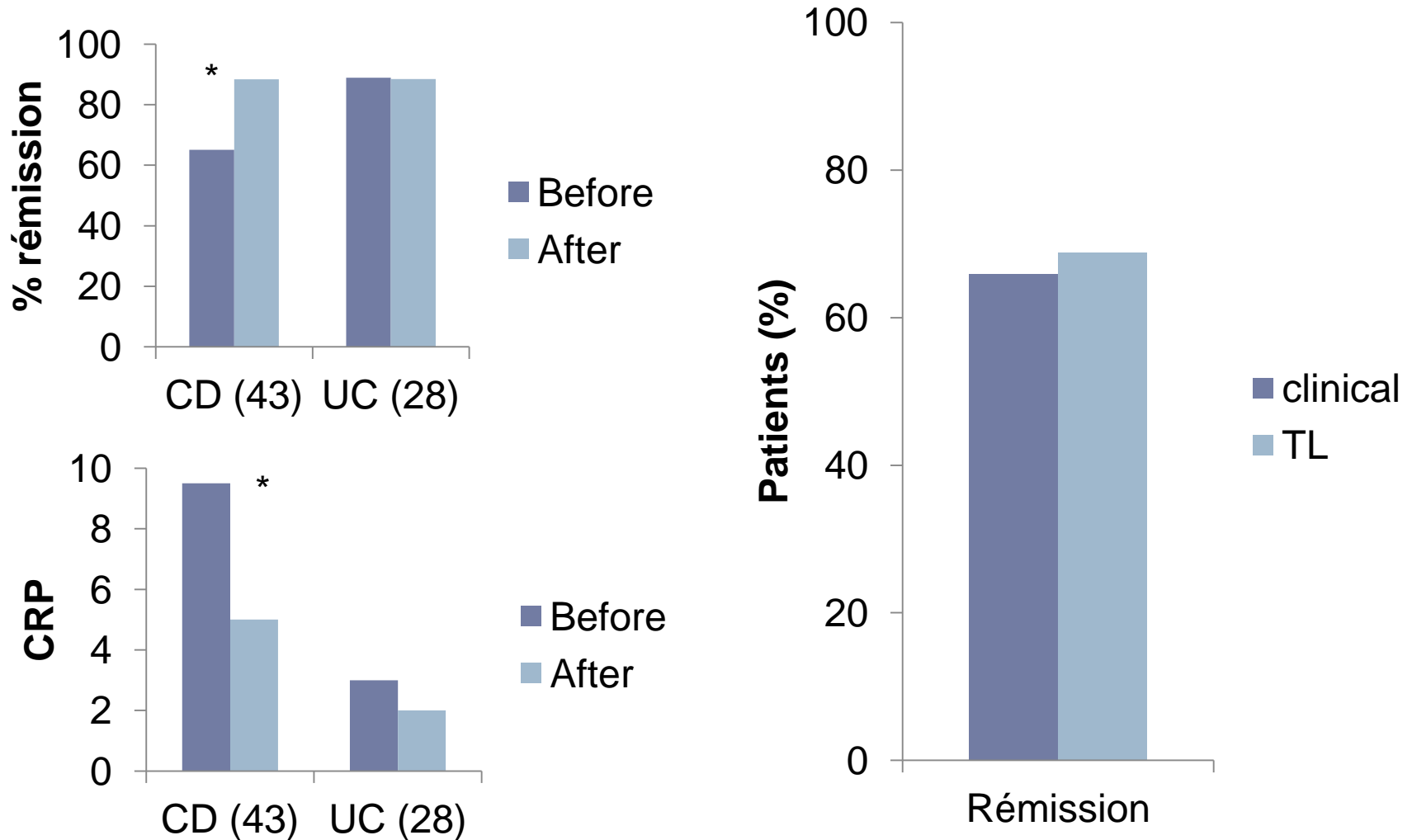


Suivi basé sur les TL – TAXIT

- ▶ RCT, 1 an de suivi
- ▶ 263 patients avec maladie stable sous IFX
- ▶ Modification des doses pour atteindre 3-7 ug/ml
- ▶ Randomisation entre adaptation clinique ou basée sur TL



Suivi basé sur les TL – TAXIT



TL

- ▶ Adaptation du traitement à la hausse
 - ▶ Meilleure efficacité du traitement
- ▶ Adaptation du traitement à la baisse
 - ▶ Baisse des coûts
- ▶ Pas d'effet sur le long terme (suivi plus long)
- ▶ Dans la vraie vie, utilisation du dosage pour optimiser le traitement lorsque la clinique le nécessite



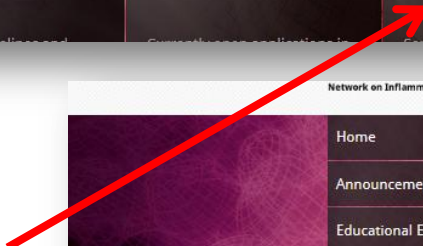
IBDnet

Swiss Research and Communication
Network on Inflammatory Bowel Disease



The IBDnet is a Swiss interest group of medical doctors and scientists specializing in inflammatory bowel disease. The aim is the promotion of research and communication on etiology, diagnosis and therapy in order to improve patient outcomes.

IBD-related guidelines	Announcements General information	Educational Events IBD focussed continous education	Paper of the month Selection of clinically relevant publications	Ongoing Clinical Studies National and international clinical studies in Switzerland	
	Guidelines	Grants and Awards	Diagnostic Tools	Patient Information	



Network on Inflammatory Bowel Disease

- Home
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- Educational Events
- Paper of the Month
- Ongoing Clinical Studies
- Guidelines
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- Diagnostic Tools**
- Patient Information

Diagnostic Tools


Trough Level Testing

Lisa Tracker from Theradiag at CHUV
Serum drug level and anti-drug antibody + TNFalpha Testing from THERADIAG are available at Lausanne University Hospital:

[Test Description Theradiag \(french\)](#)

Information of how to proceed to get a test done:
[auf Deutsch](#) [en francais](#)

Order Form CHUV:
[auf Deutsch](#) [en francais](#)




Promonitor from Progenika at Unilabs
Serum Level and Antibody Testing for Infliximab (and Adalimumab) and also free TNFalpha from PROMONITOR are available at Unilabs:

[Test Description](#)

Information of how to proceed to get a test done:
[auf Deutsch](#) and [en francais](#)

Order Form Unilabs
[auf Deutsch](#) and [en francais](#)




Conclusion

- ▶ Approche traditionnelle → «Treat to Target»
- ▶ Maladie et patient doivent être bien bilanté avant de choisir la bonne option de traitement
- ▶ Plan de suivi doit être établi
 - ▶ Calprotectine
 - ▶ Endoscopie
 - ▶ Métabolites ou taux de médicament





« Se former au Québec, c'est toute une formation... car il faut déjà se rendre au travail! »