



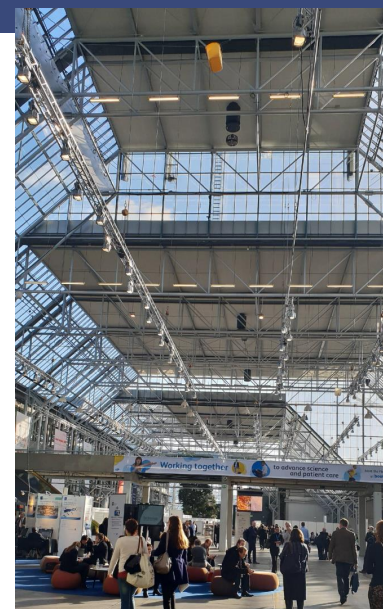
Pracovní  
skupina  
pro IBD



# Co zaujalo gastroenterologa na ECCO kongresu 2019

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# Cost analysis in a prospective European population-based inception cohort: is there a cost-saving effect of biological therapy?

J.Burish, Denmark

- 31 centres in 20 European countries in 2010
- Population-based, inception cohort (newly diagnosed pts with IBD)
- 5 years of follow-up
- 1362 IBD patients (Western Europe: 1,104; Eastern Europe: 258);
- 52% UC, 37% CD, 11% IBD unclassified

# Cost analysis in a prospective European population-based inception cohort: is there a cost-saving effect of biological therapy?

## Crohn's disease

	PY1	PY2	PY3	PY4	PY5
Total expenditure	5579€	1820€	1714€	1907€	1669€
Biological therapy (%)	11	46	51	48	55
Other IBD-related medication (%)	5	13	11	11	12
Hospitalisation (%)	20	14	11	11	6
Diagnostic procedures (%)	34	17	11	12	10
Surgery (%)	30	9	16	18	17

# Cost analysis in a prospective European population-based inception cohort: is there a cost-saving effect of biological therapy?

## Ulcerative colitis

	PY1	PY2	PY3	PY4	PY5
Total expenditure	3612€	1421€	810€	983€	674€
Biological therapy (%)	2	7	20	19	25
Other IBD-related medication (%)	15	23	29	21	26
Hospitalisation (%)	35	29	21	33	17
Diagnostic procedures (%)	38	20	20	19	19
Surgery (%)	10	21	10	8	13

# Cost analysis in a prospective European population-based inception cohort: is there a cost-saving effect of biological therapy?

## Conclusion:

- overall direct expenditure on healthcare decreased over a 5-year
- remarkably increasing expenditure on biologics
- decreasing expenditure on standard medical treatments, surgery, and hospitalisation
- cost-saving effect of biological medications.

# Effectiveness and safety of ustekinumab 90 mg every 4 weeks in Crohn's disease

M.Fumery, France

- Data from EPIMAD registry
  - The EPIMAD registry covers almost 6 million inhabitants (9.3% of the entire French population)
  - the major data source is represented by all adult and pediatric gastroenterologists (n=254)
  - currently, near of 29000 incident IBD cases are recorded in our database.
- Patients who required ustekinumab dose escalation to 90 mg q4W for loss of response or inadequate response to ustekinumab 90 mg q8W were included in this retrospective multi-centre cohort study

# Effectiveness and safety of ustekinumab 90 mg every 4 weeks in Crohn's disease

## Results:

- 76 patients, median age 33 years, median disease duration 12 years
- UST was associated with corticosteroids and immunosuppressants in 32% of cases
- **Clinical response in 57% after a median of 2.1 months**
- After a median follow-up of 8.2 months, 47% still on ustekinumab, 26% in steroid-free clinical remission
- 35% (n = 27/76) were hospitalised, and 22% (n = 17/76) underwent surgery
- AE: 9% of pts, 2 SAE (pneumonitis, infectious colitis)
- **colonic location** (HR, 4.6 (95% CI, 1.8–8.4); p = 0.047), **inflammatory behaviour (B1)** (HR, 9.1 (95% CI, 1.2–16.5); p = 0.015) and **duration of ustekinumab therapy before optimisation** (HR, 3.2 (95% CI, 1.2–5.4); p = 0.043) were associated with clinical response at 2 months



# VARSlTY: A double-blind, double-dummy, randomised, controlled trial of vedolizumab versus adalimumab in patients with active ulcerative colitis

S. Schreiber, Germany

- head-to-head study, vedolizumab (VDZ) and adalimumab (ADA) for treatment over 52 weeks in adults with moderately to severely active ulcerative colitis (UC)
- standard regimen, no intensification allowed
- failed other conventional therapies, 25% had prior anti-TNF
- **primary endpoint:** clinical remission, defined as a complete Mayo score  $\leq 2$  with no sub-score  $> 1$  at week 52



# VARSlTY: A double-blind, double-dummy, randomised, controlled trial of vedolizumab versus adalimumab in patients with active ulcerative colitis

## Results:

- 769 patients, VDZ (n = 383) or ADA (n = 386)
- **Remission rates** at week 52: 31.3% (n = 120/383) for VDZ and 22.5% (n = 87/386) for ADA (p = 0.0061).
- **Mucosal healing** at Week 52: 39.7% for VDZ and in 27.7% for ADA (p=0.0005)
- Corticosteroid-free remission rates at Week 52 showed a numerical but non-significant difference in favour of ADA

# Efficacy and safety of ustekinumab as maintenance therapy in ulcerative colitis: Week 44 results from UNIFI

W.J. Sandborn, USA

- Moderate–severe active UC who failed conventional or biologic therapy (including anti-TNF and/or vedolizumab) and were in clinical response 8 weeks after receiving a single UST IV induction dose.
- Primary endpoint: clinical remission at Week 44 (52 weeks after IV induction);
- Key secondary endpoints: maintenance of clinical response, endoscopic healing, corticosteroid-free clinical remission, and maintenance of clinical remission among patients who achieved clinical remission at baseline

# Efficacy and safety of ustekinumab as maintenance therapy in ulcerative colitis: Week 44 results from UNIFI

## Efficacy

	PBO SC <sup>a</sup>	UST 90 mg SC q12w	UST 90 mg SC q8w
Number of randomised patients	175	172	176
Patients in clinical remission at Week 44 <sup>b</sup>	42 (24.0%)	66 (38.4%) p=0.002	77 (43.8%) p<0.001
Patients maintained clinical response through Week 44 <sup>c</sup>	78 (44.6%)	117 (68.0%) p<0.001	125 (71.0%) p<0.001
Patients achieved endoscopic healing at Week 44 <sup>d</sup>	50 (28.6%)	75 (43.6%) p=0.002	90 (51.1%) p<0.001
Patients in clinical remission and not receiving corticosteroids at Week 44 <sup>b</sup>	41 (23.4%)	65 (37.8%) p=0.002	74 (42.0%) p<0.001
Patients who maintained clinical remission through Week 44 among patients in remission at maintenance baseline <sup>b</sup>	17/45 (37.8%)	26/40 (65.0%) p=0.011	22/38 (57.9%) p=0.069

# Efficacy and safety of ustekinumab as maintenance therapy in ulcerative colitis: Week 44 results from UNIFI

## Adverse events

	PBO SC <sup>a</sup>	UST 90 mg SC q12w	UST 90 mg SC q8w
Randomised patients	175	172	176
Average duration of follow-up (weeks)	42.3	41.8	42.2
Average exposure (number of administrations)	7.1	7.3	7.4
Patients who died	0	0	0
Patients with 1 or more			
Adverse events	138 (78.9%)	119 (69.2%)	136 (77.3%)
Serious adverse events	17 (9.7%)	13 (7.6%)	15 (8.5%)
Infections	81 (46.3%)	58 (33.7%)	86 (48.9%)
Serious infections	4 (2.3%)	6 (3.5%)	3 (1.7%)
AEs leading to DC of study agent	20 (11.4%)	9 (5.2%)	5 (2.8%)
Malignancies (excluding NMSC)	0	1 (0.6%)	1 (0.6%)

# A novel formulation of CT-P13 (infliximab biosimilar) for subcutaneous administration: 1-year result from a Phase I open-label randomised controlled trial in patients with active Crohn's disease

W.Reinish, Austria

- CT-P13 IV 5 mg/kg at Weeks 0 and 2, and randomised into four cohorts at Week 6
- Cohort 1: CT-P13 IV 5 mg/kg every 8 weeks
- Cohorts 2–4: CT-P13 SC 120 mg, 180 mg, and 240 mg, respectively, every 2 weeks up to Week 54



# A novel formulation of CT-P13 (infliximab biosimilar) for subcutaneous administration: 1-year result from a Phase I open-label randomised controlled trial in patients with active Crohn's disease

## Results:

- In total, 44 patients were randomly assigned to 4 cohorts (1:1:1:1 ratio)
- clinical response results were comparable between IV and SC cohorts after randomisation at Week 6 up to Week 30, whereas **clinical remission** appears to be numerically **higher in the SC cohorts at Week 54**. (Table 1).
- The **mean  $C_{trough}$**  (pre-dose serum concentration of CT-P13 before next dose injection) **in the SC cohorts** throughout the study visits were **higher than those of IV cohort** after randomisation.
- $C_{trough}$  values increased with SC dose and were substantially greater than the target therapeutic concentration ( $5 \mu\text{g/ml}$ )<sup>3</sup> throughout the study period (Figure 1).
- Safety profiles for CT-P13 SC cohorts were also comparable to the IV cohort.
- In total, **injection site reactions** were reported in **11.4%** of the patients, but all cases were of Grade **1 or 2 in intensity** (Table 1).

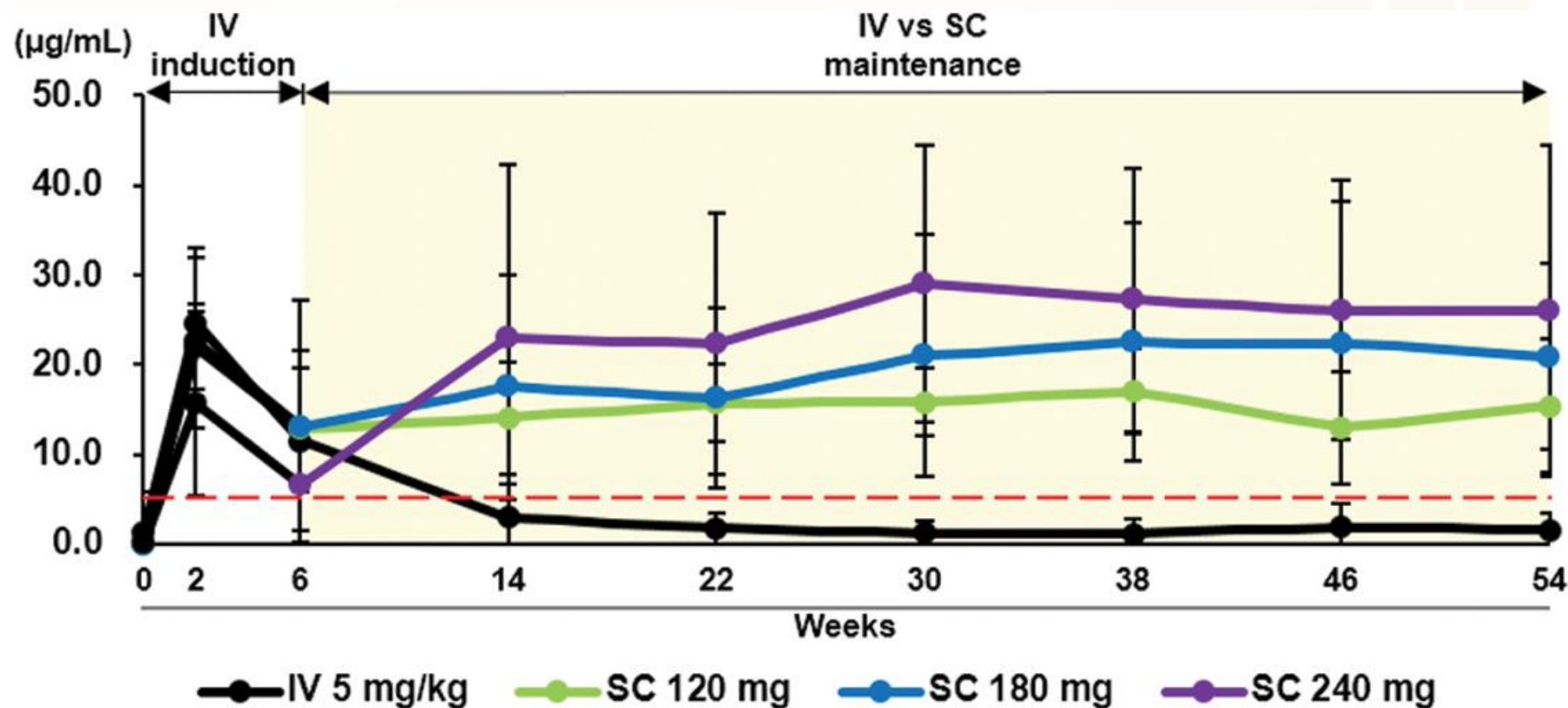
# A novel formulation of CT-P13 (infliximab biosimilar) for subcutaneous administration: 1-year result from a Phase I open-label randomised controlled trial in patients with active Crohn's disease

Efficacy and safety		Cohort 1 IV 5 mg/kg (N=12 <sup>a</sup> )	Cohort 2 SC 120 mg (N=11)	Cohort 3 SC 180 mg (N=12)	Cohort 4 SC 240 mg (N=7 <sup>a</sup> )
CDAI-70 response, n (%)	Week 6	7 (58.3)	9 (81.8)	7 (58.3)	5 (71.4)
	Week 22	9 (75.0)	9 (81.8)	9 (75.0)	5 (71.4)
	Week 30	8 (66.7)	9 (81.8)	10 (83.3)	5 (71.4)
	Week 54	7 (58.3)	9 (81.8)	7 (58.3)	6 (85.7)
Clinical remission, n (%)	Week 6	3 (25.0)	6 (54.5)	2 (16.7)	1 (14.3)
	Week 22	5 (41.7)	7 (63.6)	4 (33.3)	3 (42.9)
	Week 30	7 (58.3)	9 (81.8)	7 (58.3)	5 (71.4)
	Week 54	4 (33.3)	8 (72.7)	7 (58.3)	4 (57.1)
Endoscopic response, n/N(%) <sup>b,d</sup>	Week 30	4/6 (66.7)	6/7 (85.7)	7/7 (100.0)	4/5 (80.0)
	Week 54	5/7 (71.4)	8/8 (100.0)	4/4 (100.0)	3/4 (75.0)
Endoscopic remission, n/N(%) <sup>c,d</sup>	Week 30	3/7 (42.9)	3/8 (37.5)	3/9 (33.3)	1/6 (16.7)
	Week 54	3/7 (42.9)	6/9 (66.7)	1/4 (25.0)	2/6 (33.3)
		Cohort 1 IV 5 mg/kg (N=13)	Cohort 2 SC 120 mg (N=11)	Cohort 3 SC 180 mg (N=12)	Cohort 4 SC 240 mg (N=8)
Safety, n (%)	Treatment-emergent AEs	10 (76.9)	9 (81.8)	8 (66.7)	6 (75.0)
	Administration-related reactions	1 (7.7)	0	0	1 (12.5)
	Injection site reactions	0	1 (9.1)	3 (25.0)	1 (12.5)
	Infections	3 (23.1)	7 (63.6)	2 (16.7)	4 (50.0)



# A novel formulation of CT-P13 (infliximab biosimilar) for subcutaneous administration: 1-year result from a Phase I open-label randomised controlled trial in patients with active Crohn's disease

## Mean ( $\pm$ SD) pre-dose concentration of CT-P13 vs. time by cohort



Note. Red dashed line indicates target exposure level (5.0 µg/mL)

# Pregnancy outcomes in IBD patients treated with vedolizumab, anti-TNF, or conventional therapy

A.Moens, Belgium

- data on vedolizumab exposed pregnancies (VDZE) are scarce
- Results compared with anti-TNF exposed (TNFE, group B) or both immunomodulatory and biologic unexposed (IBU, group C) pregnancies

# Pregnancy outcomes in IBD patients treated with vedolizumab, anti-TNF, or conventional therapy

## Results:

- **Group A (VDZ):** 86 pregnancies in 81 women [53% Crohn's disease (CD), 70 live births]
  - **35%** had active disease, **17%** were on **steroids** and **20%** on **immunomodulators**, **54%** previously failed two biologicals
- **Group B (TNFE):** 186 pregnancies in 155 women, **Group C (IBU):** 185 pregnancies in 164 women
  - **less active disease** at conception (B:16%, C:24%) and **fewer were taking steroids** (B: 8%, C: 14%).
- **More miscarriages** were seen in **group A compared with B** (16% vs. 13%,  $p = 0.46$ ) and **C** (16% vs. 8%,  $p = 0.03$ ), **after excluding patients with reported active disease** in pregnancy, the **number of miscarriages was similar** in group A compared with B (14% vs. 14%,  $p = 1.0$ ) and C (14% vs. 12%,  $p = 0.80$ ).

# Pregnancy outcomes in IBD patients treated with vedolizumab, anti-TNF, or conventional therapy

	Group A VDZE (n=70)	Group B TNFE (n=162)	Group C IBU (n=163)	P-value (A vs B)	P-value (A vs C)
Gender (F) (%)	42/70 (60)	86/144 (60)	77/150 (51)	1.000	0.248
Median (IQR) gestational age (weeks)	39 (38-40)	39 (38-40)	39 (38-40)	0.166	0.710
Median (IQR) Apgar score at birth	9 (9-10)	9 (9-9)	9 (9-9)	0.004	0.012
Median (IQR) birth weight (grams)	3298 (2868-3600)	3215 (2835-3555)	3237 (2867-3500)	0.452	0.393
Premature born children (%)	11/70 (16)	14/162 (9)	12/163 (7)	0.164	0.058
Small for gestational age (%)	4/70 (6)	6/162 (4)	7/163 (4)	0.494	0.738
Breastfeeding (%)	42/69 (61)	85/142 (60)	88/138 (64)	1.000	0.761
Congenital anomalies (%)	3/70 (4)	4/162 (2)	3/163 (2)	0.434	0.368
Infections during the first year of life (%)	5/70 (7)	7/67 (10)	7/59 (12)	0.556	0.380
Malignancies during the first year of life (%)	0	0	0	NA	NA



# Pregnancy outcomes in IBD patients treated with vedolizumab, anti-TNF, or conventional therapy

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**Děkuji za pozornost**

