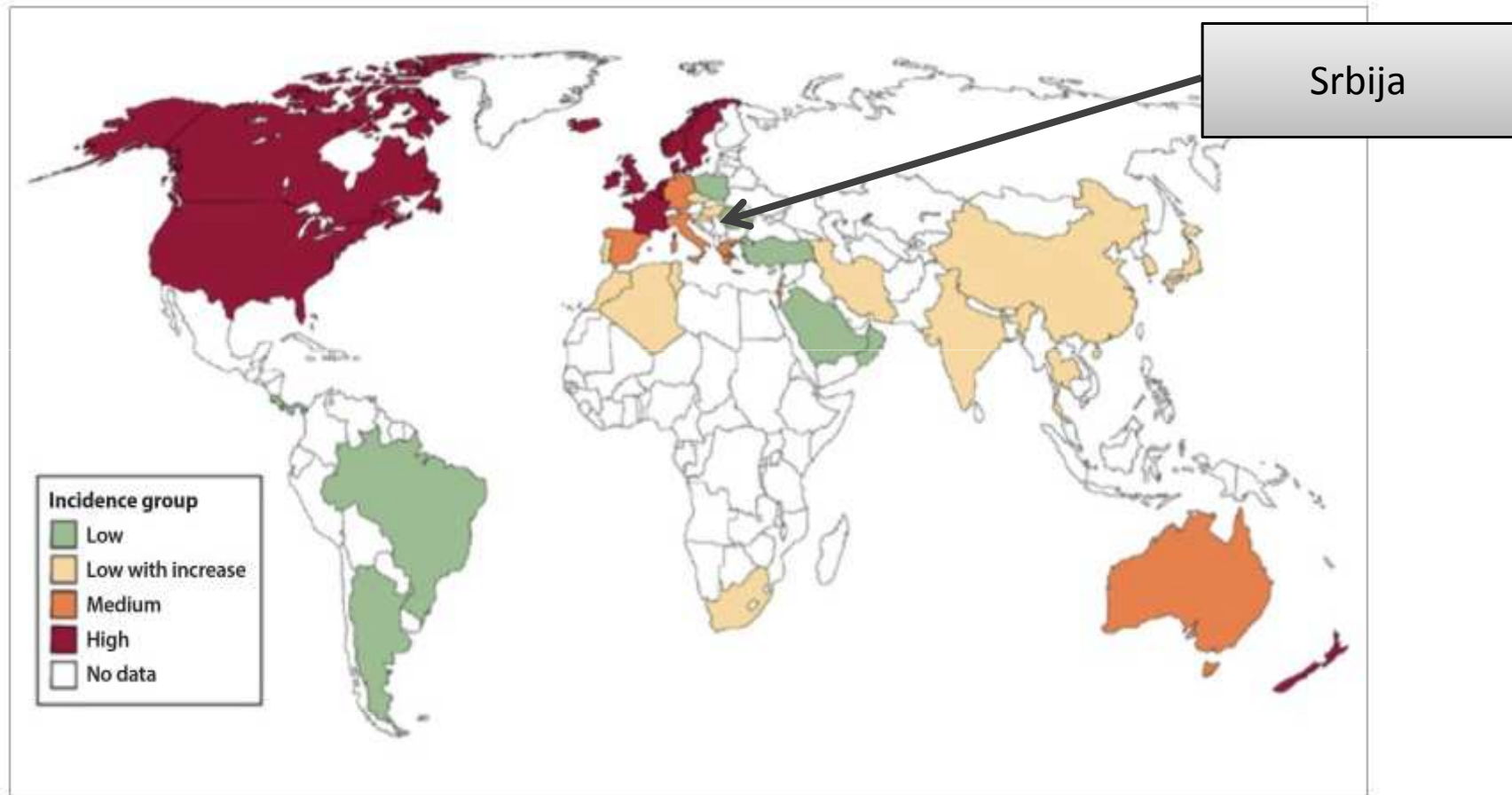


Preporuke za lečenje blagog do umereno teškog ulceroznog kolitisa

Doc dr Aleksandra Sokić-Milutinović
Klinika za gastroenterologiju i hepatologiju,
Klinički centar Srbije
Medicinski fakultet, Univerzitet u Beogradu

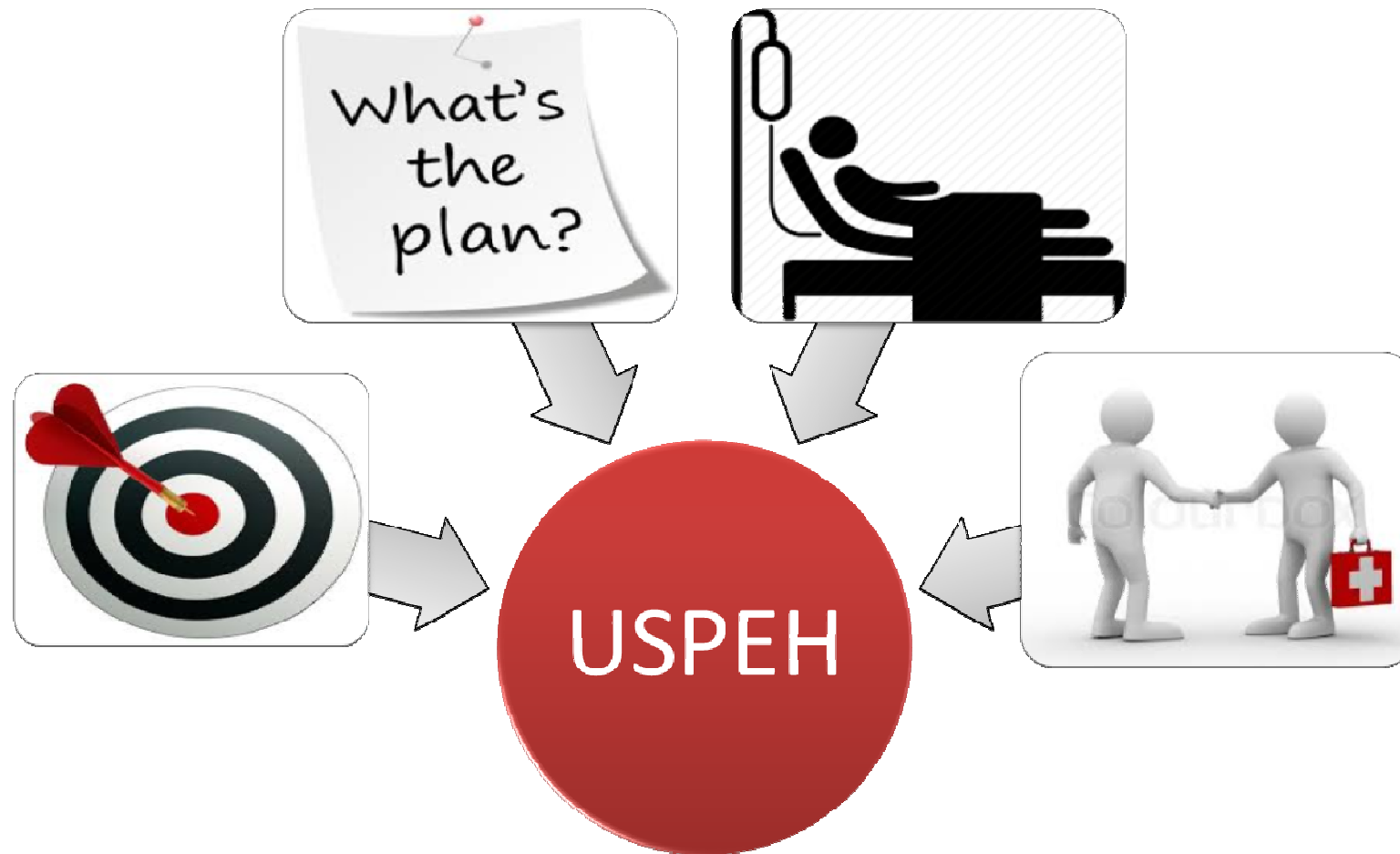
I dalje ne znamo koliko ljudi boluje od
IBC



Blagi do umereno teški UK

KARAKTERISTIKA	BLAG	UMEREN	TEŽAK
Broj stolica	< 4	4 ili više ako	≥ 6 i
Puls	< 90 /min	≤ 90 /min	> 90 /min ili
Temperatura	< 37.5 °C	≤ 37.8 °C	> 37.8 °C ili
Hgb	> 11.5 g/dL	≥ 10.5 g/dL	< 10.5 g/dL ili
Se	< 20 mm/h	≤ 30 mm/h	> 30 mm/h ili
Ili CRP	normalan	≤ 30 mg/L	> 30 mg/L

Šta je potrebno za uspeh lečenja



Terapijske opcije



Terapijski ciljevi

- Indukcija remisije
- Održavanje remisije bez primene kortikosteroida
- Poboljšanje kvaliteta života
- Postizanje mukoznog zaceljenja (duboke remisije)
- Smanjenje potrebe za hirurgijom i hospitalizacijama
- Prevencija/lečenje komplikacija bolesti



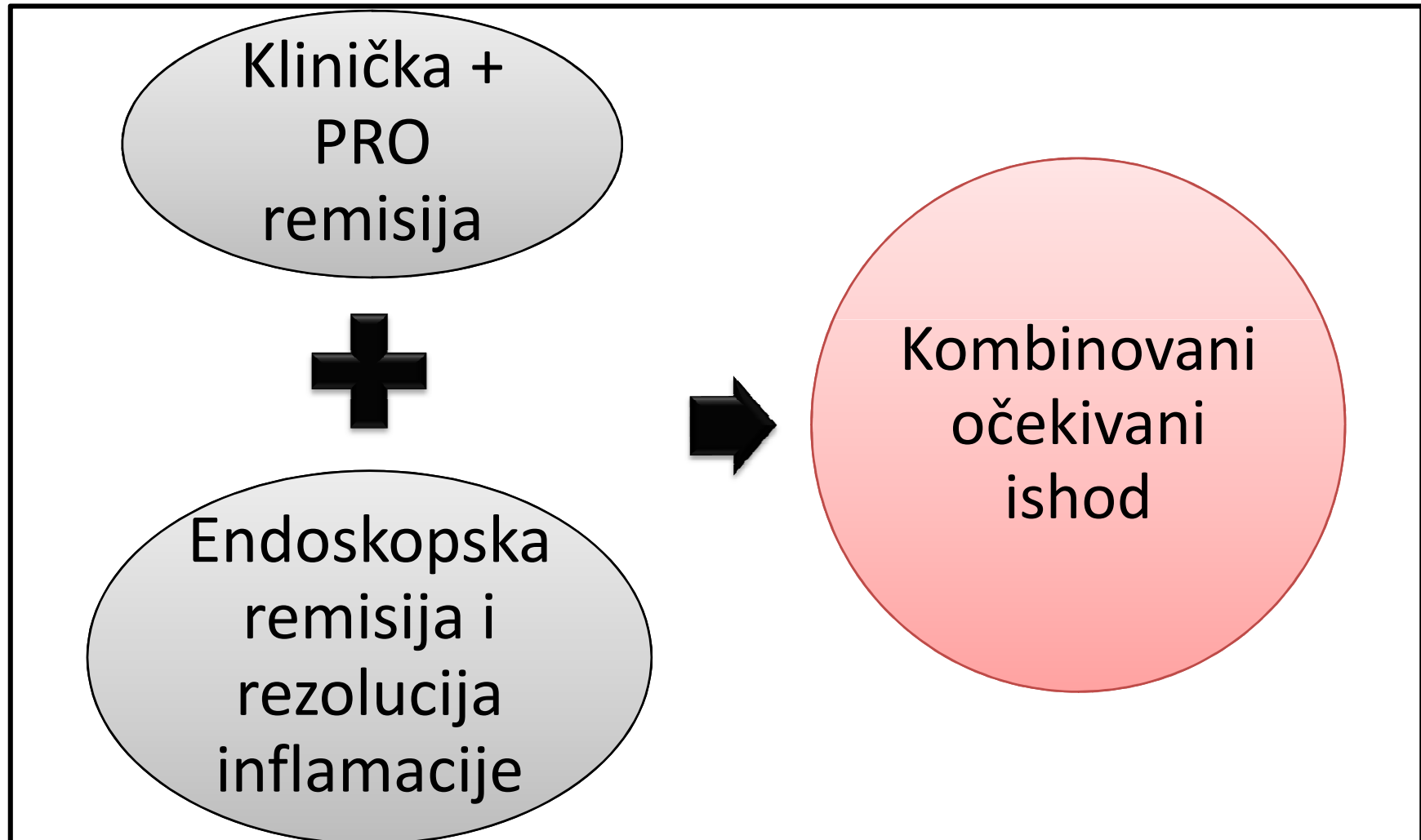


Šta kažu pacijenti?

- Remisija nema simptoma
- **Blaga aktivnost** ne ograničava dnevne aktivnosti
- **Umerena aktivnost** (izostaje s posla, otkazuje obaveze)
- **Teška aktivnost** ozbiljno narušena aktivnost (vezan za kuću, toalet, hospitalizovan)

Aktivnost bolesti
(PGA-patient global assessment)

Čemu težimo....



A stvaran svet oko nas...



When do you typically see the physician who primarily treats your UC?

I schedule regular visits	161 (65.2%)
Only when I'm not feeling well or have a flare-up	70 (28.3%)
I try to stay away from the doctor's office and avoid it until a flare-up results in serious consequences	15 (6.1%)
I never see a doctor	1 (0.4%)

Kontrole

How involved are you in decisions about treating your UC?

My doctor makes most decisions regarding treatment	117 (48.1%)
I have an equal partnership with my doctor, where we make decisions together	81 (33.3%)
My doctor advises me and helps me understand my options so I can make the best decisions on my own behalf	45 (18.5%)

Koliko pacijent učestvuje u odluci o lečenju

Patient involvement in specific treatment decisions

I trust my doctor to make whatever treatment decisions are needed	150 (61.0%)
I prefer an equal partnership with my doctor, where we make decisions together	86 (35.0%)
I prefer to make most of my own treatment decisions	10 (4.1%)

Odluke o terapiji

Peyrin-Biroulet L, et al. Treatment satisfaction, preferences and perception gaps between patients and physicians in the ulcerative colitis CARES study: A real world-based study. Dig Liver Dis (2016),



How comfortable are you taking the initiative to ask your doctor about new medications and treatment options?

Very comfortable	Uglavnom da 87%	132(53.4%)
Somewhat comfortable		86(34.8%)
Not very comfortable		24(9.7%)
Not at all comfortable		5(2.0%)

Smete li da pitate doktora

How informed do you feel about the different medications available to treat UC?

Very informed	Delimično 76%	55(22.2%)
Somewhat informed		135(54.4%)
Not very informed		50(20.2%)
Not at all informed		8(3.2%)

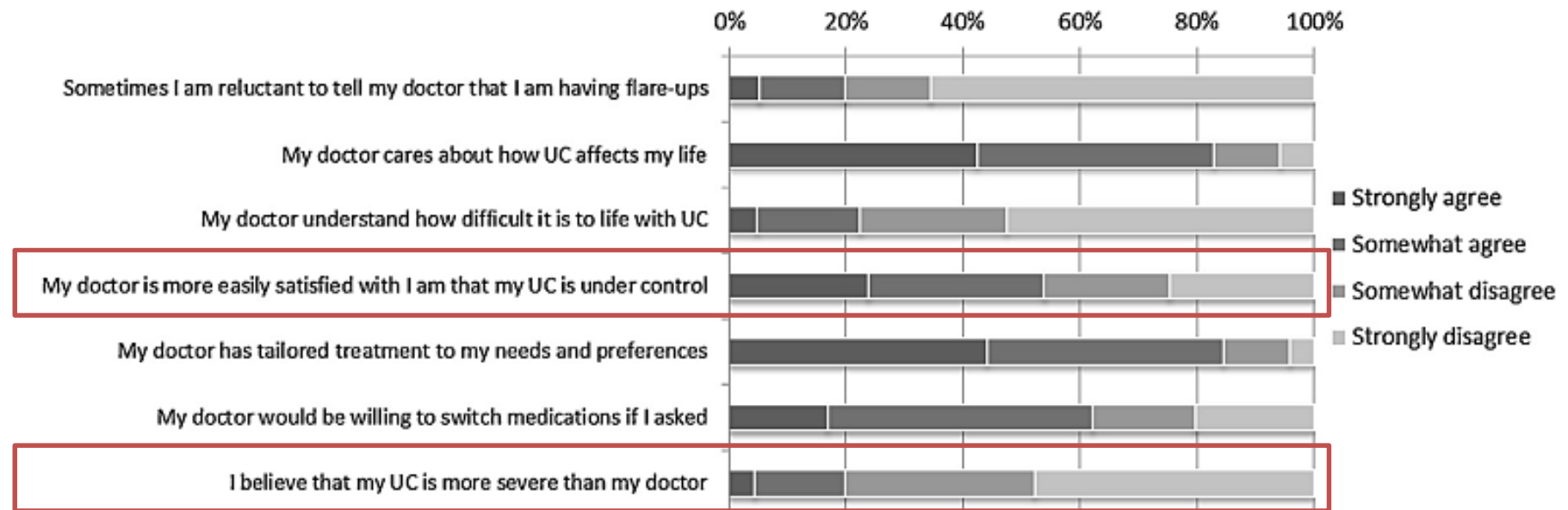
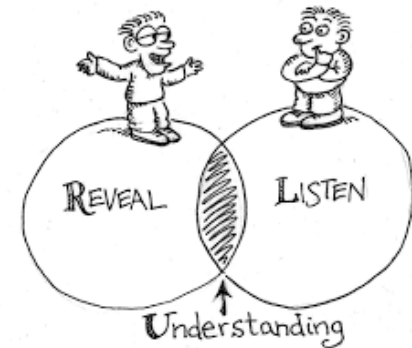
Koliko znate o lekovima

How often do you seek out information about UC and/or various treatment options that are available?

Often	34% retko i nikad	48(19.4%)
Sometimes		112(45.3%)
Rarely		59(23.9%)
Never		28(11.3%)

Koliko često tražite
informacije

Šta misle pacijenti

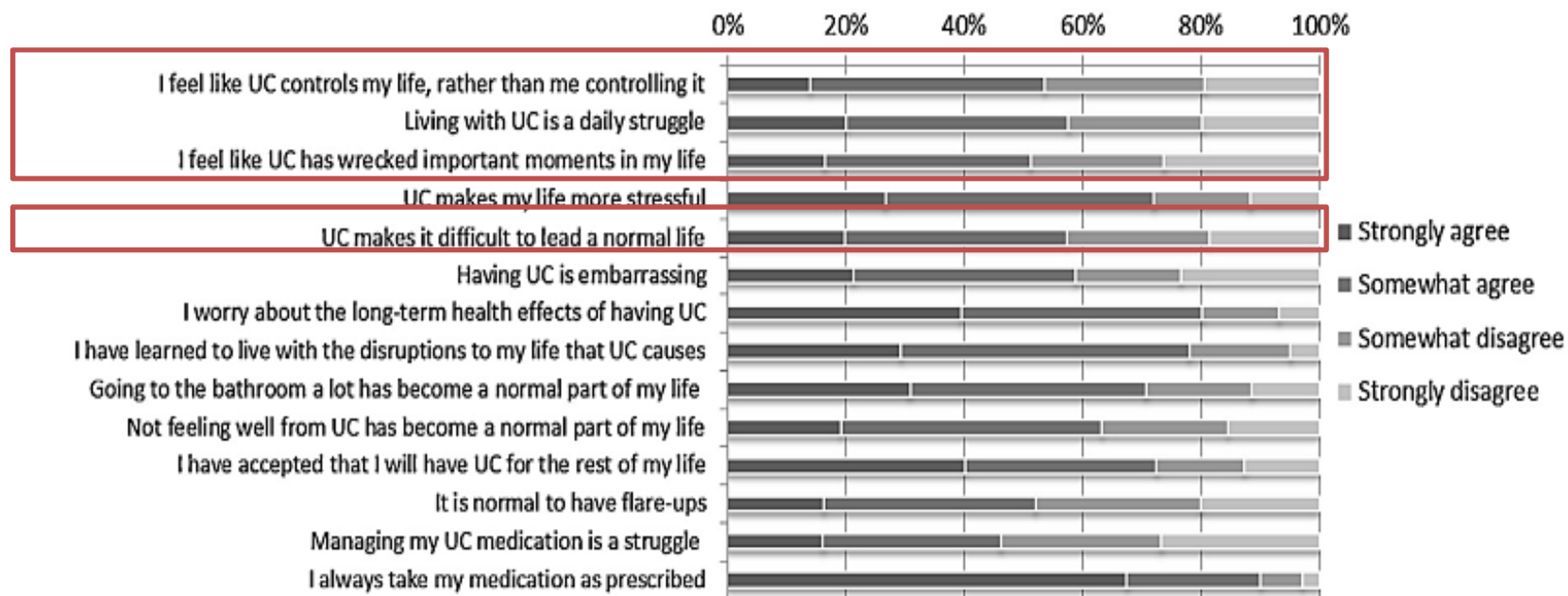


Peyrin-Biroulet L, et al. Treatment satisfaction, preferences and perception gaps between patients and physicians in the ulcerative colitis CARES study: A real world-based study. Dig Liver Dis (2016),

Šta misle pacijenti



On A Mission To Promote
Inflammatory Bowel Disease Awareness



Peyrin-Biroulet L, et al. Treatment satisfaction, preferences and perception gaps between patients and physicians in the ulcerative colitis CARES study: A real world-based study. Dig Liver Dis (2016),

Terapijske opcije





Mesalazini u UK

Lokalizacija bolesti
Formulacija leka



Proktitis-blaga i umerena aktivnost

1

- mesalazin supp 1 g dnevno
- mesalazin klizma (pena)

2

- **topički mesalazin + oralni mesalazin/
topički steroid**

3

- **immunosupresiv i/ili biološka terapija za refraktarni proktitis**

Supozitorije efikasnije nego klizma !!!

supozitorija deluje na mestu inflamacije

40% klizme u formi pene, pa se 10% tečnih klizmi nalazi u rektumu nakon 4h

Proktitis- optimalna terapija

1g topičkog mesalazina jednom dnevno

- nema povećanja efekta ukoliko se doza dalje poveća
- jedna doza je efikasna koliko i podeljene doze

Topički mesalazin
efikasniji nego
topički steroid

simptomatska remisija (OR 2.42)
endoskopska remisija (OR 1.89)
histološka remisija (OR 2.03).

Topički efikasniji
od monoterapije
oralnim
preparatom

Levostrani UK blage do umerene aktivnosti

2.4 g/d indukcija remisije
(blaga i umerena aktivnost)
4.8 g/d može lakše uvesti u
remisiju umerenu aktivnost

1

- kombinovano oralna i topička terapija 5ASA
- 1g topičke+ >2g oralno
- JEDNOM dnevno

2

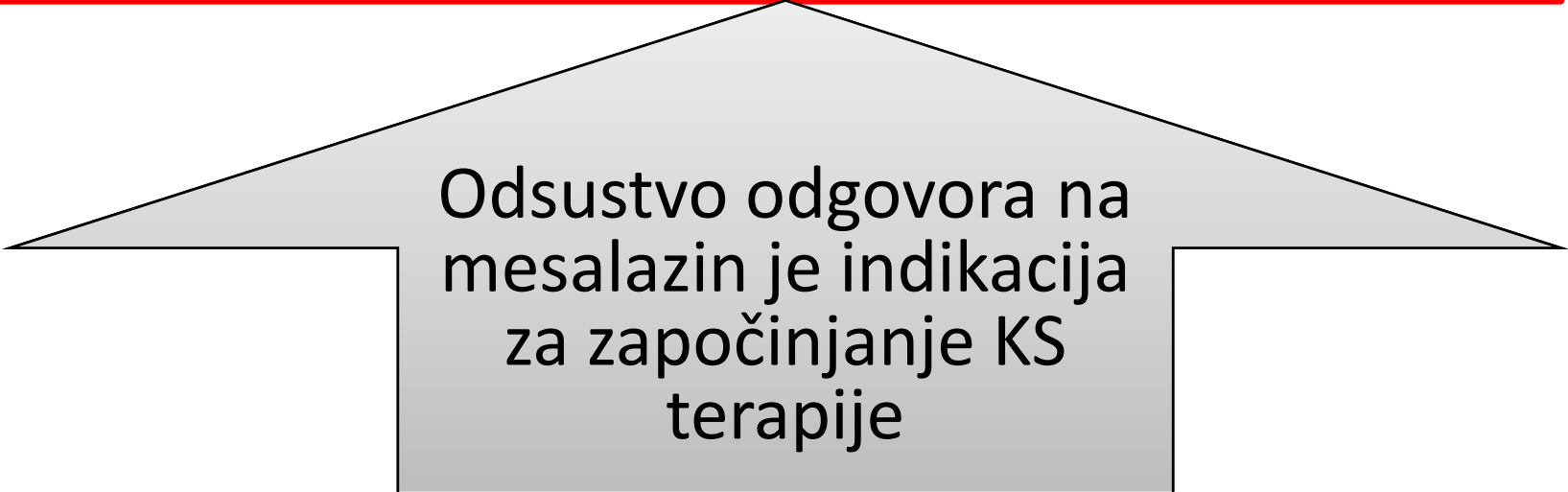
- Sistemski KS

3

- imunosupresivi i/ili biološka terapija za refraktorni levostrani UK

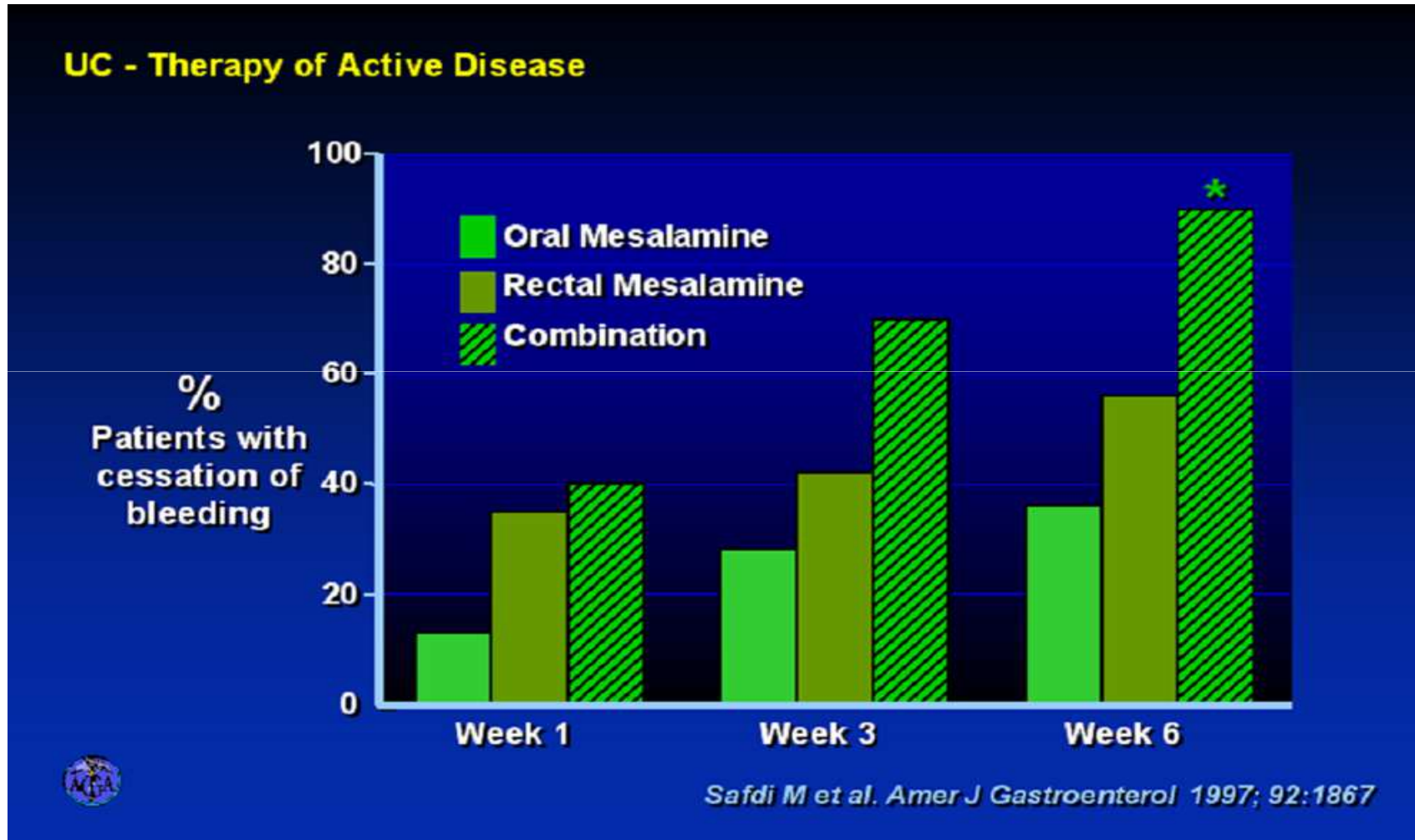
Ekstenzivni kolitis

- Doza mesalazina treba da bude **> 2.0g/dan**
- **Kombinovana terapija** (oralni+topički preparat)
remisija 64% vs 43%
- Doziranje **jednom dnevno** (jednako efikasno kao podeljene doze)



Odsustvo odgovora na
mesalazin je indikacija
za započinjanje KS
terapije

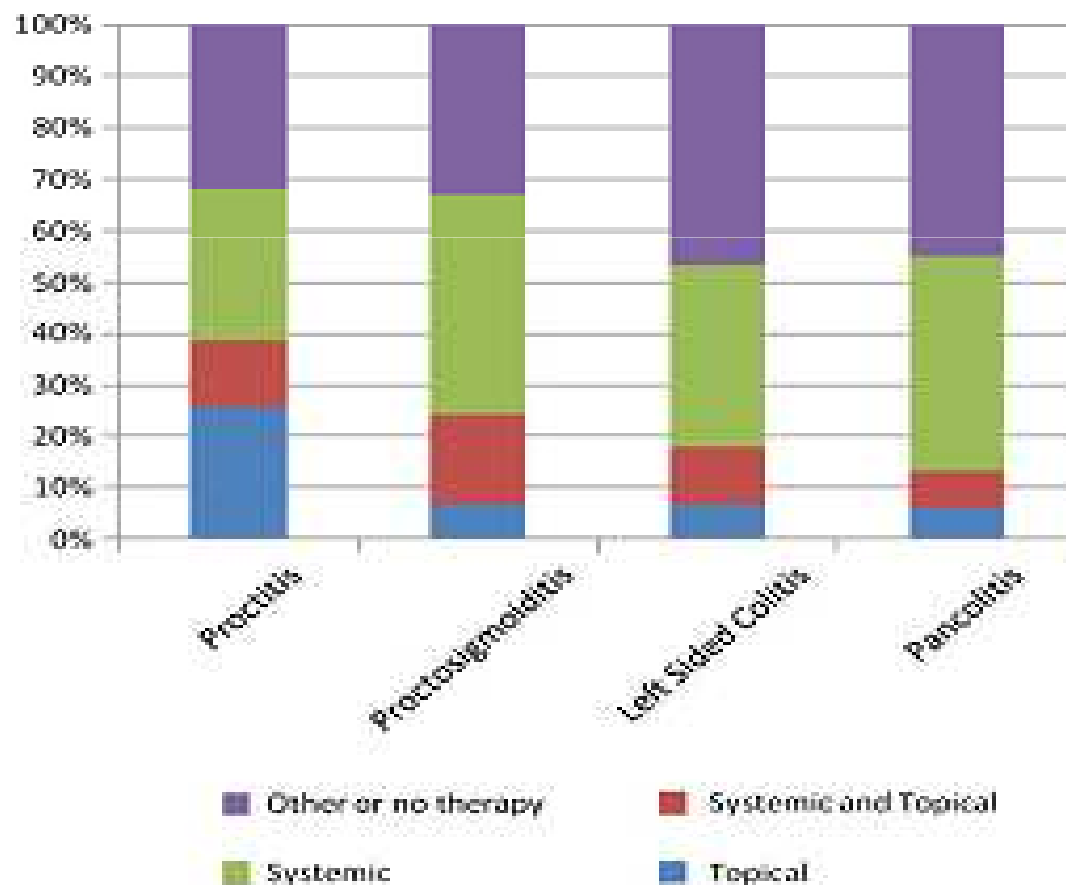
Kombinovana terapija



Safdi M et al. Am J Gastroenterol 1997;92(10):1867-71.

Kombinovana terapija je potcenjena!!!

- Švajcarska IBD kohorta 2006-2011, 790 pacijenata



Proktosigmoiditis 24% ima
topičku terapiju

Pankolitis 13% ima topičku
terapiju

Seibold et al, JCC 2014

Kada očekivati terapijski odgovor

Vreme potrebno za prestanak krvarenja

9 dana za 4.8 g/d

16 dana na 2.4 g/d

7 dana 4.8 g/d MMX

Kompletna remisija
za 37 do 45 dana

Kombinacija oralne i topičke terapije
skraćuje vreme za prestanak krvarenja

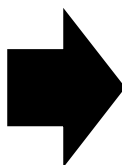
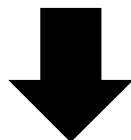
Kortikosteroidi u UK



KS u UK



- Indukcija remisije kod umereno do teško aktivnih formi IBD
- Početi adekvatnom dozom leka (< 15 mg neefikasne)
- **nije terapija održavanja**
- planirati strategiju terapije održavanja u ranoj fazi



Smanjenje doze KS

- Mnoge sheme smanjivanja doza KS (zavisno od aktivnosti bolesti, ne duže od 3 meseca) :

– Prednizon

- 40 mg/d 1 nedelja
- 30 mg/d 1 nedelja
- 20 mg/d 1 mesec
- potom smanjivati 5 mg/ 7 dana



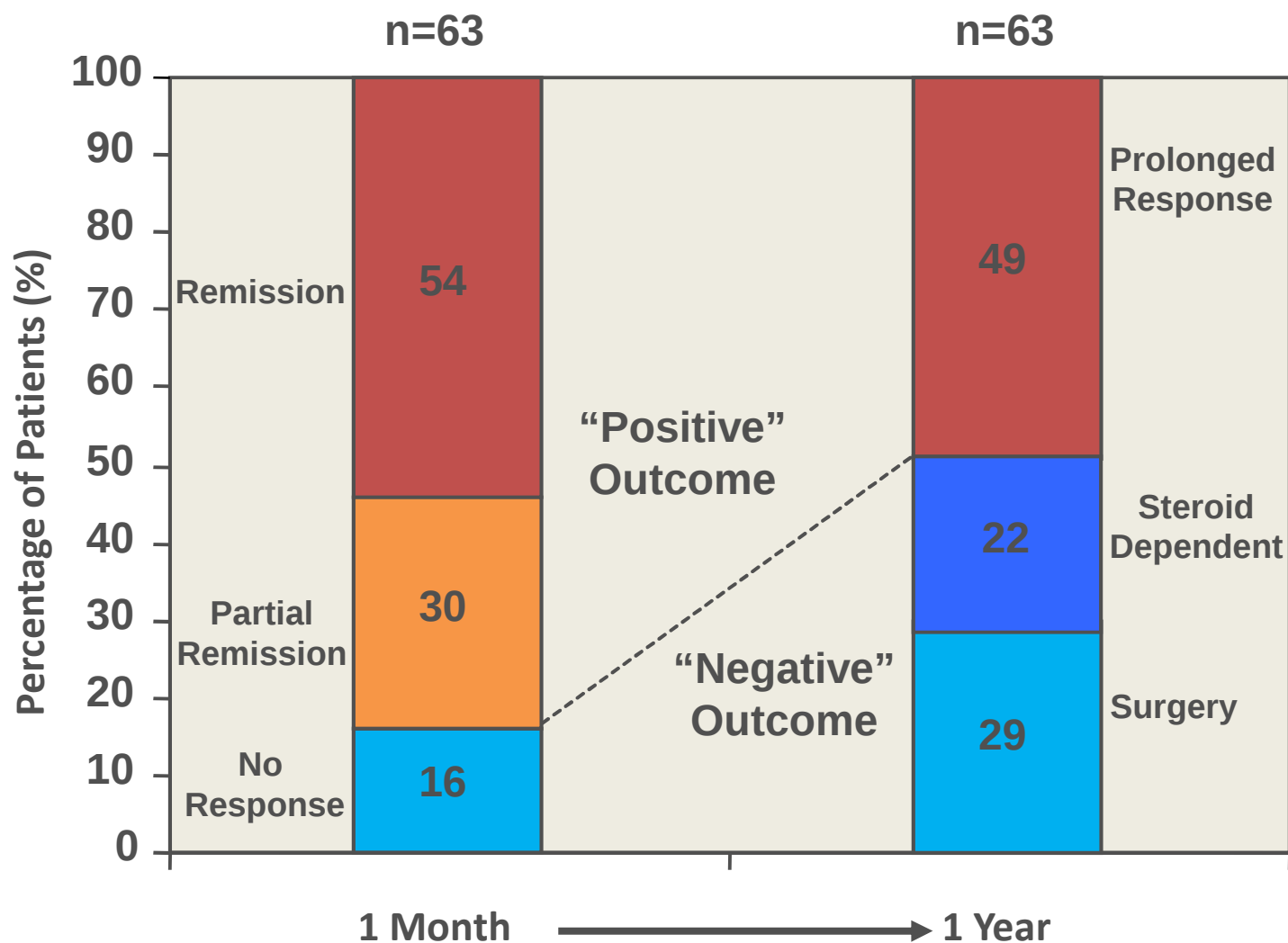
pa na 7 dana za 5mg

- Treba da postoji standardni pristup da bi se na vreme prepoznala KS zavisnost- odluka o započinjanju imunomodulatorne terapije.
- Kratka kura KS (< 3 nedelje) = rani relaps
- Doze < 15 mg su neefikasne za aktivnu bolest



Kortikosteroidi u terapiji UK

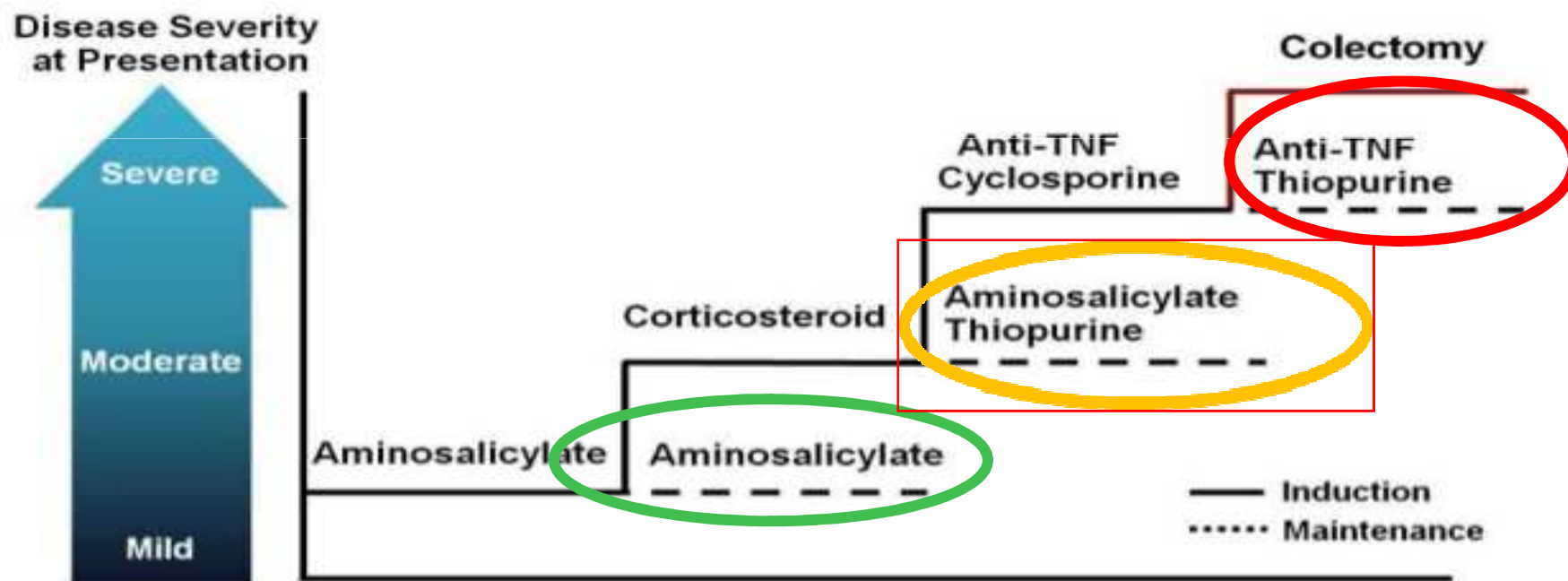
(ishod nakon 12 meseci Faubion studija)



185 pacijenata sa UK

Lekovi u terapiji održavanja

Sequential Therapies for UC



Therapy is stepped up according to severity at presentation or failure at previous step



Terapija održavanja remisije

1.

- **5 ASA** (oralni ili lokalni) **MINIMALNA EFIKASNA DOZA**

- 1.2 g/24h PER OS
- 3g/nedeljno rektalni

Doza koja je pacijenta uvela u remisiju.

Dozu ne menjati do prve kontrolne kolonoskopije ukoliko je pacijent u remisiji (3-6 meseci od početka remisije).

2.

- **AZA/MP**

- česti relapsi na terapiji ASA u optimalnim dozama
- intolerancija na ASA
- kortikozavisan oblik bolesti
- prediktori lošeg toka bolesti
- nastaviti ASA zbog redukcije rizika za razvoj CRC

Imunorefrakterni oblik UC: aktivna bolest ili relaps na terapiji AZA (2-2,5mg/kgTM bez leukopenije) u trajanju minimum tri meseca

Terapija: anti- TNF

Terapija održavanja

- >50% imaju relaps u toku godinu dana nakon pogoršanja
- Kliničko pogoršanje na placebo
 - 29% -43% u prvih 6 meseci
 - 38% -76% u toku 12 meseci

ECCO Statement 6B

Preporučena za sve pacijente

Intermitentna samo u **ograničenom broju** pacijenata sa manjom ekstenzivnošću bolesti

Lečenje relapsa



- lekovi koji su u toku predhodnog relapsa bili efikasni, uz optimizaciju terapije održavanja

Relaps	Terapija
retki (≤ 1 /godišnje)	dosadašnja
česti (≥ 2 /godišnje)	ASA → AZA AZA → IFX
kontinuirano aktivna bolest	ASA → AZA AZA → IFX
Rani –relaps unutar 3 meseca od postignute remisije	ASA → KS+AZA AZA → IFX

AZATIOPRIN



Azatioprin 2-2,5mg/kg

Indikacije

- Kortikozavisna/refraktarna i hronično aktivna bolest
- Rano kod prisustva loših prognostičkih faktora

Kortikorefrakterni oblik UK: aktivnost bolesti uprkos primeni Prednizolona u dozi do 0,75mg/kgTM tokom 4 nedelje

Kortikozavisni oblik UK:

Ne postoji mogućnost smanjenja KS<10mg/dan unutar 3 meseca od započinjanja terapije, a da ne dođe do relapsa.

Ili ukoliko dođe do relapsa unutar 3 meseca od isključenja KS

Neželjena dejstva

- pre započinjanja TPMT i EBV IgG
- Mijelosupresija
 - Lkc
 - I mesec: 1x nedeljno
 - II mesec: 2x mesečno
 - zatim 1x mesečno
- hepatotoksičnost
- infekcije
- pankreatitis
- limfoproliferativne bolesti (mladi muškarci)

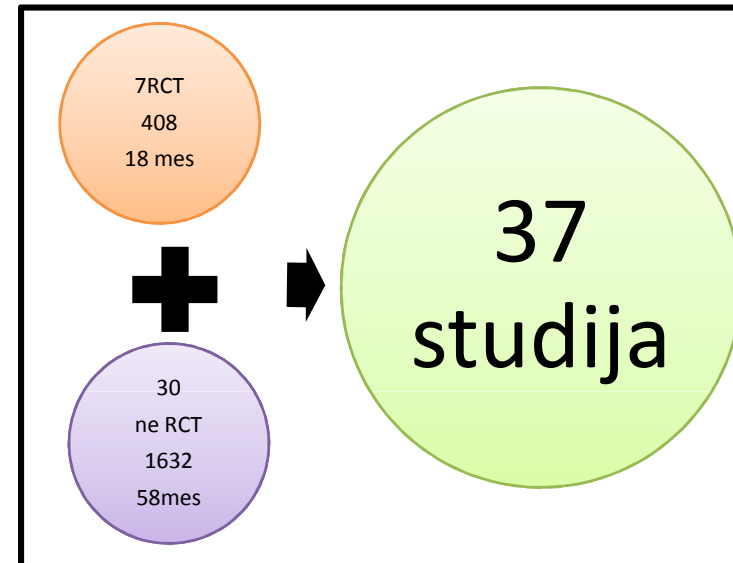
Šta može AZA

- **Kontrolisane studije**

- AZA vs placebo OR 2.59
- Smanjenje rizika 23%
- NNT da se spreči jedan relaps je 5
- Heterogene studije u poredjenju AZA sa ASA
- Za indukciju remisije OR 1.59, 95% CI 0.59 to 4.29
- U kvalitetnim studijama i manje OR 1.21, 95% CI 0.6 to 2.41
- Za održavanje remisije OR 2.44, 95% CI 1.42 to 4.17

- **Ostale studije**

- Efikasnost 65% (95% CI 62% to 67%; 30 studies)
- Za kortikorezistentne 66% (95% CI 59% to 73%)
- Efikasnost u indukciji 65% (95% CI 55% to 65%)
- Efikasnost u održavanju 76% (95% CI 71% to 81%).

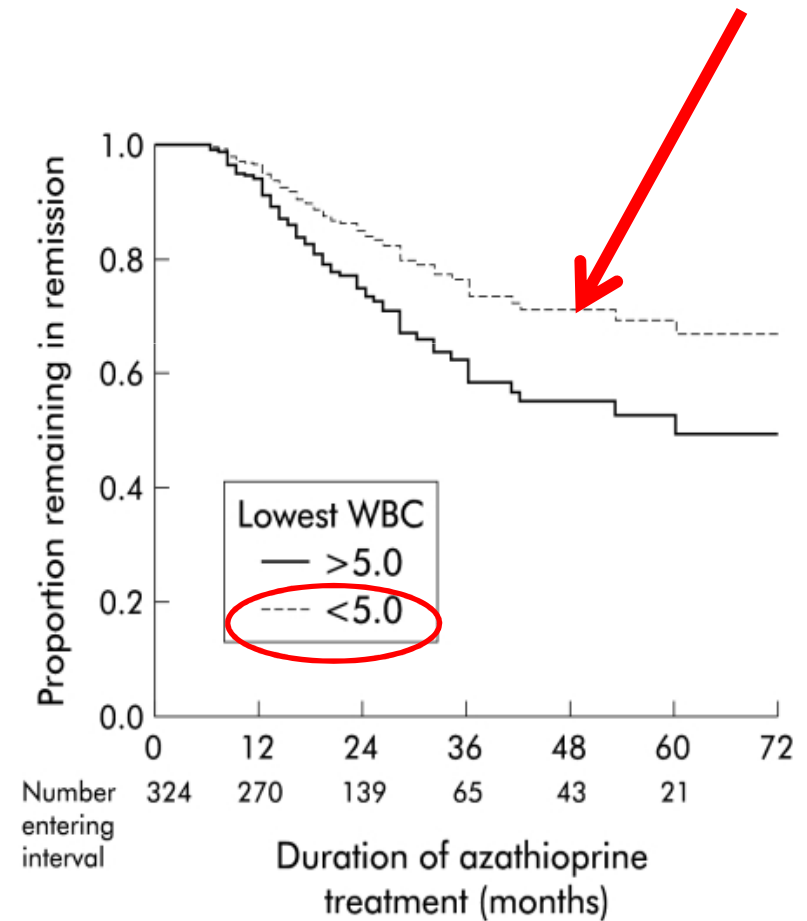
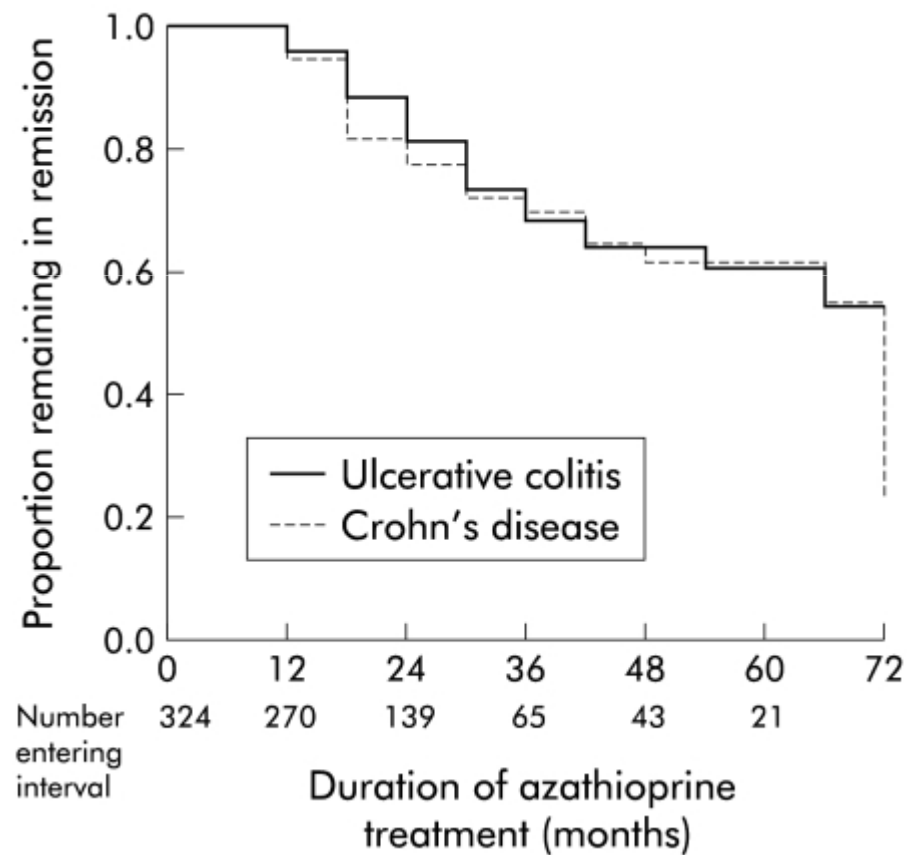


Alimentary Pharmacology & Therapeutics

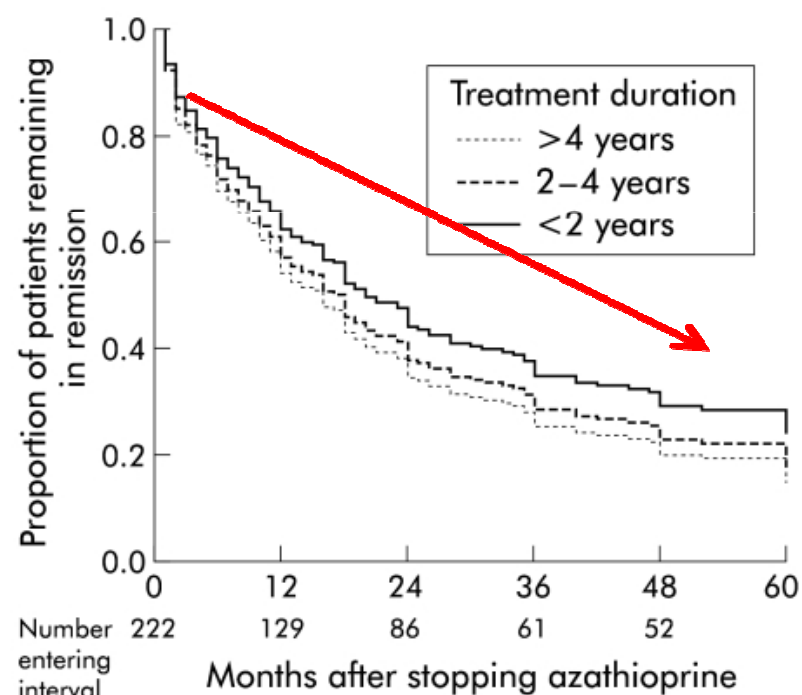
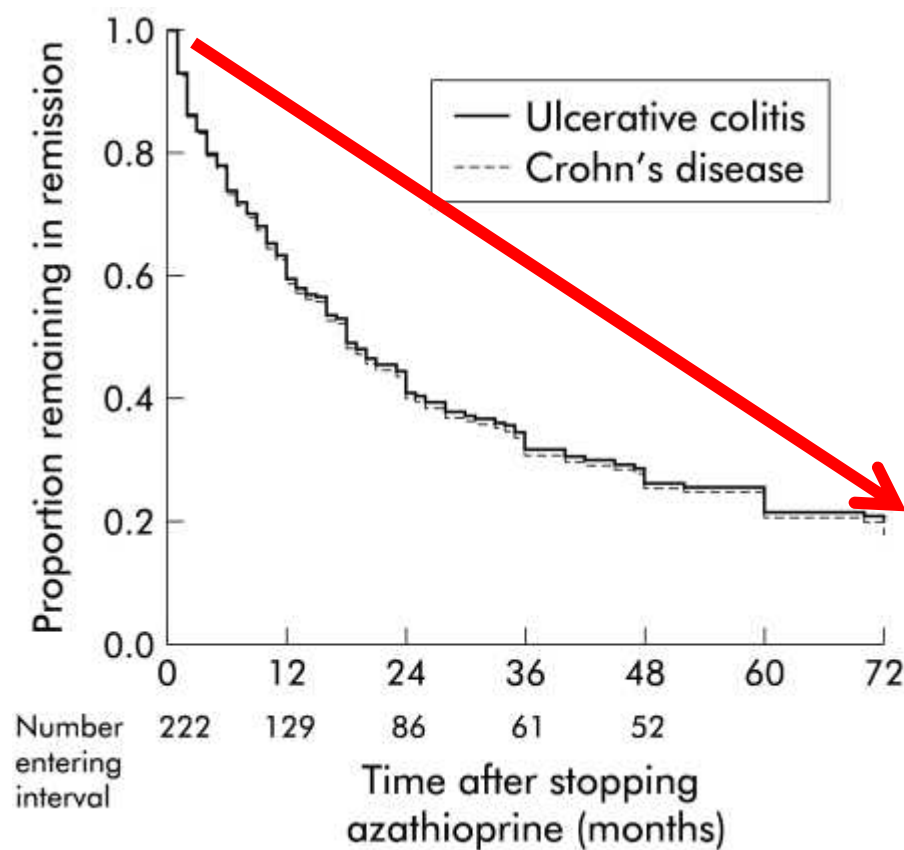
Meta-analysis: the efficacy of azathioprine and mercaptopurine in ulcerative colitis

J. P. GISBERT*,†, P. M. LINARES*,†, A. G. MCNICHOLL*,†, J. MATÉ*,† & F. GOMOLLÓN†,‡

Terapija održavanja



Terapija održavanja



AZA u terapiji održavanja

- 286 pacijenata

AZA VS PLACEBO

relaps

- 44% AZA
- 65% placebo

RR 0.68

AZA vs Placebo

Neželjena dejstva

- 8% AZA
- 0% placebo

RR 5.43

Azatioprin 2-2,5mg/kg

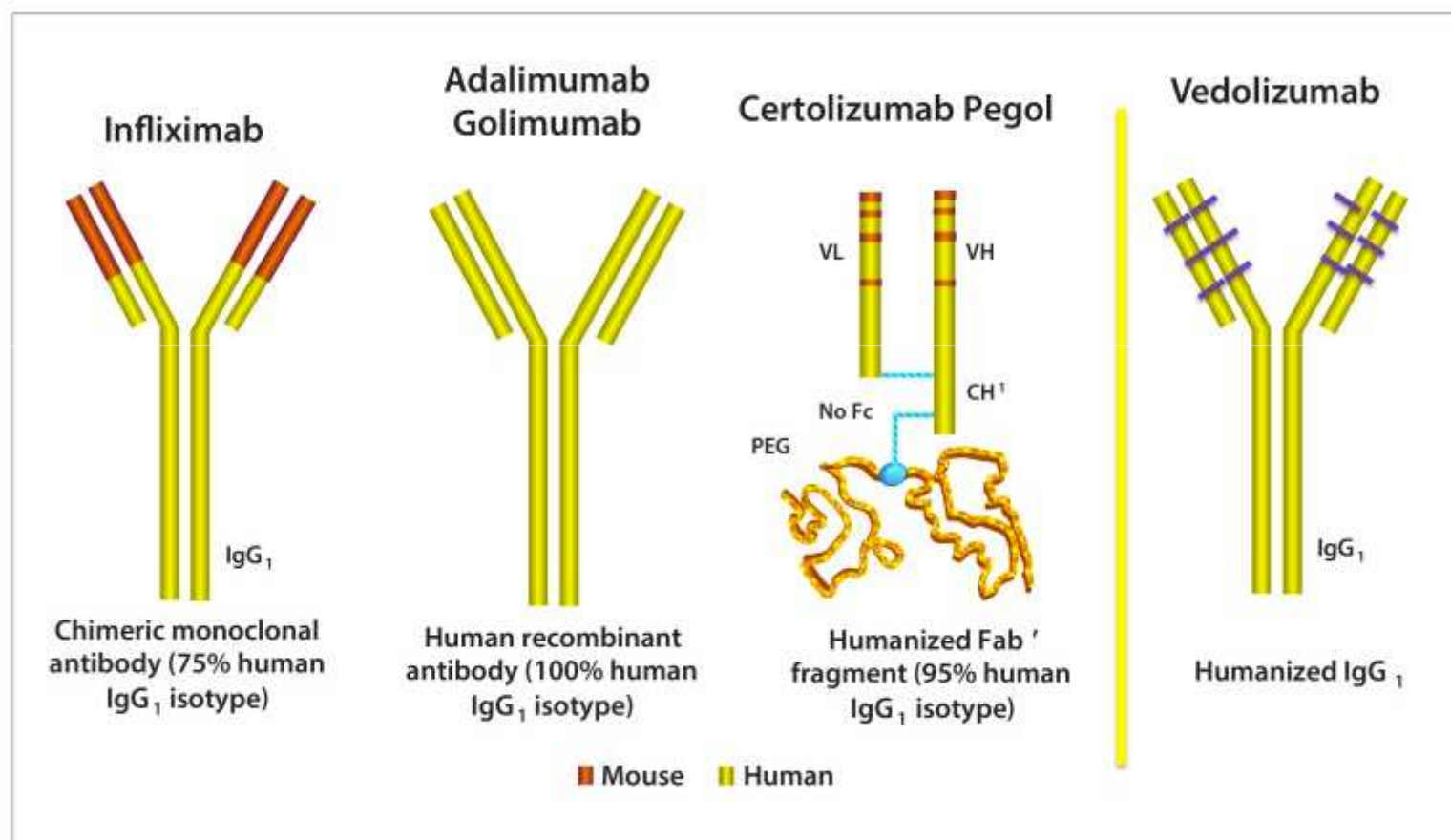
Indikacije

- Kortikozavisna/refraktarna i hronično aktivna boleost
- Rano kod prisustva loših prognostičkih faktora

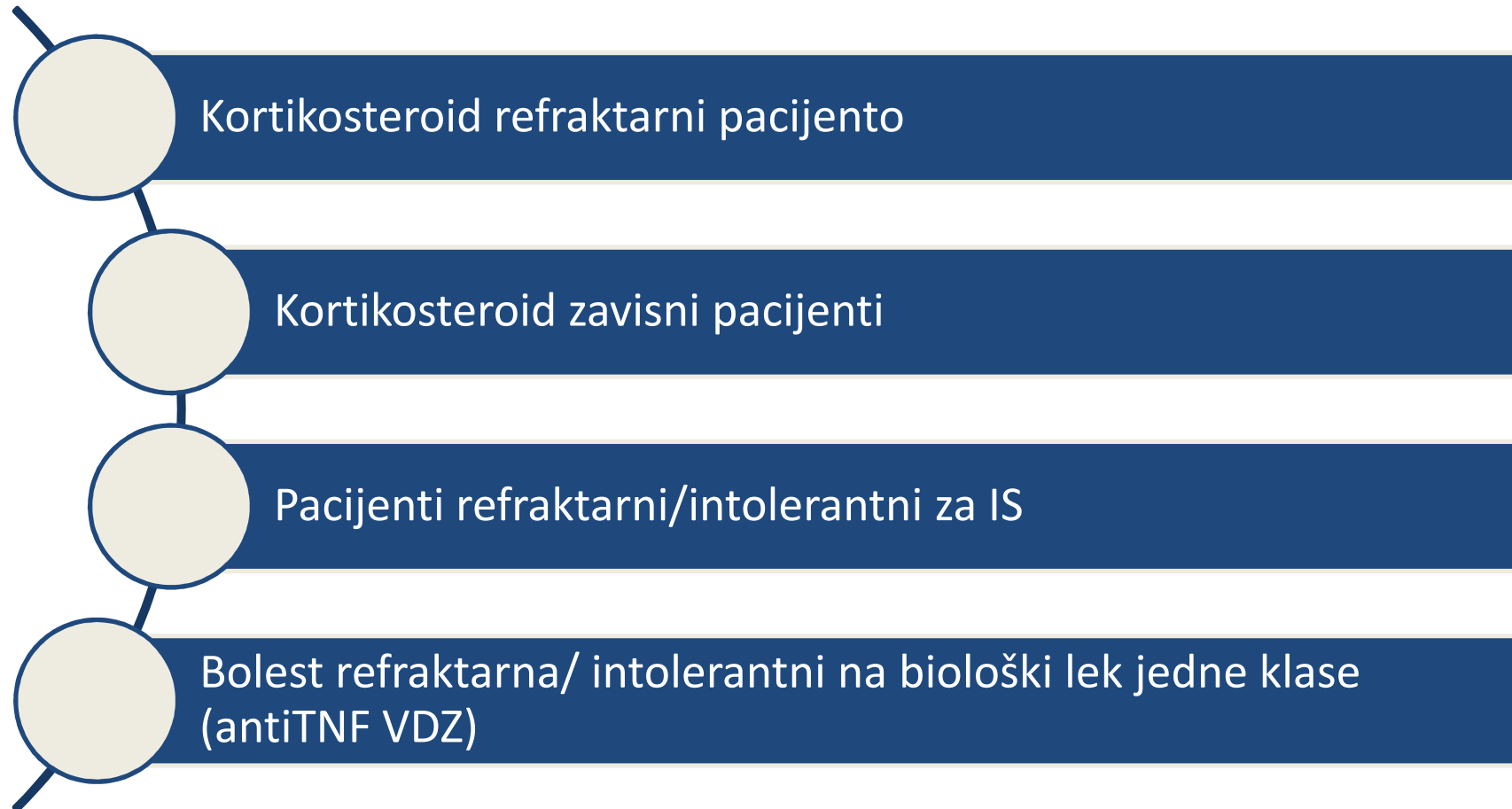
Neželjena dejstva

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 - zatim 1x mesečno
- hepatotoksičnost
- infekcije
- pankreatitis
- limfoproliferativne bolesti (mladi muškarci)

Biološki lekovi u UK blage do umerene aktivnosti



Indikacije za biološku terapiju



Koji su uslovi

- Pravi pacijent
- Pravo vreme
- Pravi lek
- Prava doza
- Pravi način aplikacije



INFLAMACIJA
FIBROZA



Kako izabrati lek

Faktori pacijenta

- Aktuelna i prethodna terapija
- Aktivnost, lokalizacija i ekstenzivnost bolesti
- Komorbiditeti
- Demografske karakteristike pacijenta

Faktori od strane leka

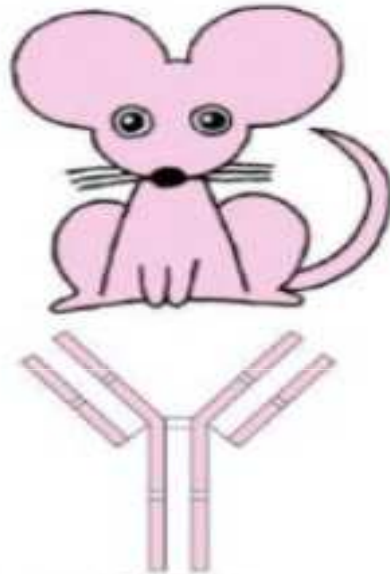
- Efikasnost
- Bezbednost
- Cena
- Komfornost

Differences in antibodies

Murine antibody

Chimeric antibody

Humanized antibody

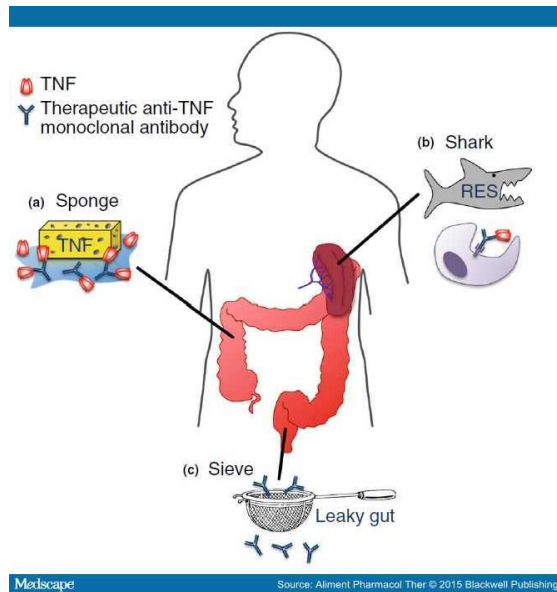


Imunogenost

IFX
75% humano

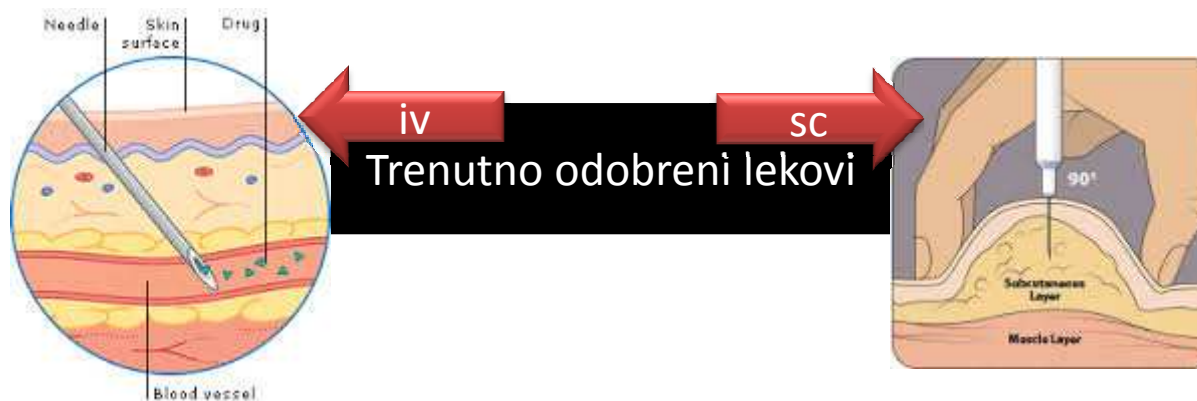
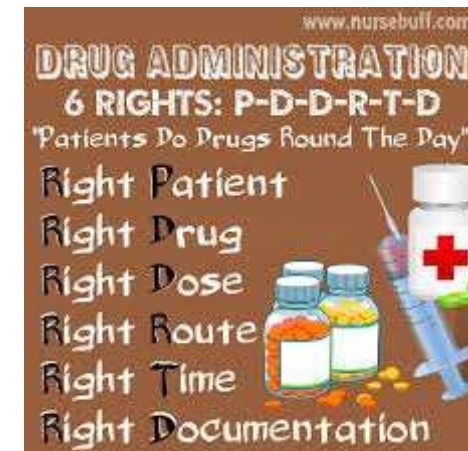
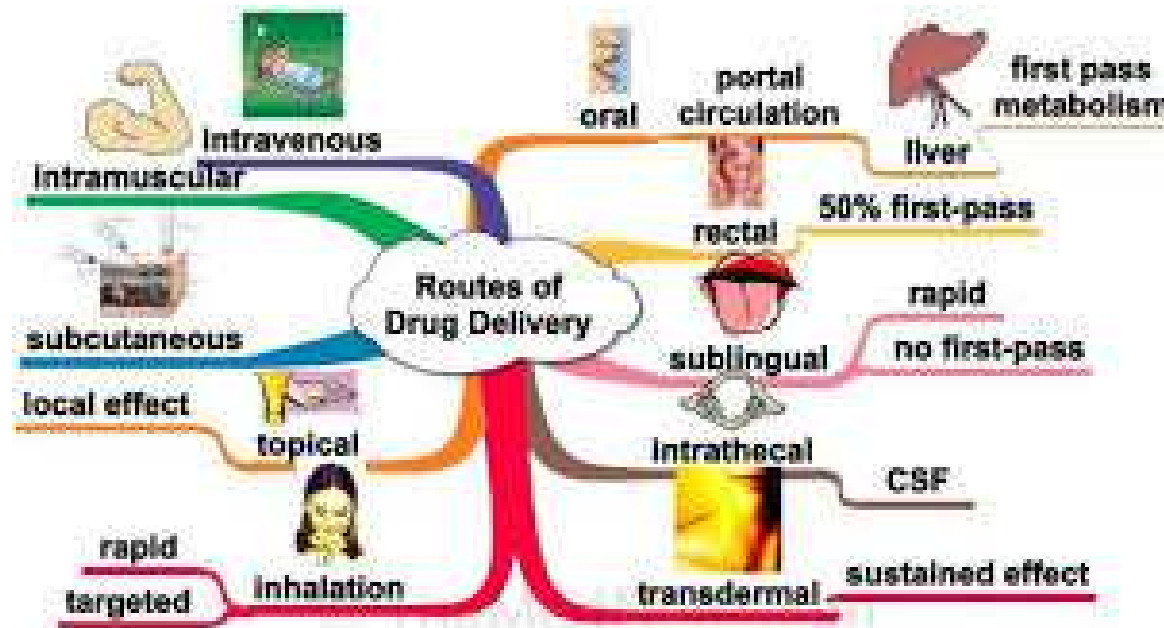
ADA
Golimumab
VDZ

Prava doza



Standardni protokol
Optimizacija
Nivo leka i antitela u krvi?

Način aplikacije leka



- Pravi pacijent
- Pravi lek
- Prava doza
- Pravi put
- Pravo vreme

Biološka terapija u IBC

- Infliximab
- Adalimumab
- Golimumab

ACT1 i ACT2

ULTRA 1,ULTRA2 (ULTRA3)

PURSUIT

- Vedolizumab

GEMINI



Mehanizam dejstva



Outcomes	ACT 1 ⁶			ACT 2 ⁶		
	IFX 5 mg/kg (n=121) n (%) P ^a	IFX 10 mg/kg (n=122) n (%) P ^a	Placebo (n=121) n (%)	IFX 5 mg/kg (n=121) n (%) P ^a	IFX 10 mg/kg (n=120) n (%) P ^a	Placebo (n=123) n (%)
Clinical response at week 8	84 (64.9) <0.001	76 (61.5) <0.001	45 (37.2)	78 (64.5) <0.001	83 (69.2) <0.001	36 (29.3)
Clinical response at week 30	63 (52.1) <0.001	62 (50.8) 0.002	36 (29.8)	57 (47.1) <0.001	72 (60) <0.001	32 (26)
Clinical remission week 30	41 (33.9) 0.001	45 (36.9) <0.001	19 (15.7)	31 (25.6) 0.003	43 (35.8) <0.001	13 (10.6)
Clinical remission week 54	42 (34.7) 0.001	42 (34.4) 0.001	20 (16.5)	/	/	/
ULTRA 1 ¹¹						
ADA 160/80 mg						
	(n=130) n (%) P ^a	ADA 80/40 mg (n=130) n (%) P ^a	Placebo (n=130) n (%)	ADA 160/80 mg (n=248) n (%) P ^a	Placebo (n=246) n (%)	
Clinical remission at week 8	24 (18.5) 0.031	13 (10) 0.833	12 (9.2)	41 (16.5) 0.019	23 (9.3)	
Clinical remission at week 52	/	/	/	43 (17.3) 0.004	21 (8.5)	
Clinical response at week 8	71 (54.6)	67 (51.5)	58 (44.6)	125 (50.4) 0.001	85 (34.6)	
Clinical response at week 52	/	/	/	75 (30.2) 0.002	45 (18.3)	
PURSUIT-SC ¹⁷						
	Golimumab 200/100 mg, n (%) (n=253)	Golimumab 400/200 mg, n (%) (n=257)	Placebo, n (%) (n=251)	P		
Clinical response ^a	129 (51)	141 (54.9)	76 (30.3)	<0.0001 ^b		
Clinical remission ^a	45 (17.8)	46 (17.9)	16 (6.4)	<0.0001 ^b		
Mucosal healing ^a	107 (42.3)	116 (45.1)	72 (28.7)	0.0014 ^c		
PURSUIT-M ¹⁹						
	Golimumab 100 mg, n (%) (n=151)	Golimumab 50 mg, n (%) (n=151)	Placebo n (%) (n=154)	P		
CCR	75 (49.7)	71 (47)	48 (31.2)	<0.001 ^e		
Clinical remission at both week 30 and 54	42 (27.8)	35 (23.2)	24 (15.6)	0.004 ^e		
Mucosal healing at both week 30 and 54	64 (42.4)	62 (41.7)	41 (26.6)	0.122 ^f		
				0.002 ^e		
				0.011 ^f		

Vedolizumab

Table 2 Proportion of patients meeting efficacy endpoints at week 52

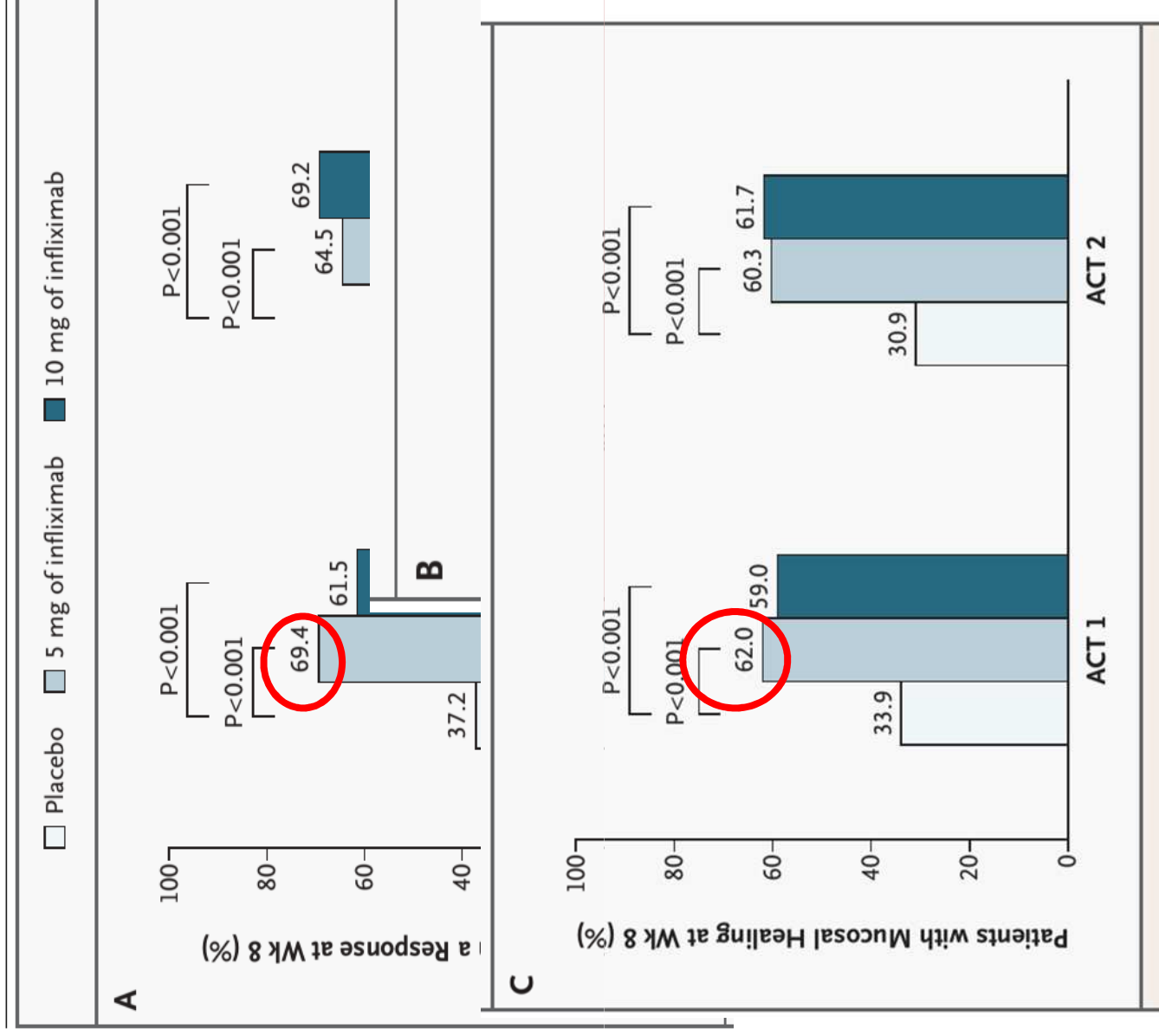
Outcome	Placebo (n=126)	Vedolizumab every 8 weeks (n=122)	Vedolizumab every 4 weeks (n=125)	P-value
Clinical remission at week 52	20 (15.9%)	51 (41.8%)	56 (44.8%)	<0.001
Durable clinical response*	30 (23.8%)	69 (56.6%)	65 (52.0%)	<0.001
Durable clinic remission [#]	11 (8.7%)	25 (20.5%)	30 (24.0%)	0.008
Mucosal healing at week 52 [‡]	25 (19.8%)	63 (51.6%)	70 (56.0%)	<0.001
Glucocorticoid-free remission ^{##}	10 (13.9%)	22 (31.4%)	33 (17.6%)	0.01

Notes: Patients must have achieved clinical response at week 6 to continue into UC trial II. This group includes patients who were not in clinical remission at week 6. *Clinical response: reduction in complete Mayo score of ≥ 3 points and $\geq 30\%$ from baseline with an accompanying decrease in rectal bleeding subscore of ≥ 1 point or absolute rectal bleeding subscore of ≤ 1 point at weeks 6 and 52. *Clinical remission: complete Mayo score of ≤ 2 points and no individual subscore > 1 point at weeks 6 and 52. [‡]Improvement in endoscopic appearance of the mucosa: Mayo endoscopy subscore of 0 (normal or inactive disease) or 1 (erythema, decreased vascular pattern, mild friability). ^{##}Corticosteroid-free clinical remission: assessed in the subgroup of patients who were receiving corticosteroids at baseline and who were in clinical response at week 6 (n=72 for placebo and n=70 for vedolizumab every 8 weeks). Corticosteroid-free clinical remission was defined as the proportion of patients in this subgroup who discontinued corticosteroids by week 52 and the proportion of patients in clinical remission at week 52.

Infliximab ACT rezultati

- **Klinički odgovor na terapiju** (Clinical response) smanjenje vrednosti Mayo skora za ≥ 3 ili za 30% uz smanjenje subskora rektalnog krvarenja za 1 ili skor za rektalno krvarenje 0 ili 1.
- **Klinička remisija** (Clinical remission) Mayo skor 2 ili manje i nijedan subskor preko 1
- **Mukozno zaceljenje** (Mucosal healing) endoskopski subskor 0 ili 1

U studiji aktivni UC naivni na antiTNF, Mayo skor 6-12



Infliximab

- Nakon 8 nedelja i indukcione terapije

ACT 1 **remisija**

- 39% 5 mg/kg IFX
- 32% 10mg/kg IFX
- 15% placebo

ACT 2 **remisija**

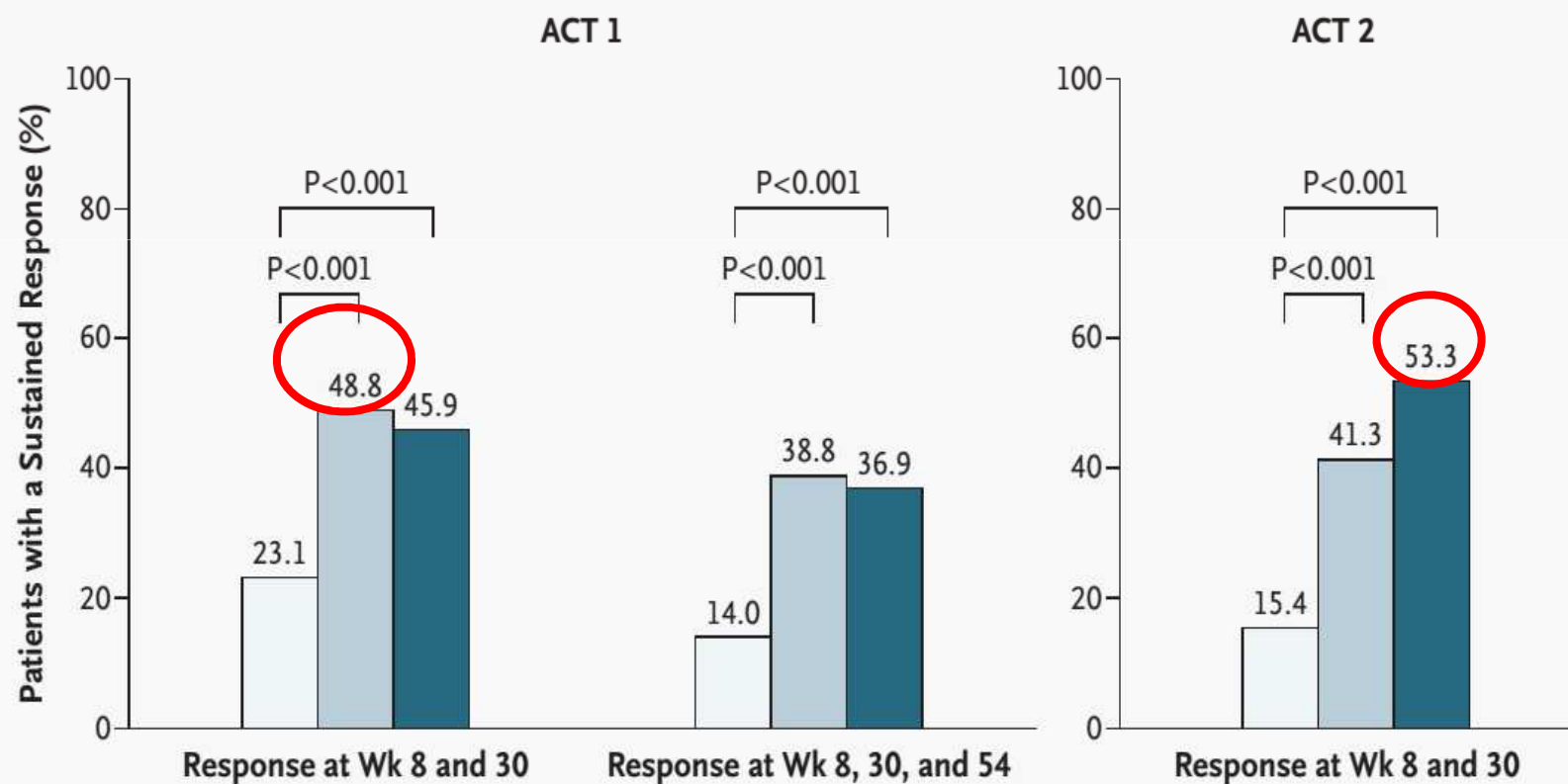
- 34% 5 mg/kg IFX
- 28% 10mg/kg IFX
- 5% placebo

Produženi terapijski odgovor

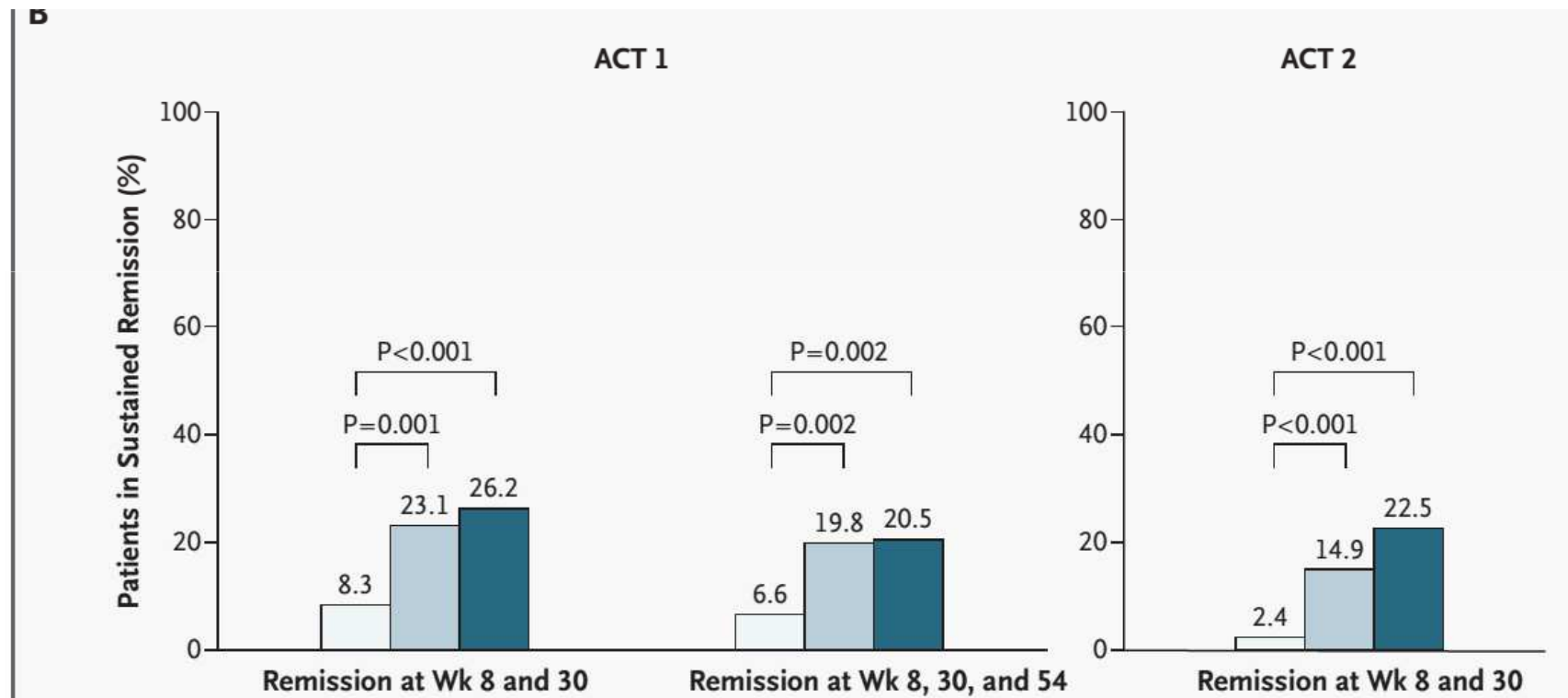
□ Placebo ■ 5 mg of infliximab ■ 10 mg of infliximab

NNT=4

A

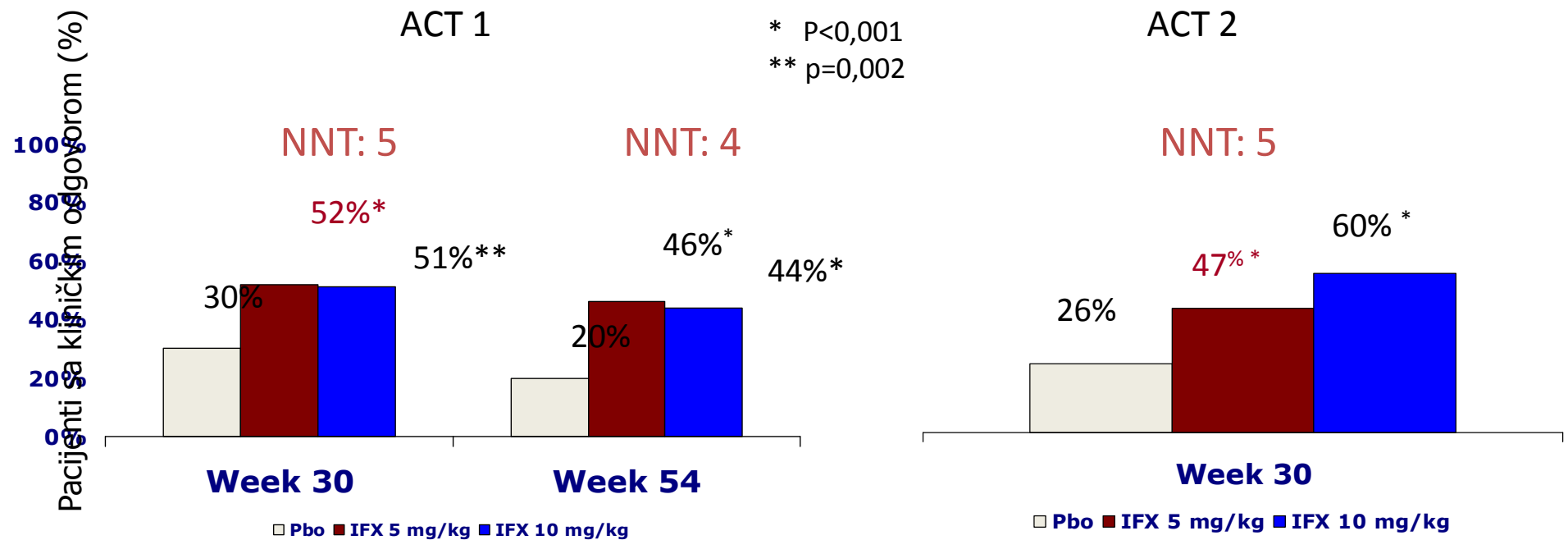


Remisija



Infliximab ODRŽAVANJE : ACT rezultati

Klinički odgovor* 30 i 54 nedelja



*Klinički odgovor: Smanjenje Mayo skora za $\geq 30\%$ i ≥ 3 I smanjenje skora rektalnog krvarenja ≥ 1 ili subskor za rektalno krvarenje 0 ili 1

Variable	ACT 1		ACT 2		
	Placebo (N=121)	5 mg of Infliximab (N=121)	Placebo (N=123)	5 mg of Infliximab (N=121)	10 mg of Infliximab (N=120)
Clinical response					
Week 8 — no. (%)	45 (37.2)	84 (69.4)	36 (29.3)	78 (64.5)	83 (69.2)
P value		<0.001		<0.001	<0.001
Week 30 — no. (%)	36 (29.8)	63 (52.1)	32 (26.0)	57 (47.1)	72 (60.0)
P value		<0.001		<0.001	<0.001
Week 54 — no. (%)	24 (19.8)	55 (45.5)	—	—	—
Clinical remission — no. (%)					
Week 8	18 (14.9)	47 (38.8)	7 (5.7)	41 (33.9)	33 (27.5)
P value		<0.001		<0.001	<0.001
Week 30	19 (15.7)	41 (33.9)	13 (10.6)	31 (25.6)	43 (35.8)
P value		0.001		0.003	<0.001
Week 54	20 (16.5)	42 (34.7)	—	—	—
P value		0.001			

Infliximab

- Na završetku studije

ACT 1

remisija 54 nedelja

- 35% 5 mg/kg IFX
- 34% 10mg/kg IFX
- 17% placebo

ACT 2

remisija 30 nedelja

- 26% 5 mg/kg IFX
- 36% 10mg/kg IFX
- 11% placebo

Infliximab

- U svakom trenutku u remisiji

ACT 1 remisija

- 20% 5 mg/kg IFX
- 7% placebo

ACT 2 remisija

- 15% 5 mg/kg IFX
- 2% placebo

Infliximab ACT extension

- Grupa sa placeboom nije praćena
- **229/484 pacijenta**
- 181 praćeni godinu dana
- 92 praćeni 2 godine
- **Minimalna aktivnost bolesti u 56 ned 92%, u 104 nedelji 97%**
- Remisija bez kortikosteroida 75% i 98%
- 30.6% isključeni sa terapije
- 76.5 % Remisija ili blaga bolest
 - 90.0% ostalo u remisiji
 - 94.3% blaga bolest

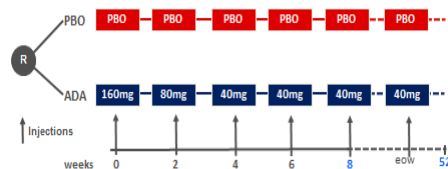
Adalimumab

- ULTRA 2 studija

Treat trough study design

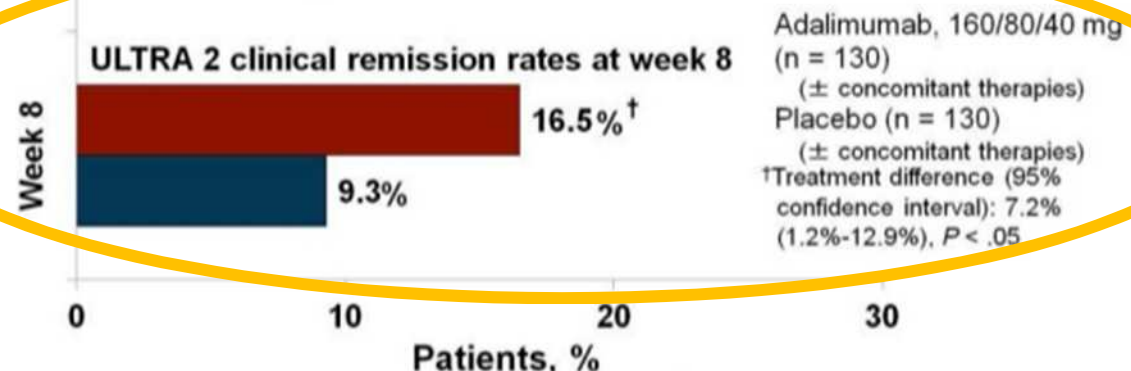
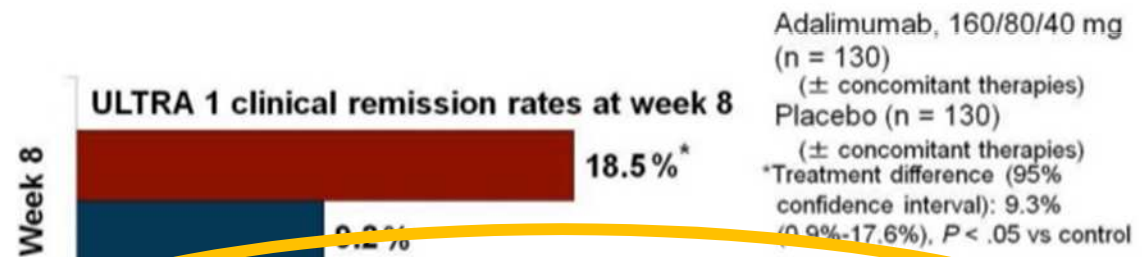
ULTRA 2

ULTRA 2: Treat-Through Study Design



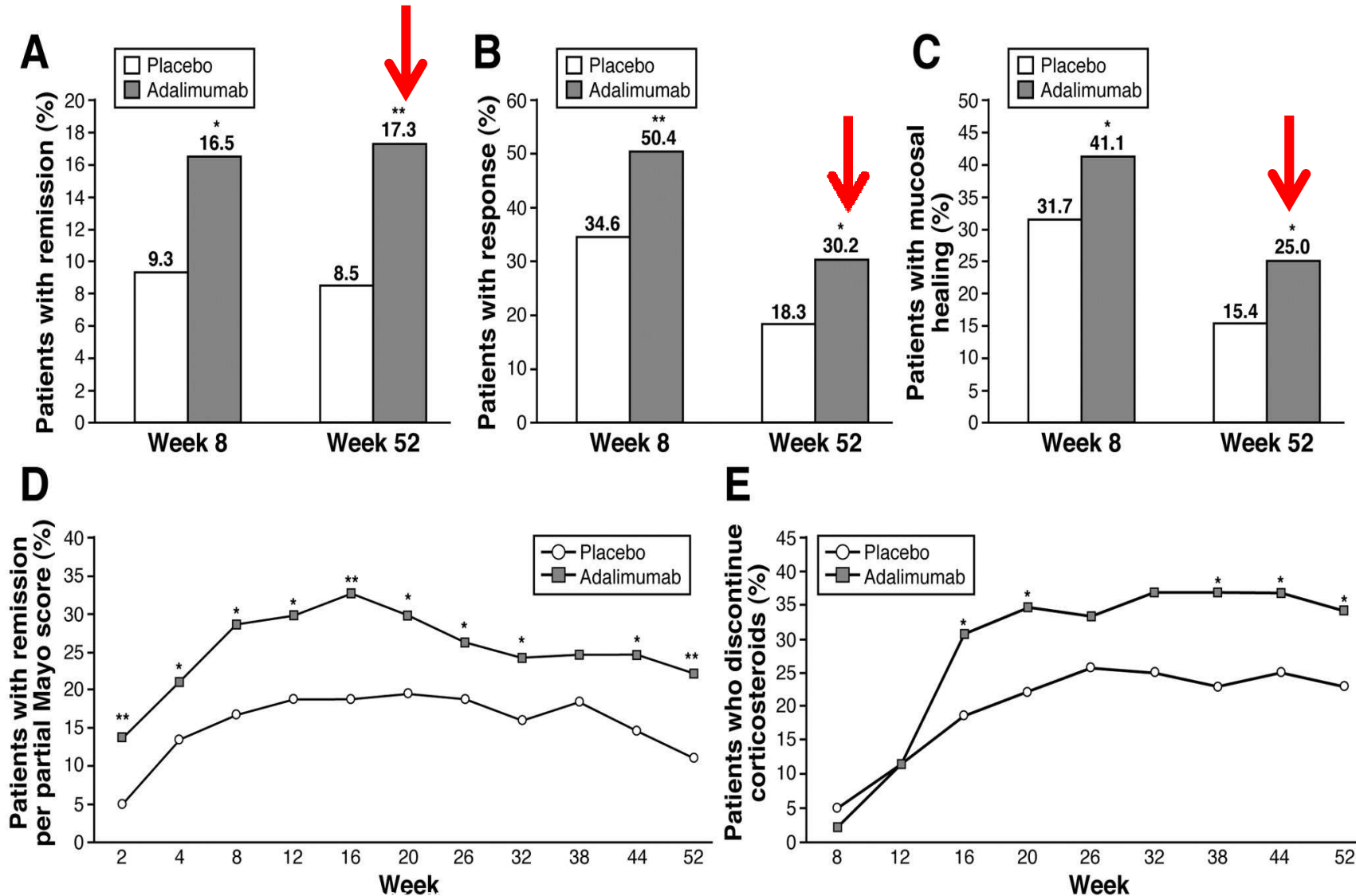
Sandborn, WJ, et al. *Gastroenterology*. 2012;142:257-65.

UC Remission With Adalimumab at Week 8



Sanborn WJ, et al. *Gastroenterology*. 2012;142:257-265^[5]; Reinisch W, et al. *Gut*. 2011;60:780-787.^[6]

Adalimumab



Adalimumab ULTRA 2

anti-TNF naivni
klinička remisija 52
nedelja

ADA	22%
Placebo	12.4%

($P = 0.029$)

NNT=11 za remisiju
NNT= 8 za klinički odgovor

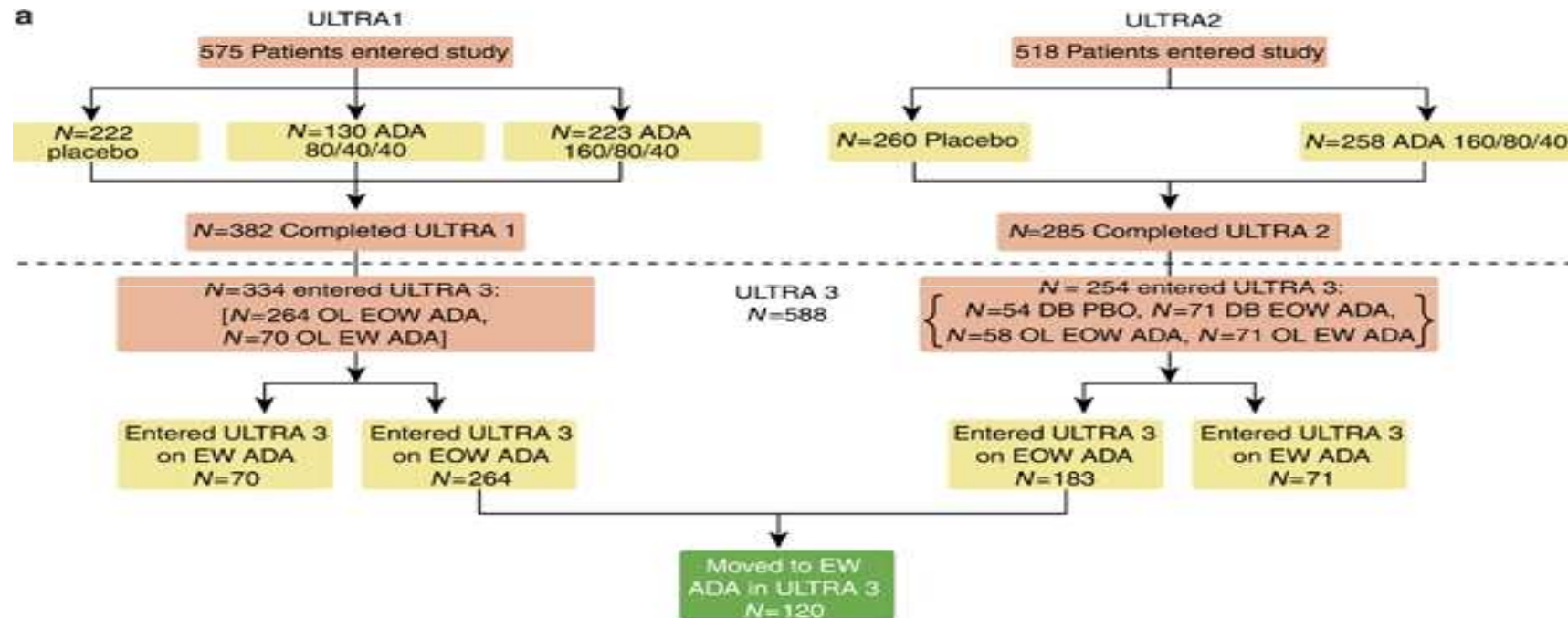
Prethodno primali anti
TNF
klinička remisija 52
nedelja

ADA	10,2%
Placebo	3%

($P = 0.039$)

NNT=14 za remisiju
NNT= 10 za klinički
odgovor

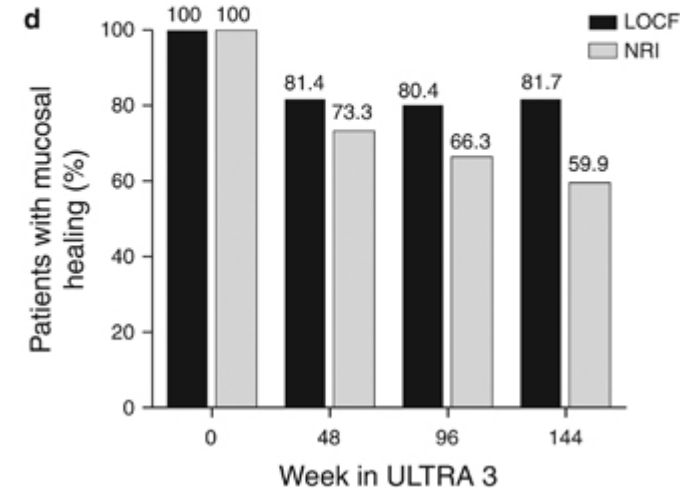
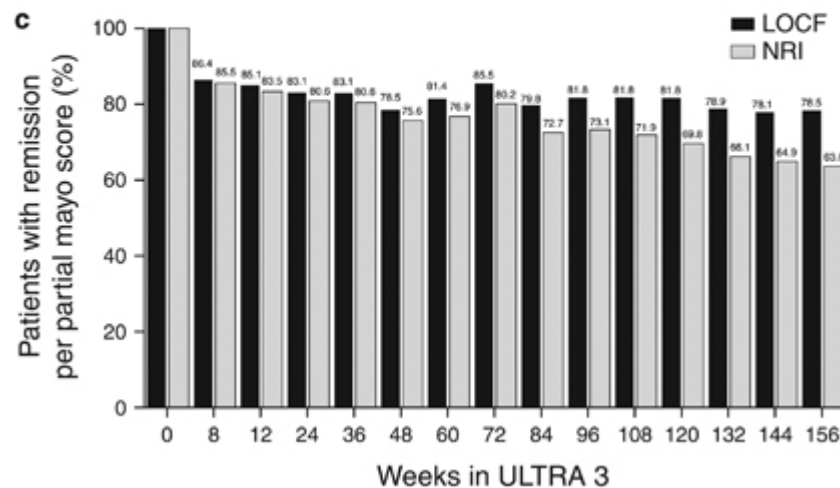
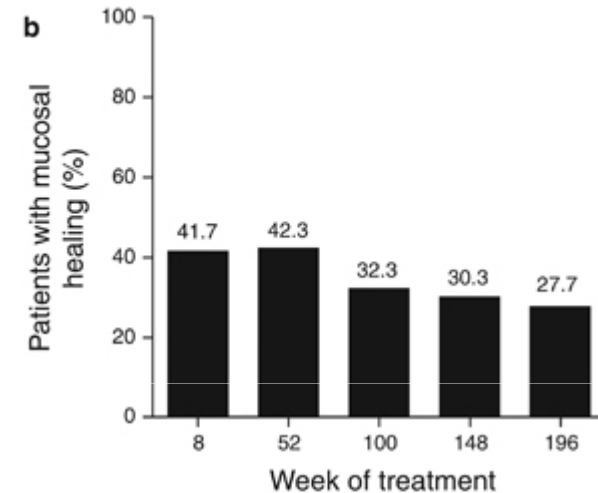
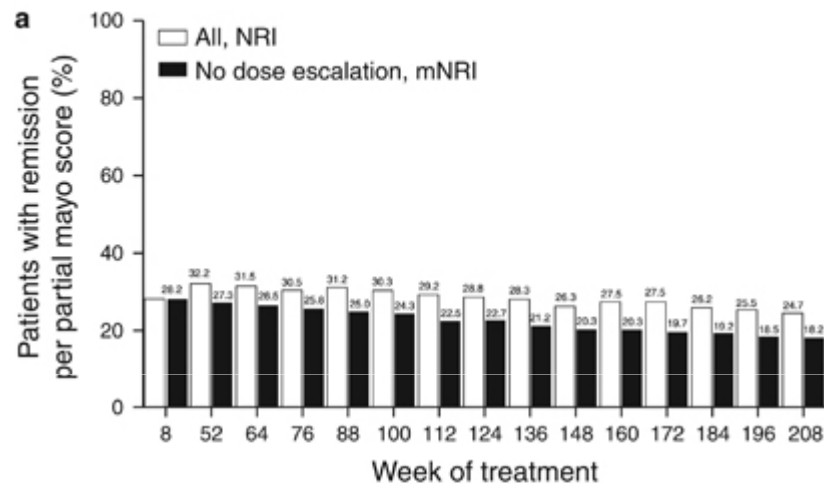
Adalimumab ULTRA 3



b Number of patients by visit

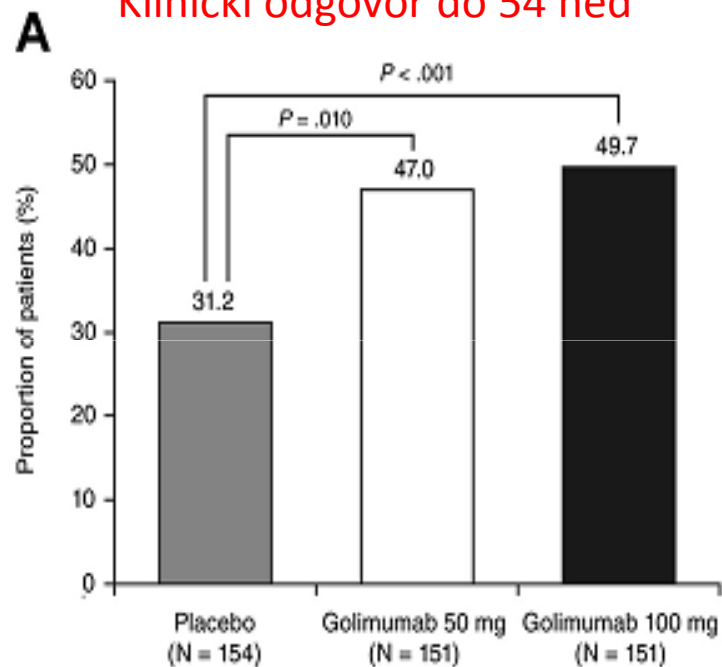
Week from lead-in study baseline	ADA Randomized set (N)	ADA Extension set (N)
0	600	N/A
52	389	588
100	292	517
160	225	418
208	199	360

Adalimumab ULTRA 3-4 godine

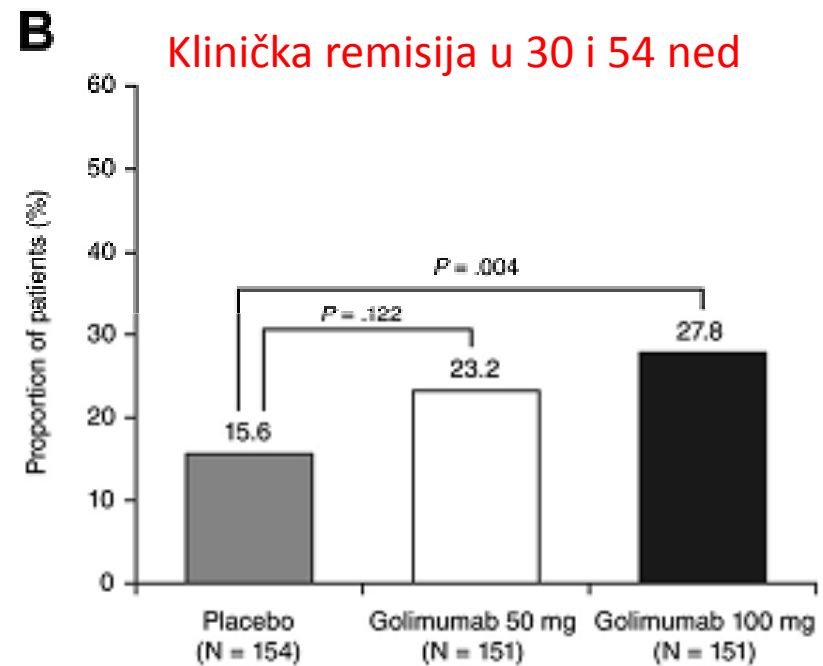


Golimumab

Klinički odgovor do 54 ned

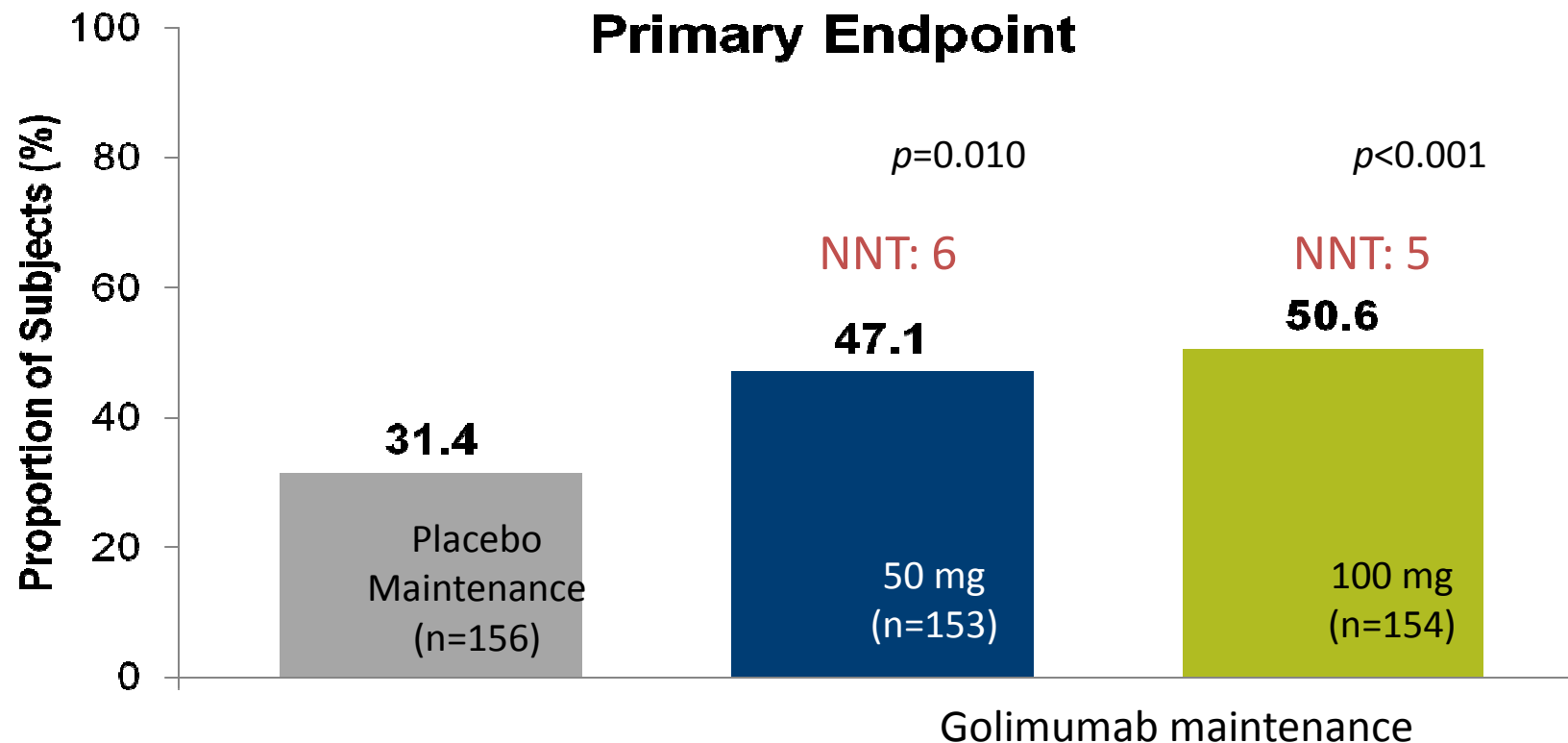


Klinička remisija u 30 i 54 ned



Simponi Maintenance : PURSUIT results

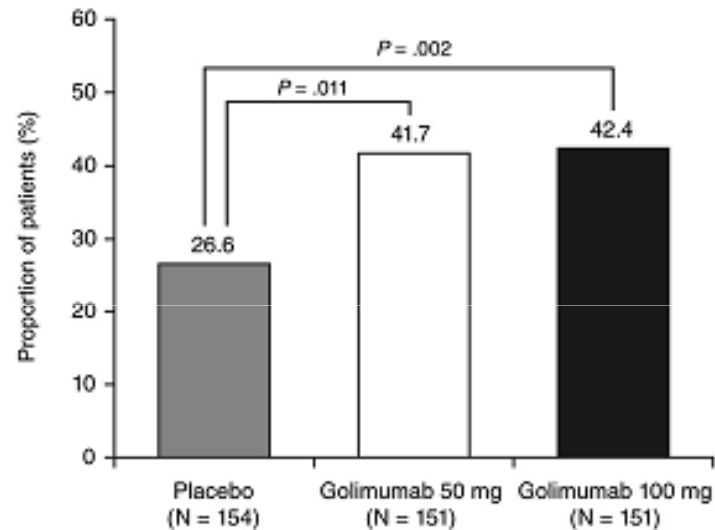
Clinical response* through Wk 54 in GLM Induction
Responders:
CONTINUOUS CLINICAL RESPONSE
Primary Endpoint



*Defined as a decrease from Week 0 of an induction study in the Mayo score by $\geq 30\%$ and ≥ 3 points, with either a decrease from baseline in the rectal bleeding subscore of ≥ 1 or a rectal bleeding subscore of 0 or 1.

Golimumab

C Mukozno zaceljenje (30 i 54)



D Održali kliničku remisiju

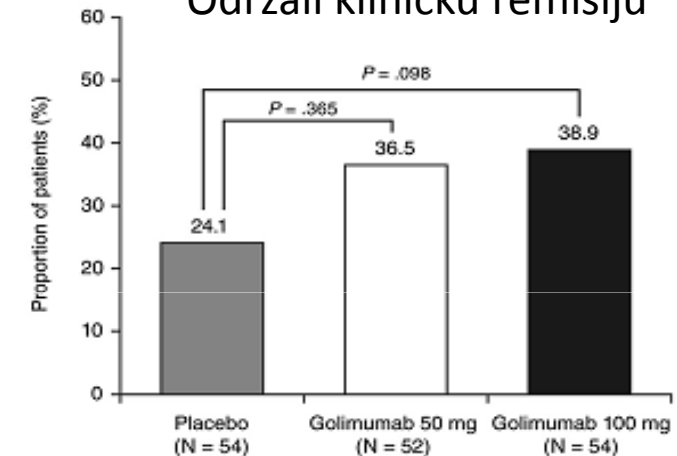
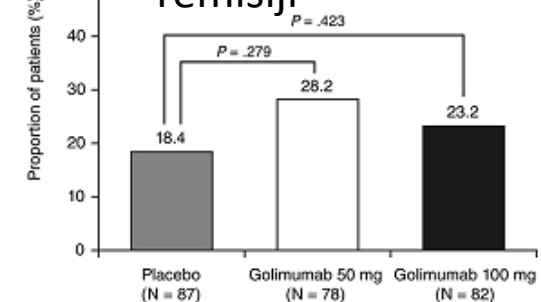


Figure 3. Proportion of golimumab-induction responders who (A) maintained clinical response through week 54; (B) achieved clinical remission at both weeks 30 and 54; (C) achieved mucosal healing at both weeks 30 and 54; (D) maintained clinical remission among those who were in clinical remission at baseline; and (E) achieved corticosteroid-free clinical remission at week 54 among those who were receiving corticosteroids at baseline. (A–E) Patients who had a prohibited change in UC medication, an ostomy or colectomy, a dose adjustment, or discontinued study agent because of a lack of therapeutic effect before the week 54 visit were considered not to have a clinical response, be in clinical remission, be in corticosteroid-free clinical remission, or have mucosal healing. (A–D) Patients who had all 4 Mayo subscores missing at weeks 30 or 54 were considered not to be in clinical response or clinical remission. Patients who had a missing endoscopy subscore at week 30 or week 54 were considered not to have mucosal healing. (E) Patients who had a missing value in corticosteroid use at a time point had their last available value carried forward to that time point. UC, ulcerative colitis.

E U 54 nedelji bili u remisiji



Vedolizumab

US RWE data

- [Efficacy of Vedolizumab as Induction Therapy in Refractory IBD Patients: A Multicenter Cohort \(Shelton, *Inflammatory Bowel Disease* 2015\)](#) INDUKCIONI PROTOKOL
- [Vedolizumab Effectiveness and Safety Over the First Year of Use in an IBD Clinical Practice \(Vivio, *Journal of Crohn's and Colitis* 2016\)](#)

French Early-Access Program

- [Effectiveness and Safety of Vedolizumab Induction Therapy for Patients With Inflammatory Bowel Disease \(Amiot, *Clinical Gastroenterology and Hepatology* 2016, *epub ahead of print*\)](#)

German Registry

- [Vedolizumab induction therapy for inflammatory bowel disease in clinical practice – a nationwide consecutive German cohort study \(Baumgart, *Aliment Pharmacol Ther* 2016\)](#)

Multicenter US Consortium

- [Vedolizumab for Moderate to Severely Active Inflammatory Bowel Disease: A Multicenter US Consortium \(Dulai, 2015 ACG\)](#)

2 UK tertiary IBD centers

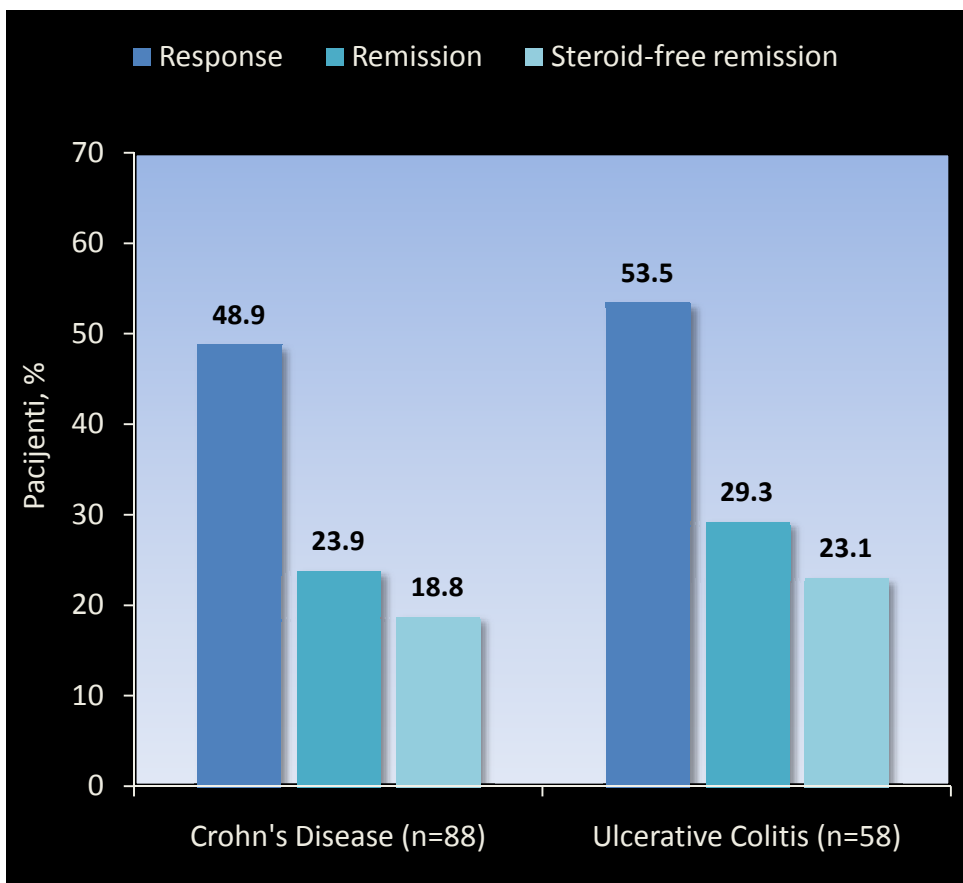
- [Vedolizumab: early experience and medium term outcome from 2 UK IBD centers \(Samaan MA, *Frontline Gastroenterology* 2016\)](#)

- Klinički odgovor i klinička remisija
- 14. nedelja
- Šta su prediktori odgovora na terapiju?
- VDZ 300 mg i.v. 0, 2, 6 i 14 nedelja
- Klinički odgovor
 - ❖ klinički odgovor smanjen HBI ≥ 3 (CD) i simple clinical colitis activity index (SCCAI) ≥ 3 (UC)
 - ❖ klinička remisija HBI ≤ 4 (CD) i SCCAI ≤ 2 (UC)
 - ❖ Pad vrednosti CRP i smanjenje potrebe za kortikosteroidima
- Logistička regresija za procenu prediktora

Efikasnost vedolizumaba kao indukcijske terapije u pacijenata sa refraktarnim oblikom IBC

Shelton et al. Inflamm Bowel Dis 2015

Klinički ishod 14. nedelji



Baseline Characteristics	Ulcerative Colitis		
	MGH (n=40)	BWH (n=25)	Total (n=65)
Mean age, y (SD)	40.7 (14.3)	40.3 (12.9)	40.5 (13.7)
Male, n (%)	22 (55.0)	10 (40.0)	32 (49.2)
Mean duration of disease, y (SD)	9.1 (7.1)	11.6 (6.7)	10.1 (7.0)
Current smoker, n (%)	1 (2.5)	2 (8.0)	3 (4.6)
Mean HBI score ^a (SD)	–	–	–
Mean SCCAI score ^a (SD)	6.5 (7.7)	–	–
Mean CRP, mg/L (SD)	8.8 (12.8)	11.4 (17.9)	9.8 (14.9)
Number of prior anti-TNFs, mean (SD)	2.1 (0.9)	1.7 (0.8)	1.9 (0.9)
≥ 2 prior anti-TNF agents, n (%)	27 (67.5)	13 (52.0)	40 (61.5)
Number of prior biologics, mean (SD)	–	–	–
Prior surgery for CD, n (%)	–	–	–
Corticosteroid at induction, n (%)	27 (67.5)	10 (41.7)	37 (57.8)
Prednisone equiv. dose, mean (SD)	17.2 (16.2)	13.8 (19.1)	15.9 (17.5)
Concomitant immunosuppressant, n (%)	10 (25.6)	7 (28.0)	17 (26.6)
Thiopurines	6 (15.4)	5 (20.0)	11 (17.2)
Methotrexate	4 (10.3)	2 (8.0)	6 (9.4)

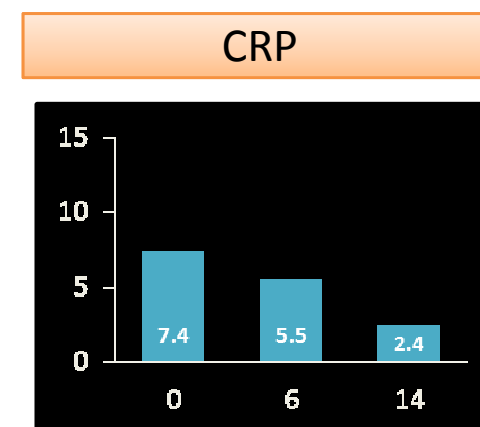
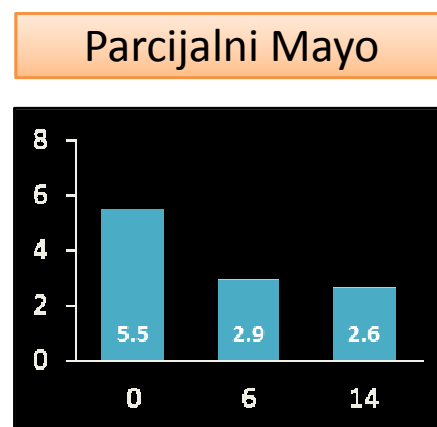
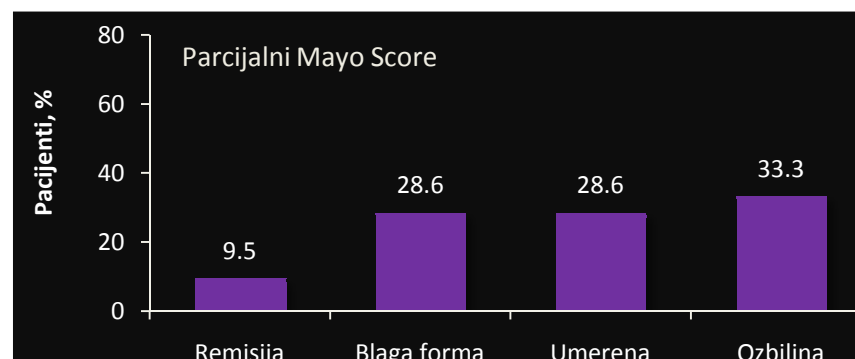
■ 48.1% CD
 ■ 47.6% UC
 Povišen CRP u ref opsegu u 14. nedelji

Efikasnost i bezbednost vedolizumaba u prvoj godini lečenja pacijenata sa IBC

Vivio et al. JCC 2016

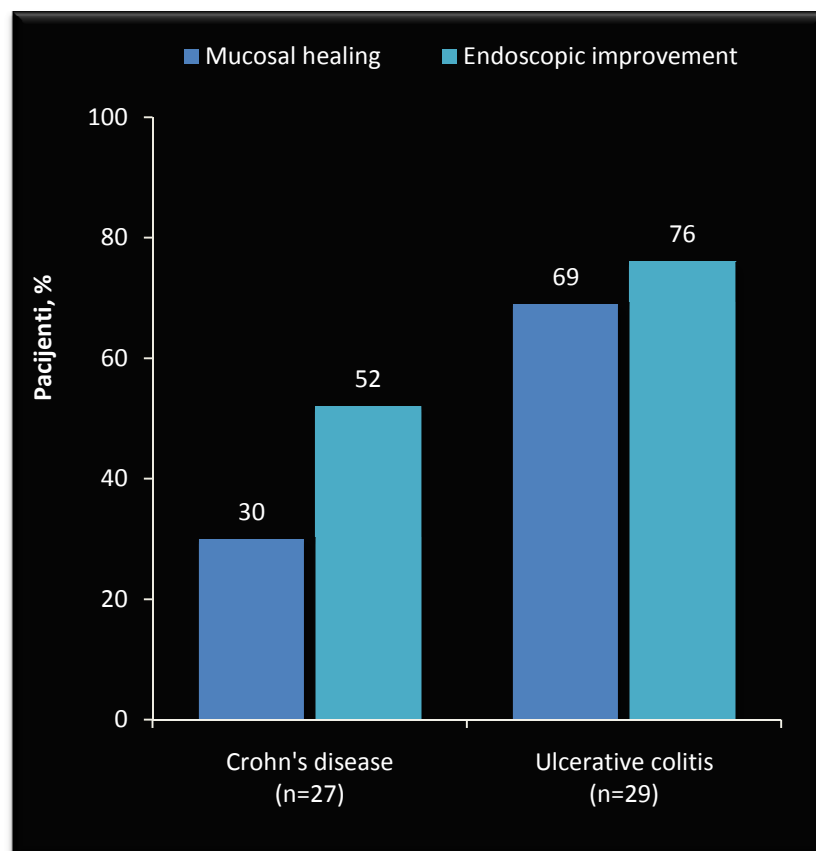
Characteristic	UC (n=21)
Median age, y	46.2
Male/female, %	38.1/61.9
Prior anti-TNF therapies, %	
0	23.8
1	38.0
2	33.3
3	4.8
Prior surgeries, %	
0	95.2
1	4.8
2	–
3	–
Steroid use at baseline, %	
Oral	14.3
Topical	33.3
IMM use at baseline, %	47.6
AZA and/or 6-MP	47.6
Methotrexate	–

6-MP, merkaptopurin; AZA, azatioprin
IMM, imunomodulator; TNF, tumor necrosis factor



Mukozno zaceljenje i trajanje terapije

Mukozno zaceljenje



^a Median time post-VDZ induction to colonoscopy, 22 weeks (range, 9–47 weeks) in CD and 22 weeks (range, 12–52 weeks) in UC

Cohort		Ulcerative Colitis (n=21)	
		Event	N
Prospective Cohort	Week 0–14	Total proctocolectomy Fever ^a Conjunctivitis	2 1 1
	After Week 14	Total proctocolectomy Diverting loop ileostomy	1 1
Retrospective Cohort	Week 0–14	Total proctocolectomy	2
	After Week 14	NR	–

Mali broj u prospektivnoj studiji (51,115)

Efikasnost i bezbednosti vedolizumaba kao indukciono terapije u pacijenata sa IBC

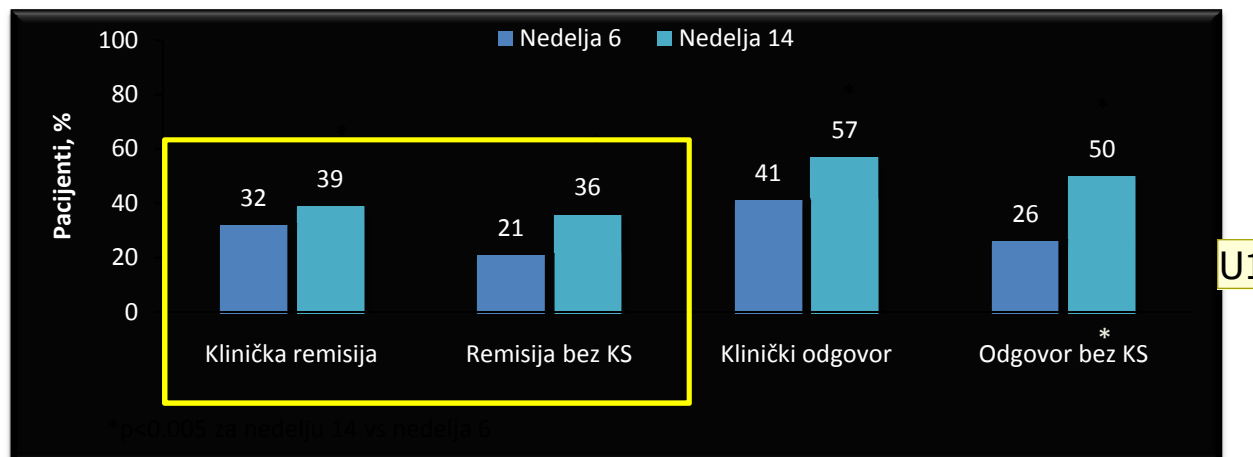
Amiot et al. Clin Gastroenterol Hepatol 2016

Patient Characteristics	UC (n=121)
Mean age, y (SD)	42.8 (16.1)
Male, n (%)	67 (55)
Mean BMI, kg/m ² (SD)	23.3 (4.6)
Smoking history, n (%)	
Former smoker	37 (31)
Active smoker	5 (4)
Mean disease duration, y (SD)	8.8 (7.1)
Extra-intestinal disease, n (%)	18 (15)
Primary sclerosing cholangitis	8 (7)
Ankylosing spondylitis	6 (5)
Familial history of IBD	9 (9)
Mean age at diagnosis, y (SD)	24.6 (11.1)
Prior medications, n (%)	
Immunosuppressant	115 (95)
Anti-TNF agent	118 (98)
Concomitant medications, n (%)	
Glucocorticoids only	41 (34)
Immunosuppressants only	14 (12)
Both	12 (10)
Hemoglobin, g/L (SD)	11.9 (3.2)
CRP, mg/L	19.5 (21.2)

Ulcerative colitis

Disease location, n (%)		
Proctitis	–	9 (7)
Left-sided colitis	–	29 (24)
Pancolitis	–	83 (69)

- umereno do teškoaktivnom UK i KB koji nisu odgovorili na anti TNF
- Prospektivna kohortna studija 41 centar u Francuskoj
- VDZ 300 mg i.v u 0, 2, 6 i 14 nedelji a potom svakih 8 nedelja
- Optimizacija ako nisu odgovorili na indukcionu terapiju (300 mg/ 4 nedelje)
- Ishod remisija bez steroida u 14 nedelji (HBI ≤4 CD i parcijalni Mayo skor <3)



HBI Skor



Response	Variable	OR (95% CI)	P-value
Less likely	CRP >20 mg/L	0.30 (0.11–0.80)	0.02
	Mayo score >9	0.21 (0.08–0.57)	0.002
More likely	Week 6 clinical response	5.3 (2.2–13.1)	<0.001



- 1/3 pacijenata koji nisu odgovorili na antiTNF će postići remisiju bez upotrebe kortikosteroida
- Bezbedan lek
- Klinički odgovor u 6 nedelji najbitniji za ishod u 14.oj nedelji

Slide 70

U1

animacija ne stoji dobro i ja bas volim okrugle shapes ali dobro promenila sam

USER; 8.9.2016

Bezbednosni profil

Event, n (%)	Patients with IBD (N=294)
Adverse event	93 (31.6)
Headache	16 (5.4)
Paresthesia	13 (4.4)
IBD exacerbation	12 (4.1)
Infusion-related reaction	2 (0.7)
Arthralgia	1 (0.3)
Vertigo	1 (0.3)
Deep venous thrombosis	1 (0.3)
Pruritus	1 (0.3)
Strokes	1 (0.3)
Liver test abnormalities	1 (0.3)
Arthralgia	1 (0.3)
Any serious adverse event*	24 (8.2)
Adverse event of infection	37 (12.6)
Rhinopharyngitis	12 (4.1)
Upper respiratory tract infection	6 (2.0)
GI infection	5 (1.7) [†]
Flu or flu-like infection	3 (1.0)
Sinusitis	3 (1.0)
Pharyngitis	3 (1.0)
Miscellaneous	11 (3.7)
Any serious infection [‡]	7 (2.4)
Any cancer [§]	1 (0.3)

Efikasnost vedolizumaba kao indukcione terapije u pacijenata sa IBC (nacionalna studija u Nemačkoj)

Baumgart et al. Aliment Pharmacol Ther 2016

	Ulcerative Colitis n=115
Median age (95% CI), year	42 (37–46)*
Median disease duration (95% CI), year	7 (5–9)*
Gender, n (%)	
Female	49 (42.6)
Male	66 (57.4)
Current smoker, n (%)	9 (7.8)
Median CRP (95% CI), mg/dl	0.63 (0.47–0.90) [†]
Median Partial Mayo Score (95% CI)	6 (6–7)
Median HBI Score (95% CI)	
Number of previous anti-TNF therapies, n (%)	
0	28 (24.3)
1	30 (26.1)
2	30 (26.1)
3	27 (23.5)
Concomitant Medications, n (%)	
Steroids	96 (83.5)
Immunomodulators only	88 (76.5)
Steroids and immunomodulators	74 (64.3)

Efikasan posebno kod antiTNF naivnih

Postepeno počinje da deluje (treba sačekati 14 nedelja)

Efikasnost VDZ

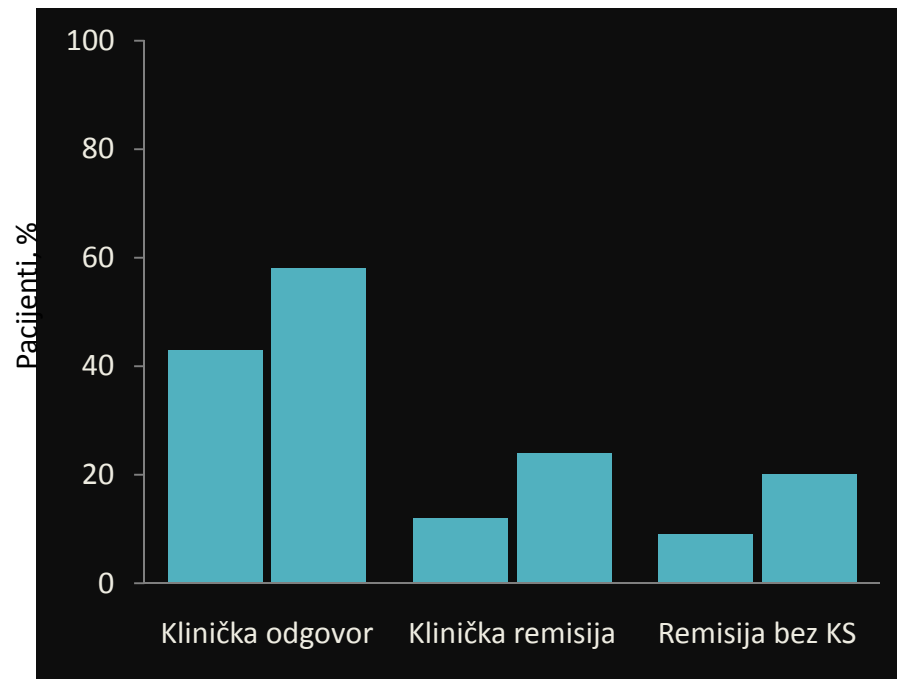
VDZ 300 mg iv indukciona terapija 0, 2, 6, održavanje na 8. nedelja

Praćenje do 14 nedelja

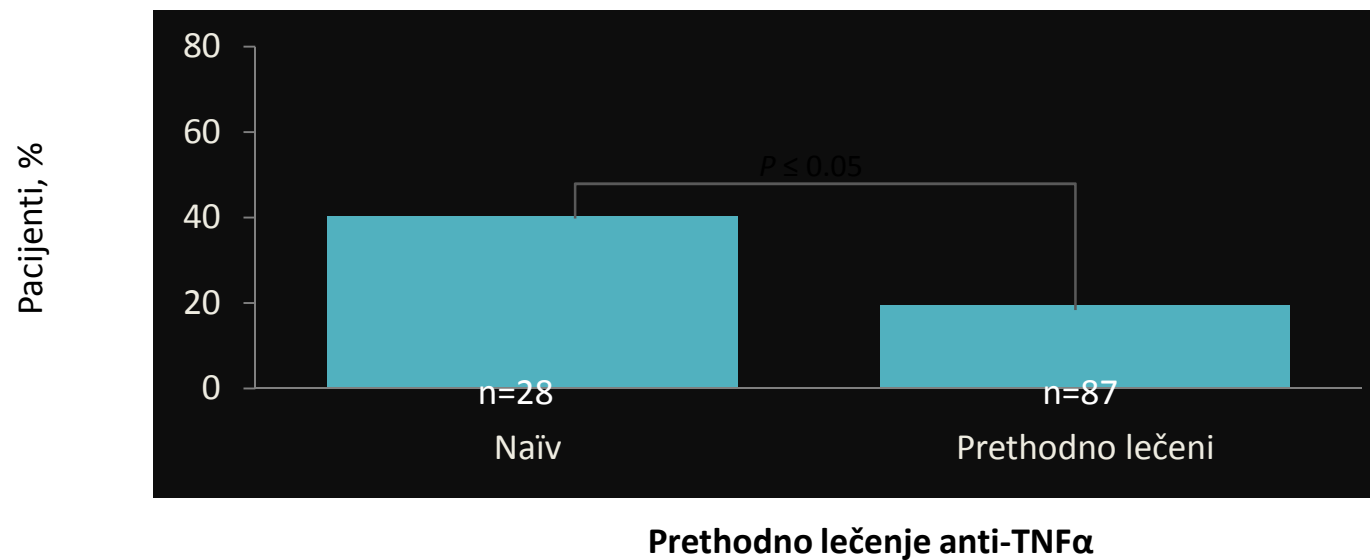
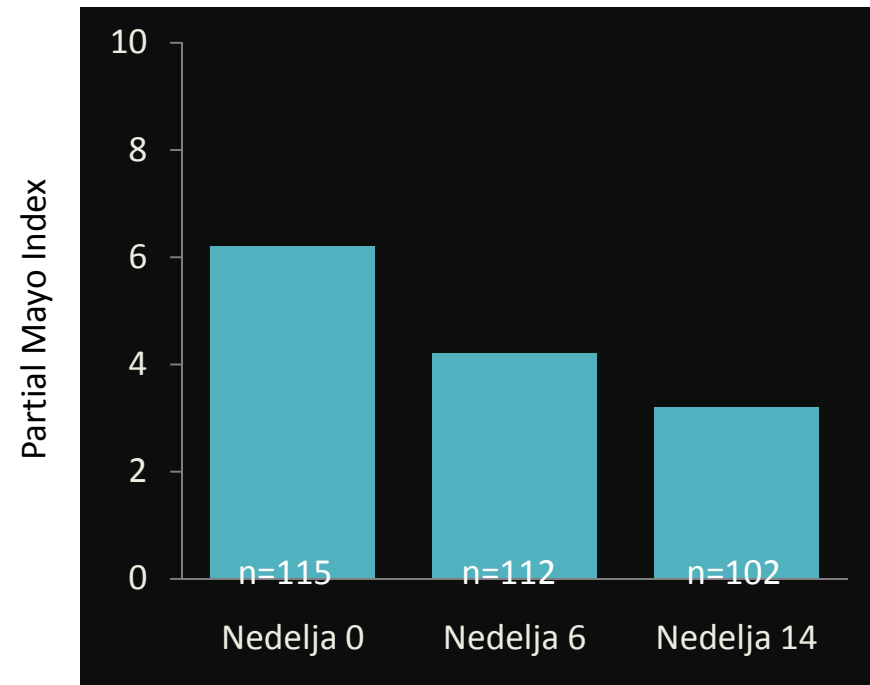
Izgubljeni su tretirani kao *non responderi*

Klinička remisija u 14 nedelji

EU – German Registry (CD/UC)



UC – Medijana Parcijalnog Mayo Skora



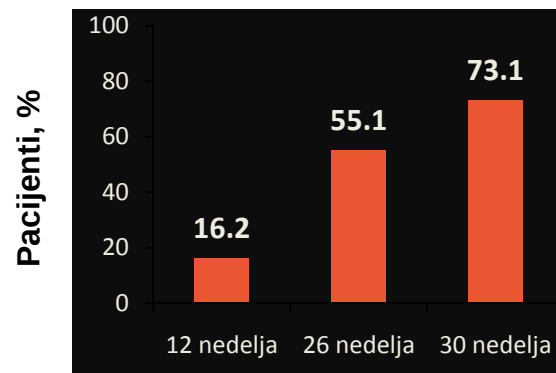
**Vedolizumab u lečenju umereno do teškoaktivne forme IBC
multicentrična studija iz SAD**

Dulai et al American College of Gastroenterology Scientific Meeting 2015

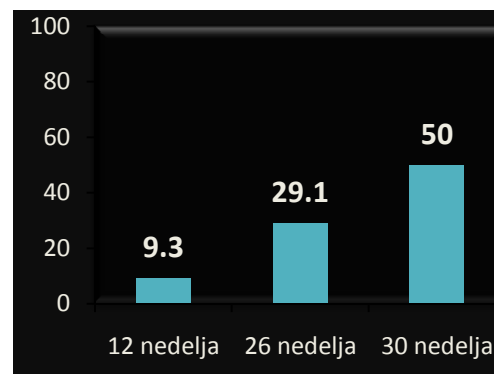
Baseline Characteristics and Treatment Outcomes	UC (n=59)
Mean age, y (SD)	41 (16)
Median disease duration, y (IQR)	6 (3–10)
Male/female, %	63/37
Median follow-up, weeks (IQR)	19 (9–26)
Endoscopy, severe, %	42
Prior hospitalization, %	51
Prior anti-TNF therapy, %	75
Concomitant immunotherapy, %	63
Qualified for GEMINI trial, %	48

Klinički ishod u UC

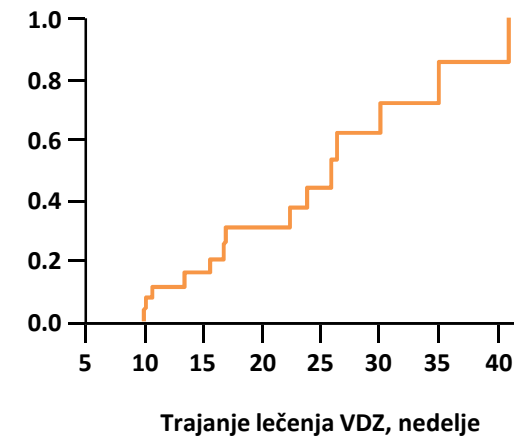
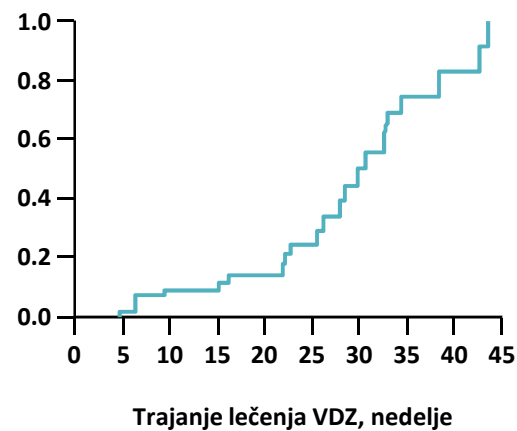
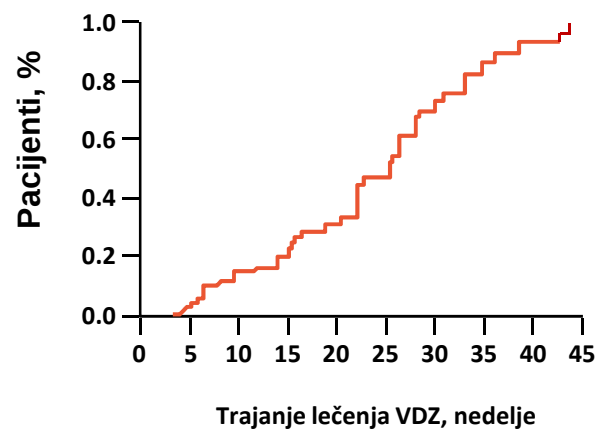
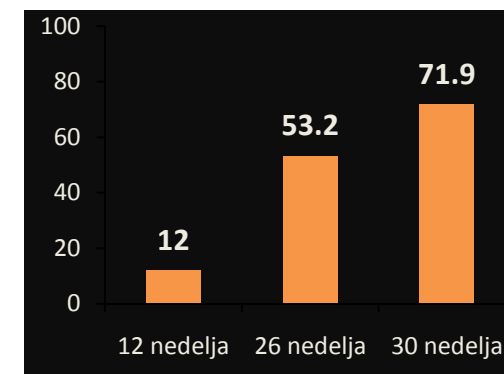
Klinički odgovor



Klinička remisija



Mukozno zaceljenje

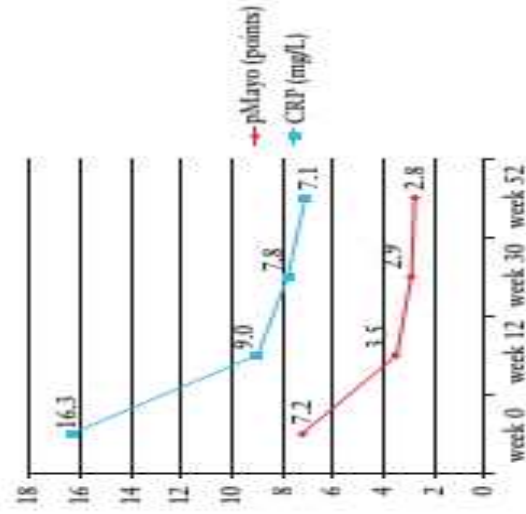
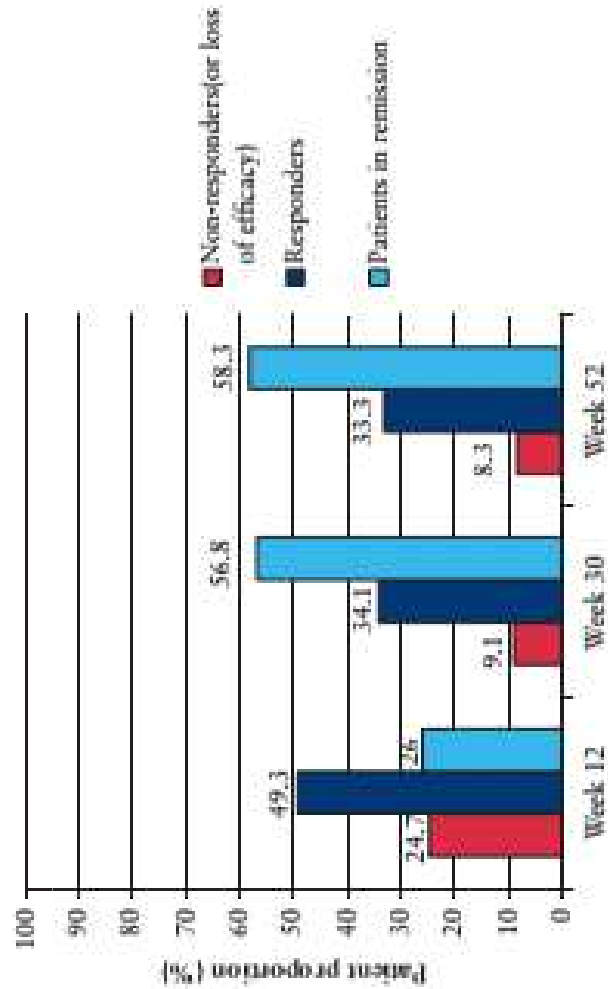


- Razlika između **selektivnog** i **sistenskog** biološkog leka
- Infekcije: TBC, oportunističke infekcije, infekcije GIT
- Srčana insuficijencija
- Demijelinizacija
- Stariji bolesnici
- Maligniteti
- Upotreba u toku hirurgije
- Autoimune bolesti
- Žive vakcine
- Oštećenje jetre

Original Article

Efficacy and Safety of Adalimumab in Ulcerative Colitis Refractory to Conventional Therapy in Routine Clinical Practice

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HVALA NA PAŽNJI!

