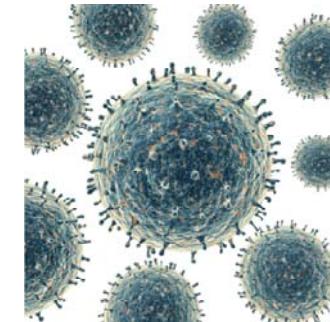


# JORNADAS 2014

DE ACTUALIZACIÓN  
EN ATENCIÓN FARMACÉUTICA  
AL PACIENTE  
CON PATOLOGÍAS VÍRICAS

24-25 de abril, 2014  
Madrid

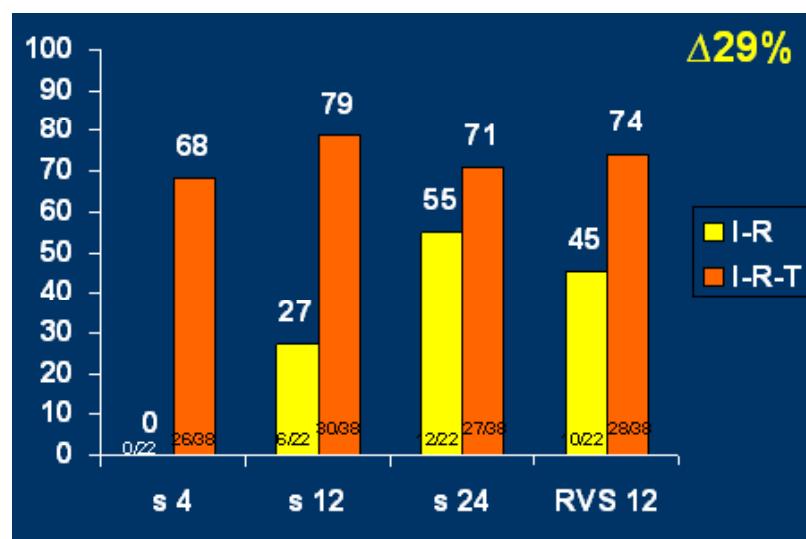


## Resultados de la práctica clínica en la coinfección VIH/VHC

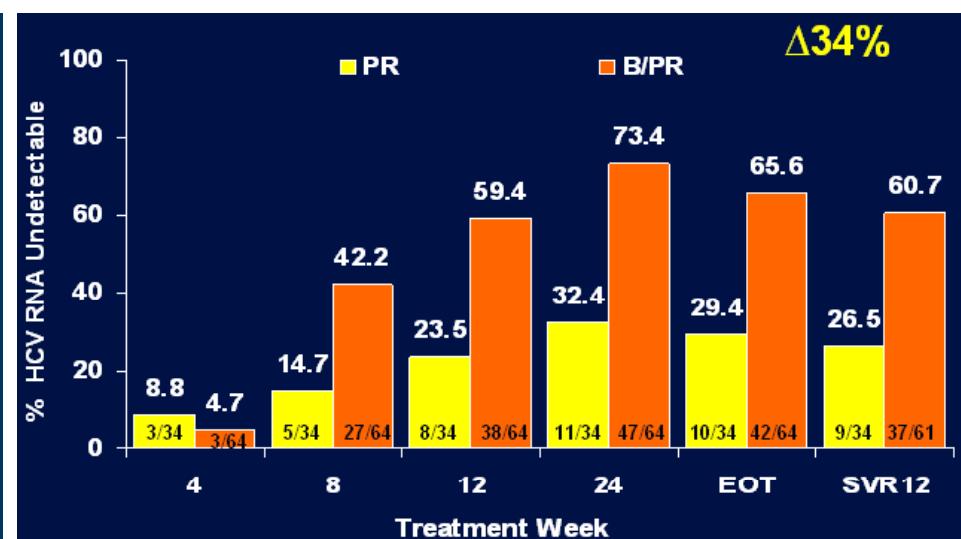
**Miguel A von Wichmann**  
**Hosp Univ Donostia, San Sebastián**

# RVS con AAD en pacientes coinfecados Gt-1 sin tratamiento previo (EC)

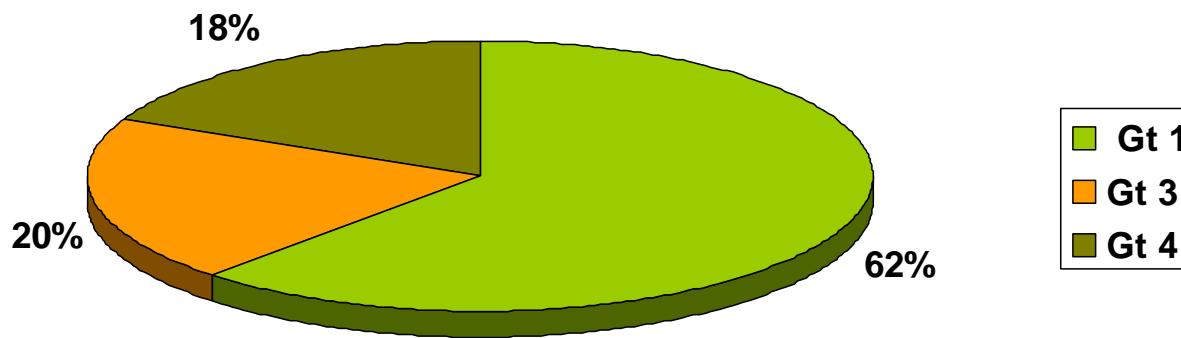
TVR



BOC



# Distribución de genotipos y RVS en pacientes coinfectados



N=1701 pacientes tratados IFNp+RBV (RVS)

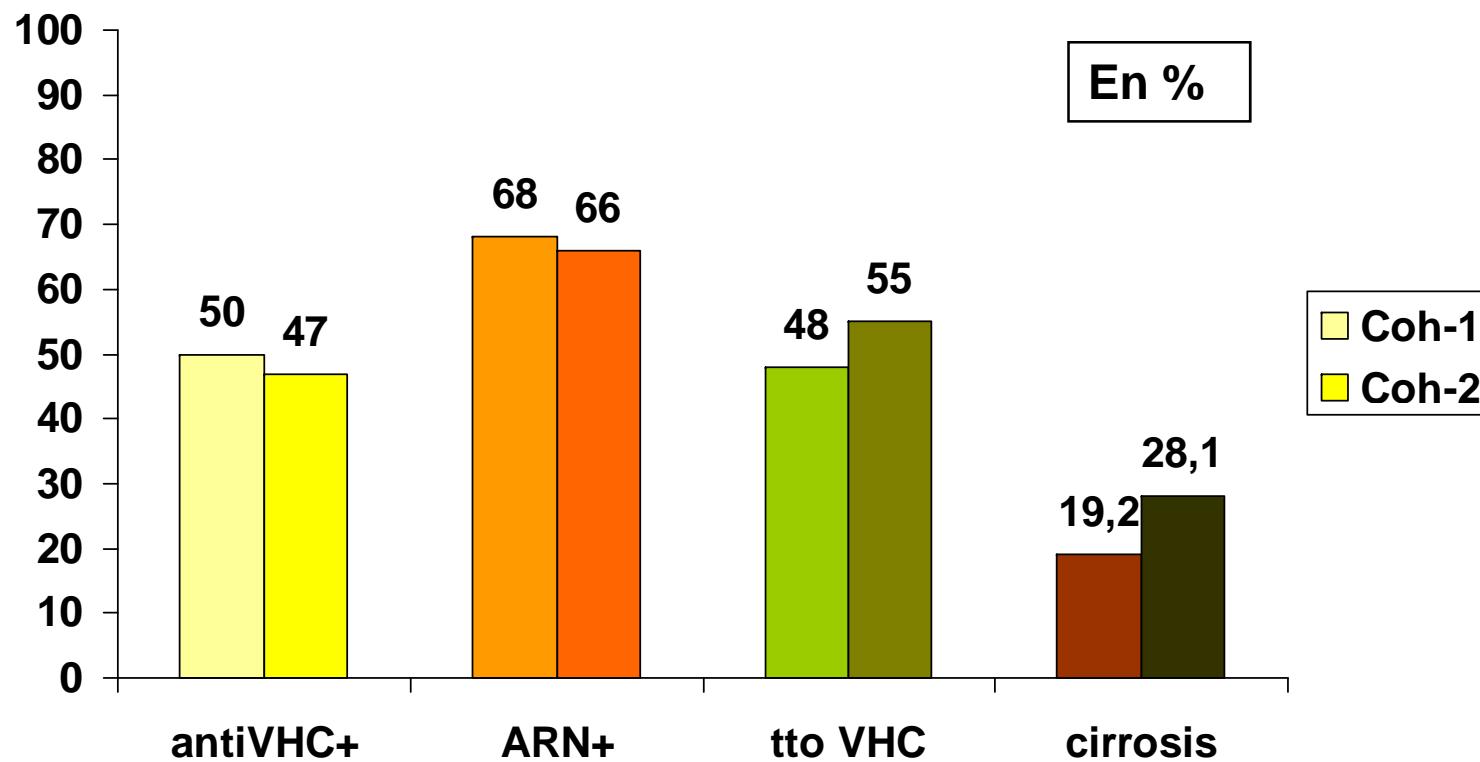
Gt 1-4	25%
Gt 2-3	61%

Cifuentes C, et al. Enf Infect Microbiol Clin 2012.

Berenguer J, et al, J Antimicrob Chemother 2011

# Situación de los pacientes coinfectados VHC/VIH en España (Cohorte GESIDA)

Estudio 5707, datos de 43 hospitales con 1458 pacientes (Coh-1) y 3 hospitales de Madrid con 1549 pacientes (Coh-2) (años 2009-2010)



# BOC/TVR 6 meses de seguimiento en centros españoles

- En los centros participantes, se incluyeron todos los pacientes con fibrosis avanzada que comenzaron tratamiento con BOC/TVR y al menos, 6 meses de seguimiento.
- El estadioje de la fibrosis hepática se hizo mediante biopsia en dos casos y por elastografía los otros ( $F3 > 9,5 \text{ kPa}$  y  $F4 > 12.5 \text{ KPa}$ ).
- Todos fueron tratados con triple terapia con, IFN pegilado alpha2a/2b, ribavirina ajustada a peso y boceprevir. El 76% inició la terapia con una fase de lead-in.
- La toxicidad se cuantificó con la escala ACTG.

Von Wichmann MA, et al #1874. AASLD 2013

Von Wichmann et al #P016. V Congreso GESIDA 2013

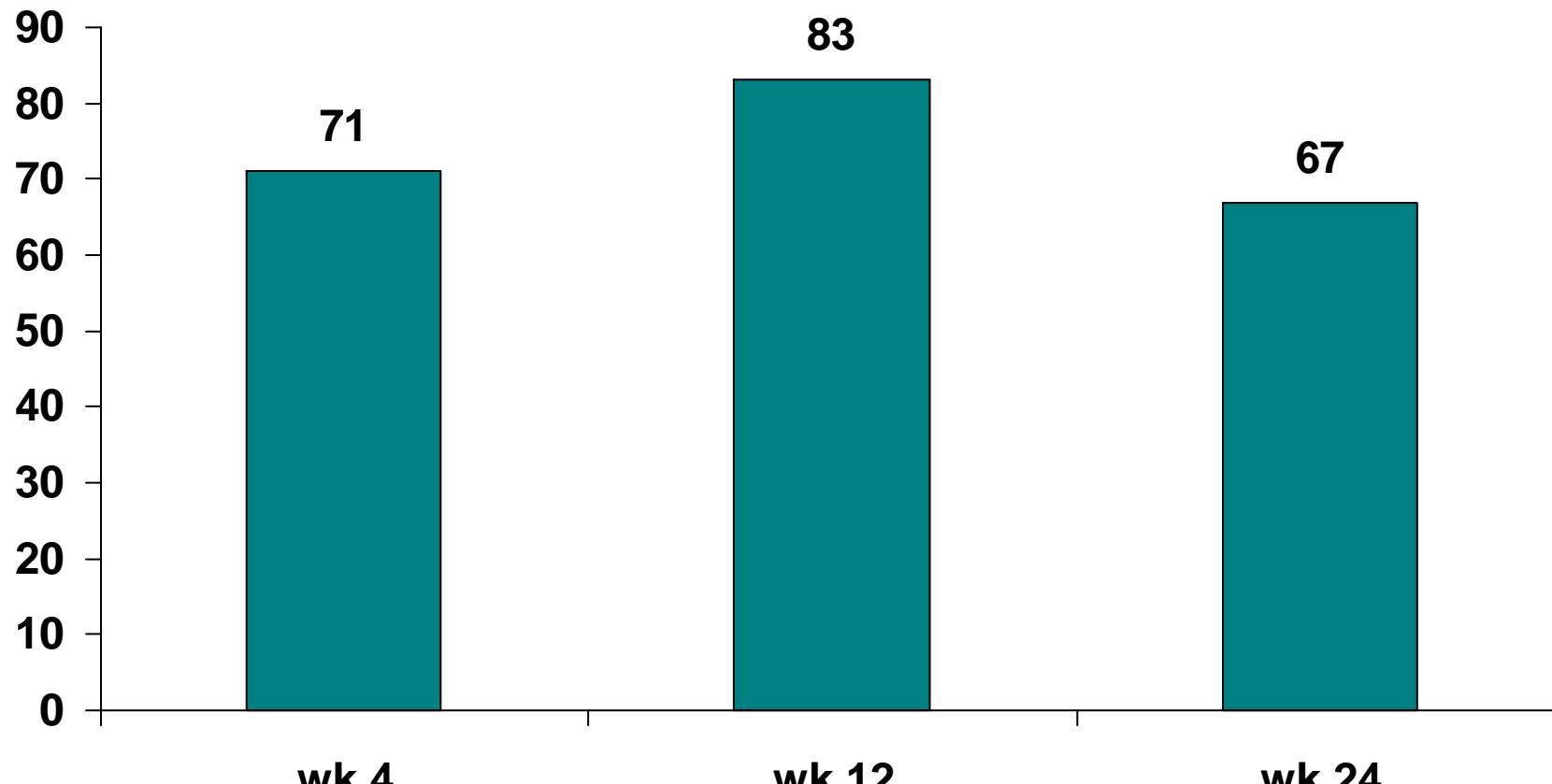
# Baseline characteristics TVR

	N=86
Age (mean, SD)	48,7 ± 5,1
Males	85 %
Weight (kg)	73 ± 13
CD4 (mean, range)	716 (144.1555)
HIV viral load < 20 copies	87,2 %
ARTV (number)	83 / 86
-1-2 nucs/nuct	77
- <u>RAL</u>	47
- <u>ATVr</u>	28
- <u>ETV</u>	20
-EFV	3
-MVC	2
Genotype 1a / 1b / 1nt / mixed	43 / 30 / 11 / 2
F3 / F4 number (%)	17 / 69 (20 / 80 %)
HCV-VL >800K IU	72 %
IL28B genotype CC number (%)	22 / 72 (30,6%)
Naïves	18 (21%)
Relapsers	25 (29%)
Breakthrough	2 (2%)
Partial responders	21 (24%)
Null responders	19 (22%)

# HCV-VL undetectable ITT (%)

## TVR

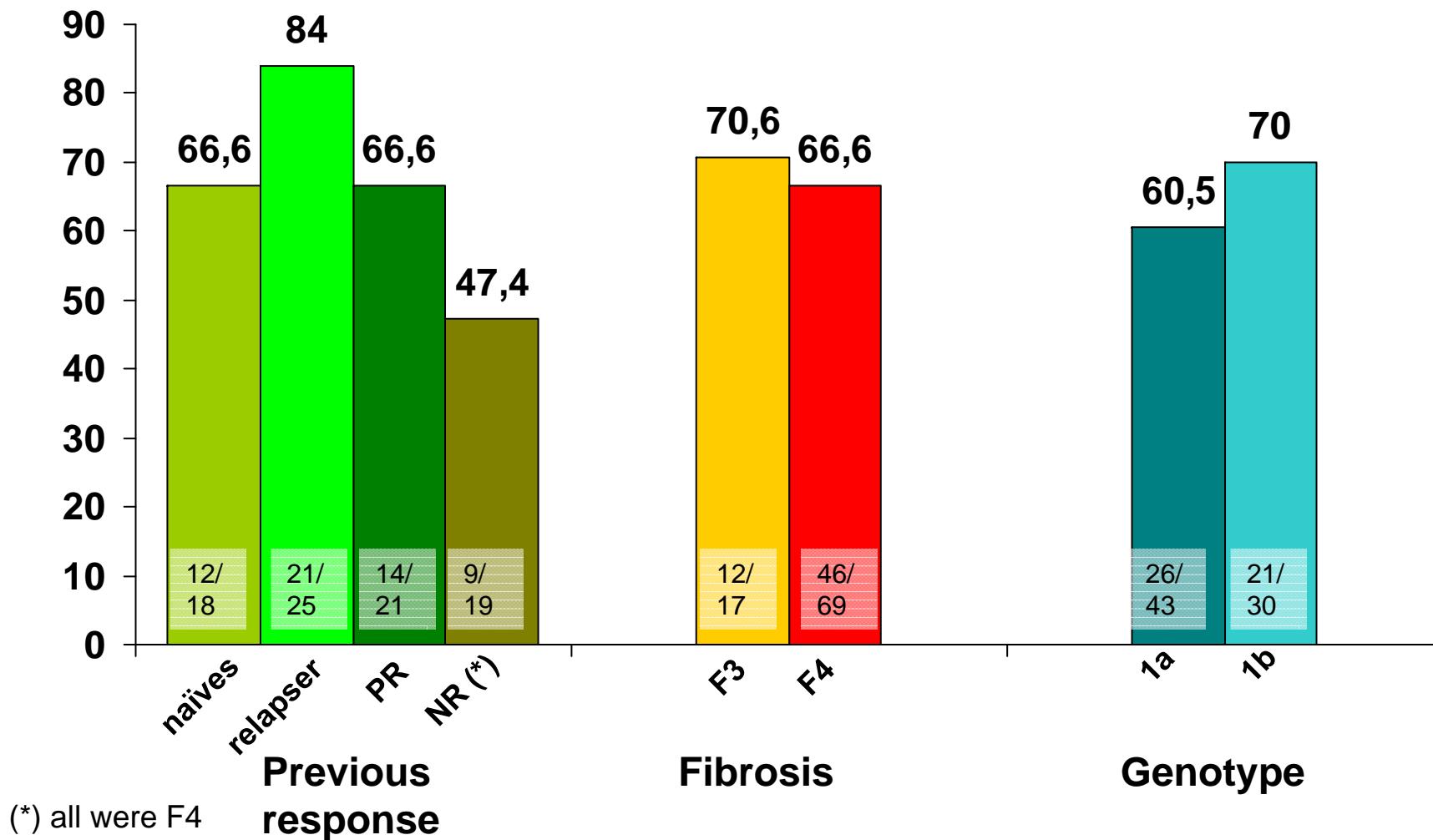
N=86



Under 15-17 copies

# Viral response at 24 weeks

## TVR



# Response by antiretroviral (TVR)

ARVT (other than nucleosides)	number	(%)
RAL	21 / 34	61,8%
RAL+2nd drug	6 / 9	66,6%
ATVr	16 / 24	66,6%
ETV	7 / 9	77,8%
EFV	3 / 3	100%
Others	3 / 4	75%
No therapy	2 / 3	66,6%

# Discontinuation (TVR)

Treatment discontinuation	29 (33,7%)
Patient decision	3
Adverse events	3
Exitus	3 (1 liver related)
Breakthrough	12
Failure on treatment	8

Breakthrough 10/12 in patients with genotype 1a

# Safety (TVR)

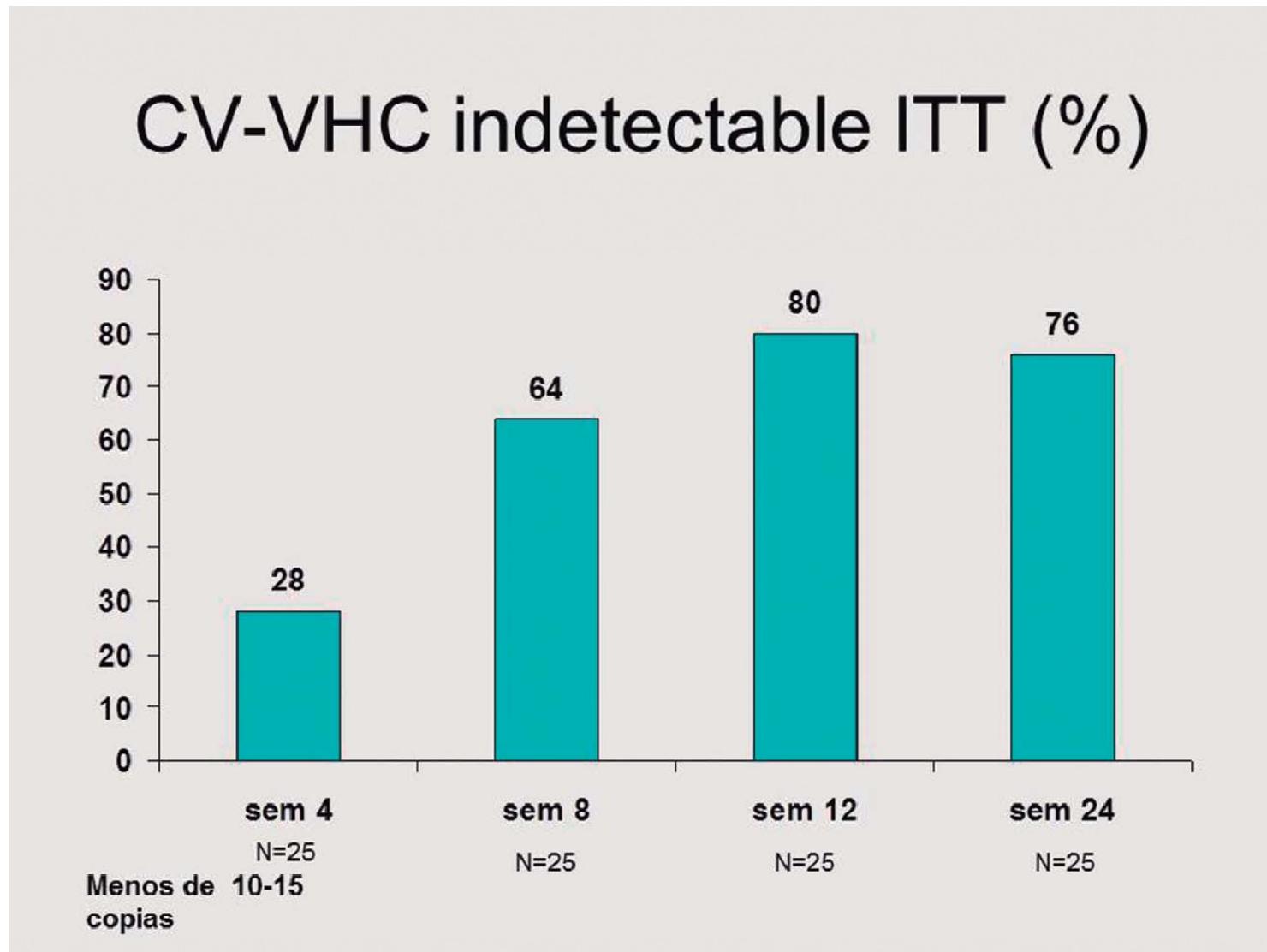
<b>Decompensation (n)</b>	2
<b>Bacterial infection</b>	
<b>abscess</b>	5
<b>urinary tract infection</b>	3
<b>pneumonia</b>	1
<b>gastroenteritis</b>	1
<b>sepsis</b>	1

**Severe adverse events (death, liver decompensation or admission) happened in 4/66 patients with more than 100.000 platelets/mm3 and 1/20 under 100.000 platelets/mm3.**

# Características basales BOC

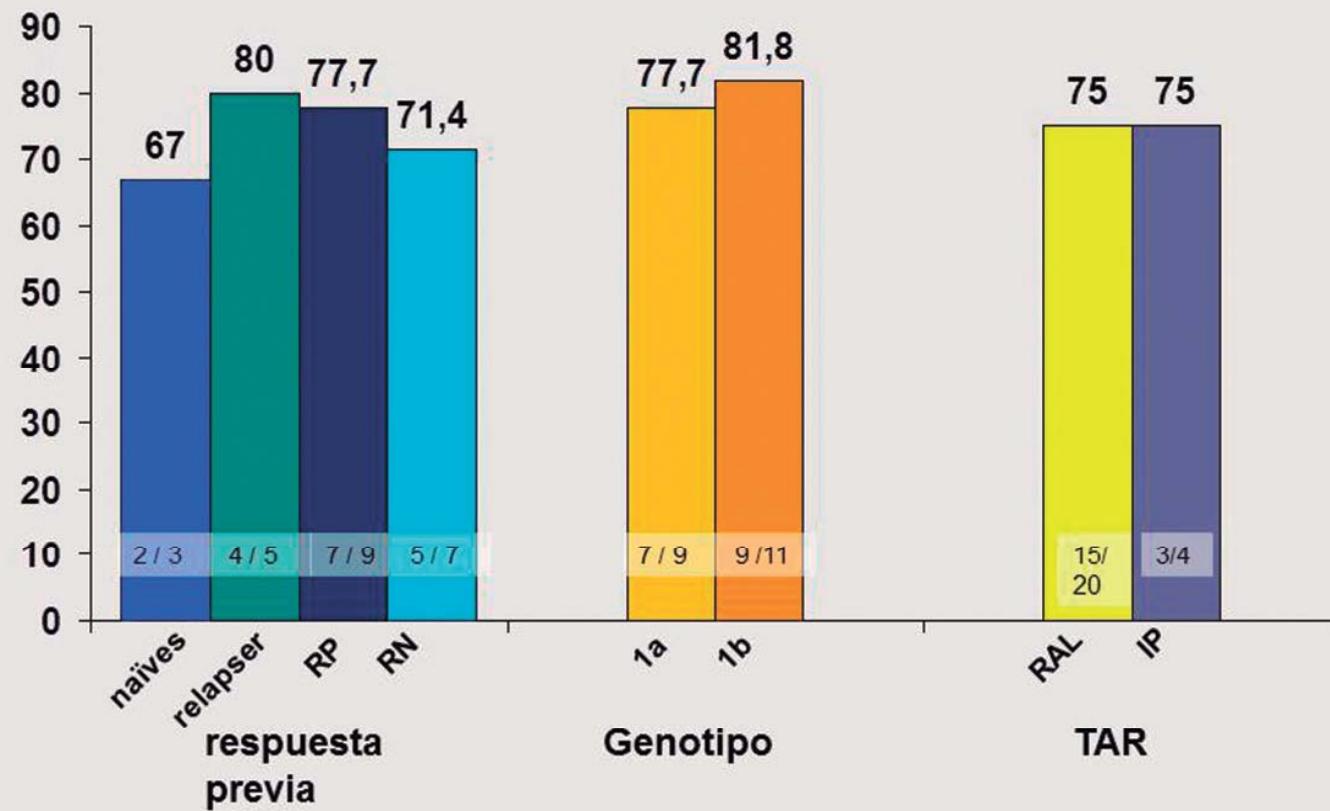
Características basales	
<b>N=25</b>	
Edad (media, DS)	48 ± 4
Varones	84 %
Peso (kg)	70 ± 9.5
CD4 (meadia, rango)	527 (216,962)
CV-VIH < 20 copias	80 %
ARTV (numero)	25/25
- 1-2 nucs/nuct	22
- RAL	24
- ATNr	2
- FOSr	1
- LPNr	1
- MVC	1
Genotipo 1a / 1b / Int / mixto	9 / 11 / 2 / 3
F4 (numero (%))	24 / 25 (96 %)
CV-VHC >800K IU	76 %
IL28B genotipo CC numero (%)	12 / 23 (52 %)
Naïves	3 (12 %)
Recaedores	5 (20 %)
Respondedores parciales	9 (36%)
Respondedores nulos	7 (28%)
Toxicidad	1 ( 4%)

# Boceprevir en pacientes coinfecados



# BOC

## Respuesta virológica a las 24 semanas



# BOC

## Interrupción

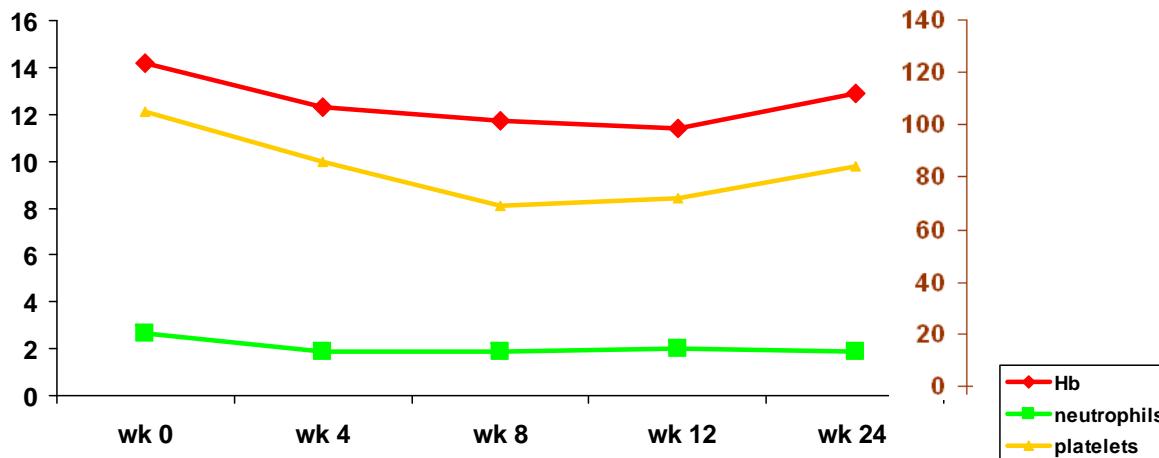
Interrupción del tratamiento	6 (24%)
Fracaso	3
Efectos adversos	3
Exitus	0
Breakthrough	0

## Seguridad

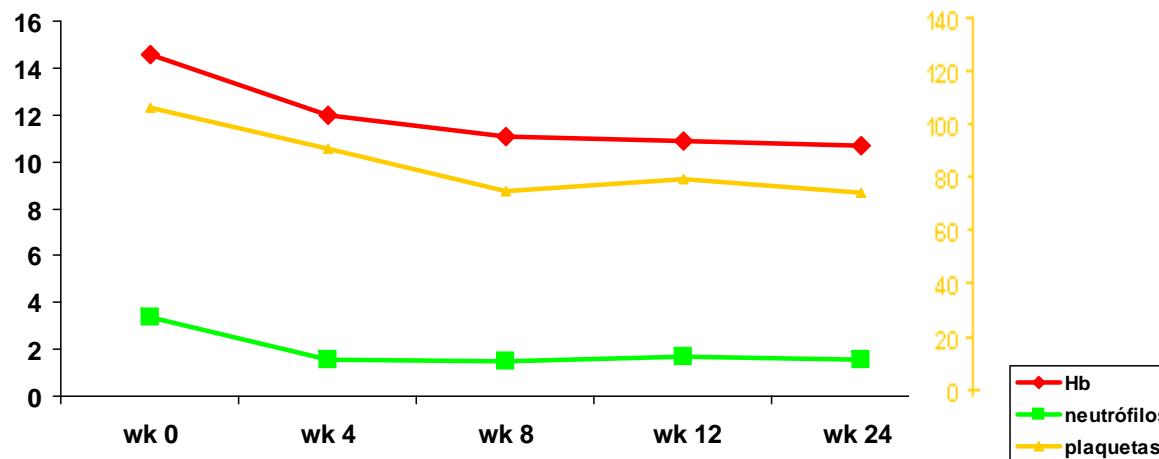
Descompensación (n)	3
Infecciones	
<u>respiratorias</u>	4
<u>colecistitis</u>	1
<u>sepsis</u>	1

# Toxicidad hematológica

TVR



BOC



# Toxicidad hematológica

## TVR

Toxicity (ACTG scale)	grade 3	grade4
Hb	19,8%	7%
neutrophils	30,2%	1,2%
platelets	66%	4,6%
EPO		18,6%
transfusion		10,5%
G-CSF		11,6%
platelets growth factors		1,2%

## BOC

Toxicidad (escala ACTG)	grade 3	grade4
Hb	32%	8%
neutrofilos	52%	0%
plaquetas	47,4%	0%
EPO		44%
transfusión		20%
G-CSF		20%
Factores crecimiento plaquetario		4%

# Reflexiones

- Los datos disponibles muestran la factibilidad de tratar a esta población vulnerable de pacientes cirróticos.
- Tras 24 semanas de terapia muestran una tasa de respuesta similar a los pacientes VIH-.
- Los resultados provisionales muestran una toxicidad significativa.

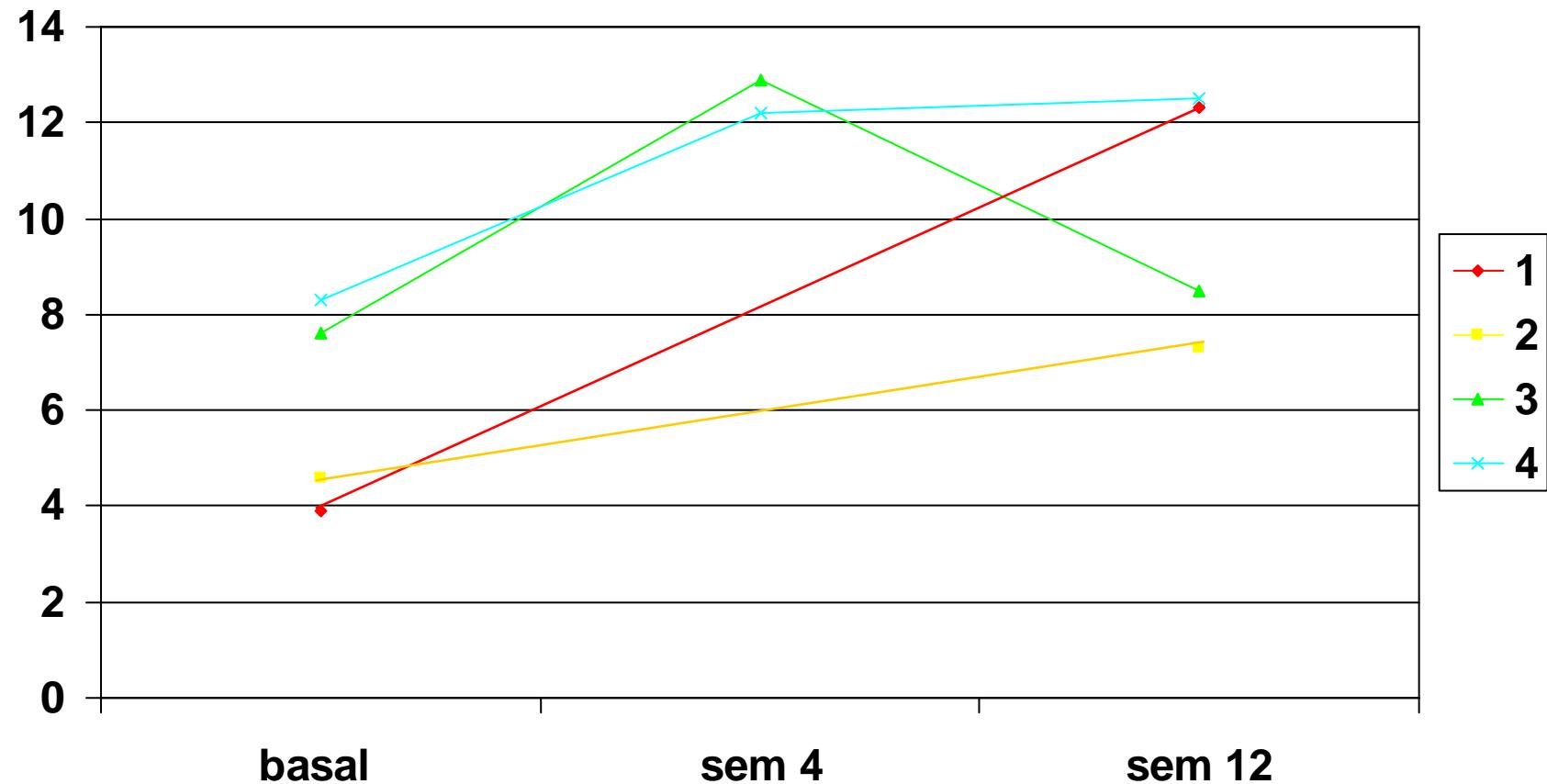
## Predictores de rebrote viral en pacientes con fibrosis severa

- TPV 66% (n=62), BOC 34% (n=32). HIV/HCV-coinfected (n=37).
- Cirrhotic (86%, n=81),
- Viral rebound 25% (n=19).

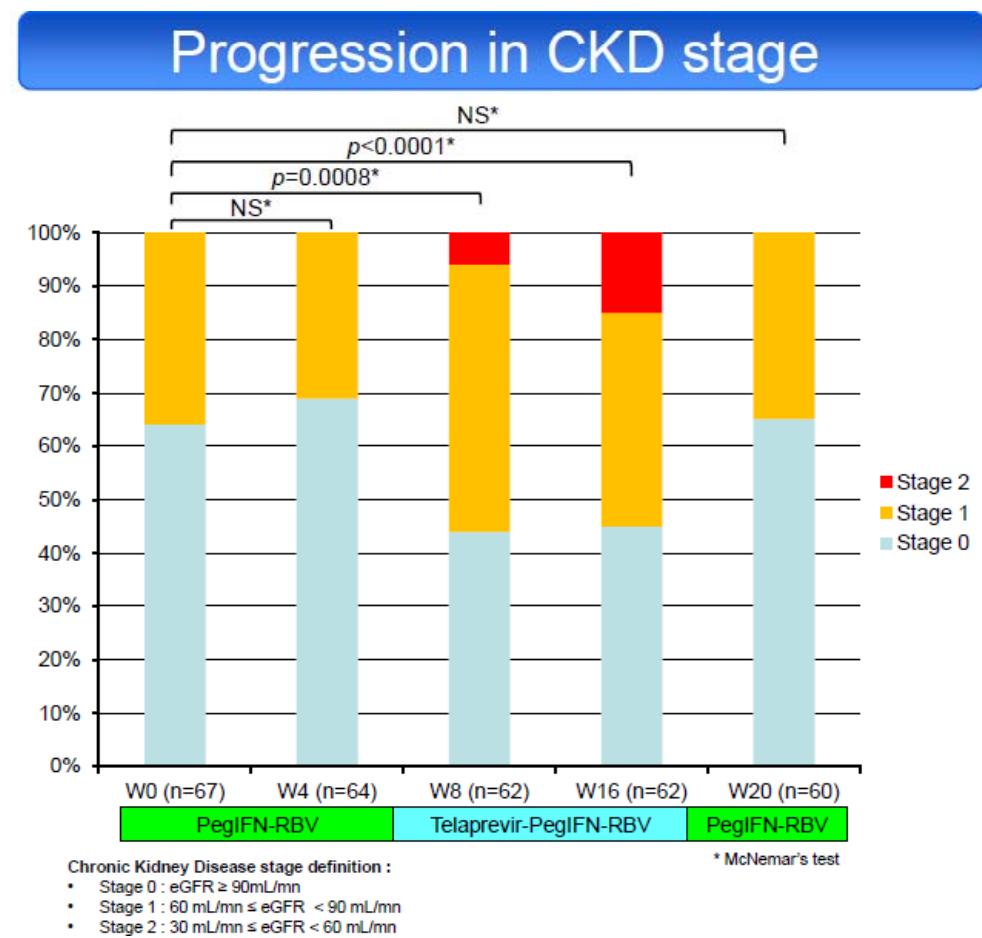
multivariate analysis:

<b>negative HCV-RNA at week 4 (protector)</b>	HR 8.802, 95%CI 1.527-50.749	p=0.015
<b>prior relapse after peg-IFN/RBV(protector)</b>	HR 18.222, 95%CI 1.612-206.011	p=0.019
IL28B TT		p=0.13

# Elevaciones asintomáticas del urato con telaprevir



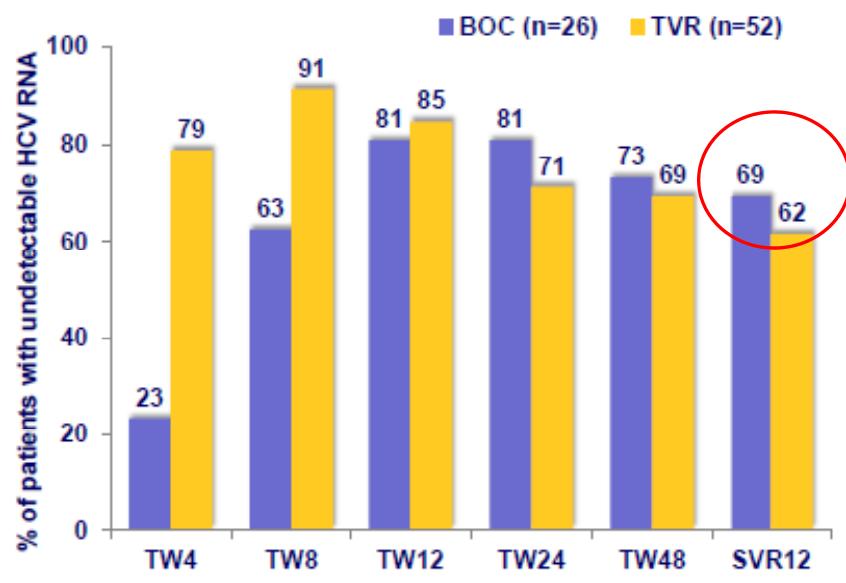
# Toxicidad renal en Telaprevih



Cotte L, et al. #664LB.CROI 2014

# Estudio cohorte hispano-alemana pacientes coinfecitados

Parameter	BOC (n=32)	TVR (n=151)
Age (years)*	46 (43-51)	48 (45-51)
Male gender, no. (%)	26 (81)	128 (85)
IL28B rs12979860 CT/TT, no. (%)‡	19 (68)	99 (72)
HCV subtype 1a, no. (%)#	15 (58)	88 (69)
Plasma HCV RNA >600 IU/ $\mu$ L, no. (%)	27 (84)	118 (78)
Cirrhosis, no. (%)¶	21 (75)	74 (53)
Liver stiffness	19.5 (11.7-25.7)	14.8 (10.2-26.5)
Platelets (cells/ $\mu$ L)	136 (90-217)	159 (102-205)
Albumin (g/dL)	4 (3.6-4.15)	4.1 (3.9-4.4)
Alanine aminotransferase, IU/mL*	56 (39-90)	63 (40-97)
Previous response to anti-HCV therapy		
Naives, no. (%)	14 (54)	44 (39)
Null responders, no. (%)	5 (16)	45 (29)
Partial responders, no. (%)	0	21 (14)
Relapsers, no. (%)	7 (22)	25 (17)
Other, no. (%)	6 (19)	16 (11)
Discontinuation due to adverse events	2 (6.3)	17 (11)

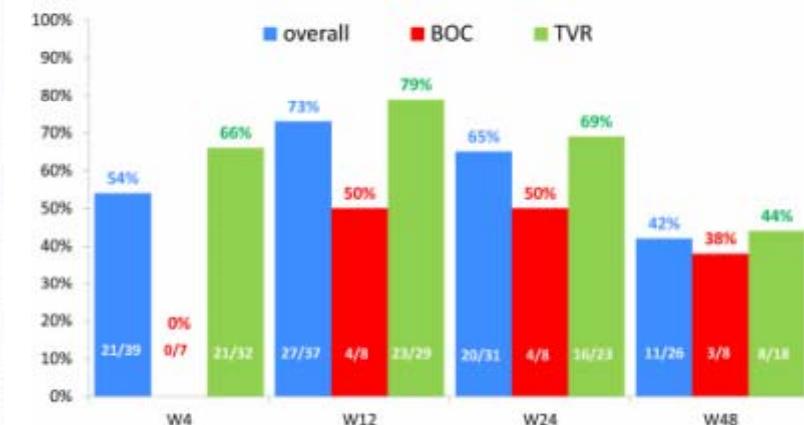


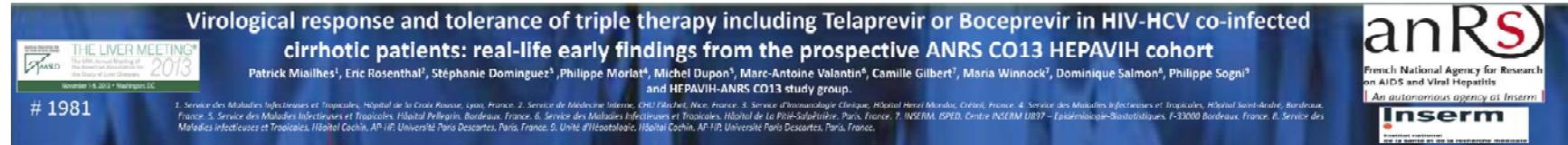
Overall SVR12: 50/78 (64.1%)

### Baseline characteristics of patients

Variables <sup>(1)</sup>	Overall (n=42)	Boceprevir (n= 8)	Telaprevir (n=34)	P <sup>(2)</sup>
Age (years)	52 (49-53)	52 (49-58)	52 (48-53)	0.59
Male	33 (79%)	6 (75%)	27 (79%)	1
HCV RNA (log <sub>10</sub> UI/ml)	6.1 (5.5-6.5)	6.0 (5.4-6.3)	6.1 (5.5-6.6)	0.41
HCV genotype				1
1a	33 (79%)	6 (75%)	27 (79%)	
1b	9 (21%)	2 (25%)	7 (21%)	
Previous anti-HCV treatment status				0.72
Naïve	4 (9%)	0 (-)	4 (12%)	
Relapser	2 (5%)	0 (-)	2 (6%)	
Non responder	36 (86%)	8 (100%)	28 (82%)	
Child score				0.47
Child A	39 (93%)	7 (88%)	32 (94%)	
Child B <sup>(3)</sup>	3 (7%)	1 (12%)	2 (6%)	
HCC before triple therapy	1 (2%)	1 (12%)	0 (-)	0.19
Type of ARV <sup>(4)</sup>				0.5
Raltegravir	20 (48%)	5 (63%)	15 (44%)	
Atazanavir	15 (36%)	3 (37%)	12 (35%)	
other ARV <sup>(5)</sup>	7 (17%)	0 (-)	7 (21%)	
CD4 (/mm <sup>3</sup> )	483 (295-782)	555 (412-802)	466 (293-595)	0.57
HIV viral load < 50 copies/ml	40 (95%)	8 (100%)	32 (94%)	1
Transient elastometry (kPa) (n=37) <sup>(6)</sup>	19.2 (13.0-30.0)	13.2 (10.6-34.3)	21.1 (14.0-27.4)	0.55
Lead-in phase	11 (26%)	7 (88%)	4 (12%)	<0.0001
Hemoglobin (g/dl) (n=41)	13.9 (12.6-15.7)	12.9 (12.3-13.9)	13.9 (12.6-15.8)	0.14
Albumin (g/l) (n=25)	40 (36.6-42.0)	41.3 (35.5-43.8)	40 (36.6-42.0)	0.91
Albumin < 35 g/l (n=25)	1 (4%)	1 (25%)	0 (-)	0.16
Platelets (Giga/l) (n=41)	123 (77-168)	123 (68-149)	124 (77-169)	0.70
Platelets < 100 Giga/l (n=41)	15 (37%)	2 (29%)	13 (38%)	0.69

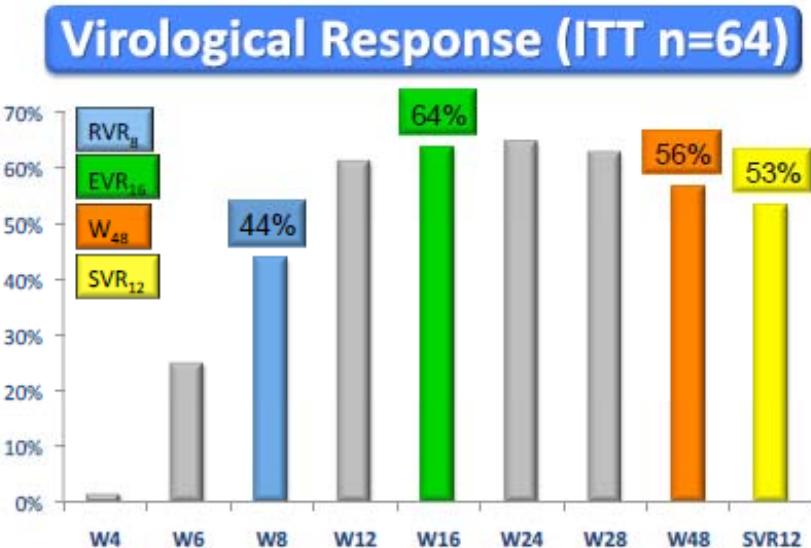
Figure 1: Virological response from W4 to W48





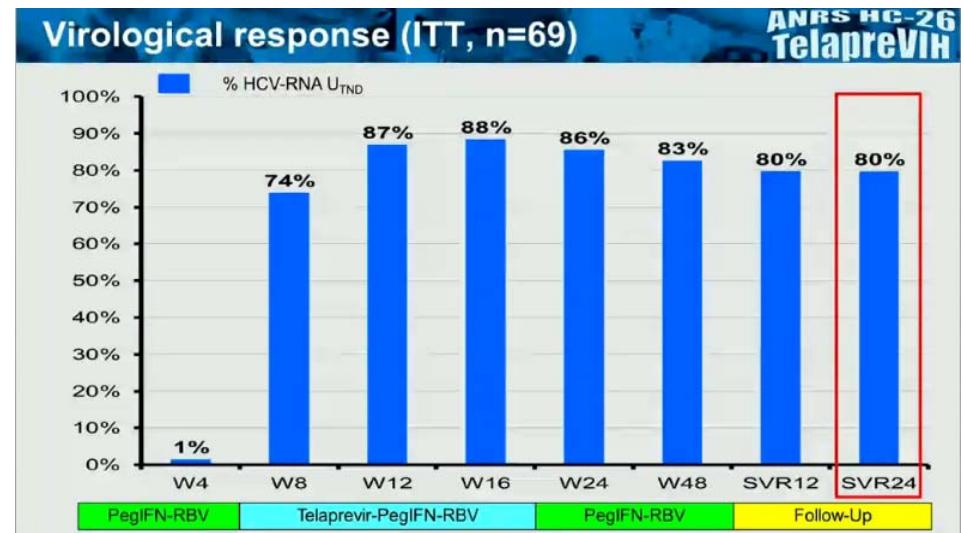
	Overall (N=42)	BOC (n=8)	TVR (n=34)	p
<b>Early discontinuation of HCV therapy.<sup>(1)</sup></b>	<b>15 (36%)</b>	<b>5 (63%)</b>	<b>10 (29%)</b>	<b>0.11</b>
<b>Discontinuation reasons (n=15)</b>				<b>0.38</b>
Virological failure	8 (53%)	4 (80%)	4 (40%) <sup>(2)</sup>	
Breakthrough	3 (20%)	0 (-)	3 (30%)	
Adverse events <sup>(2)</sup>	4 (27%)	1 (20%)	3 (30%)	
<b>Rash<sup>(2)</sup></b>	<b>7 (17%)</b>	<b>1 (13%)</b>	<b>6 (18%)</b>	<b>1</b>
<b>Severe anemia (&lt; 9 g/dl or decrease &gt;4.5 g/dl).</b>	<b>14 (33%)</b>	<b>2 (25%)</b>	<b>12 (35%)</b>	<b>0.70</b>
<b>EPO use</b>	<b>25 (60%)</b>	<b>5 (63%)</b>	<b>20 (59%)</b>	<b>1</b>
<b>Blood transfusion</b>	<b>8 (19%)</b>	<b>1 (13%)</b>	<b>7 (21%)</b>	<b>1</b>

# BocepreVIH



- 20 patients presented at least one grade 4 AE.
- 10 patients stopped HCV treatment for AEs: infections in 3(5%), general disorders in 4(6%), acute pancreatitis in 1, neutropenia in 1 and thrombopenia in 1.

# TelapreVIH



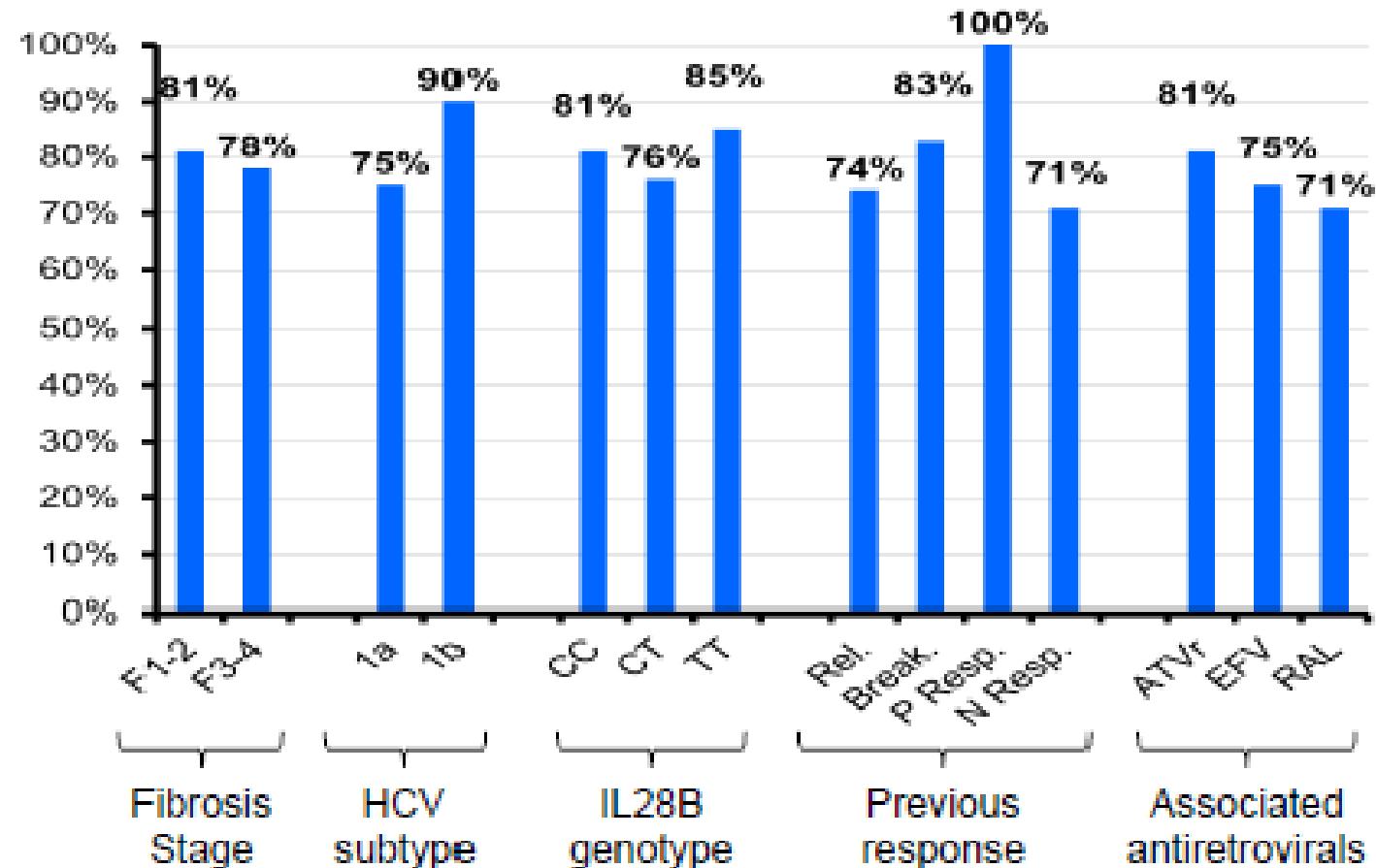
Treatment interruption	Failure	AE
W0-W16	1 (1.4%)	7 (10%)
> W16	3 (4%)	7 (10%)

Poizot-Martin I. CROI 2014

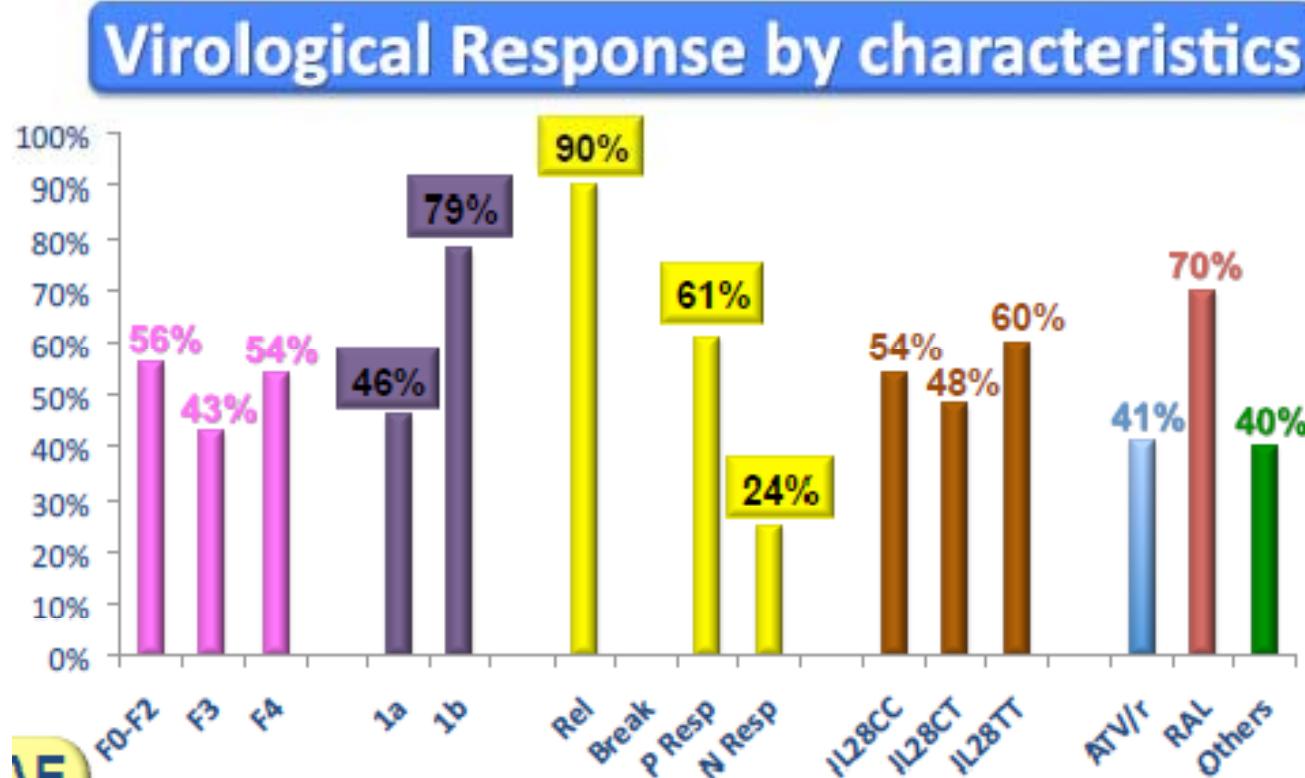
Cotte L, et al. CROI 2014

# TelapreVIH

## SVR<sub>24</sub> by baseline characteristic

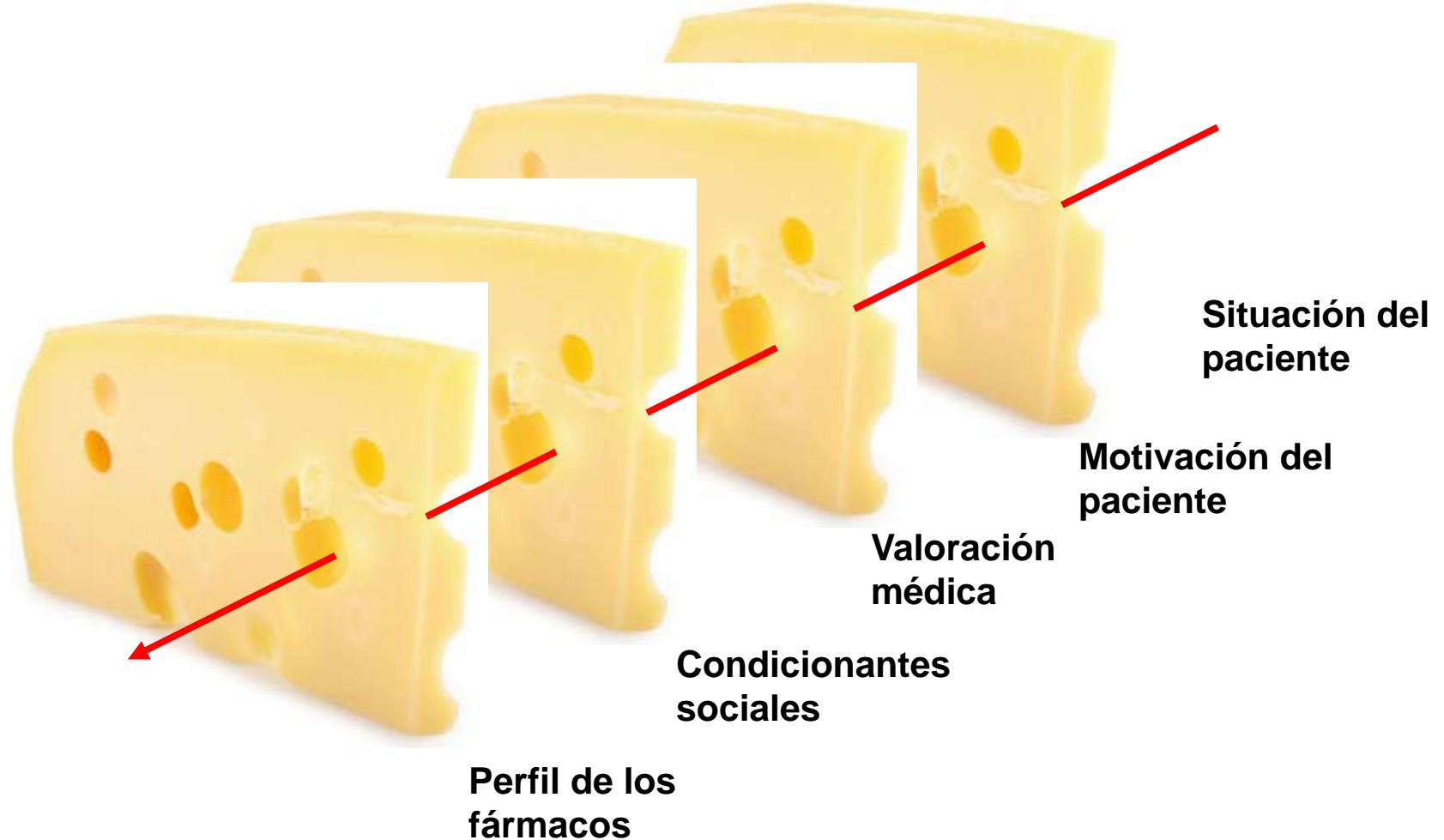


# boceprevih

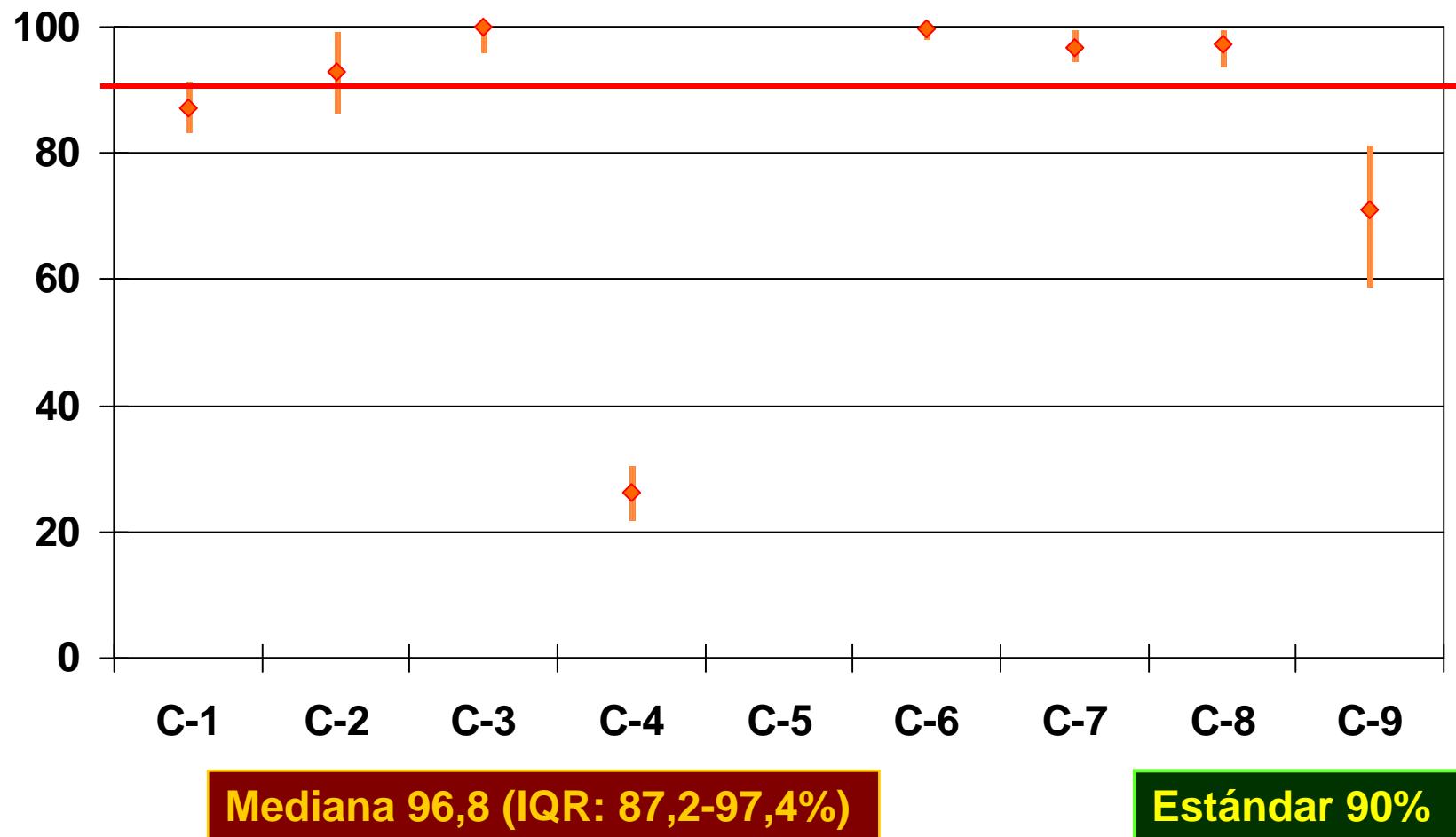


#659 Poizot-Martin I, CROI 2014

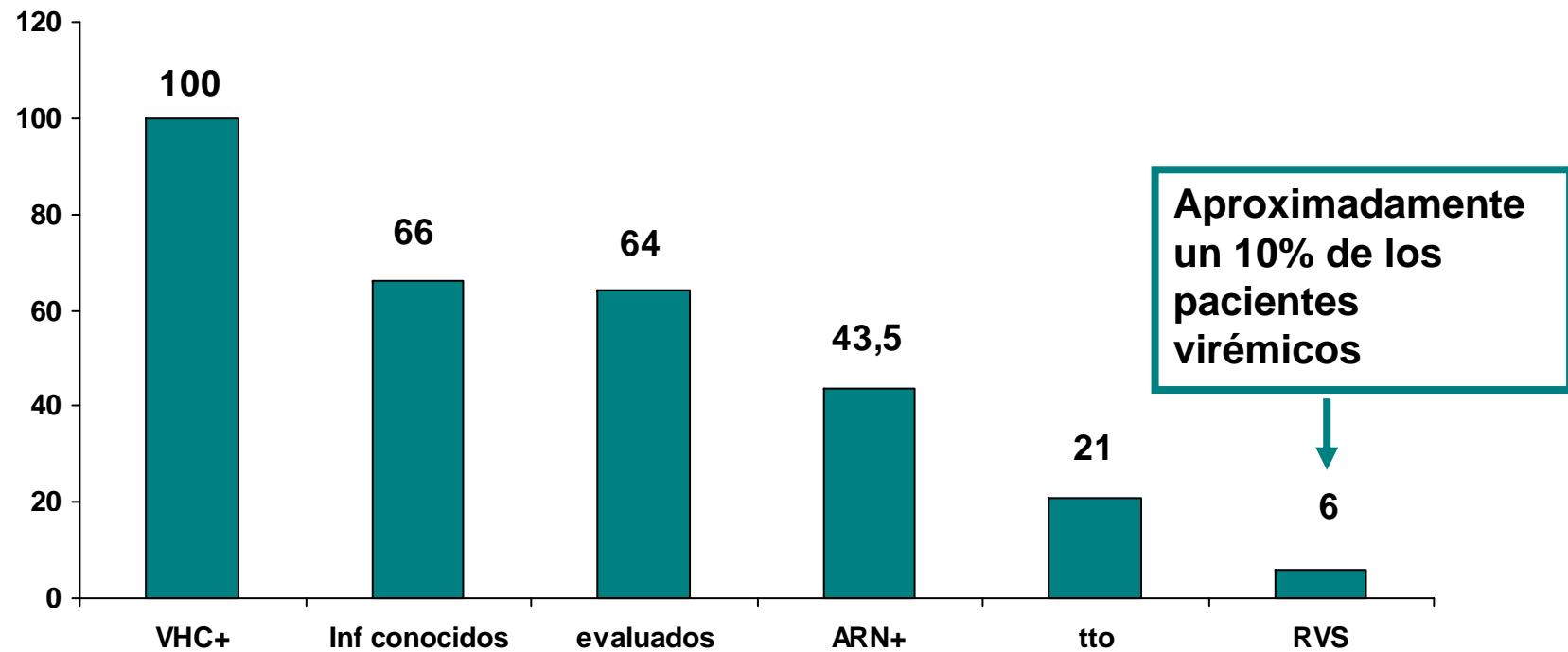
# Tratamiento de hepatitis C no todo es el fármaco



# Evaluación del paciente coinfectado por VHC (ARN y estadío de fibrosis en VHC+)



# ¿Que impacto tiene nuestra práctica actual? Pacientes coinfectados

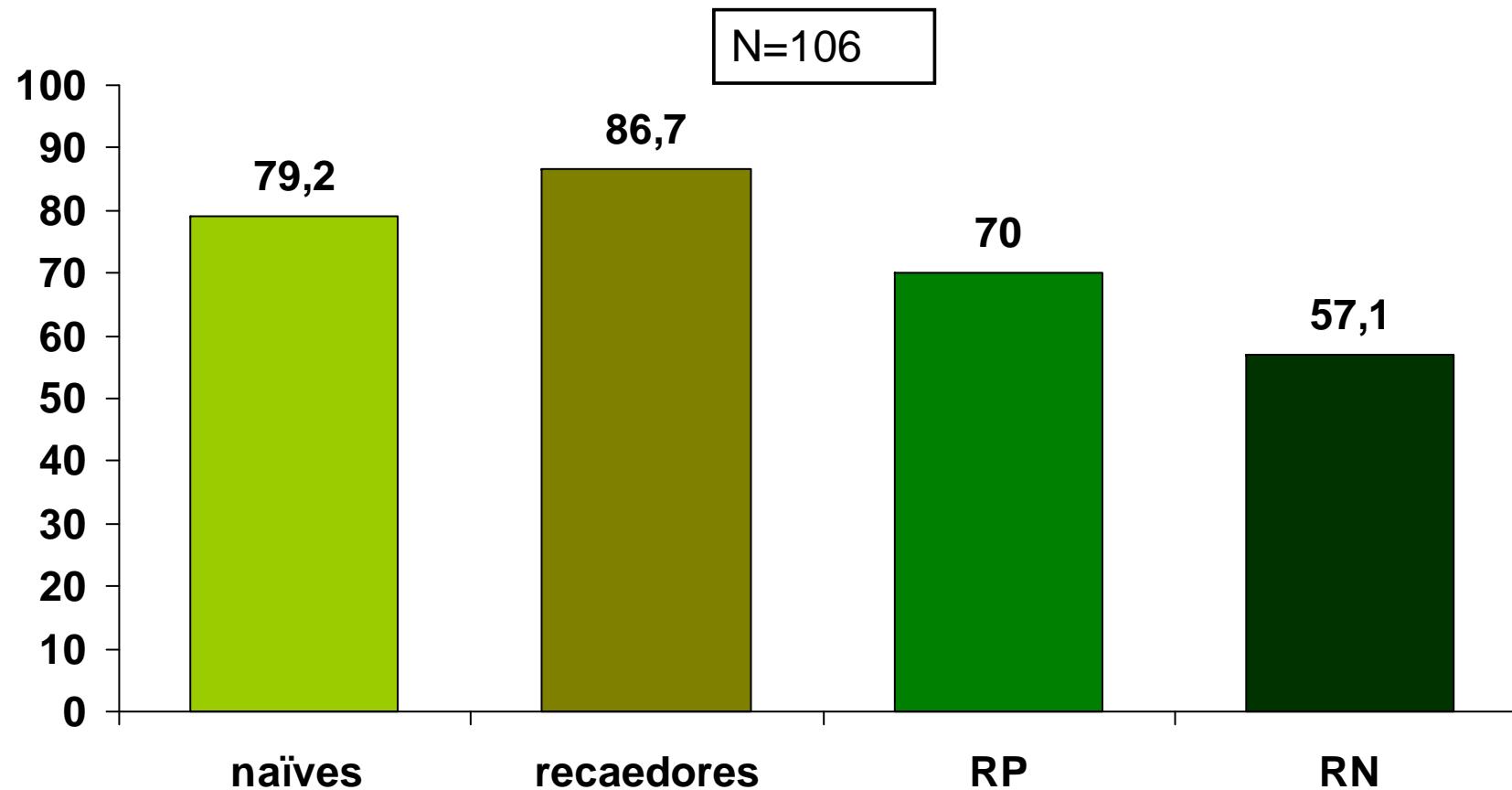


Estimando un tercio de infección VIH no conocida, con una proporcion similar de coinfección

# Futuro cercano (¿?) en el tratamiento de la coinfección

- ✓ Optimización de los fármacos disponibles:  
tratamiento guiado por respuesta,  
retratamiento de fracaso a biterapia:  
Estudios INSIGHT, UNITE, BOC en  
fracaso
- ✓ Nuevos fármacos con I-R
- ✓ Nuevas fármacos sin I
- ✓ Nuevos fármacos sin I ni R

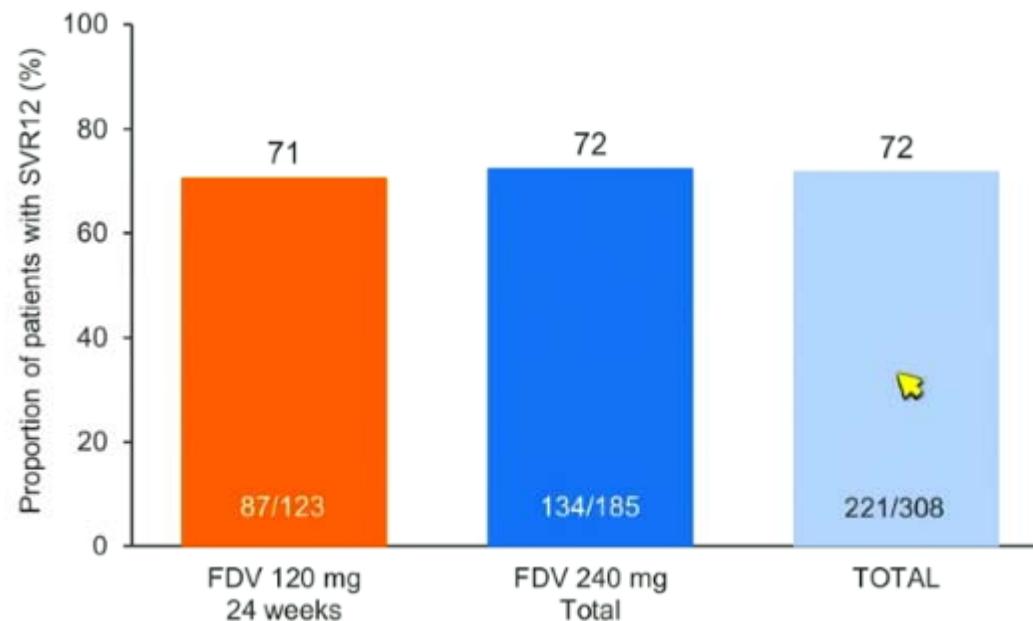
# C212: Simeprevir + PegIFN/RBV en pacientes coinfecitados GT1 RVS-12



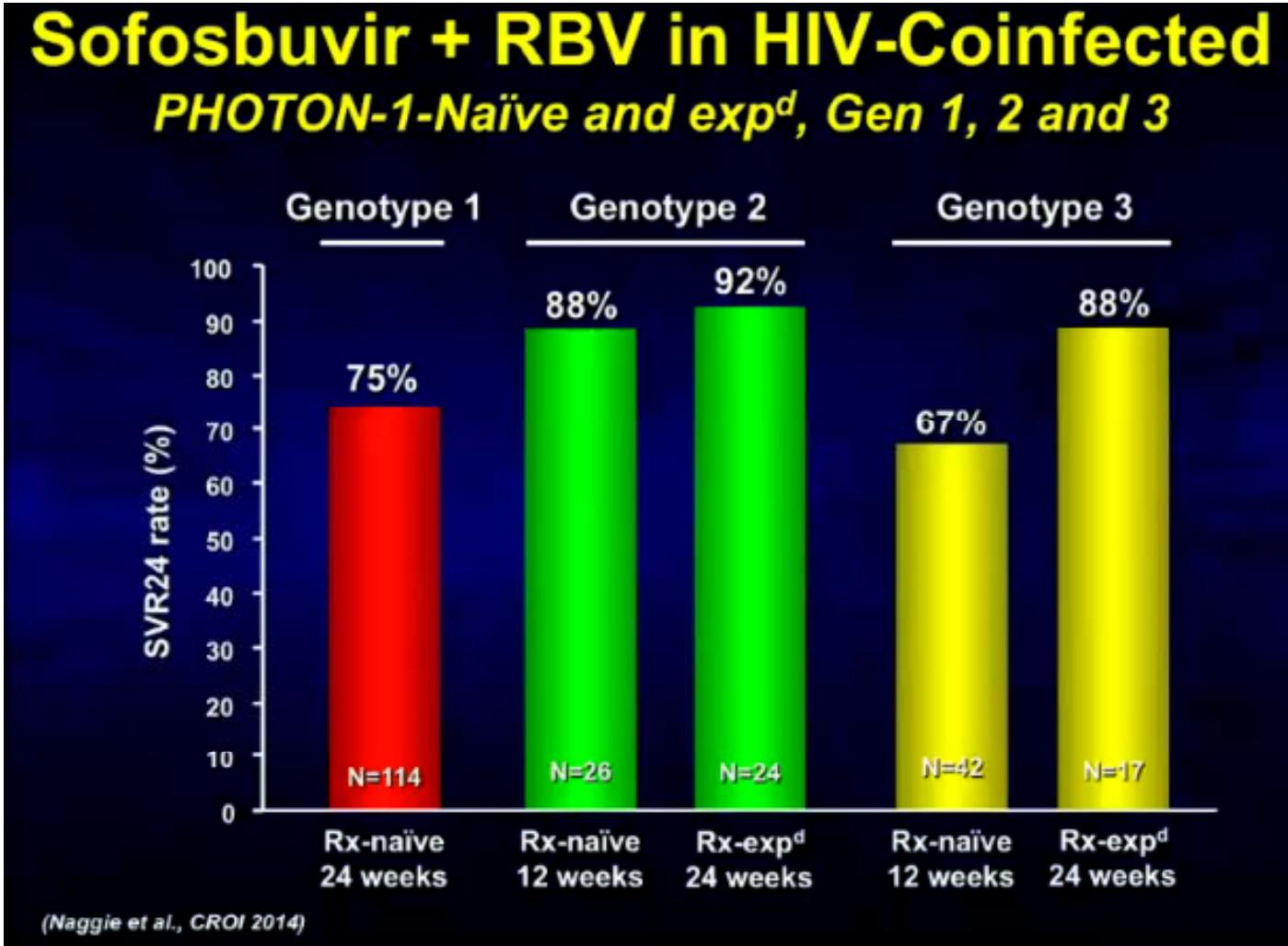
88,5% criterios para TGR

## STARTVerso4 PHASE III TRIAL OF FALDAPREVIR PLUS PEGYLATED INTERFERON $\alpha$ -2a AND RIBAVIRIN IN PATIENTS WITH HIV AND HCV GENOTYPE-I CO-INFECTION

### SVR12: overall population



# PHOTON-1



Sulkowski M et al. #212, CROI 2014

- Treatment-naïve, non-cirrhotic patients with HCV/HIV co-infection, MK-5172/MK-8742 treated for 12 weeks - 90 percent (26/29) and MK-5172/MK-8742 plus RBV for 12 weeks 97 percent (28/29).
- These data were presented at the 49th Annual Meeting of the European Association for the Study of the Liver (EASL), also known as The International Liver Congress™ 2014 in London, UK.

- ERADICATE: Sofosbuvir/Ledipasvir Fixed-Dose Combination Results in 100% SVR Rates in HCV Treatment-Naive Patients Coinfected With Genotype 1 HCV and HIV in Phase II Trial
- Source: 2014 Annual Meeting of the European Association for the Study of the Liver\*

**Gracias**