CLINICAL CARE OPTIONS®
HEPATITIS

HCV Treatment Options in 2017/2018: What's Here and What's Coming Soon

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Disclosures

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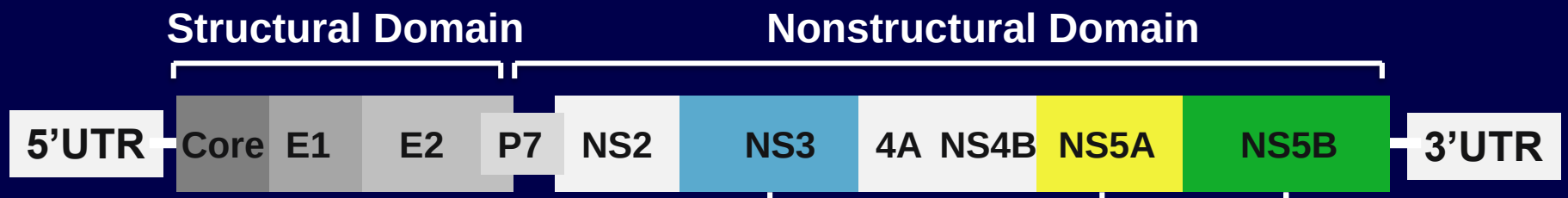
Where HCV Therapy Stands Now

- Interferon is gone in the US; ribavirin . . . not quite
- SVR in > 95% of pts
- “Difficult-to-cure” populations no longer difficult
  - Black race
  - Cirrhosis
  - Renal failure and kidney transplant
  - HIV coinfection
  - Older age
  - Liver transplant
  - Persons who inject drugs (PWID)
  - Genotype 3 remains more challenging (but not by much)
- Emergent issues and controversies:
  - HBV reactivation
  - HCC recurrence after DAA therapy
- Cost and access issues persist but improving

Approved DAAs From Multiple Classes: Basis of 2016 Combination HCV Regimens



Protease

Polymerase

Ribavirin (RBV)

NS3 Protease Inhibitors

Grazoprevir (GZR)
Paritaprevir/Ritonavir (PTV/RTV)
Simeprevir (SMV)
*Voxilaprevir (VOX)**
*Glecaprevir (GLE)**

NS5A Replication Complex Inhibitors

Daclatasvir (DCV)
Elbasvir (EBR)
Ledipasvir (LDV)
Ombitasvir (OBV)
Velpatasvir (VEL)
*Pibrentasvir (PIB)**

NS5B NUC Inhibitors

Sofosbuvir (SOF)

NS5B Non-NUC Inhibitors

Dasabuvir (DSV)

*Possible approval in 2017.

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Treatment Options for Genotype 1

Recommended for GT1 Treatment-Naive or IFN-Experienced Pts Without Cirrhosis

HCV GT	Recommended Regimens (All 12 Wks Except as Noted)
1a	▪ LDV/SOF (***8 wks*** *if tx naive, nonblack, no HIV, and HCV RNA < 6 million IU/mL*) ▪ SOF/VEL ▪ DCV + SOF ▪ SMV + SOF ▪ EBR/GZR* ▪ OBV/PTV/RTV/DSV extended release + **RBV** *or* OBV/PTV/RTV + DSV BID + **RBV**
1b	▪ LDV/SOF (***8 wks*** *if tx naive, nonblack, no HIV, and HCV RNA < 6 million IU/mL*) ▪ SOF/VEL ▪ DCV + SOF ▪ SMV + SOF ▪ EBR/GZR ▪ OBV/PTV/RTV/DSV extended release *or* OBV/PTV/RTV + DSV BID

*Only if no baseline NS5A elbasvir RASs detected.

AASLD/IDSA. HCV guidance. April 2017.

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Recommended for GT1 Treatment-Naive or IFN-Experienced Pts With Compensated Cirrhosis

HCV GT	Recommended Regimens (All 12 Wks)	
	Treatment Naive	IFN/RBV Experienced
1a	▪ EBR/GZR* ▪ LDV/SOF ▪ SOF/VEL	▪ EBR/GZR* ▪ LDV/SOF + **RBV** ▪ SOF/VEL
1b	▪ EBR/GZR ▪ LDV/SOF ▪ OBV/PTV/RTV/DSV ER ▪ OBV/PTV/RTV+ DSV BID ▪ SOF/VEL	▪ EBR/GZR ▪ LDV/SOF + **RBV** ▪ OBV/PTV/RTV/DSV ER ▪ OBV/PTV/RTV+ DSV BID ▪ SOF/VEL

*Only if no baseline NS5A elbasvir RASs detected.

AASLD/IDSA. HCV guidance. April 2017.

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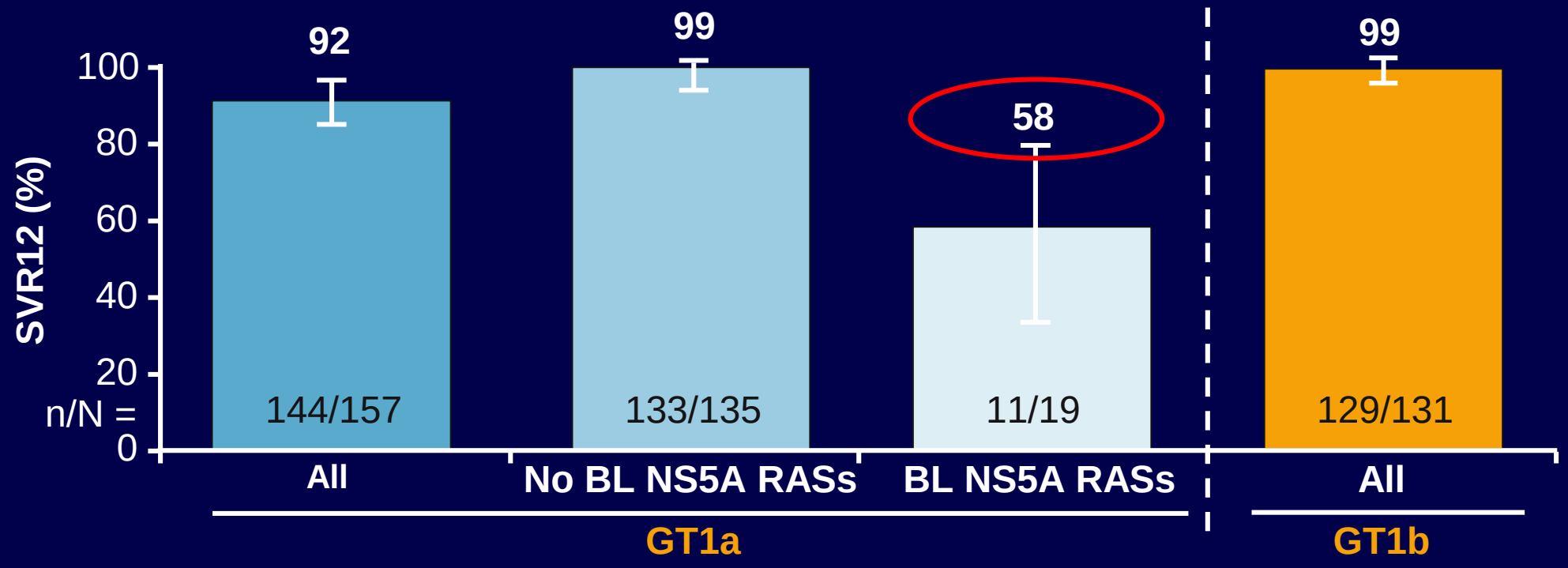
Adjust EBR/GZR Duration Based on Baseline NS5A RASs in GT1a

C-EDGE Treatment Naive: 12 Wks of Elbasvir/Grazoprevir



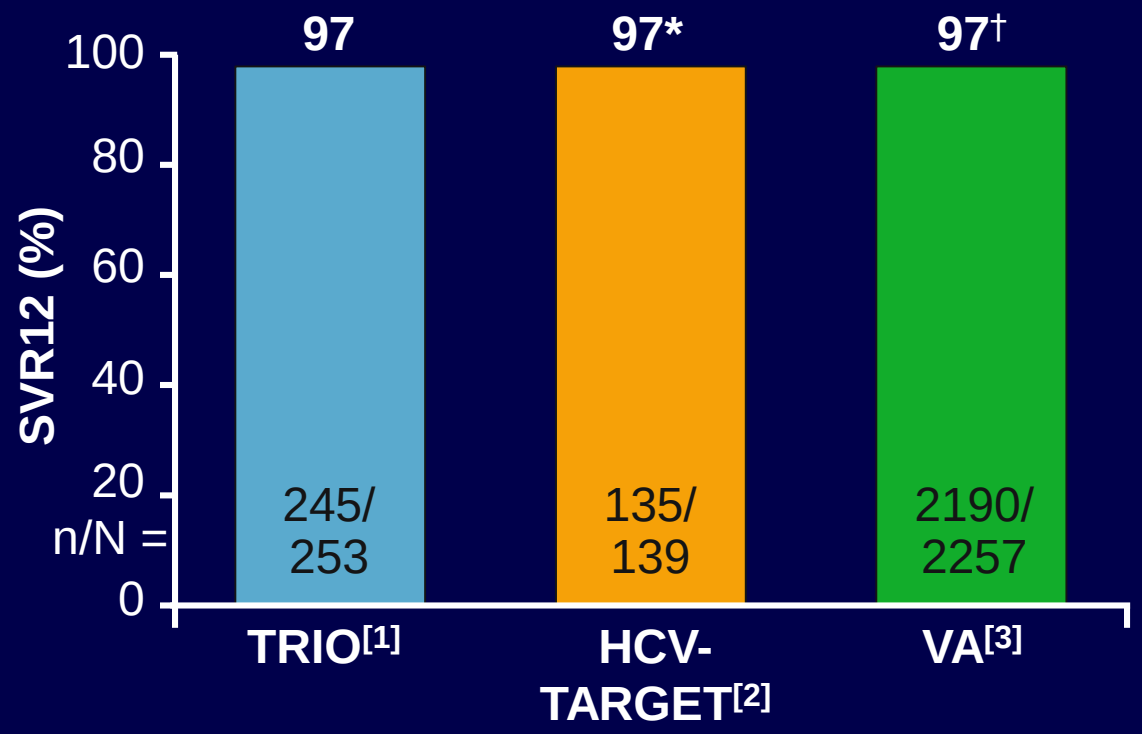
If NS5A RASs in GT1a, treat with EBR/GZR + RBV for 16 wks (alternative)
No baseline RAS testing needed in GT1b pts

Zeuzem Z, et al. Ann Intern Med. 2015;163:1-13.
Kwo P, et al. J Hepatol. 2015;62(suppl 2):S674-S675.

Slide credit: clinicaloptions.com

TRIO, HCV-TARGET, VA: Real-World Efficacy of EBR/GZR

- Analyses of SVR12 rates in HCV-infected pts using specialty pharmacies and providers in real-world cohorts
  - US TRIO Network[1]
  - US and international clinical practices[2]
  - US Veterans Affairs Healthcare System[3]



*For pts missing SVR12 outcome, data replaced with SVR4 outcome. †For pts missing SVR12 outcome, data replaced with HCV RNA test results obtained during posttreatment Wks 4-12.

1. Bacon B, et al. EASL 2017. Abstract THU-239. 2. Pearlman BL, et al. EASL 2017. Abstract THU-237.
3. Kramer JR, et al. EASL 2017. Abstract PS-095.

Resistance Considerations

- Most pts with failure of current DAAs have emergent resistance-associated substitutions (RASs)
  - NS5A RASs persist much longer than PI RASs
- 15% of pts have baseline NS5A RASs with variable effects on GT1a response
- Second-generation drugs designed to cover RASs

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Treatment Options for Genotype 3

Recommended for Treatment-Naive Pts With Genotype 3 HCV

Cirrhosis?	RAS Test?	RAS Test Result	Recommended regimens
No	**Don't test**	-	DCV + SOF 12 wks SOF/VEL 12 wks
Yes	**Test**	No Y93	DCV + SOF ± RBV 24 wks SOF/VEL 12 wks
		Y93	DCV + SOF + RBV 24 wks SOF/VEL + RBV 12 wks

AASLD/IDSA. HCV guidance. April 2017.

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Recommended for PegIFN/RBV-Experienced Pts With Genotype 3 HCV

Cirrhosis?	RAS Test?	RAS Test Result	Recommended regimens
No	**Test**	No Y93	DCV + SOF 12 wks SOF/VEL 12 wks
		Y93	DCV + SOF + RBV 12 wks SOF/VEL + RBV 12 wks
Yes	**Don't test**	-	EBR/GZR + SOF 12 wks SOF/VEL + RBV 12 wks

AASLD/IDSA. HCV guidance. April 2017.

Slide credit: clinicaloptions.com

Need for RBV Based on Baseline Y93 RAS in GT3 With Cirrhosis *or* Previous PegIFN/RBV

- Based on very low SVR12 rates in these groups when treated without RBV
- For pts with both cirrhosis *and* previous pegIFN/RBV, RBV required regardless of Y93 status (unless using EBR/GZR + SOF)
- These recommendations are pending further data on optimal regimen[1]

GT3 Study and Population	SVR12, %	
	No Y93H	Y93H
ALLY-3: DCV + SOF for 12 Wks[2]		
▪ Overall	92 (n = 162)	54 (n = 13)
▪ No cirrhosis	98 (n = 128)	67 (n = 9)
▪ Cirrhosis	71 (n = 34)	25 (n = 4)
ASTRAL-3: SOF/VEL for 12 Wks[3]		
▪ Overall	97 (n = 249)	84 (n = 25)

1. AASLD/IDSA. HCV guidance. April 2017. 2. Nelson DR, et al. Hepatology. 2015;61:1127-1135. 3. Foster GR, et al. N Engl J Med. 2015;373:2608-2617.

Treatment Options for Genotypes 2, 4, 5, 6

Recommended Regimens for Treatment-Naive Pts With GT 2, 4, 5, 6 HCV

- All regimens 12 wks

HCV GT	No Cirrhosis	Compensated Cirrhosis
2	▪ SOF/VEL	▪ SAME
4	▪ OBV/PTV/RTV + **RBV** ▪ SOF/VEL ▪ EBR/GZR ▪ LDV/SOF	▪ SAME
5 or 6	▪ SOF/VEL ▪ LDV/SOF	▪ SAME

AASLD/IDSA. HCV guidance. April 2017.

Slide credit: clinicaloptions.com

Recommended Regimens for PegIFN/RBV-Experienced Pts With GT2, 4, 5, 6 HCV

- All regimens 12 wks unless noted otherwise

HCV GT	No Cirrhosis	Compensated Cirrhosis
2	▪ SOF/VEL	▪ SAME
4	▪ OBV/PTV/RTV + **RBV** ▪ SOF/VEL ▪ EBR/GZR* ▪ LDV/SOF	▪ SAME ▪ SAME ▪ SAME ▪ LDV/SOF + **RBV**
5 or 6	▪ SOF/VEL ▪ LDV/SOF	▪ SAME

*Previous relapse only; pts with previous virologic nonresponse or breakthrough should be treated with 16 wks with addition of RBV.

AASLD/IDSA. HCV guidance. April 2017.

Slide credit: clinicaloptions.com

Late-Phase Investigational HCV Regimens by Drug Classes

Regimen	NS5B Polymerase Nucleotide Inhibitor (. . . buvir)	NS3/4A Protease Inhibitor (. . . previr)	NS5A Inhibitor (. . . asvir)
Sofosbuvir/velpatasvir/voxilaprevir	SOF	VOX	VEL
Glecaprevir/pibrentasvir	--	GLE	PIB
Grazoprevir/ruzasvir/uprifosbuvir	UPR	GZR	RZR
AL-335 + odalasvir + simeprevir	AL-335	SMV	ODV

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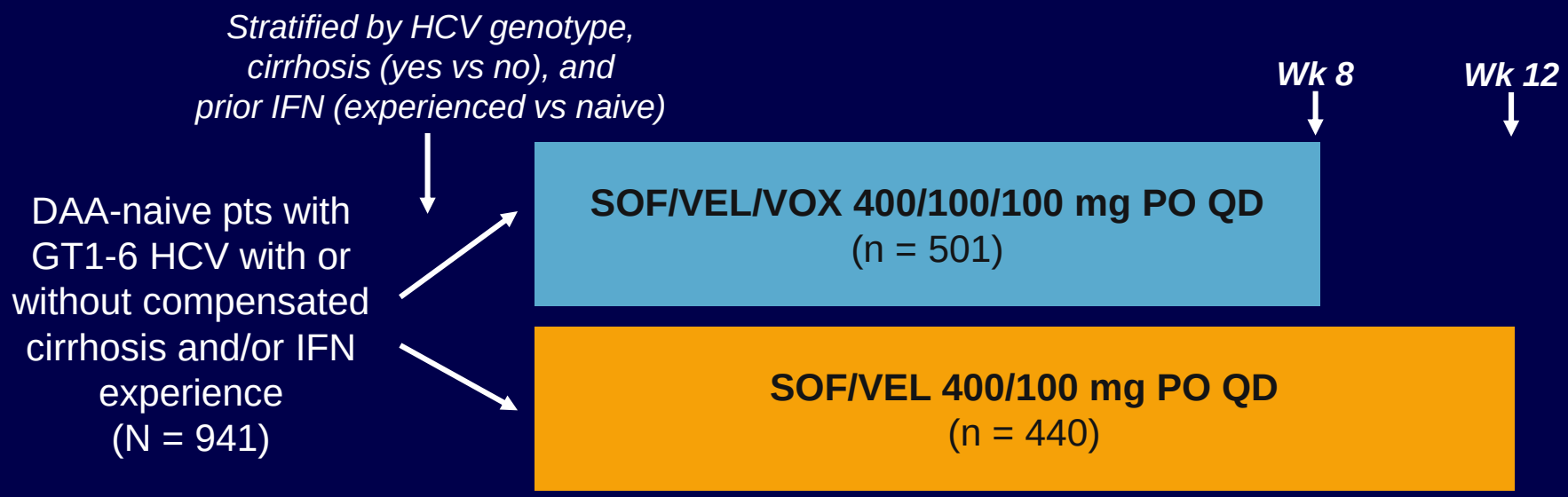
POLARIS-2: 8-Wk SOF/VEL/VOX vs 12-Wk SOF/VEL for DAA-Naive GT1-6 Pts

- Randomized, open-label, active-controlled phase III trial

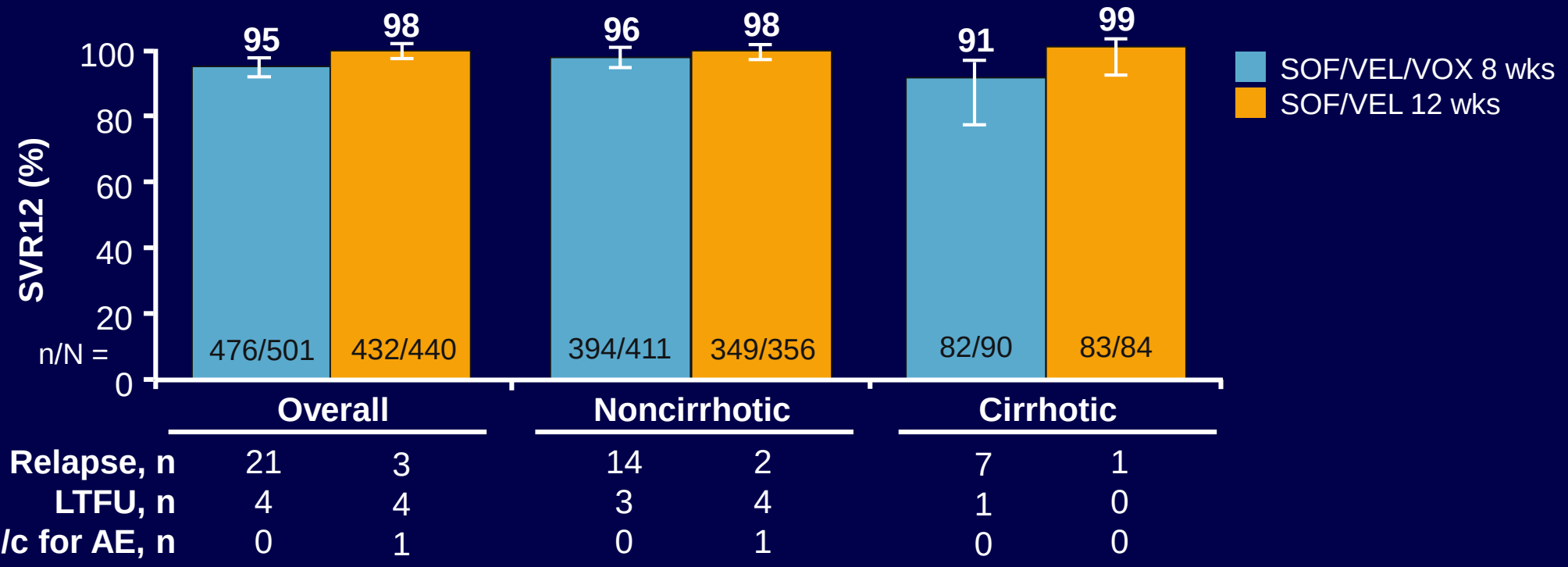


*Treatment allocation randomized in pts with GT1-4 HCV; pts with GT5/6 HCV allocated to SOF/VEL/VOX arm; cirrhotic pts with GT3 HCV infection enrolled in POLARIS-3.

Jacobson IM, et al. Gastroenterology. 2017;[Epub ahead of print].

POLARIS-2: SVR12 Rates With 8-Wk SOF/VEL/VOX vs 12-Wk SOF/VEL

- 8-wk SOF/VEL/VOX did not meet criteria for noninferiority vs 12-wk SOF/VEL
  - Treatment difference: -3.4% (95% CI: -6.2% to -0.6%)
  - 14/21 pts with relapse to SOF/VEL/VOX 8 wks had GT1a



Jacobson IM, et al. Gastroenterology. 2017;[Epub ahead of print].

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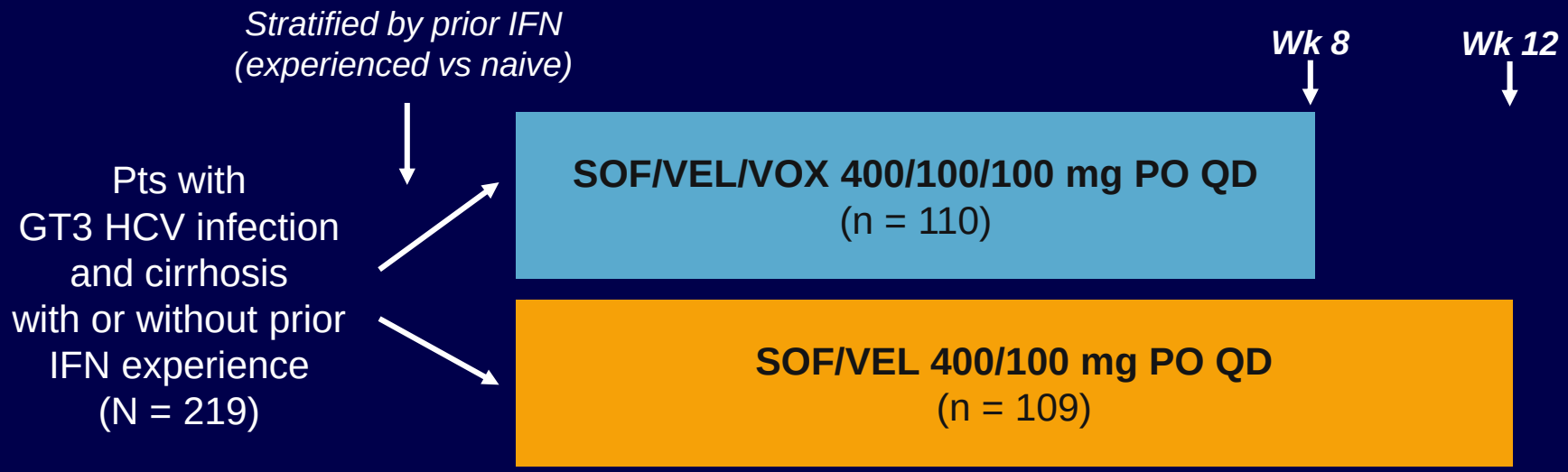
POLARIS-3: 8-Wk SOF/VEL/VOX vs 12-Wk SOF/VEL for Cirrhotic, DAA Naive GT3

- Randomized, open-label, active-controlled phase III trial

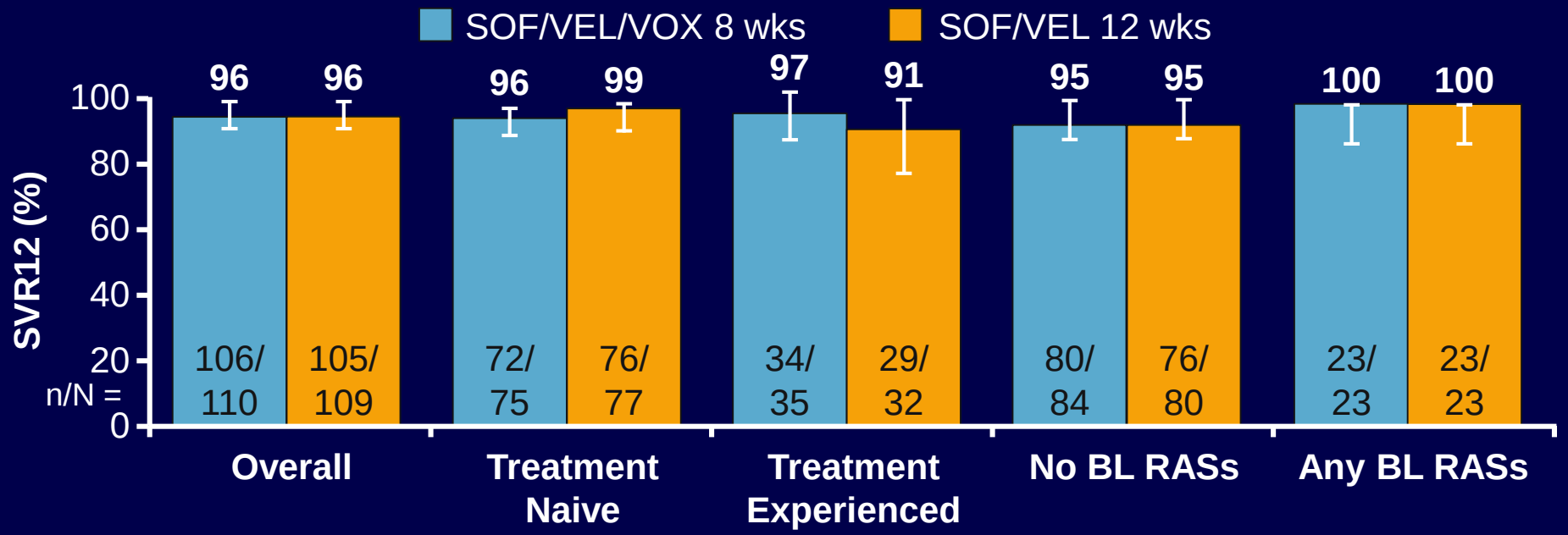


- IFN experience in 29% to 32% of pts

Jacobson IM, et al. Gastroenterology. 2017;[Epub ahead of print].

Slide credit: clinicaloptions.com

POLARIS-3: SVR12 Rates With 8-Wk SOF/VEL/VOX for Cirrhotic GT3 Pts



- SVR rates similar between treatment arms, and both regimens superior to prespecified historic SVR rate of 83% (*P* < .001 for each arm)
- Overall VF: SOF/VEL/VOX, n = 2 relapses; SOF/VEL, n = 1 each for relapse and on-treatment failure
- **No treatment-emergent RASs in SOF/VEL/VOX arm**; Y93H in both VFs in SOF/VEL arm

Jacobson IM, et al. Gastroenterology. 2017;[Epub ahead of print].

Slide credit: clinicaloptions.com

POLARIS-2, -3: Safety of SOF/VEL/VOX for 8 Wks

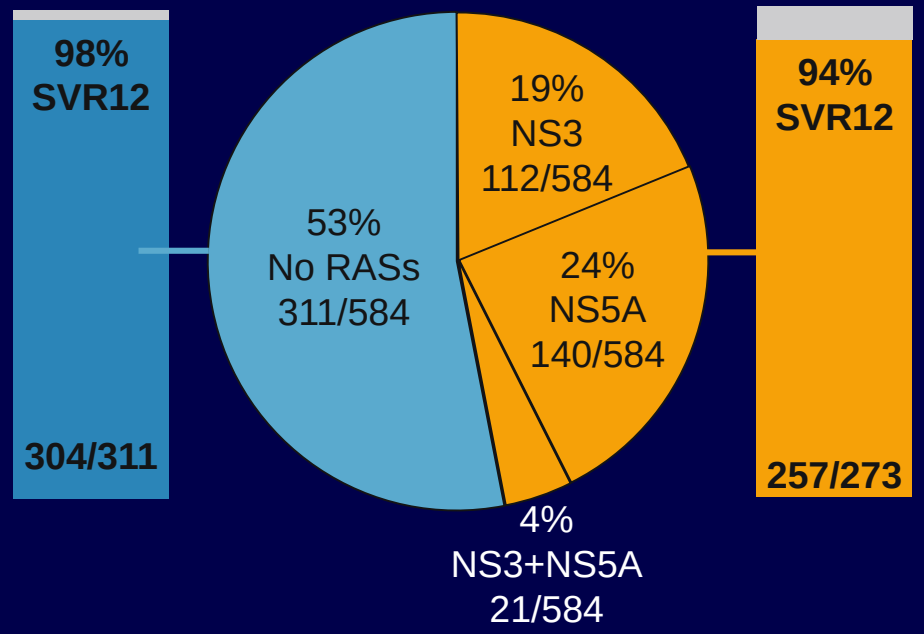
Outcome, %	POLARIS-2		POLARIS-3	
	SOF/VEL/VOX 8 Wks (n = 501)	SOF/VEL 12 Wks (n = 440)	SOF/VEL/VOX 8 Wks (n = 110)	SOF/VEL 12 Wks (n = 109)
Any AE	72	69	75	74
Serious AE	3	2	2	3
D/c for AE	0	< 1	0	1
Death	0	0	1	0
AE in > 10% of pts				
▪ Headache	27	23	25	29
▪ Fatigue	21	20	25	28
▪ Diarrhea	18	7	15	5
▪ Nausea	16	9	21	9

Jacobson IM, et al. Gastroenterology. 2017;[Epub ahead of print].

Slide credit: clinicaloptions.com

POLARIS-2, -3: Pooled Analysis of BL RAS Effect on SOF/VEL/VOX in DAA-Naive Pts

- 606 DAA-naive pts treated with 8-wk SOF/VEL/VOX in POLARIS-2 and -3
  - RASs assessed by deep sequencing (15% assay cutoff)



- VOX-specific and VEL-specific RASs had no impact on SVR
- No emergent RASs in 22/23 pts who relapsed after 8 wks of SOF/VEL/VOX

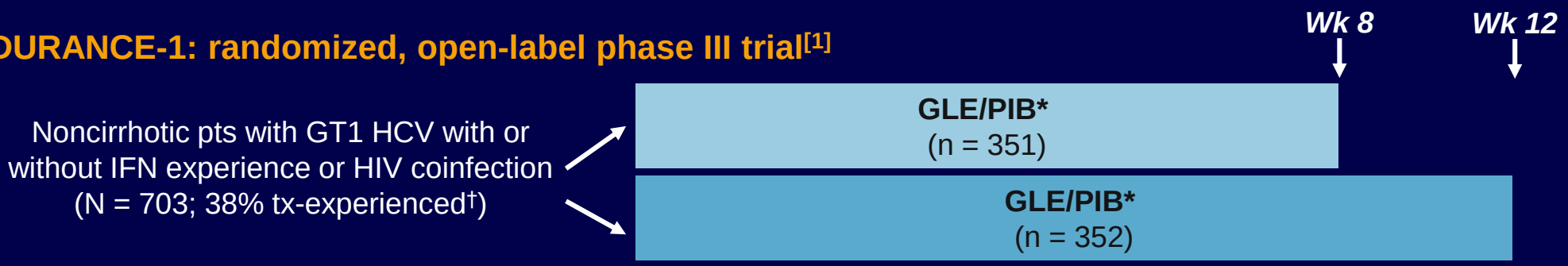
Wyles D, et al. EASL 2017. Abstract THU-257.

Slide credit: clinicaloptions.com

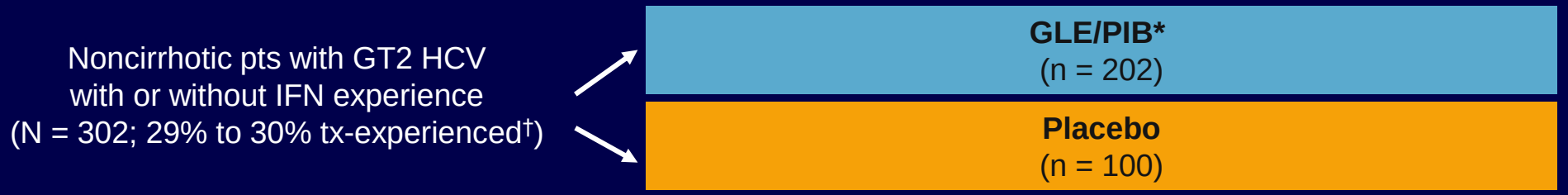
ENDURANCE Studies: Glecaprevir/Pibrentasvir in Noncirrhotic Patients

ENDURANCE-1, -2, -4: GLE/PIB for Treatment of GT1, 2, 4, 5, 6 HCV

ENDURANCE-1: randomized, open-label phase III trial[1]



ENDURANCE-2: randomized, double-blind, placebo-controlled phase III trial[2]



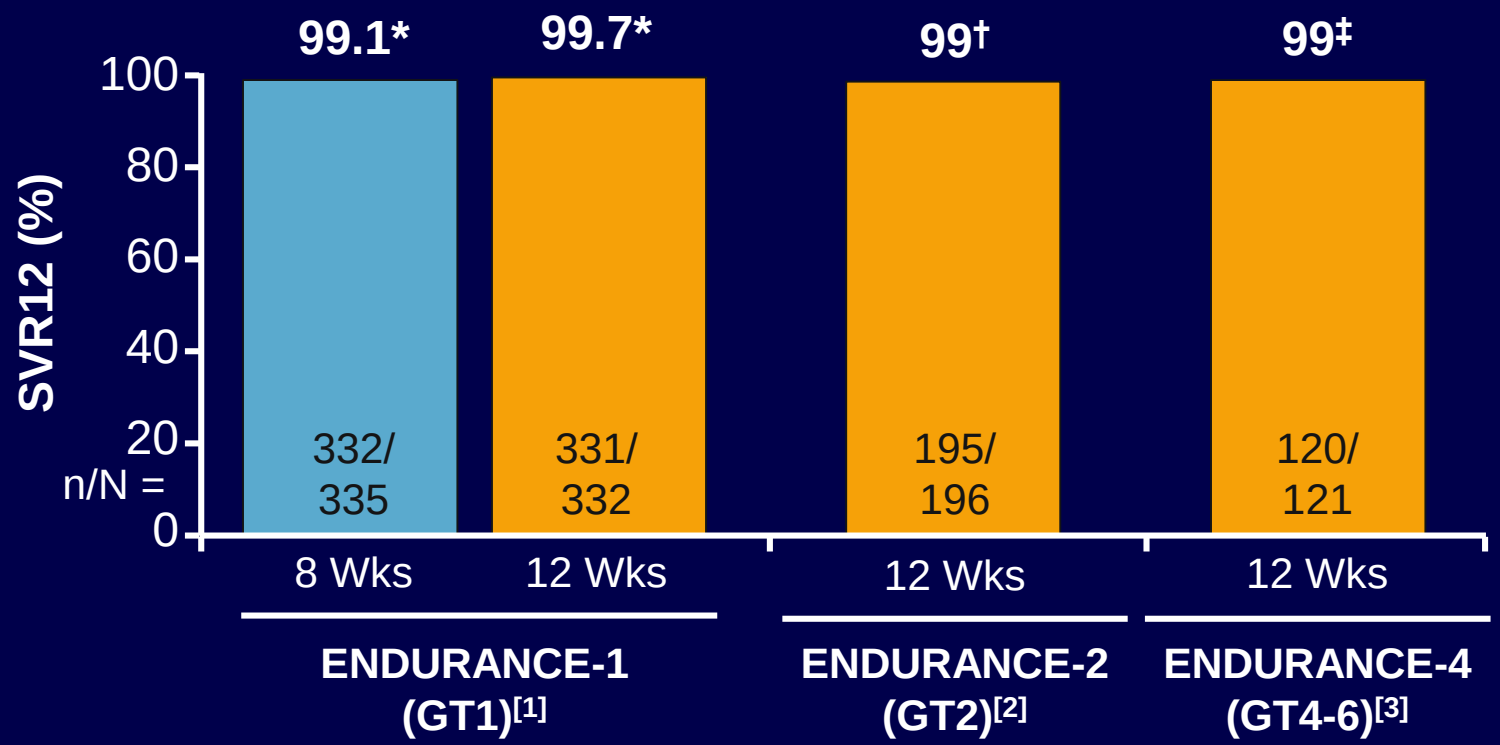
ENDURANCE-4: open-label, single-arm phase III trial[3]

*Dosing: GLE/PIB given as 3 coformulated 100/40-mg tablets QD for a total dose of 300/120 mg.
†Treatment experience permitted: IFN or pegIFN ± RBV or SOF + RBV ± pegIFN.

References in slidenotes.

Slide credit: clinicaloptions.com

ENDURANCE-1, -2, -4 Studies: Efficacy of GLE/PIB for Treating GT1, 2, 4, 5, 6 HCV



1 case of on-treatment virologic failure at Day 29 in pt with GT1a HCV infection

*ITT-PS analysis: included all pts receiving ≥ 1 dose of study drug; excluded pts with HIV coinfection or SOF experience.
†ITT analysis: excluded pts with SOF experience. ‡ITT analysis.

1. Zeuzem S, et al. AASLD 2016. Abstract 253. 2. Kowdley KV, et al. AASLD 2016. Abstract 73. 3. Asselah T, et al. AASLD 2016. Abstract 114.

ENDURANCE-1, -2, -4 Studies: Safety of GLE/PIB for Treating GT1, 2, 4, 5, 6 HCV

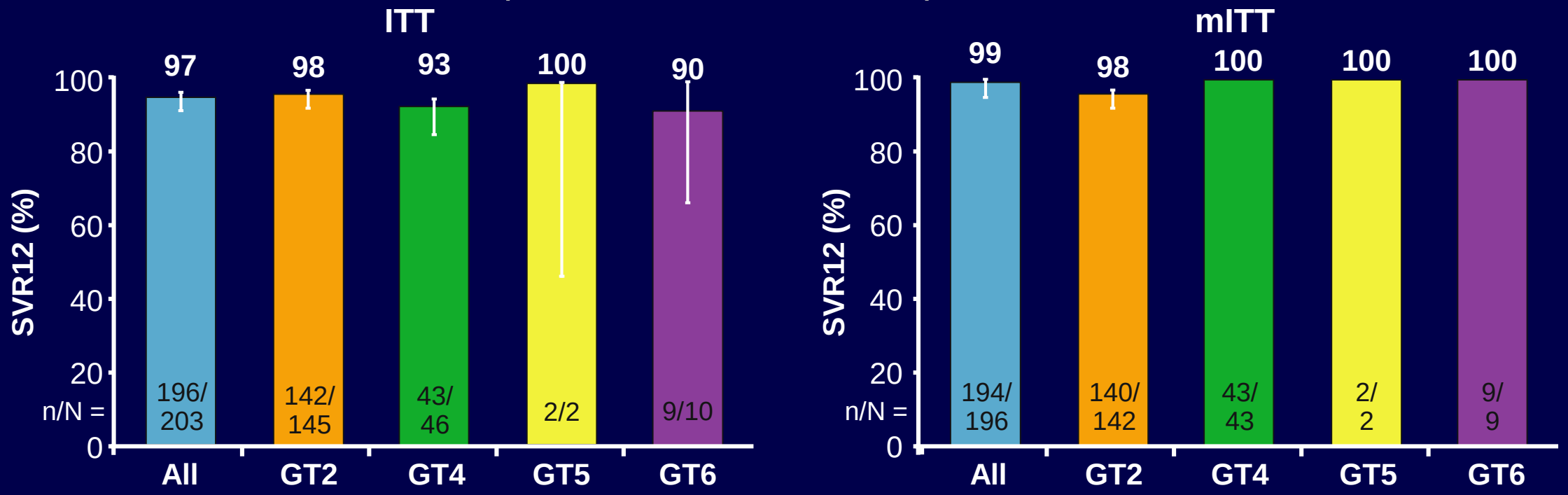
Outcome, %	ENDURANCE-1[1]		ENDURANCE-2[2]		ENDURANCE-4[3]
	GLE/PIB 8 Wks (n = 351)	GLE/PIB 12 Wks (n = 352)	GLE/PIB 12 Wks (n = 202)	PBO 12 Wks (n = 100)	GLE/PIB 12 Wks (n = 121)
Any AE	62	66	65	58	69
D/c for AE	0	< 1	0	0	2
Serious AE	1	1	1	1	< 1
Death	0	< 1	0	0	0
AE in ≥ 10% of pts					
▪ Fatigue	9	12	11	10	17
▪ Headache	19	18	12	12	21
AST grade ≥ 3*	0	< 1	1	1	0
ALT grade ≥ 3*	0	0	< 1	2	0
Total bilirubin grade 3†	< 1	< 1	< 1	0	0

*> 5 times ULN. †3-10 times ULN.

1. Zeuzem S, et al. AASLD 2016. Abstract 253. 2. Kowdley KV, et al. AASLD 2016. Abstract 73. 3. Asselah T, et al. AASLD 2016. Abstract 114.

SURVEYOR 2, Part 4: 8 Wks GLE/PIB For Pts With GT 2, 4, 5, 6 HCV Without Cirrhosis

- 99% SVR12 rate with 8-wk regimen in DAA-naive pts with GT2 HCV – noninferior to 95% historical control (SOF + RBV for 12 wks)



	All	GT2	GT4	GT5	GT6
Relapse	2	2	0	0	0
D/C	2	1	1	0	0
No SVR12 data	3	0	2	0	1

Hassanein TI, et al. AASLD 2016. Abstract LB-15.

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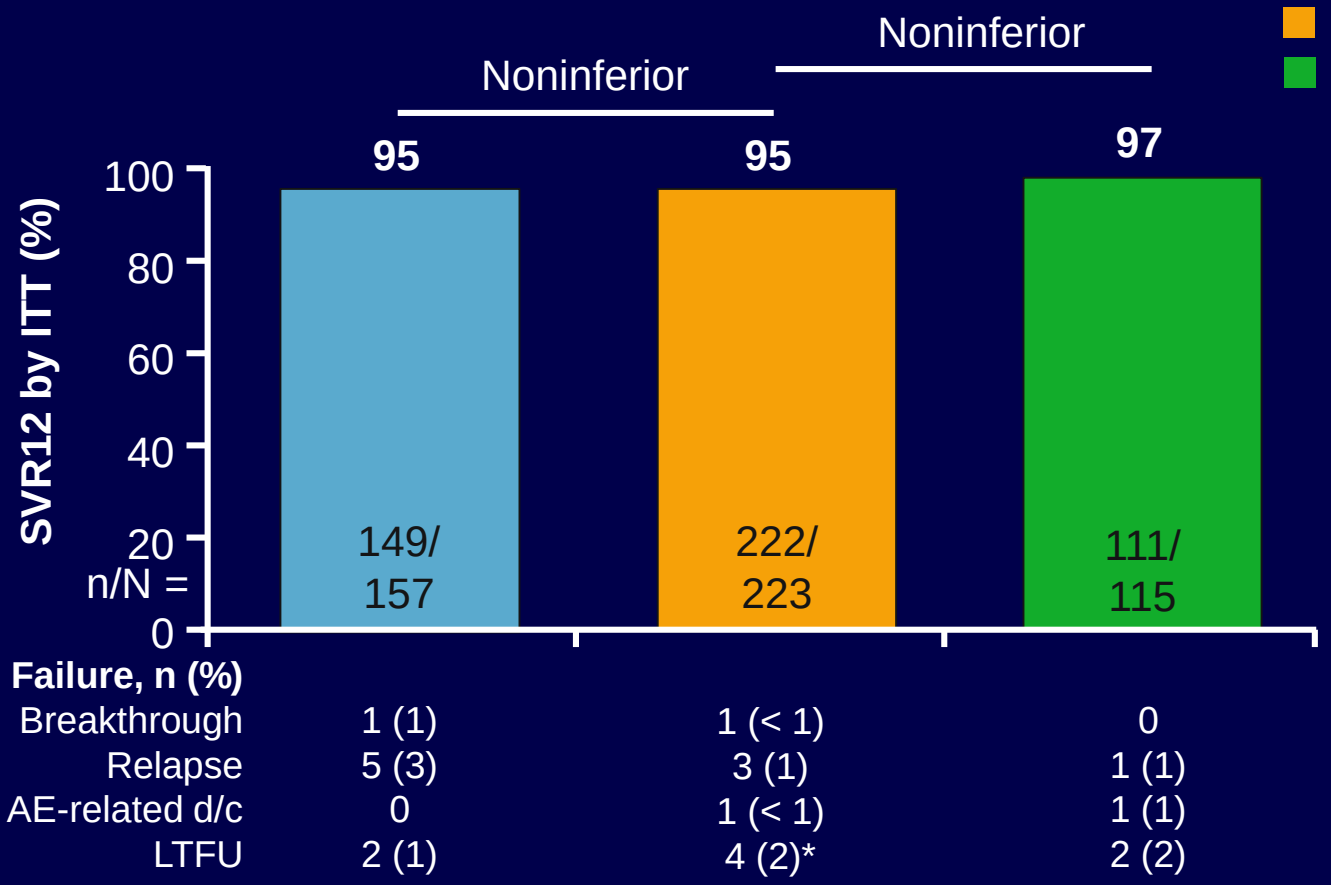
ENDURANCE-3: Glecaprevir/Pibrentasvir in GT3 HCV Without Cirrhosis

- Most pts had history of IDU (63% to 66%)



Failure, n (%)			
Breakthrough	1 (1)	1 (< 1)	0
Relapse	5 (3)	3 (1)	1 (1)
AE-related d/c	0	1 (< 1)	1 (1)
LTFU	2 (1)	4 (2)*	2 (2)

*2 other failures due to consent withdrawal and noncompliance.

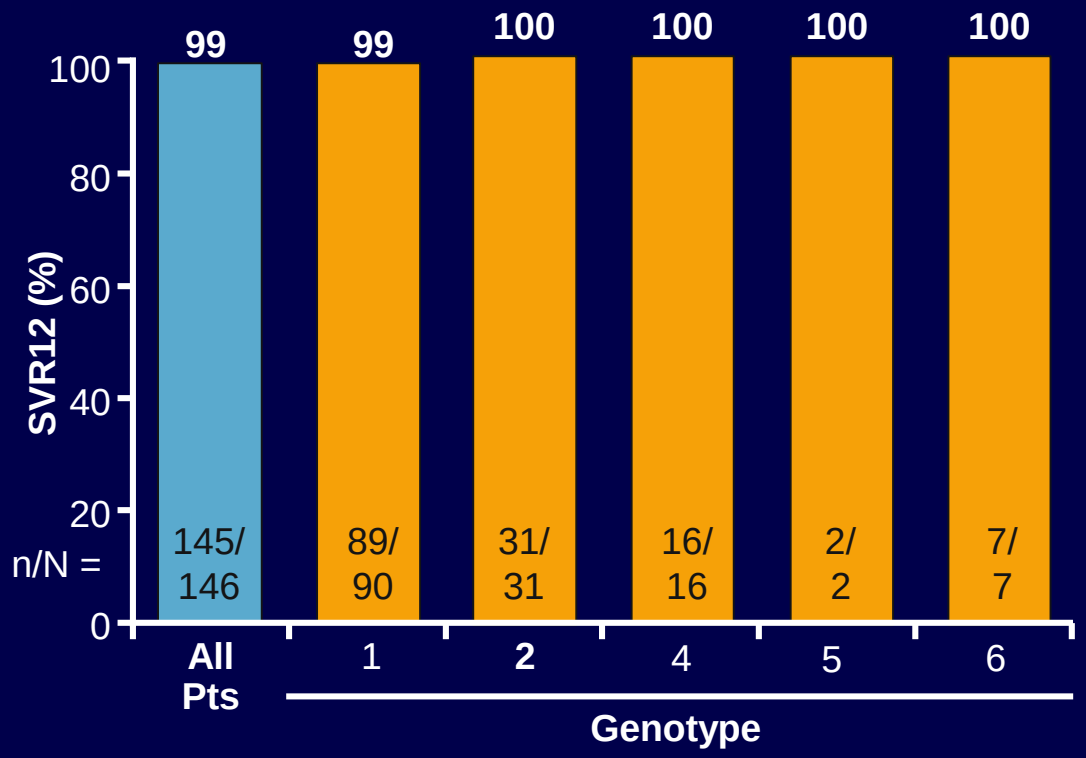
- No serious AEs deemed related to study drug
- No clinically relevant ALT increases, 1 isolated bilirubin increase (G/P 8 wks), 1 isolated neutrophil count decrease (G/P 12 wks)

Foster GR, et al. EASL 2017. Abstract GS-007.

Slide credit: clinicaloptions.com

EXPEDITION-1: Glecaprevir/Pibrentasvir in GT1, 2, 4, 5, or 6 HCV and Compensated Cirrhosis

- Tx-naive and tx-exp'd pts enrolled[1,2]
  - 1 relapse in pt with GT1a HCV with new NS5A mutations (Q30R, H58D)



- No AE-related discontinuations or DAA-related serious AEs[1,2]
  - 1 death deemed unrelated to study drug
- Rare grade 3 laboratory abnormalities

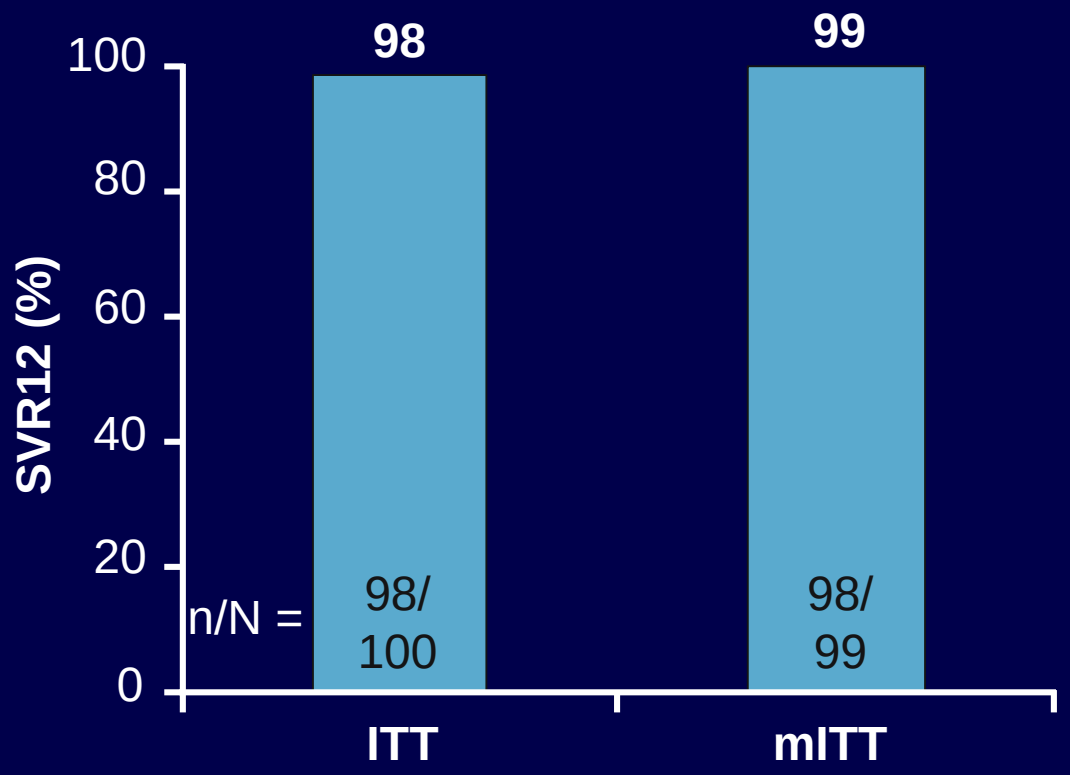
AE,[1,2] n (%)	Pts (N = 146)
Any AE	101 (69)
Any serious AE	11 (8)
AEs occurring in ≥ 10% of pts	
▪ Fatigue	28 (19)
▪ Headache	20 (14)
▪ Pruritus	14 (10)
HCC	2 (1)

- In EXPEDITION-2,[3] 98% SVR12 rate with GLE/PIB for 8 or 12 wks (without vs with cirrhosis) in HCV/HIV-coinfected pts

1. Forns X, et al. EASL 2017. Abstract GS-006. 2. ClinicalTrials.gov. NCT02642432.
3. Rockstroh J, et al. EASL 2017. Abstract LBP-522.

MAGELLAN-2: Glecaprevir/Pibrentasvir for 12 Wks in GT1-6 HCV With Liver or Renal Transplant

- Liver/kidney transplant: 80%/20%
- 1 relapse in pt with GT3a HCV; 1 pt LTFU



- No deaths during study, 1 pt with transplant rejection (unrelated to DAA)

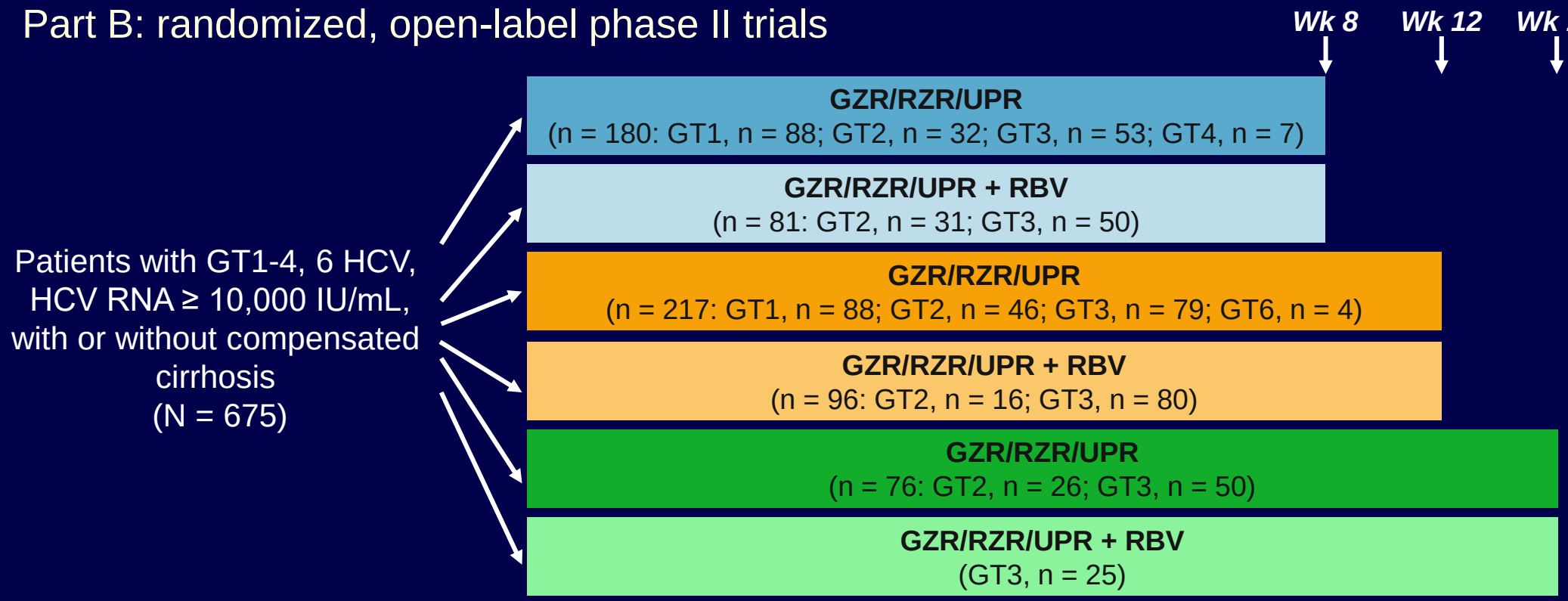
Outcome, %	GLE/PIB (N = 100)
Any AE	85
Serious AE	8
▪ DAA related	2
D/c for AE	1
▪ DAA related	0
AEs in ≥ 10% of pts	
▪ Headache	22
▪ Fatigue	22
▪ Nausea	12
▪ Pruritus	12
Grade ≥ 3 abnormality	
▪ AST	0
▪ ALT	1
▪ Total bilirubin	1
▪ CrCl	2

Reau N, et al. EASL 2017. Abstract LBO-03.

Slide credit: clinicaloptions.com

C-CREST 1 & 2: GZR/RZR/UPR ± RBV for Treating Pts With GT1-4, 6 HCV

- Part B: randomized, open-label phase II trials



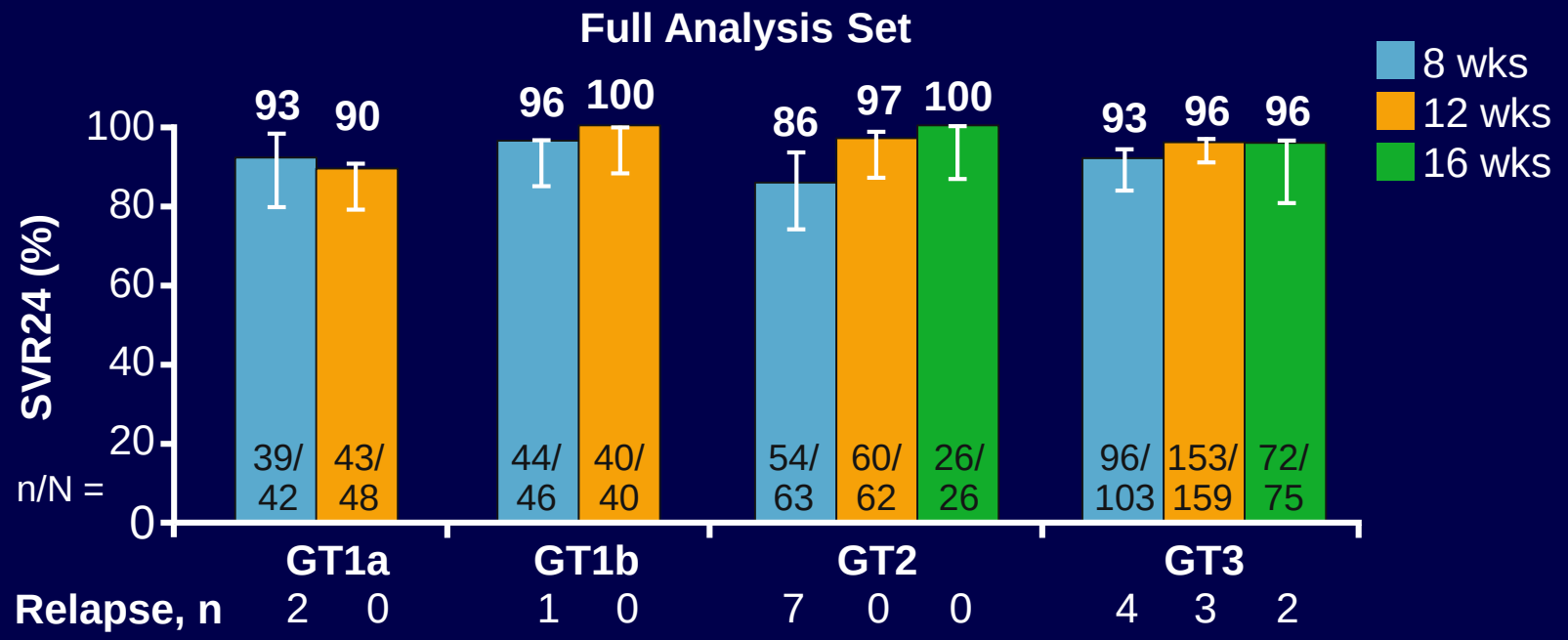
Dosing: GZR/RZR/UPR dosed as two 50/30/225-mg tablets QD. Pts with GT3 HCV could be treatment naive or have failed on pegIFN/RBV; all others treatment naive. Cirrhosis definition in notes.

- Baseline: 35% to 43% cirrhotic; 44% of GT3 pts had prior pegIFN/RBV

Lawitz E, et al. EASL 2017. Abstract THU-285.

Slide credit: clinicaloptions.com

C-CREST 1 & 2: Efficacy of GZR/RZR/UPR ± RBV for Pts With GT1-4, 6 HCV



100% SVR12 rates in 7 pts with GT4 (treated for 8 wks) and 4 pts with GT6 (treated for 12 wks) HCV infection

- Presence of cirrhosis, use of ribavirin, prior tx experience did not impact SVR12 rates

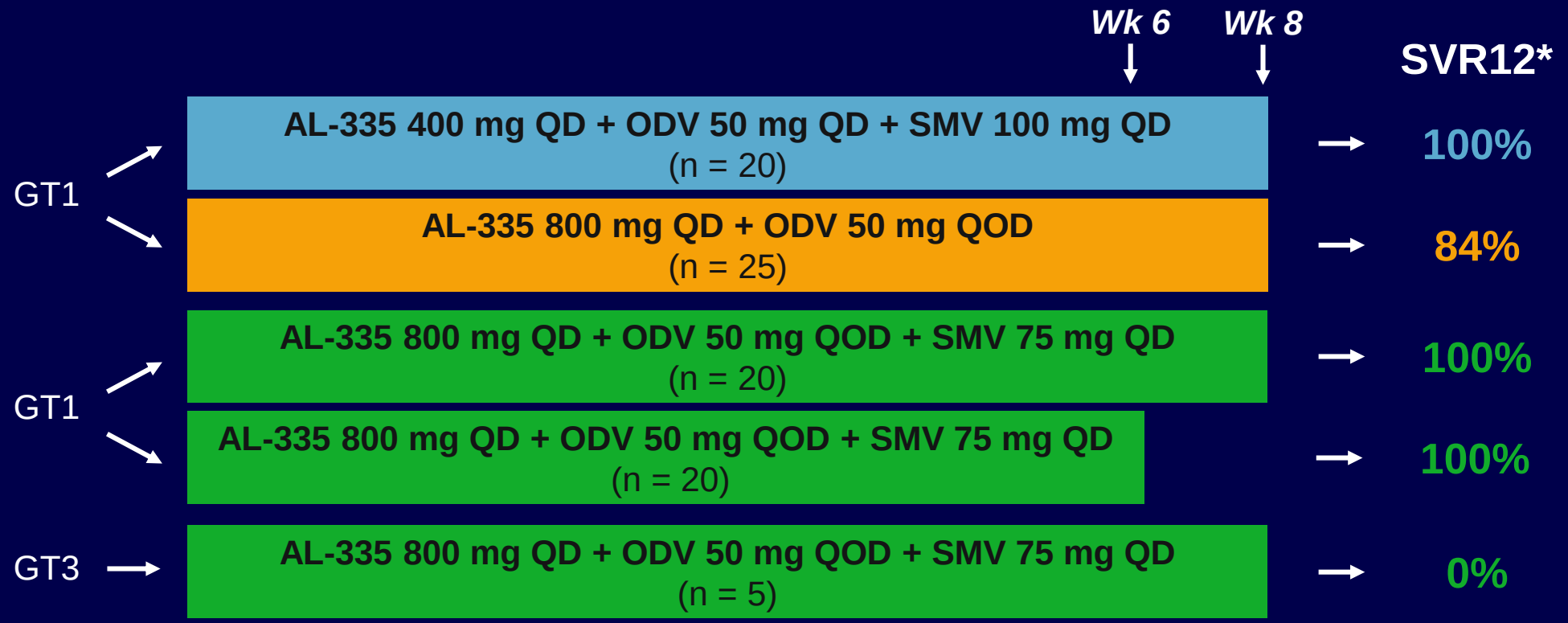
SVR12 by Baseline RAS Presence, % (n/N)	GT2 HCV		GT3 HCV	
	No L31M	L31M	No Y93H	Y93H
8 wks	94 (31/33)	81 (21/26)	98 (95/97)	50 (2/4)
12 wks	100 (28/28)	100 (31/31)	99 (147/148)	71 (5/7)

Lawitz E, et al. EASL 2017. Abstract THU-285.

Slide credit: clinicaloptions.com

AL-335 + ODV ± SMV for ≤ 12 Wks in Treatment-Naive Pts With GT1/3 HCV ± Cirrhosis

- Randomized, open-label phase IIa trial; treatment-naive patients with GT1/3 HCV infection with or without cirrhosis



*All pts with SVR12 also achieved SVR24.

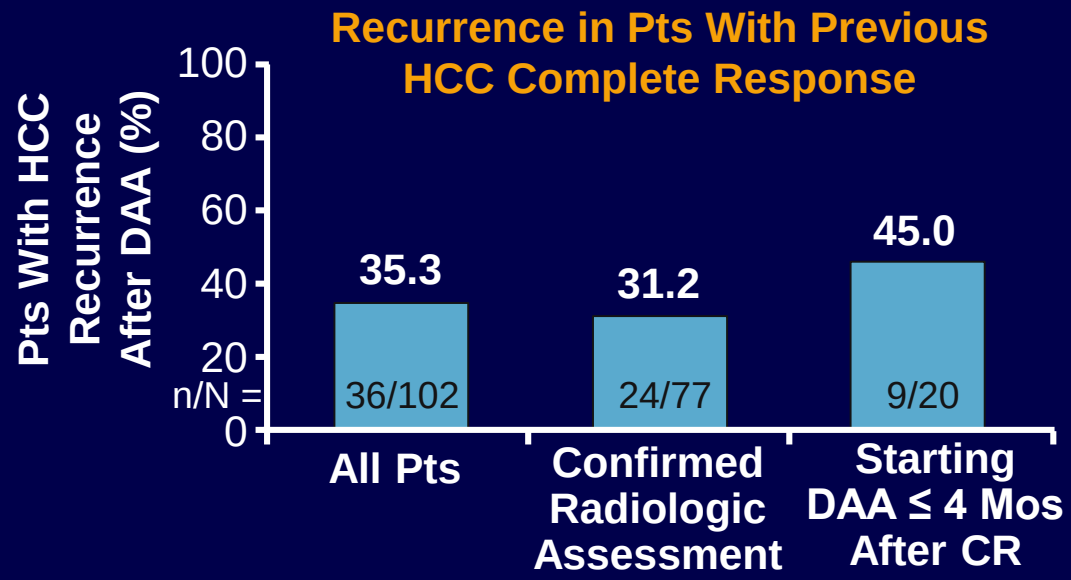
Gane E, et al. EASL 2017. Abstract PS-153.

Slide credit: clinicaloptions.com

Do DAAs Increase the Risk of de Novo or Recurrent HCC?

High Rate of HCC Recurrence With DAAs

- Retrospective study of pts with history of HCC before starting DAA



- Among pts starting DAAs ≤ 4 mos after CR, 4 pts (20%) died
  - Deaths occurred in Mos 9, 10, 15, 16 after starting DAA

- 10 pts had second HCC recurrence or progression

Endpoint	Pts With Recurrence (n = 24)*
Median time from DAA start to first recurrence, mos (IQR)	3.5 (2-7.6)
Median time from first to second recurrence/progression, mos (IQR)	6.0 (3.2-8.2)
▪ Within 6 mos of first recurrence, n/n (%)	6/20 (30)
▪ Death, n (%)	5 (20.8)

*Pts from cohort with confirmed radiologic assessment, no confounding factors.

Reig M, et al. EASL 2017. Abstract PS-031.

Slide credit: clinicaloptions.com

HCC Occurrence or Recurrence Equivalent in Pts With SVR to DAAs vs IFN

- Meta-analysis and meta-regression analysis of 41 studies (N = 13,875)
  - HCC occurrence in cirrhotic pts who achieved SVR with DAAs or IFN
  - HCC recurrence in pts who had had curative treatment for liver cancer

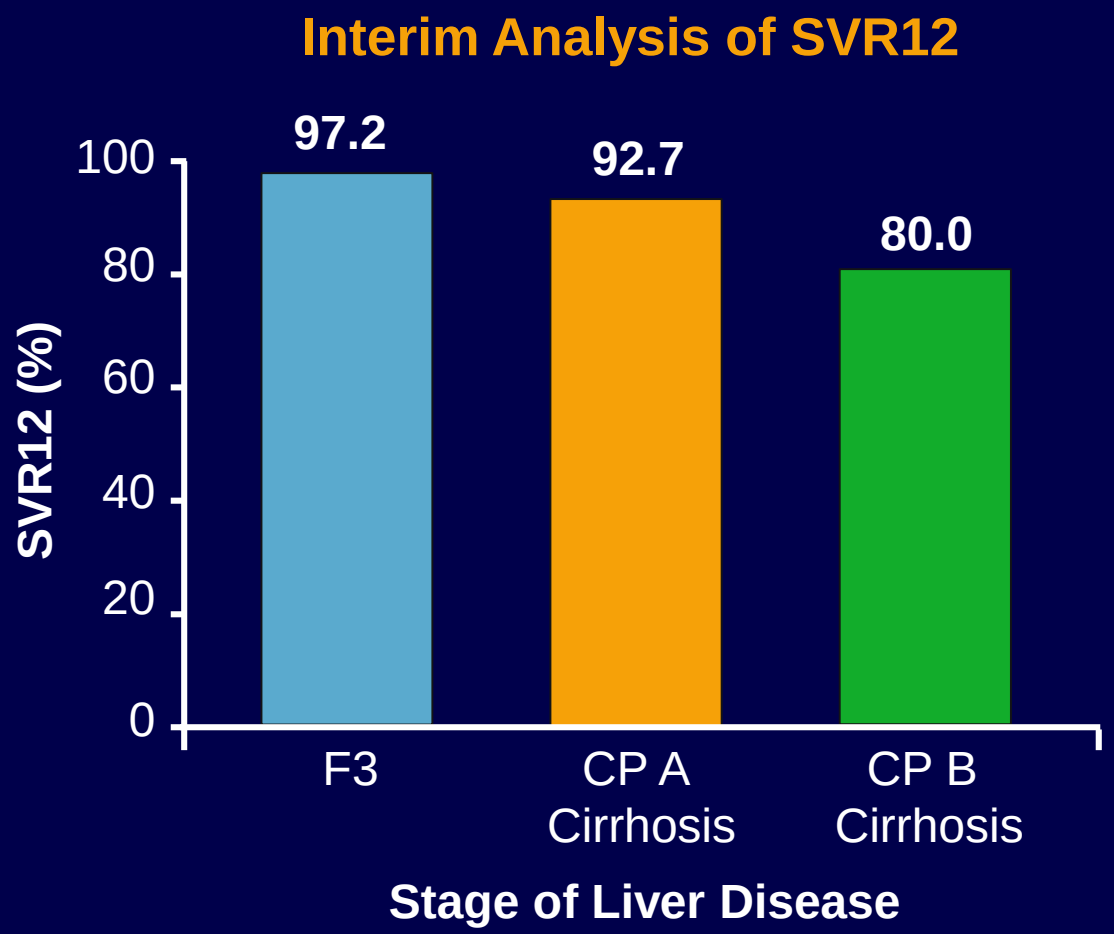
HCC and Risk Factor	Adjusted RR (95% CI)	*P* Value
HCC occurrence		
▪ Average follow-up	0.77 (0.62-0.97)	.03
▪ Average age	1.06 (0.99-1.14)	.08
▪ Treatment (DAA vs IFN)	0.75 (0.22-2.52)	.62
HCC recurrence		
▪ Average follow-up	0.79 (0.55-1.15)	.19
▪ Average age	1.11 (0.96-1.27)	.14
▪ Treatment (DAA vs IFN)	0.62 (0.11-3.45)	.56

Dore G, et al. EASL 2017. Abstract PS-160.

Slide credit: clinicaloptions.com

De Novo HCC in HCV-Infected Pts Treated With Oral DAAs

- Italian pts with HCV and advanced liver disease treated with DAAs and monitored January 2015 - June 2016
  - N = 3075
- Mean follow-up after starting DAA therapy: 300.8 days
  - 41 pts developed HCC
- HCC incidence analyzed by multivariate Cox regression (forward stepwise selection)



Romano A, et al. AASLD 2016. Abstract 19.

Slide credit: clinicaloptions.com

De Novo HCC in HCV-Infected Pts Treated With Oral DAAs

Subgroup	HCC Incidence in Cirrhotic Pts, % per Pt-Yr	*P* Value
Child-Pugh score A/B	1.64/2.92	.58
DAA regimen		.90
▪ SOF + RBV	3.32	
▪ LDV/SOF ± RBV	1.45	
▪ SMV + SOF ± RBV	1.35	
▪ DCV + SOF ± RBV	1.12	
▪ OBV/PTV/RTV + DSV ± RBV	1.88	
APRI score < 2.5/≥ 2.5	1.52/3.27	.02
SVR12 no/yes	8.38/1.55	.001

Romano A, et al. AASLD 2016. Abstract 19.

Slide credit: clinicaloptions.com

De Novo HCC in HCV-Infected Pts Treated With Oral DAAs

Subgroup	HCC Incidence in Cirrhotic Pts, % per Pt-Yr	*P* Value
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▪ OBV/PTV/RTV + DSV ± RBV	1.88	
APRI score < 2.5/≥ 2.5	1.52/3.27	.02
SVR12 no/yes	8.38/1.55	.001

Cirrhotic pts with HCV treated with DAAs are not at increased risk of developing HCC compared with untreated pts

Romano A, et al. AASLD 2016. Abstract 19.

Slide credit: clinicaloptions.com

HBV Reactivation During HCV DAA Therapy

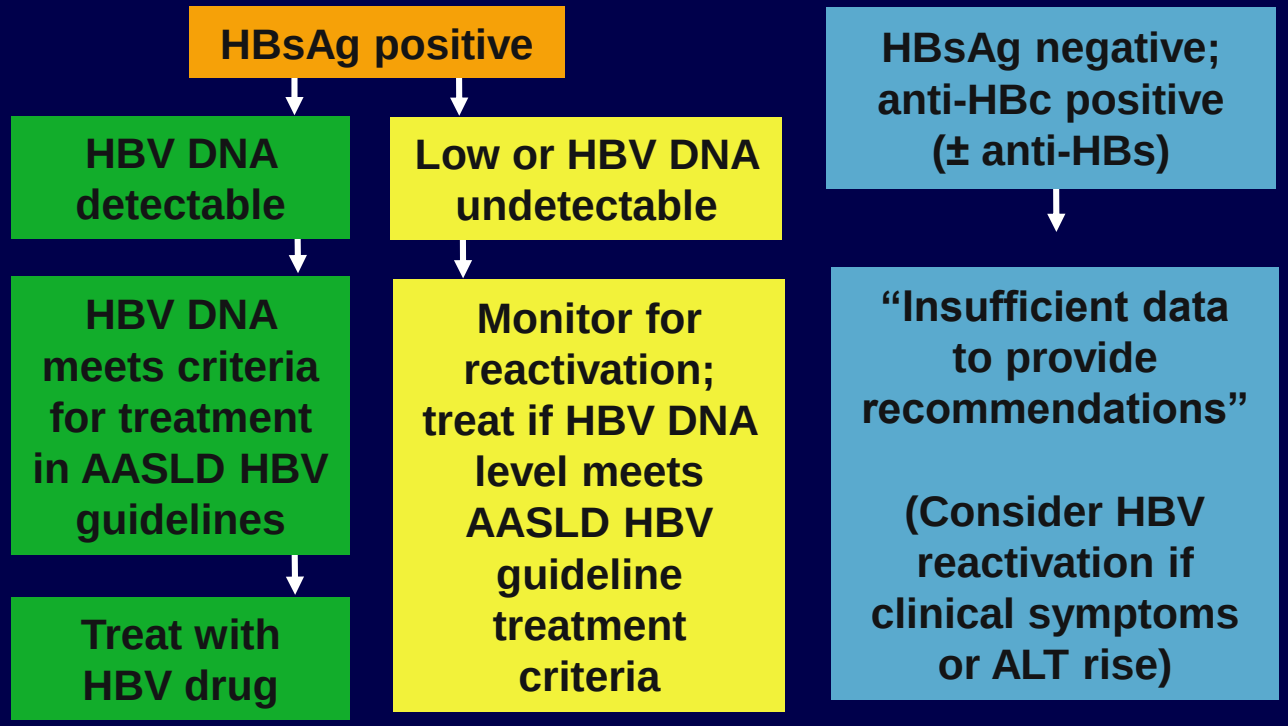
HBV Reactivation in Pts Receiving HCV DAAs

- Case reports of HBV reactivation in pts treated with SMV + SOF ± RBV,[1,2] DCV + ASV,[3,4] and LDV/SOF[5]
  - Possibly due to loss of host immune response to HBV[6]
- 29 confirmed cases of HBV reactivation in HCV DAA recipients in ~ 3 yrs (November 2013 to October 2016)[7]
  - Most cases occurred within 4-8 wks of HCV DAA initiation
- October 2016 FDA issued boxed warning

1. Collins JM, et al. Clin Infect Dis. 2015;61:1304-1306. 2. Ende AR, et al. J Med Case Rep. 2015;9:164. 3. Hayashi K, et al. Clin J Gastroenterol. 2016;9:252-256. 4. Takayama H, et al. Hepatol Res. 2016;46:489-491. 5. De Monte A, et al. J Clin Virol. 2016;78:27-30. 6. Balagopal A, et al. Clin Infect Dis. 2015;61:1307-1309. 7. Bersoff-Matcha SJ, et al. AASLD 2016. Abstract LB-17.

HBV Testing/Monitoring During HCV DAA Therapy

- Test all pts initiating HCV therapy for HBsAg, anti-HBc, and anti-HBs
  - Vaccinate if no HBV markers; follow flow chart below if HBV markers present



AASLD/IDSA. HCV Guidance. April 2017. Graphic adapted from Ira M. Jacobson, MD.

Slide credit: clinicaloptions.com

Conclusions

- Multiple current regimens highly effective and safe across genotypes; confirmed in “real-world” studies
- GLE/PIB appears poised to be an 8-wk pangenotypic regimen for DAA-naive noncirrhotic pts
- Short duration SOF/VEL/VOX not superior to current regimens for DAA-naive pts; likely to find niche in pts with previous DAA failure
- GZR/RZR/UPR a promising pangenotypic regimen; phase III trial results awaited
- Controversy persists re: HCC recurrence after DAA-induced SVR
- Little evidence for spike in de novo HCC after SVR
- HBV reactivation very rare in anti-HBc–positive pts; precautions in HBsAg-positive pts especially with HBV viremia

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