# CCO Official Conference Coverage: Clinical Impact of New Data From AASLD 2015

**CCO Official Conference Coverage**
of the 2015 Annual Meeting of the American Association for the Study of Liver Diseases, November 13-17, 2015
San Francisco, California

In partnership with

AASLD
AMERICAN ASSOCIATION FOR THE STUDY OF LIVER DISEASES

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# Disclosures

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# Summary of Direct-Acting Antivirals Discussed in This Slideset

| Drug | Abbreviation | Class |
|---|---|---|
| ABT-493 | - | NS3/4A protease inhibitor |
| ABT-530 | - | NS5A inhibitor |
| Daclatasvir | DCV | NS5A inhibitor |
| Dasabuvir | DSV | NS5B nonnucleoside polymerase inhibitor |
| Elbasvir | EBR | NS5A inhibitor |
| Grazoprevir | GZR | NS3/4A protease inhibitor |
| GS-9451 | - | NS3/4A protease inhibitor |
| GS-9669 | - | NS5B nonnucleoside polymerase inhibitor |
| GS-9857 | - | NS3/4A protease inhibitor |
| Ledipasvir | LDV | NS5A inhibitor |
| Ombitasvir | OBV | NS5A inhibitor |
| Paritaprevir | PTV | NS3/4A protease inhibitor |
| Simeprevir | SMV | NS3/4A protease inhibitor |
| Sofosbuvir | SOF | NS5B nucleotide polymerase inhibitor |
| Velpatasvir (formerly GS-5816) | VEL | NS5A inhibitor |

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# Currently Available HCV Therapies

# HCC Risk Remains High After SVR With PegIFN ± RBV

- Retrospective VA cohort study of HCV-infected pts treated with pegIFN ± RBV from 1999-2009 (N = 22,028)
- HCC incidence rate 3.27/1000 PY with SVR vs 13.2/1000 PY without SVR (HR: 0.358)

| Predictor of HCC Following SVR* | HR (95% CI) | *P* Value |
|---|---|---|
| Cirrhosis at time of SVR | 4.45 (2.53-7.82) | < .0001 |
| Age at SVR, yrs (vs younger than 55 yrs) | | |
| ▪ 55-64 | 2.40 (1.53-3.77) | .0002 |
| ▪ 65 or older | 4.69 (2.04-10.78) | .0003 |
| Diabetes | 2.07 (1.35-3.20) | .0010 |
| HCV GT (vs GT1) | | |
| ▪ 2 | 0.56 (0.32-1.01) | .0522 |
| ▪ 3 | 1.91 (1.14-3.18) | .0131 |

*Cox proportional hazards model adjusted for competing risk of death.

El-Serag HB, et al. AASLD 2015. Abstract 90. Reproduced with permission.

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# HCV-TARGET: Multicenter, Prospective, Observational Cohort Study

- 44 academic/17 community medical centers in North America/Europe
- Current analysis includes medical record data from sequential pts with GT1 HCV treated with LDV/SOF regimens

| Baseline Characteristic, % | LDV/SOF 8 Wks (n = 154) | LDV/SOF 12 Wks (n = 627) | LDV/SOF 24 Wks (n = 161) | LDV/SOF Other (n = 27) | LDV/SOF + RBV 12 Wks (n = 89) | LDV/SOF + RBV 24 Wks (n = 13) | LDV/SOF + RBV Other (n = 3) |
|---|---|---|---|---|---|---|---|
| Treatment status | | | | | | | |
| ▪Exp'd | 4 | 40 | 97 | 48 | 67 | 92 | 67 |
| ▪DAA exp'd | 1 | 10 | 32 | 19 | 16 | 39 | 33 |
| Subgenotype | | | | | | | |
| ▪1a | 66 | 65 | 68 | 78 | 57 | 62 | 67 |
| ▪1b | 29 | 28 | 21 | 15 | 34 | 23 | 33 |
| Cirrhosis | 2 | 29 | 78 | 41 | 61 | 85 | 67 |
| ▪ Decompensated | 2 | 9 | 27 | 19 | 19 | 31 | 33 |
| PPI use | 20 | 26 | 34 | 30 | 35 | 46 | 33 |

Terrault N, et al. AASLD 2015. Abstract 94.

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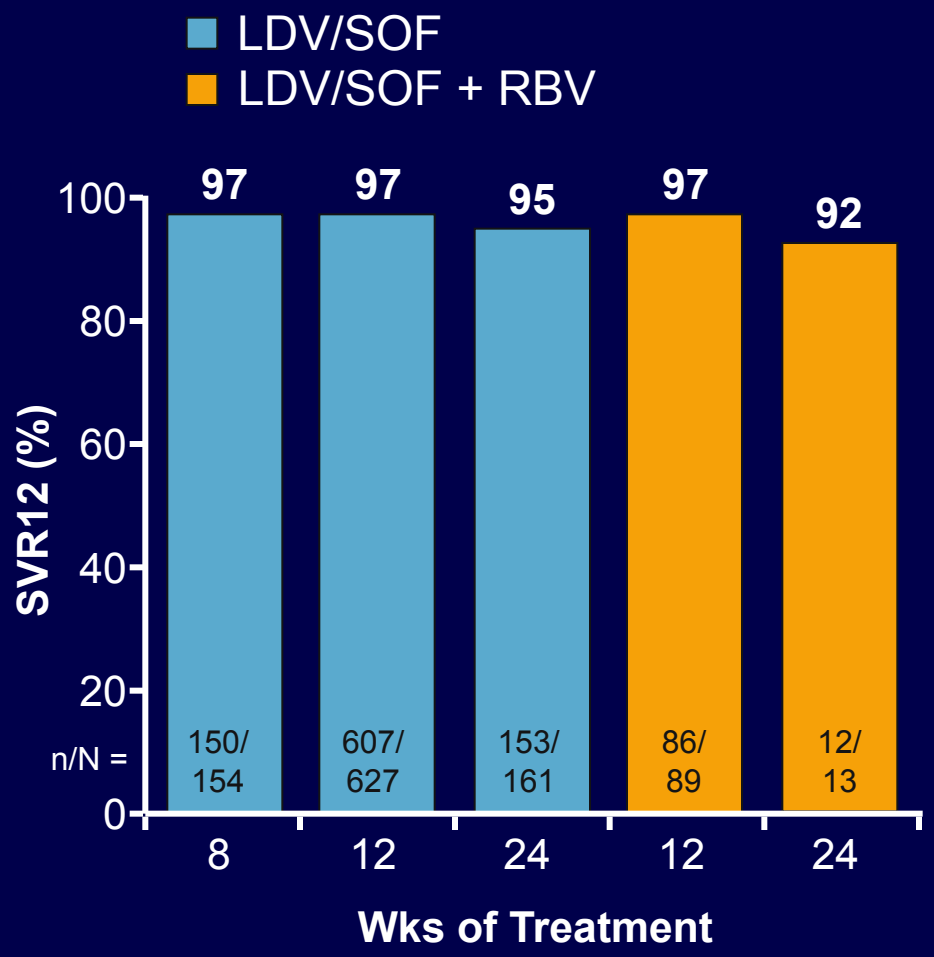
# HCV-TARGET: SVR12 With 8-, 12-, or 24-Wk Ledipasvir/Sofosbuvir ± Ribavirin




- Only 131 out of 323 pts who qualified for 8-wk treatment (treatment naive, no cirrhosis, and baseline HCV RNA ≤ 6 million IU/mL) received 8-wk regimen

| Tx Outcome in Pts Qualifying for 8-Wk Regimen | LDV/SOF 8 Wks (n = 131) | LDV/SOF 12 Wks (n = 192) |
|---|---|---|
| SVR12, % | 97 | 97 |
| Failure, % | 3 | 3 |
| SVR12 according to Wk 4 HCV RNA, % (n/N) | (n = 99) | (n = 133) |
| ▪ Below limit of quantification | 97 (89/92) | 97 (114/117) |
| ▪ Quantifiable | 100 (7/7) | 94 (15/16) |

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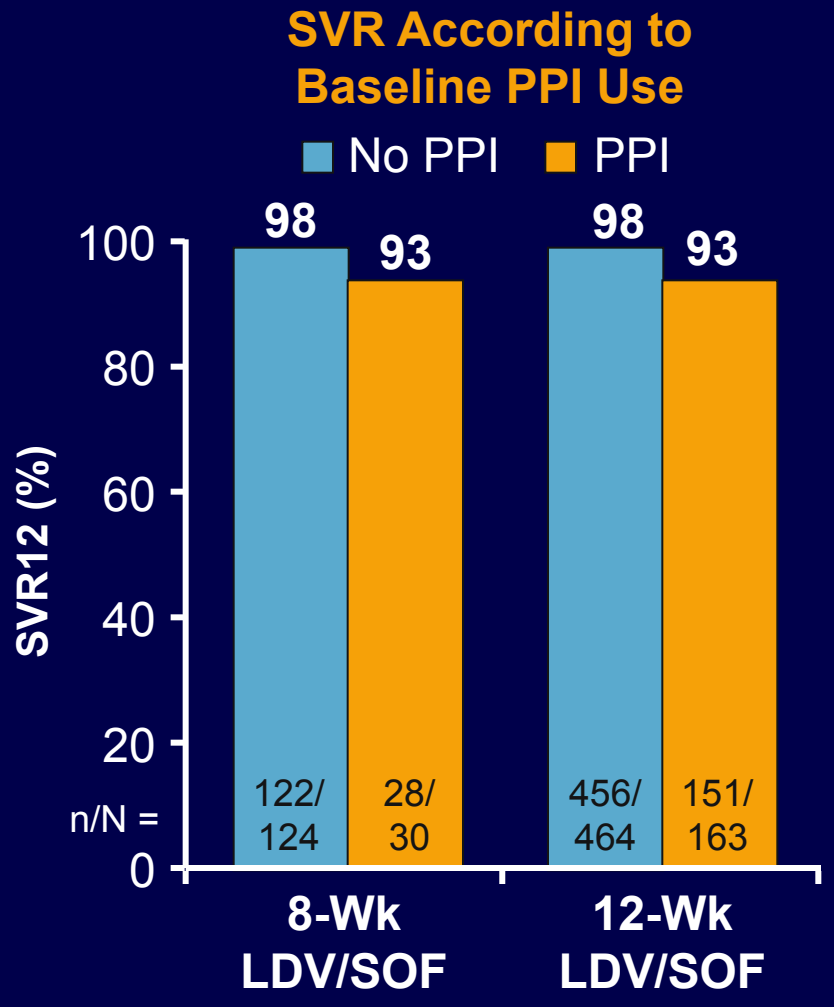
# HCV-TARGET: Baseline Predictors of SVR in Pts Receiving Ledipasvir/Sofosbuvir

| Baseline Predictor | OR (95% CI) | *P* Value |
|---|---|---|
| Albumin ≥ 3.5 g/dL | 4.59 (2.06-9.85) | < .001 |
| Platelet count, 1000/mm$^3$ | 1.01 (1.00-1.02) | < .001 |
| Total bilirubin ≤ 1.2 mg/dL | 3.65 (1.71-7.51) | .001 |
| Hemoglobin, g/dL | 1.22 (1.01-1.46) | .030 |
| No cirrhosis | 3.87 (1.91-8.23) | < .001 |
| Compensated liver disease | 5.49 (2.62-11.16) | < .001 |
| No baseline PPI | 3.02 (1.51-6.05) | .001 |

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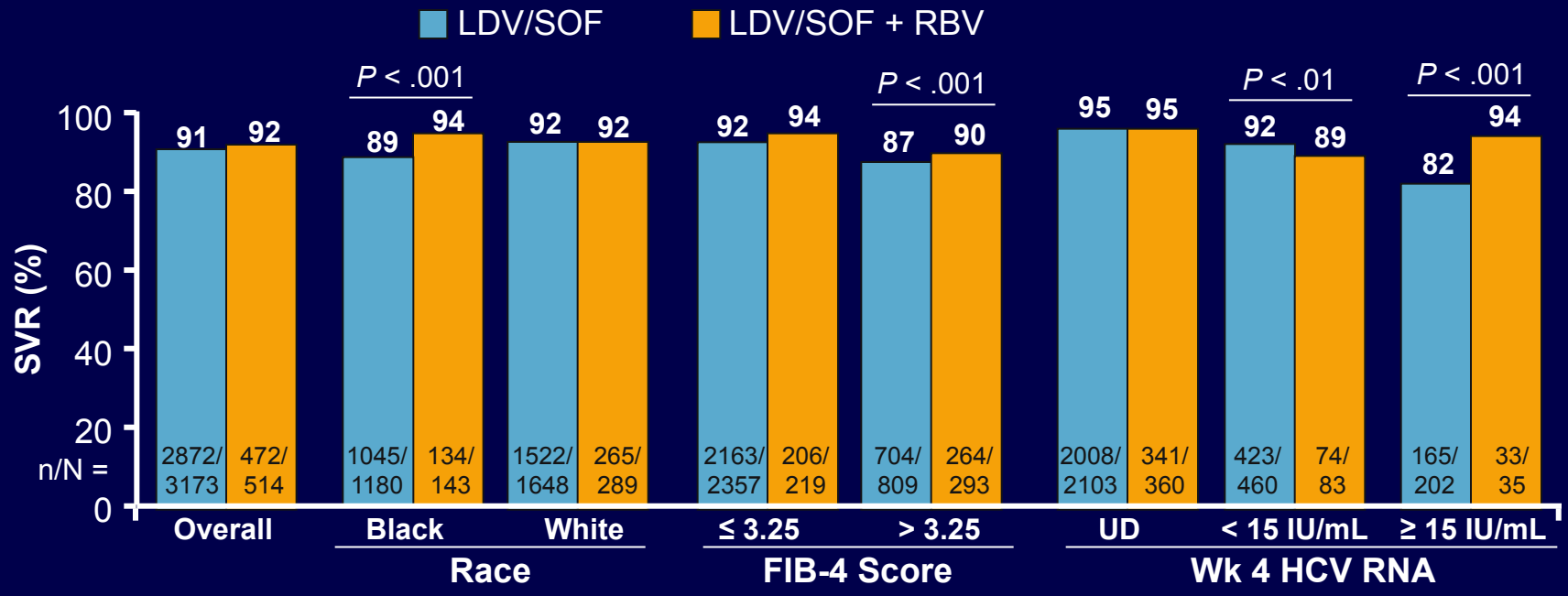
# VA: Ledipasvir/Sofosbuvir ± Ribavirin for 8 or 12 Wks in Tx-Naive Pts With GT1 HCV

- Observational, ITT analysis of pts in 124 VA facilities (N = 4365)




| Predictor of SVR With 8 or 12 Wks of Tx | OR (95% CI) | *P* Value |
|---|---|---|
| Black race | 0.60 (0.44-0.83) | < .01 |
| FIB-4 score > 3.25 | 0.47 (0.33-0.65) | < .001 |
| 8-wk treatment duration | 0.54 (0.40-0.74) | < .001 |

Backus LI, et al. AASLD 2015. Abstract 93. Reproduced with permission.

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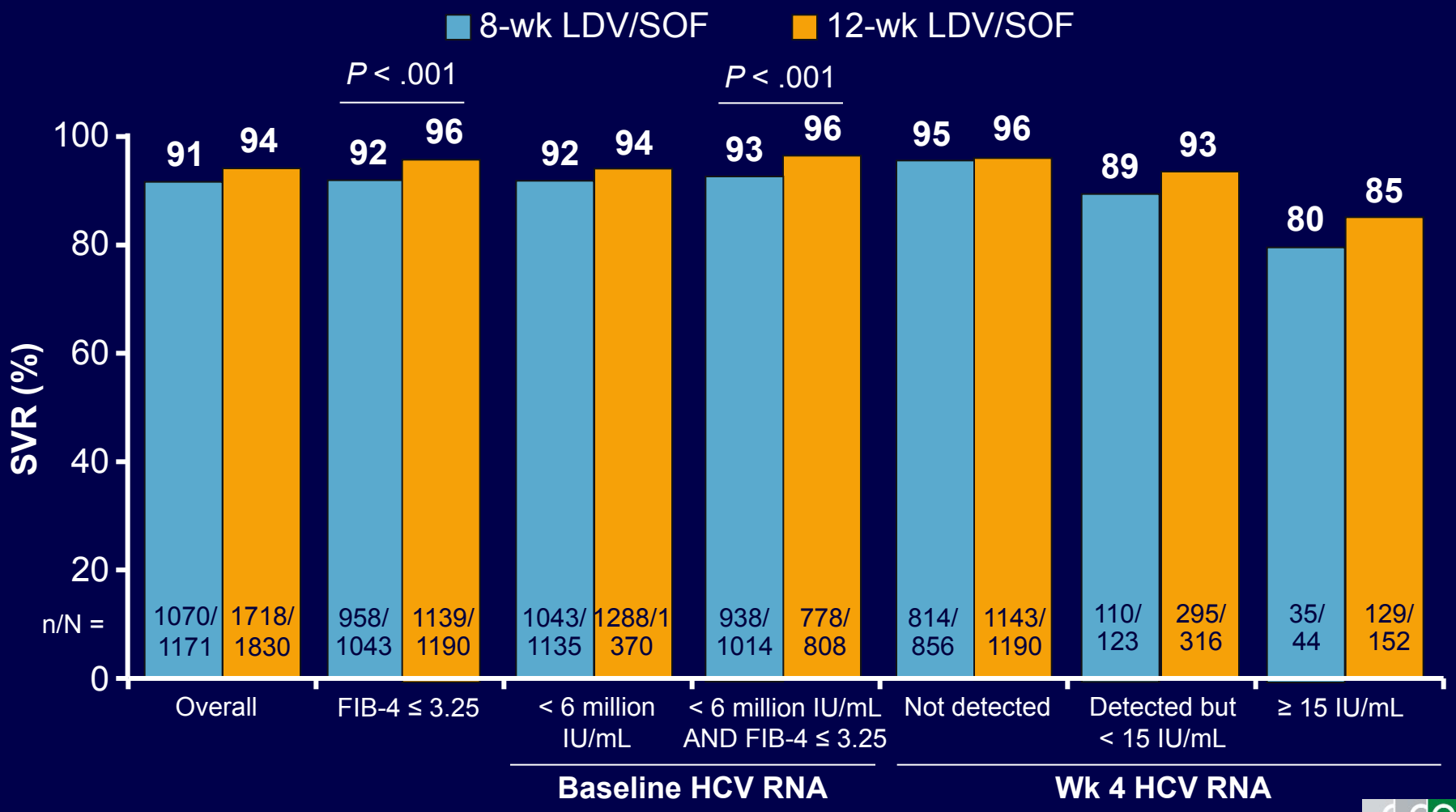
# VA: SVR With 8-Wk vs 12-Wk Ledipasvir/ Sofosbuvir

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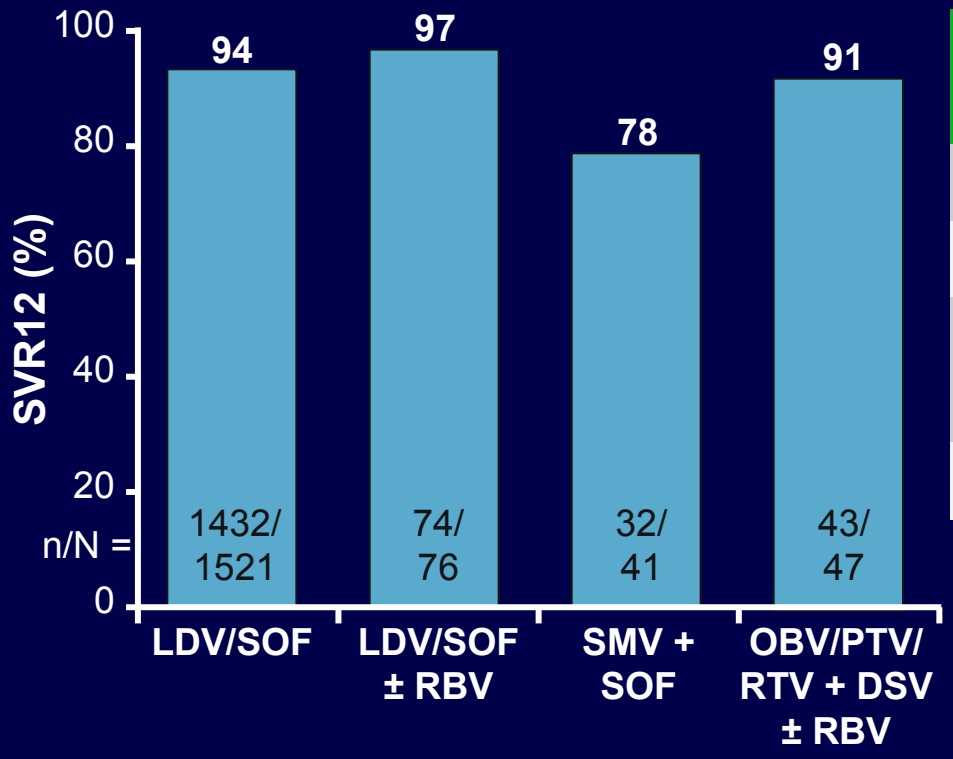
# TRIO: Real-World Analysis of Predictors of DAA-Based Tx Failure in GT1 HCV

- Data obtained on GT1 HCV from Trio Health program
  - Includes pts with GT1 HCV who received 12-wk LDV/SOF, OBV/PTV/RTV + DSV, or SMV + SOF-based Tx 10/2014-3/2015 (N = 1225)




| Factors Associated With Lower SVR Rate | *P* Value |
|---|---|
| Platelet count < 100K/mL | < .001 |
| Cirrhosis | < .001 |
| Prescribing outside of FDA-approved labeling | < .001 |
| Male sex | .008 |

Afdhal NH, et al. AASLD 2015. Abstract LB-17.

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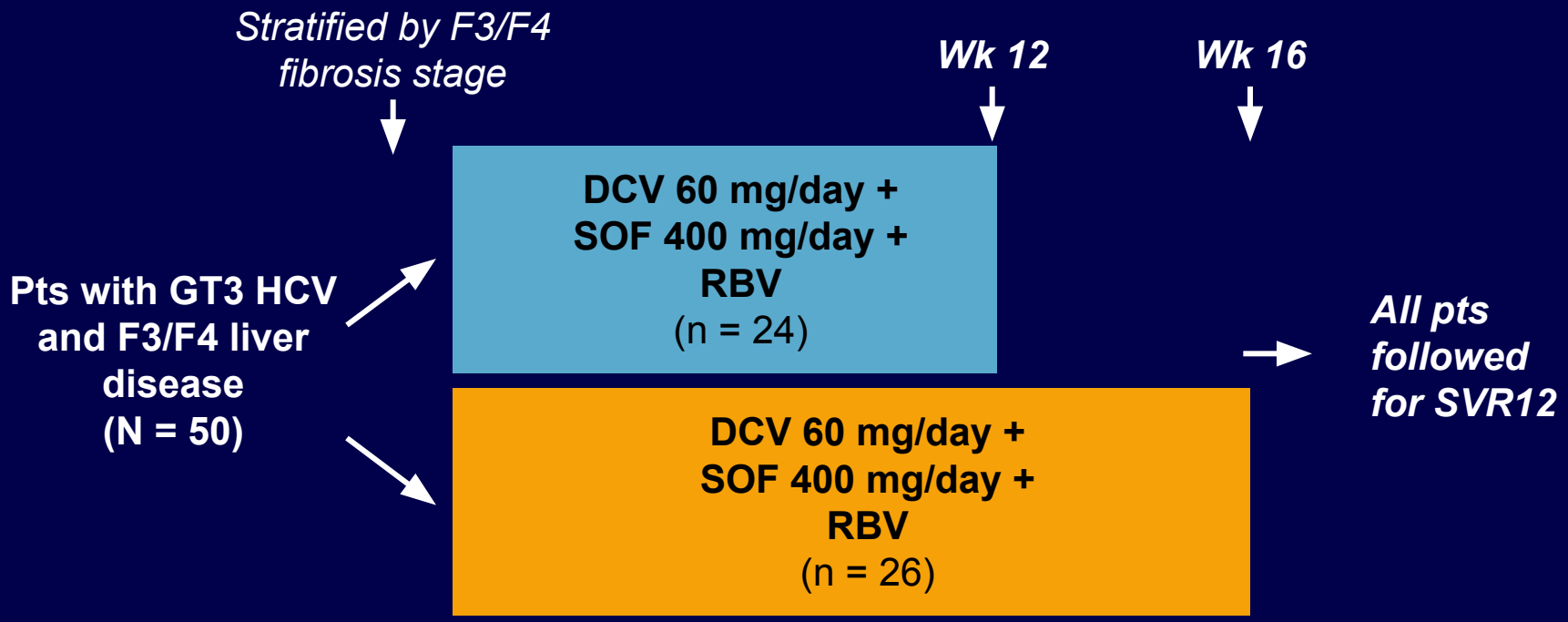
# ALLY-3+: DCV + SOF + RBV in Pts With GT3 HCV and Advanced Liver Disease

- Open-label, randomized phase IIIb study
  - Primary endpoint: SVR12




Leroy V, et al. AASLD 2015. Abstract LB-3.

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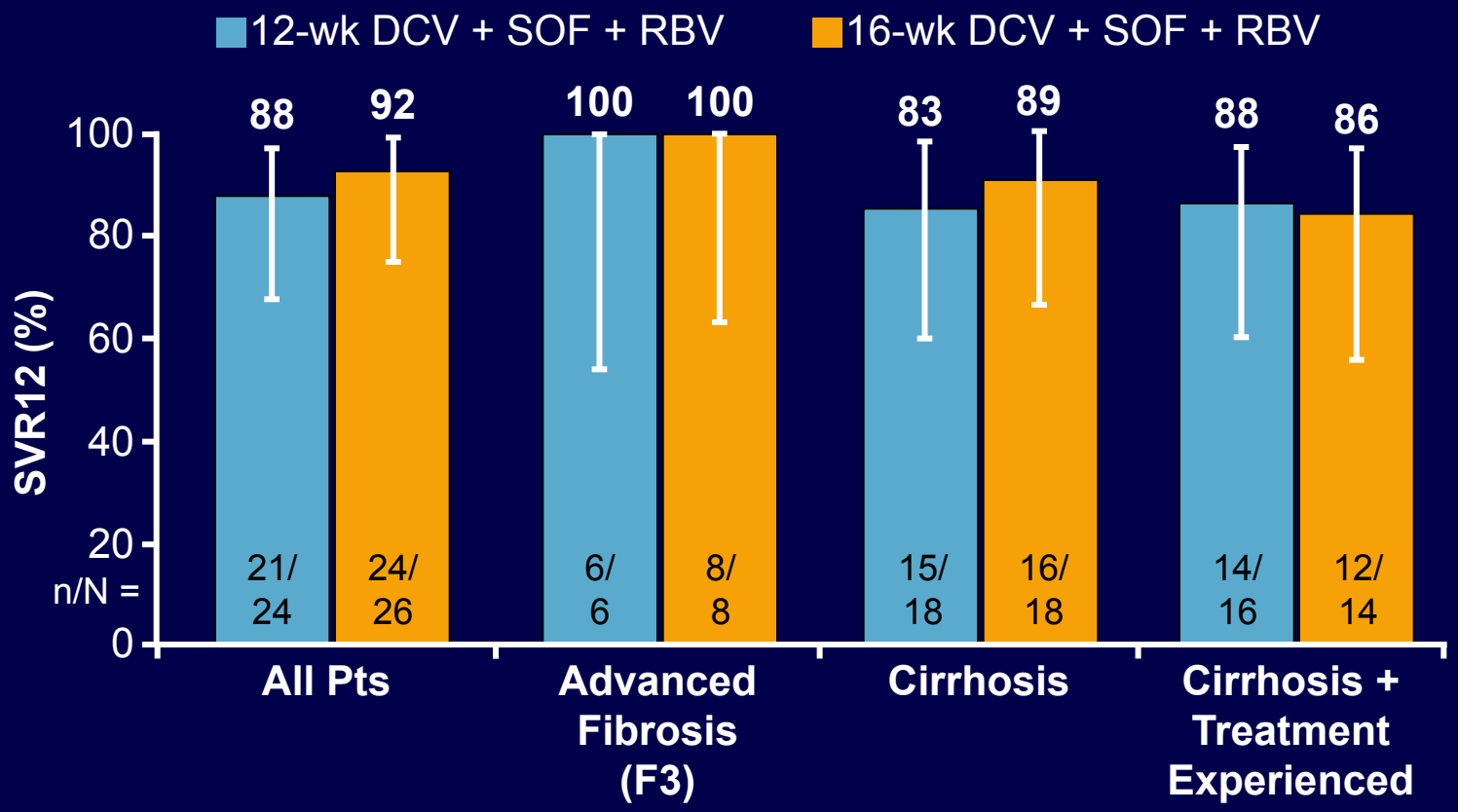
# ALLY-3+: Virologic Efficacy

- No virologic failures or AE-related discontinuations




Leroy V, et al. AASLD 2015. Abstract LB-3.

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# ALLY-3+: Safety/Tolerability

- No discontinuations or deaths deemed Tx-related

| Safety Outcome, % | DCV + SOF + RBV Overall (N = 50) | DCV + SOF + RBV 12 Wks (n = 24) | DCV + SOF + RBV 16 Wks (n = 26) |
|---|---|---|---|
| Any AE | 94 | 96 | 92 |
| Serious AEs | 10 | 8 | 12 |
| Death | 2 | 4 | 0 |
| Discontinuation for AEs | 0 | 0 | 0 |
| RBV dose reduction | 12 | 8 | 15 |
| AEs in ≥ 20% pts in any arm | | | |
| ▪Insomnia | 30 | 33 | 27 |
| ▪Fatigue | 26 | 25 | 27 |
| ▪Headache | 24 | 29 | 19 |
| ▪Irritability | 14 | 21 | 8 |
| Grade 3 lab abnormalities | | | |
| ▪Hemoglobin < 9.0 g/dL or decrease ≥ 4.5 g/dL | 2 | 0 | 4 |
| ▪TBI > 2.5 x ULN | 4 | 4 | 4 |

Leroy V, et al. AASLD 2015. Abstract LB-3.

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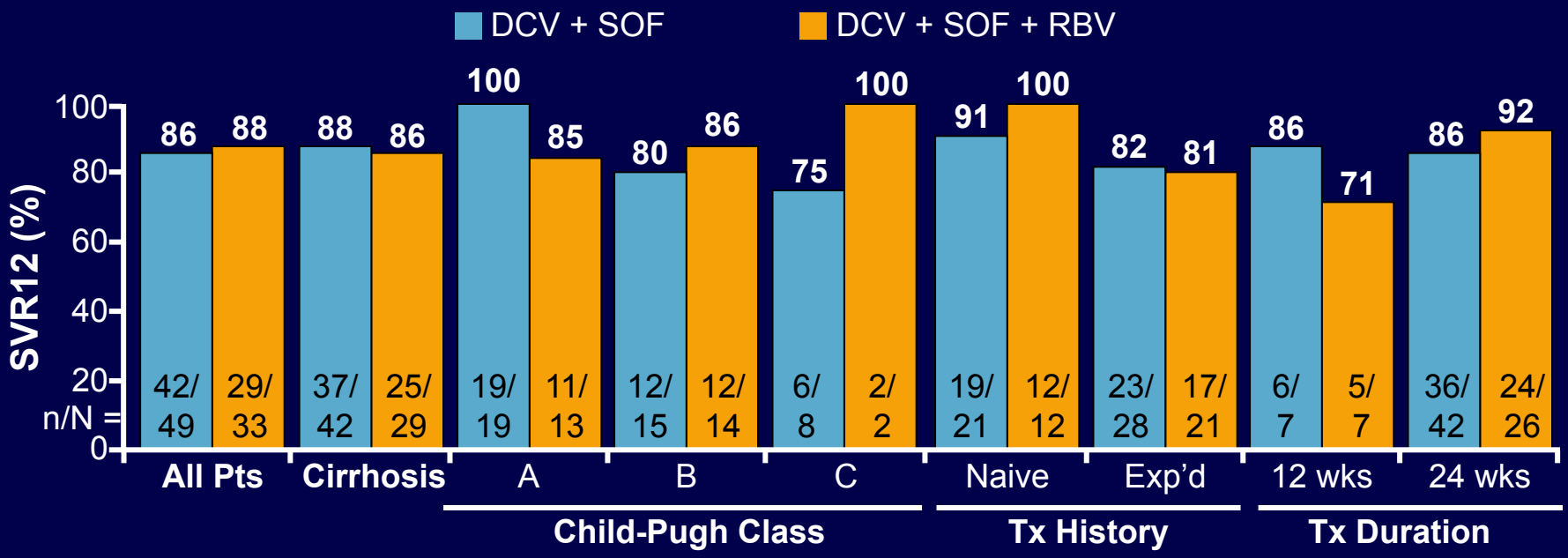
# Interim Analysis: Daclatasvir + Sofosbuvir ± RBV in GT3 HCV in European CUP

- Pts treated with DCV 60 mg + SOF 400 mg QD for 24 wks; RBV added or duration shortened to 12 wks per physician discretion
- Most common AEs: fatigue, nausea, anemia
  - Tx-related serious AEs (n = 1 each): pancytopenia, HE, HCC, circulatory collapse




Welzel TM, et al. AASLD 2015. Abstract 37. Reproduced with permission.

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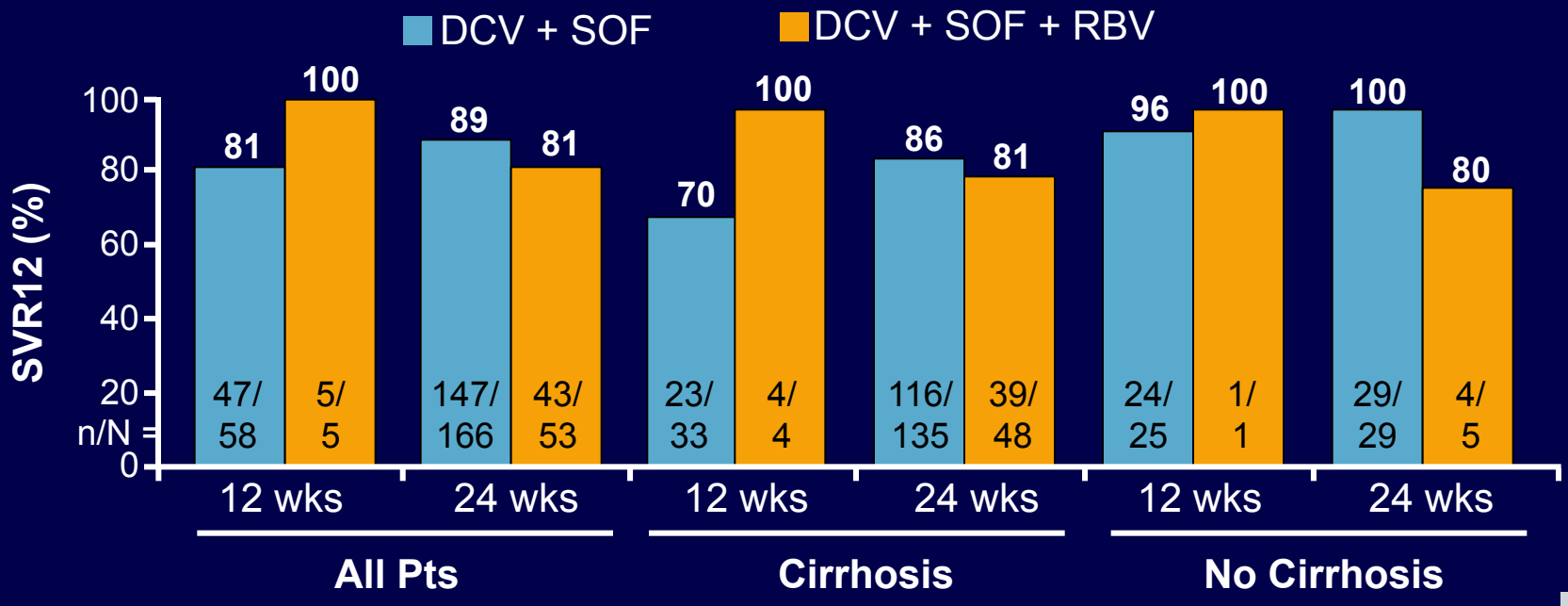
# Interim Analysis: Daclatasvir + Sofosbuvir ± RBV in GT3 HCV in French CUP

- Pts treated with DCV 60 mg + SOF 400 mg QD for 24 wks; RBV added or duration shortened to 12 wks per physician discretion
- Most common AEs: asthenia, sleep disorder, headache
  - Tx-related serious AEs (n = 1 each): hepatic decompensation, allergic dermatitis




Hezode C, et al. AASLD 2015. Abstract 206. Reproduced with permission.

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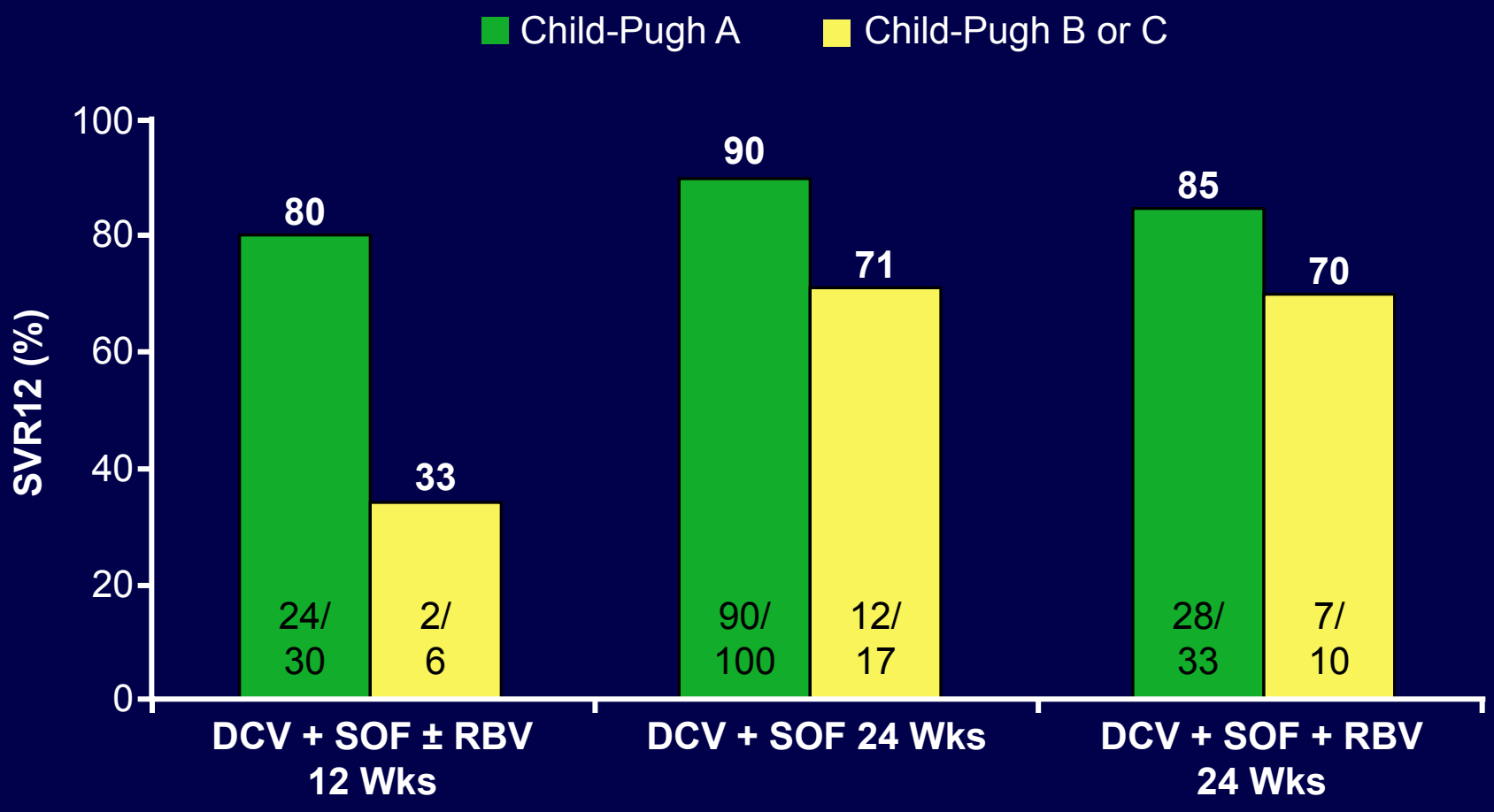
# Interim Analysis of French CUP: SVR12 by Child-Pugh Score




Hezode C, et al. AASLD 2015. Abstract 206. Reproduced with permission.

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# SLAM-C: Sofosbuvir + Ledipasvir or Simeprevir for Acute HCV Infection

- Randomized, open-label, prospective pilot study
  - N = 29 pts with acute HCV infection at 6 drug rehabilitation centers (NYC)
- Group A (n = 14)
  - LDV/SOF 90/400 mg QD for 4 wks
- Group B (n = 15)
  - SOF 400 mg + SMV 150 mg QD for 8 wks

| Outcome, % (n/N) | LDV/SOF for 4 Wks (n = 14) | SOF + SMV for 8 Wks (n = 15) |
|---|---|---|
| SVR12 | | |
| ▪ All pts | 100 (14/14) | 87 (13/15) |
| ▪ Per protocol* | 100 (14/14) | 100 (13/13) |
| Retention through 20 wks | 93 (13/14) | 87 (13/15) |

*Excludes pts lost to follow-up or who discontinued for nonvirologic reasons.

Basu P, et al. AASLD 2015. Abstract 1074.

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# HCV Treatment Options Expected in the Near Future

# Elbasvir/Grazoprevir in Compensated Cirrhosis: Pooled Analysis of Ph II/III Data

- Includes pts with Child-Pugh A cirrhosis and GT1, 4, or 6 HCV who received elbasvir/grazoprevir ± RBV in phase II/III trials
  - Treatment-naive pts treated for 12 wks (n = 169)
  - Treatment-experienced pts treated for 12, 16, or 18 wks (n = 233)
  - FAS: all randomized pts who received ≥ 1 dose of drug
  - Modified FAS: FAS, excluding pts who discontinued for reasons unrelated to study drug

| HCV Genotype, n (%) | Pts (N = 402) |
|---|---|
| 1a | 219 (54.5) |
| 1b | 152 (37.8) |
| 1 other | 5 (1.2) |
| 4 | 23 (5.7) |
| 6 | 3 (0.8) |

Jacobson IM, et al. AASLD 2015. Abstract 42.

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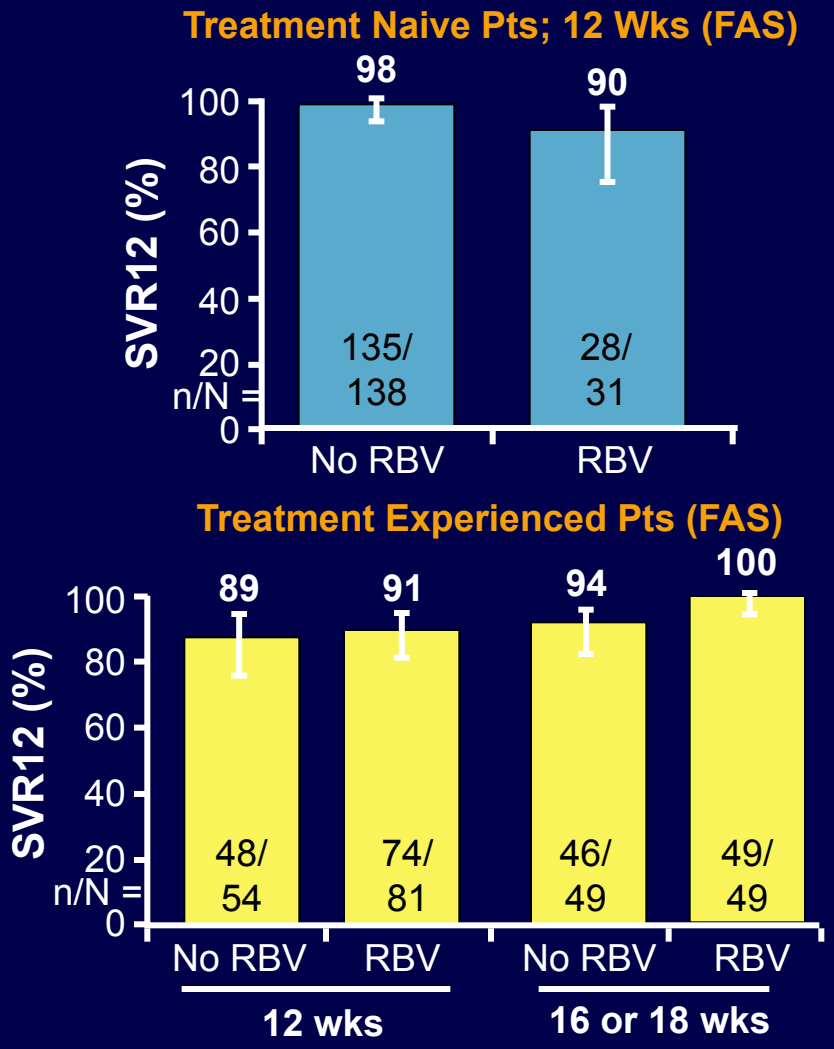
# Elbasvir/Grazoprevir in Compensated Cirrhosis: SVR12




- **Treatment-naive pts**: SVR12 rates similar regardless of RBV use, HCV subtype in FAS and regardless of platelets, cirrhosis determination method, *FibroScan* score in mFAS
  - SVR12 rate range across subgroups treated without RBV: 96% to 100%
- **Previous relapsers (mFAS)**: SVR12 rates not affected by treatment duration or RBV use
- **Previous nonresponders (mFAS)**: SVR12 rates lower with 12-wk, no RBV vs 16/18-wk, + RBV treatment
  - GT1: 92% vs 100%
  - GT4: 67% vs 100%

Jacobson IM, et al. AASLD 2015. Abstract 42.

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# Elbasvir/Grazoprevir in Compensated Cirrhosis: Safety

| Safety Outcome (FAS), % | Elbasvir/Grazoprevir (n = 264) | Elbasvir/Grazoprevir + RBV (n = 193) |
|---|---|---|
| Drug-related AE | 42.0 | 73.1 |
| Serious AE | 3.0 | 3.1 |
| Serious drug-related AE | 0.4 | 0 |
| Discontinuation for AE | 0.4 | 2.1 |
| Discontinuation for lab abnormality* | 0.4 | 0 |
| Death† | 0.4 | 0.5 |
| AEs in > 10% pts | | |
| ▪ Fatigue | 15.2 | 30.6 |
| ▪ Headache | 16.7 | 20.7 |
| ▪ Nausea | 4.2 | 13.5 |

*ALT elevation with increased eosinophils. †Coronary artery disease (n = 1), car accident (n = 1).

Jacobson IM, et al. AASLD 2015. Abstract 42.

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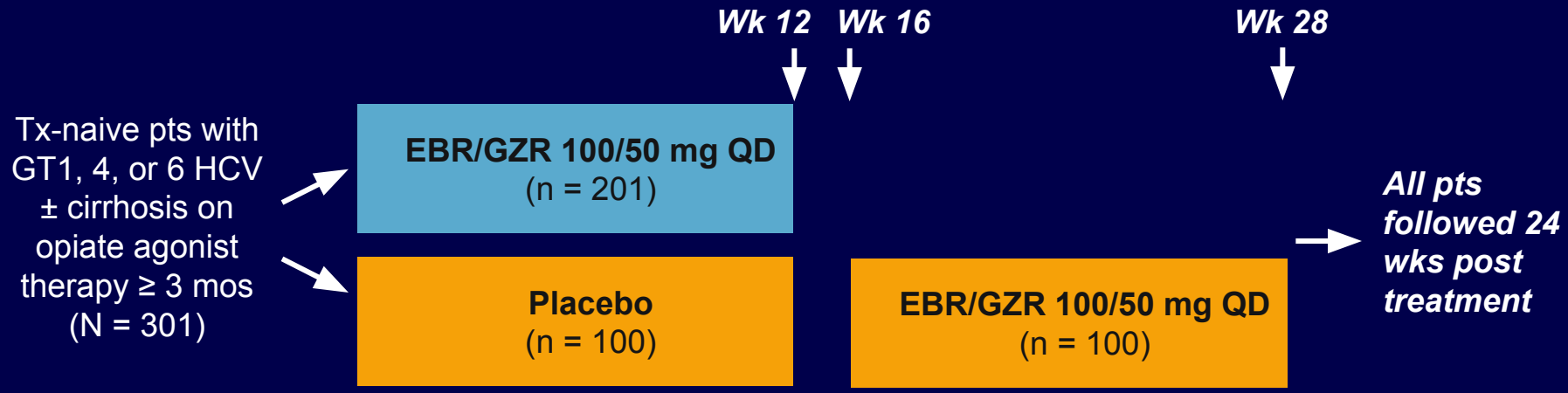
# C-EDGE CO-STAR: Elbasvir/Grazoprevir for GT1, 4, or 6 HCV in PWID

- Randomized, double-blind, placebo-controlled phase III study in PWID on opiate agonist therapy
  - Primary endpoint: SVR12 in immediate treatment arm
  - Study unblinded at Wk 12




Dore G, et al. AASLD 2015. Abstract 40.

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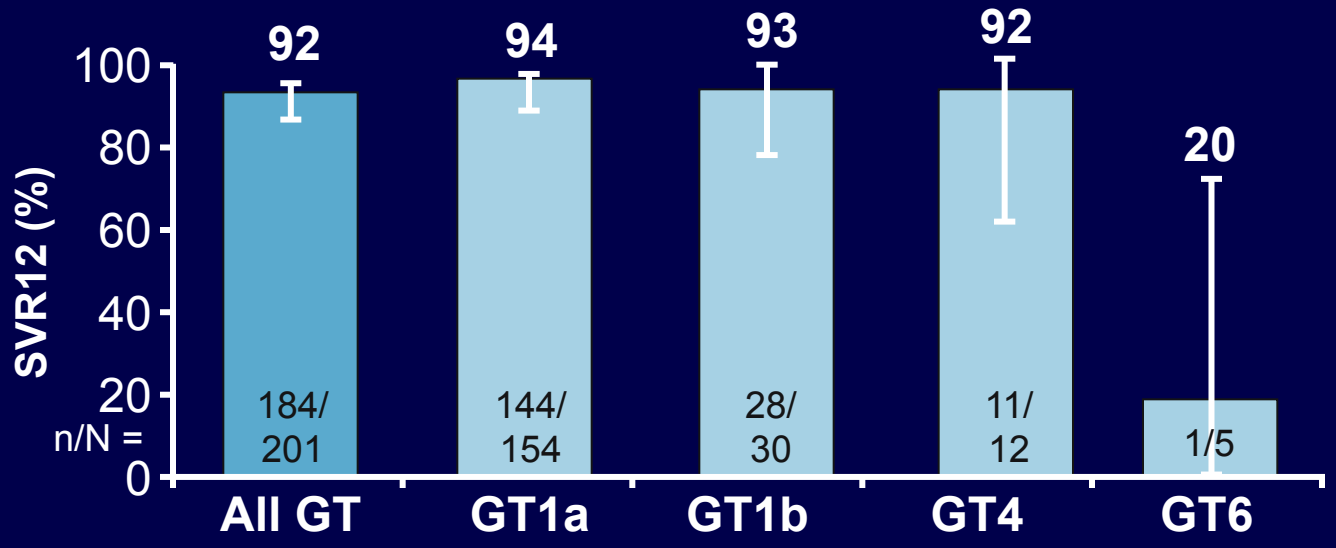
# C-EDGE CO-STAR: SVR12

- High HCV treatment adherence rate, despite ongoing drug use
  - ~ 60% of pts had positive urine test for at least 1 of 8 drug classes (amphetamines, barbiturates, benzodiazepines, cannabinoids, cocaine, opiates, phencyclidine, propoxyphene) throughout 12 wks EBR/GZR tx
  - 96% to 97% pts had ≤ 3 missed doses during 12-wk EBR/GZR
- 5 pts without SVR had evidence of HCV reinfection (by phylogenetics)




Dore G, et al. AASLD 2015. Abstract 40.

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# ASTRAL-1, -2, -3, -4 Trials: Sofosbuvir/ Velpatasvir FDC ± RBV in GT1-6 HCV

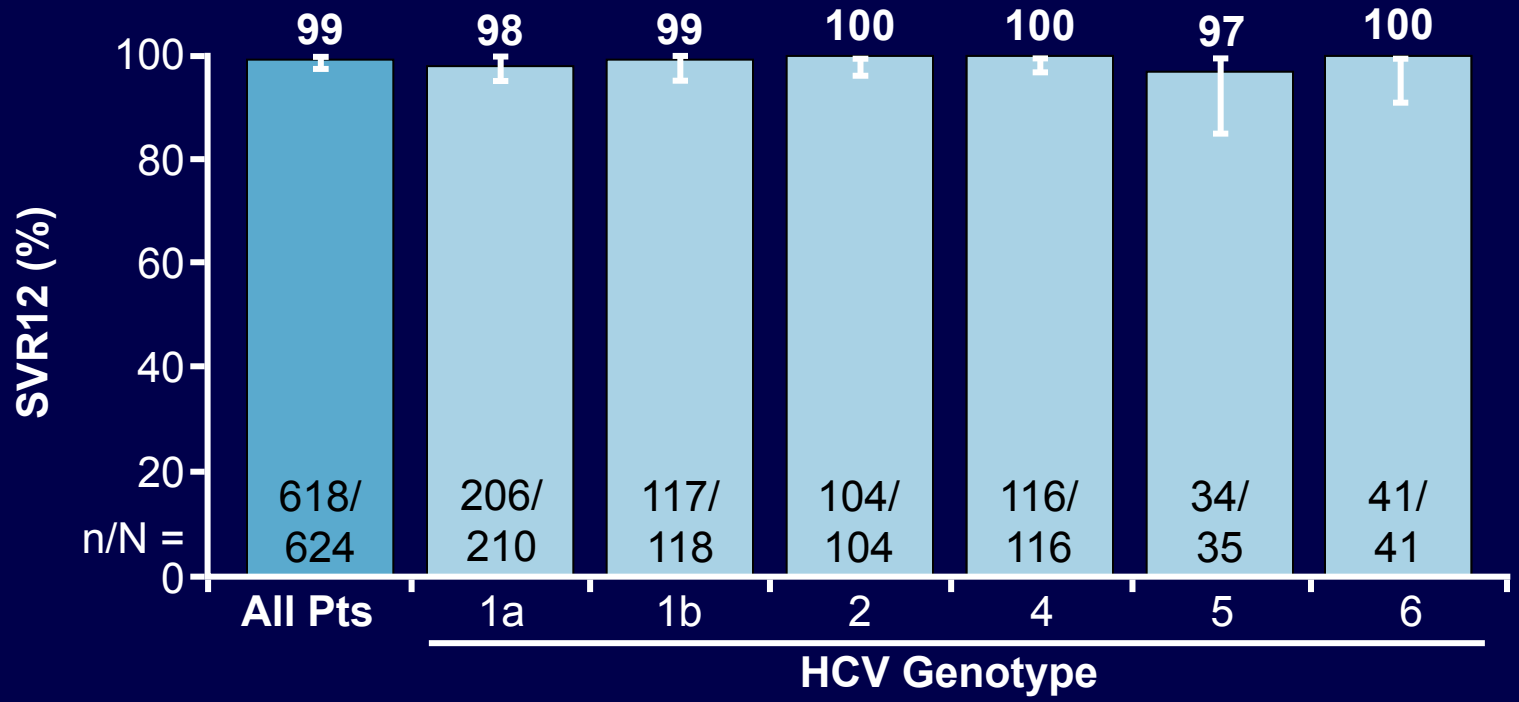
- Multicenter, randomized phase III trials in Tx-naive and Tx-experienced pts


Sofosbuvir/velpatasvir 400/100 mg QD

1. Feld JJ, et al. AASLD 2015. Abstract LB-2. 2. Sulkowski MS, et al. AASLD 2015. Abstract 205. 3. Mangia A, et al. AASLD 2015. Abstract 249. 4. Charlton MR, et al. AASLD 2015. Abstract LB-13.

# ASTRAL-1: SVR12 With Sofosbuvir/ Velpatasvir in GT1, 2, 4, 5, 6 HCV

- Double-blind, placebo-controlled trial
  - All pts with GT5 HCV allocated to active Tx because few pts in this group (n = 35)
  - Key baseline characteristics: cirrhosis 19%; Tx exp'd 32%; BL NS5A RAVs 42%
- No impact of cirrhosis, Tx experience, BL NS5A RAVs on SVR rates




Feld JJ, et al. AASLD 2015. Abstract LB-2. Feld JJ, et al. N Engl J Med. 2015;[Epub ahead of print].

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# ASTRAL-1: Safety of Sofosbuvir/ Velpatasvir in GT1, 2, 4, 5, 6 HCV

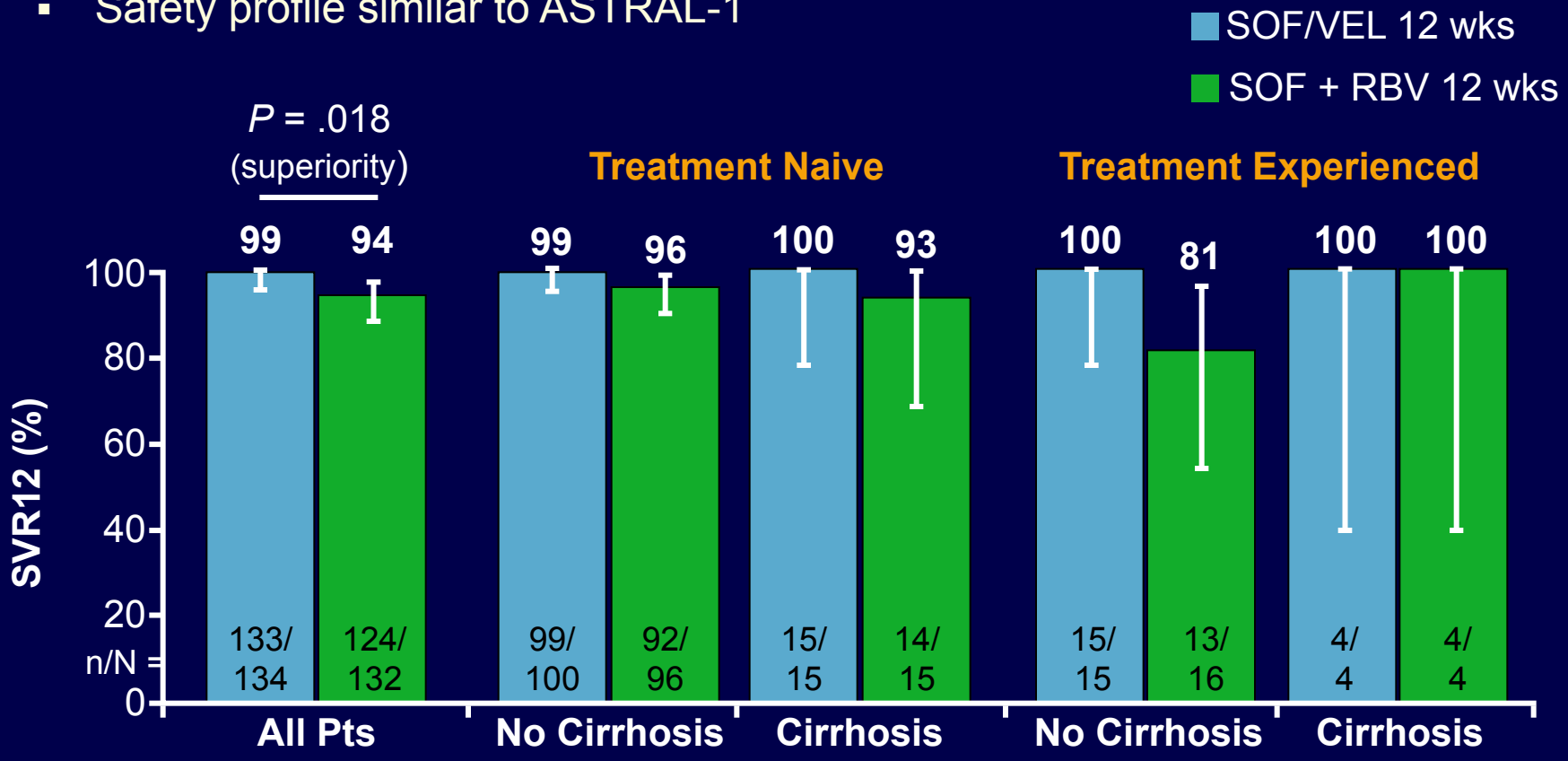
| Safety Outcome, % | Placebo 12 Wks (n = 116) | Sofosbuvir/Velpatasvir 12 Wks (n = 624) |
|---|---|---|
| Any AE | 77 | 78 |
| Grade 3/4 AE | < 1 | 3 |
| Serious AE | 0 | 2 |
| Discontinuation for AE | 2 | < 1 |
| Death | 0 | < 1* |
| Laboratory abnormalities | | |
| ▪ Grade 3/4 | 12 | 7 |
| ▪ Hemoglobin < 10 g/dL | 0 | < 1 |
| AEs in ≥ 10% pts | | |
| ▪ Headache | 28 | 29 |
| ▪ Fatigue | 20 | 20 |
| ▪ Nasopharyngitis | 10 | 13 |
| ▪ Nausea | 11 | 12 |

*1 pt died during sleep 8 days after Tx completion; deemed by investigator to be unrelated to study drug.

Feld JJ, et al. AASLD 2015. Abstract LB-2. Feld JJ, et al. N Engl J Med. 2015;[Epub ahead of print].

# ASTRAL-2 Open-Label Trial: SVR12, Safety With Sofosbuvir/Velpatasvir in GT2 HCV

- No impact of BL NS5A RAVs on SVR rates
- Safety profile similar to ASTRAL-1




Sulkowski MS, et al. AASLD 2015. Abstract 205.
Foster GR, et al. N Engl J Med. 2015;[Epub ahead of print].

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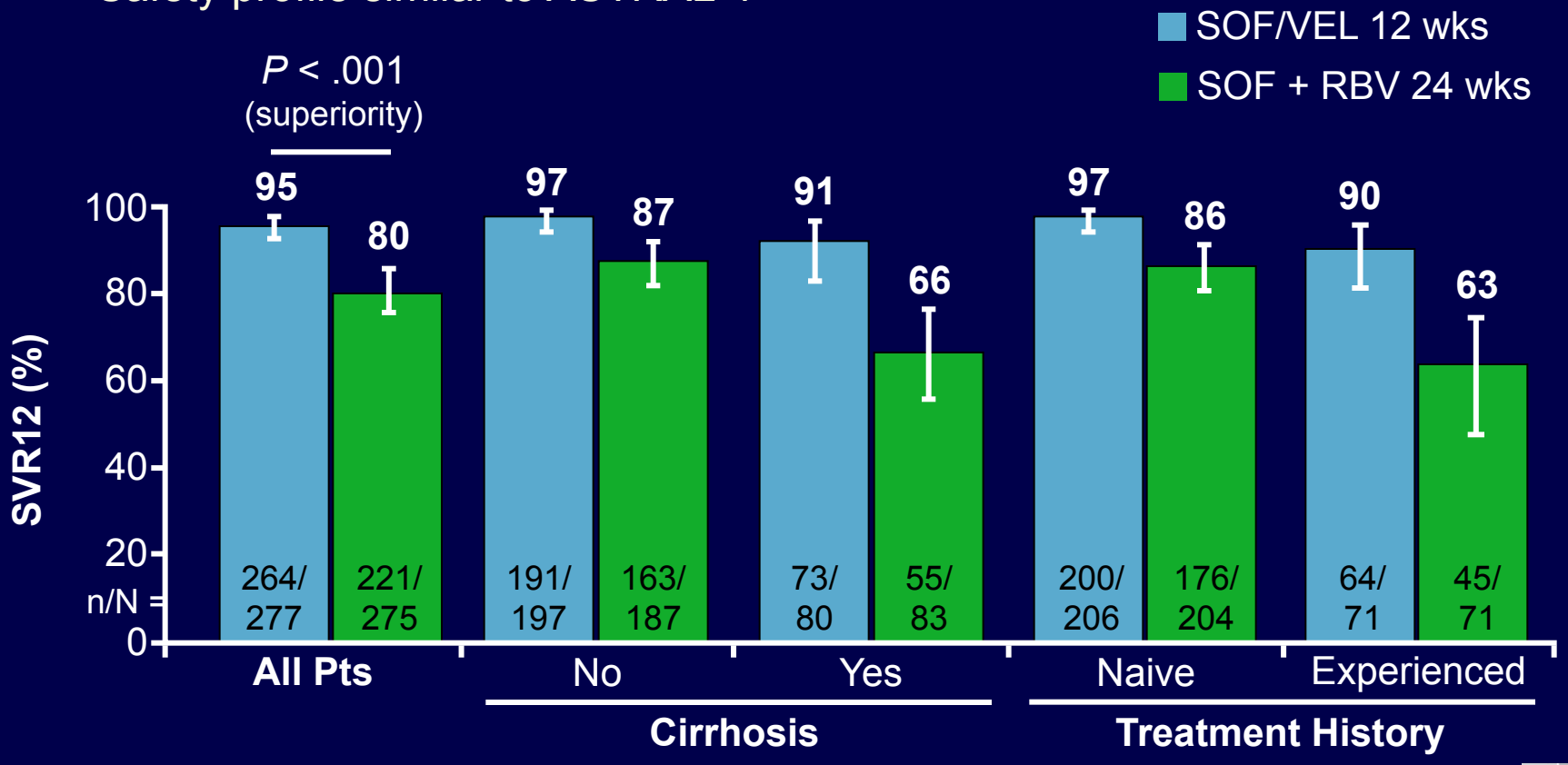
# ASTRAL-3 Open-Label Trial: SVR12, Safety With Sofosbuvir/Velpatasvir in GT3 HCV

- SVR12 rate numerically lower with vs without BL NS5A RAVs (88% vs 97%)
- Safety profile similar to ASTRAL-1




Mangia A, et al. AASLD 2015. Abstract 249. Reproduced with permission.
Foster GR, et al. N Engl J Med. 2015;[Epub ahead of print].

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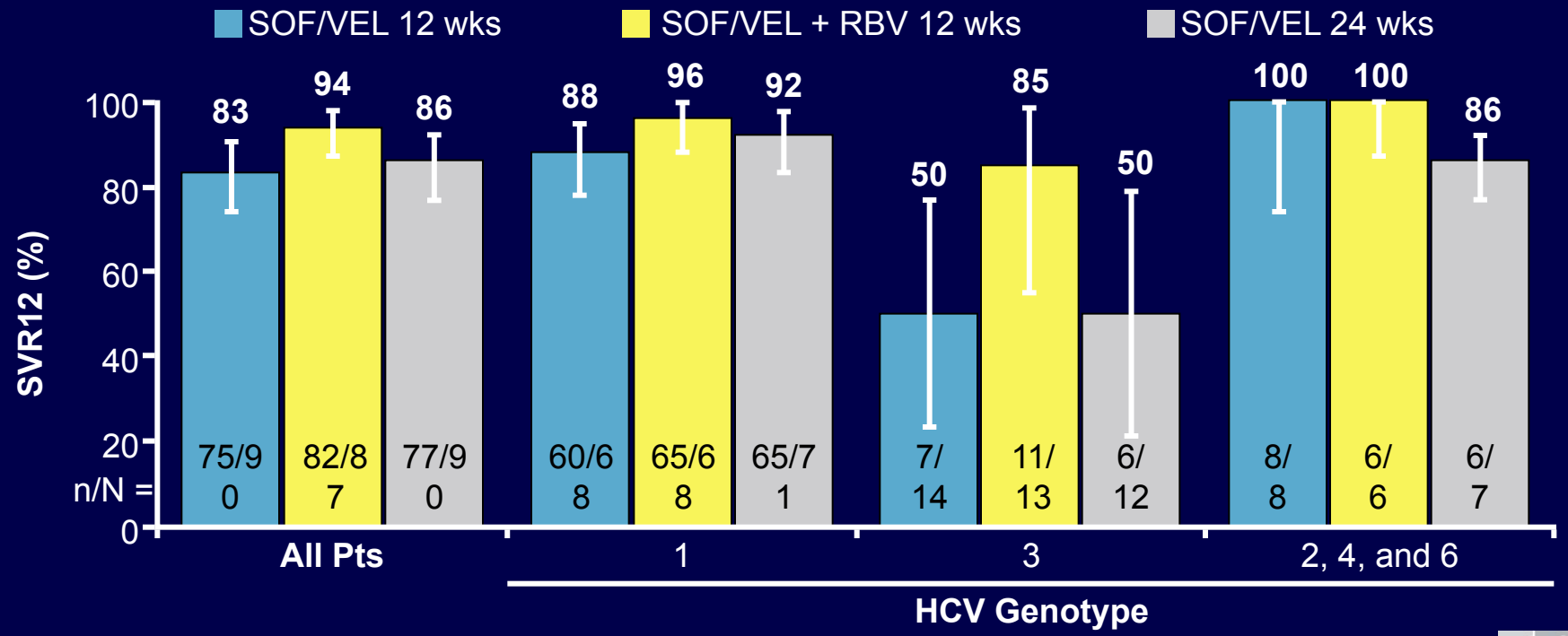
# ASTRAL-4: Sofosbuvir/Velpatasvir in Decompensated Cirrhosis

- Open-label trial; HCC and liver transplantation excluded
- In pts with BL MELD > 15, SVR12, score improved in 84%, worsened in 8%; in pts with BL MELD < 15, SVR12, score improved in 52%, worsened in 27%
- AEs consistent with advanced liver disease and RBV toxicity




Charlton MR, et al. AASLD 2015. Abstract LB-13.
Curry MP, et al. N Engl J Med. 2015;[Epub ahead of print].

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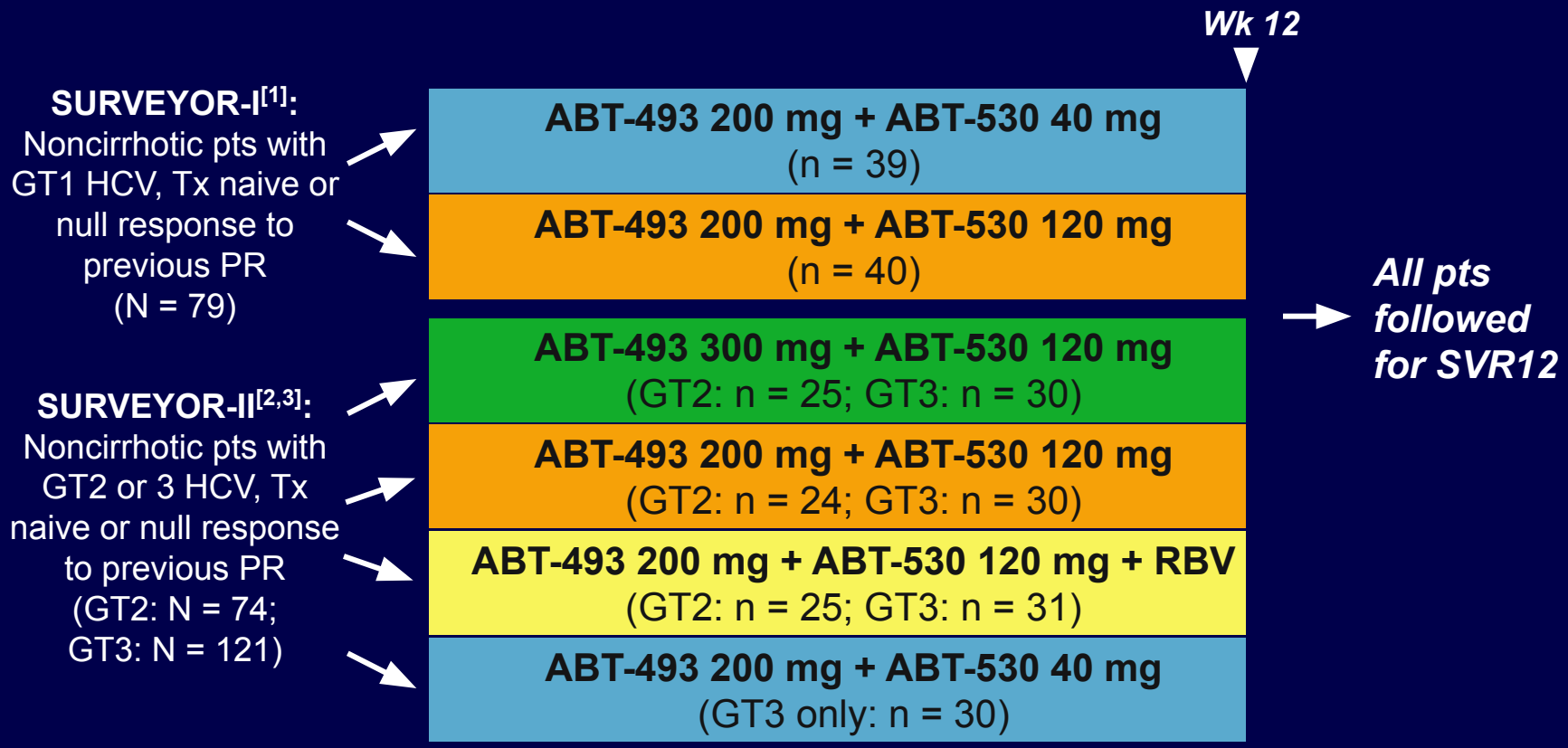
# Potential Future HCV Therapies

# SURVEYOR-I and -II: ABT-493 + ABT-530 ± RBV for GT1, 2, or 3 HCV

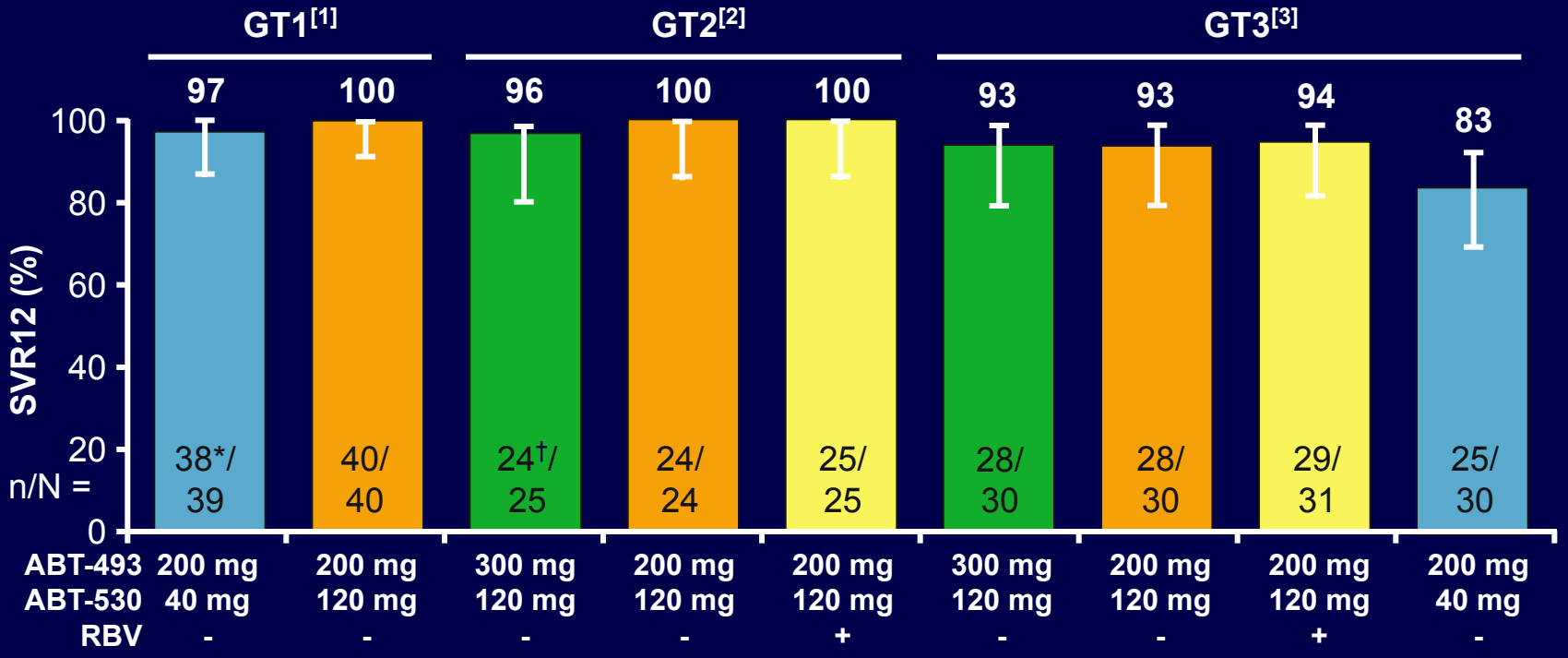
- Multicenter, open-label, dose-ranging phase II studies
  - Primary endpoint: SVR12




1. Poordad F, et al. AASLD 2015. Abstract 41. 2. Wyles D, et al. AASLD 2015. Abstract 250. 3. Kwo P, et al. AASLD 2015. Abstract 248.

# SURVEYOR-I and -II: SVR12 (ITT) With ABT-493 + ABT-530 ± RBV

- GT1 or 2: SVR12 achieved by all pts with BL NS3 or NS5A resistance
- Most AEs mild, most frequent AEs fatigue, nausea, diarrhea, headache
  - For GT1 and 2: no tx-related serious AEs, no discontinuations for AE




*Viral relapse in 1 pt with GT1a HCV; NS5A Q30K + H58D emerged at relapse. †1 pt lost to follow-up after 2-wk Tx.

1. Poordad F, et al. AASLD 2015. Abstract 41. 2. Wyles D, et al. AASLD 2015. Abstract 250. 3. Kwo P, et al. AASLD 2015. Abstract 248. Reproduced with permission.

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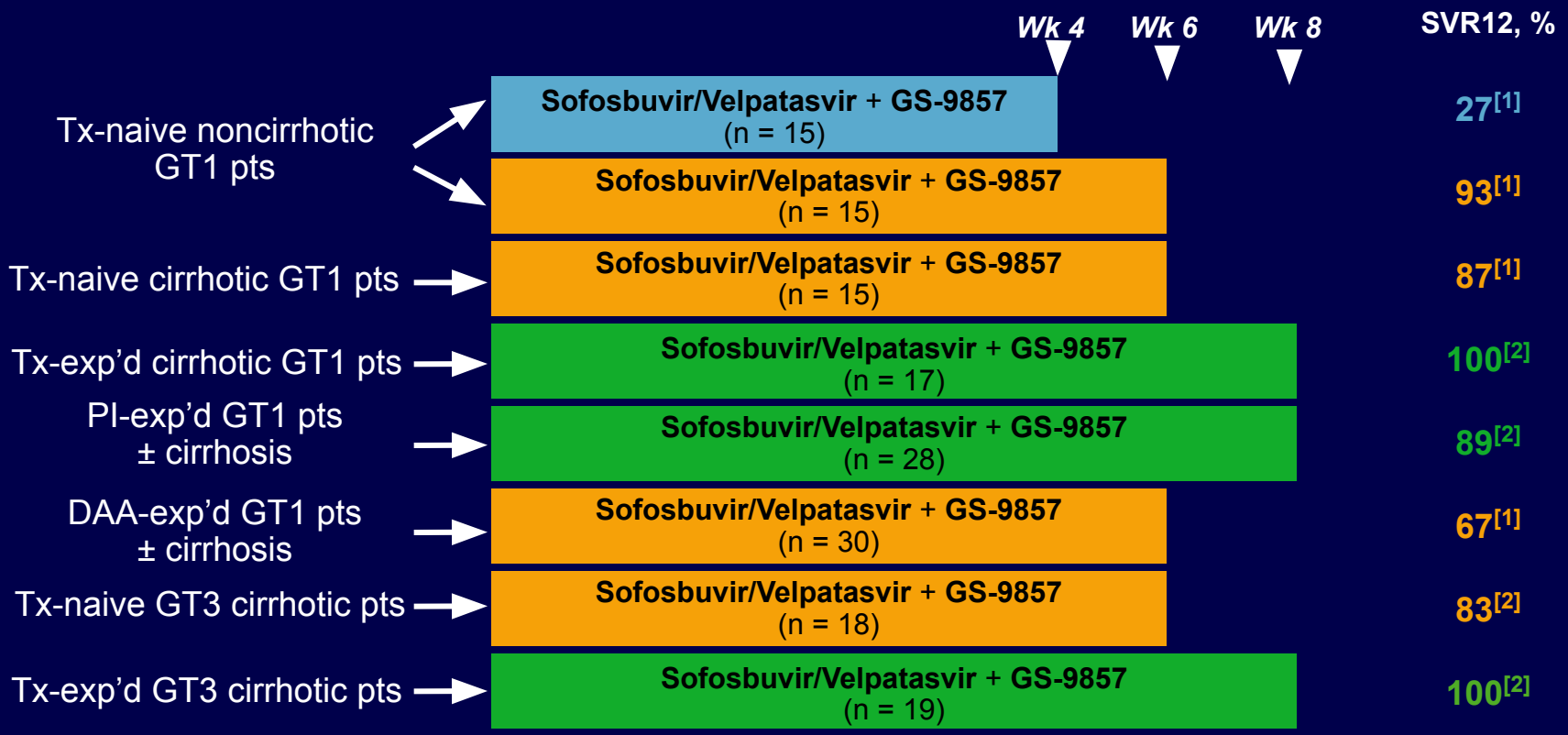
# Short-Duration Sofosbuvir/Velpatasvir + GS-9857 in Pts With GT1 or 3 HCV

- Single-center, nonrandomized, open-label phase II trial




*SOF/VEL 400 mg/100 mg FDC QD; GS-9857 100 mg QD*


1. Gane EJ, et al. EASL 2015. Abstract LP-03.
2. Gane EJ, et al. AASLD 2015. Abstract 38.

# Sofosbuvir/Velpatasvir + GS-9857 in GT1 or 3 HCV: Safety and Resistance

- SVR rates decreased in the presence of NS5A (90% vs 95% without) and NS3 (88% vs 96% without) RAVs at baseline
- Most frequent AEs were headache, fatigue, nausea, diarrhea, and URTI

| Safety Outcome, % | SOF/VEL + GS-9857 Duration | | | |
|---|---|---|---|---|
| | 8 wks | 8 wks | 6 wks | 8 wks |
| | GT1, TE, Cirrhosis (n = 17) | GT1, PI Exp'd ± Cirrhosis (n = 28) | GT3, TN, Cirrhosis (n = 18) | GT3, TE, Cirrhosis (n = 19) |
| Any AE | 88 | 79 | 83 | 79 |
| Grade 3/4 AE | 0 | 0 | 0 | 0 |
| Serious AE* | 0 | 4 | 0 | 11 |
| D/c due to AE | 0 | 0 | 0 | 0 |
| Death | 0 | 0 | 0 | 0 |
| Grade 3/4 lab abnormalities | 12 | 7 | 11 | 21 |

*Included atrial fibrillation (n = 1), HCC (n = 1), and bladder cancer (n = 1); all deemed unrelated to study treatment.

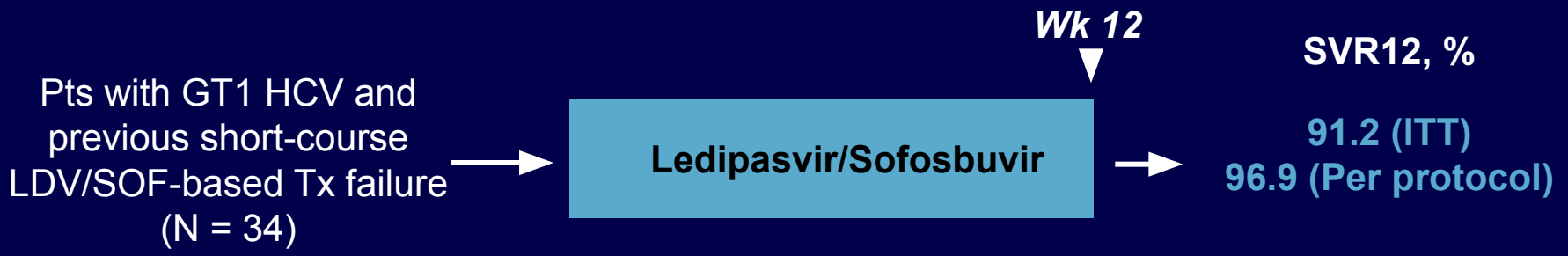
Gane EJ, et al. AASLD 2015. Abstract 38.

Slide credit: clinicaloptions.com

# HCV Retreatment After DAA Failure

# SYNERGY: LDV/SOF for GT1 HCV After Failure of 4-6 Wks' LDV/SOF-Based Tx

- Current analysis includes noncirrhotic pts with GT1 HCV who experienced failure (all viral relapse) of first-line therapy on any of 3 other trial arms:
  - LDV/SOF + GS-9669 for 6 wks, LDV/SOF + GS-9451 for 4 wks, or LDV/SOF + GS-9451 + GS-9669 for 4 wks



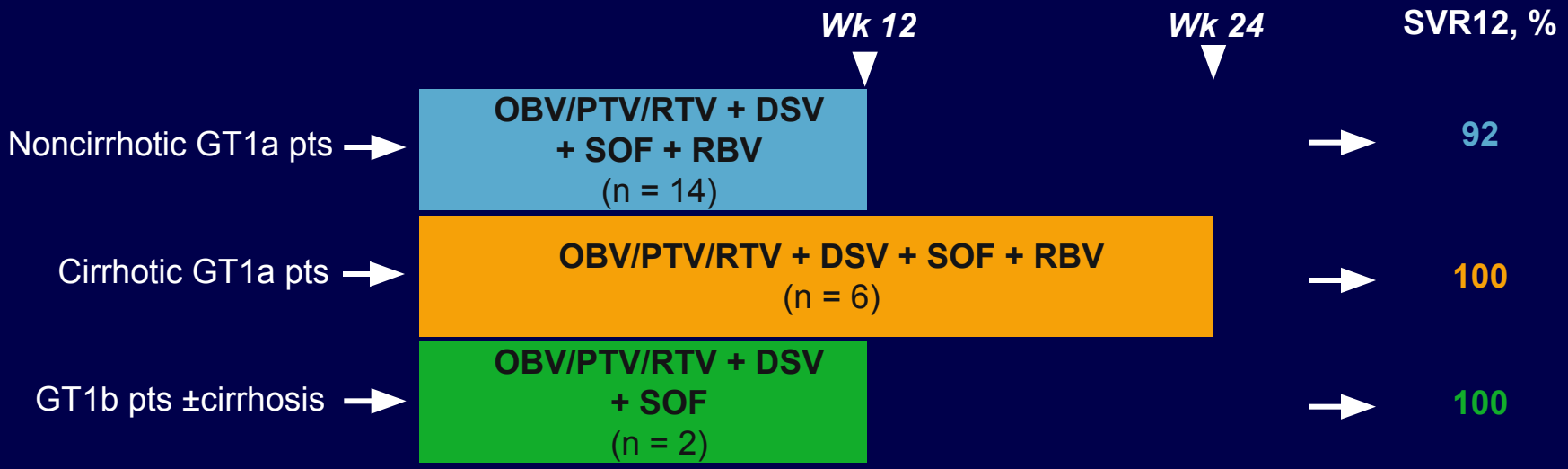

| SVR12 in Pts With NS5A RAVs, % (n/N) | Pts (N = 34) |
|---|---|
| ITT | 90 (26/29) |
| Per protocol | 96 (26/27) |

Wilson E, et al. AASLD 2015. Abstract 92.

Slide credit: clinicaloptions.com

# QUARTZ-I: OBV/PTV/RTV + DSV + SOF ± RBV for DAA-Exp'd Pts With GT1 HCV

- Multicenter, open-label, phase II study
  - Previous Tx: 73% OBV/PTV/RTV ± DSV; 9% TPV + PR; 9% SOF + RBV or SOF + PR; 4.5% SMV + SOF; 4.5% SMV + samatasvir + RBV
- Majority of AEs mild to moderate
  - 2 serious AEs not related to study drugs (pneumonia and cellulitis)
  - 1 grade 3 ALT elevation resolved by EOT without treatment interruption




OBV/PTV/RTV 25/150/100 mg QD + DSV 250 mg BID; SOF 400 mg QD; weight-based RBV.

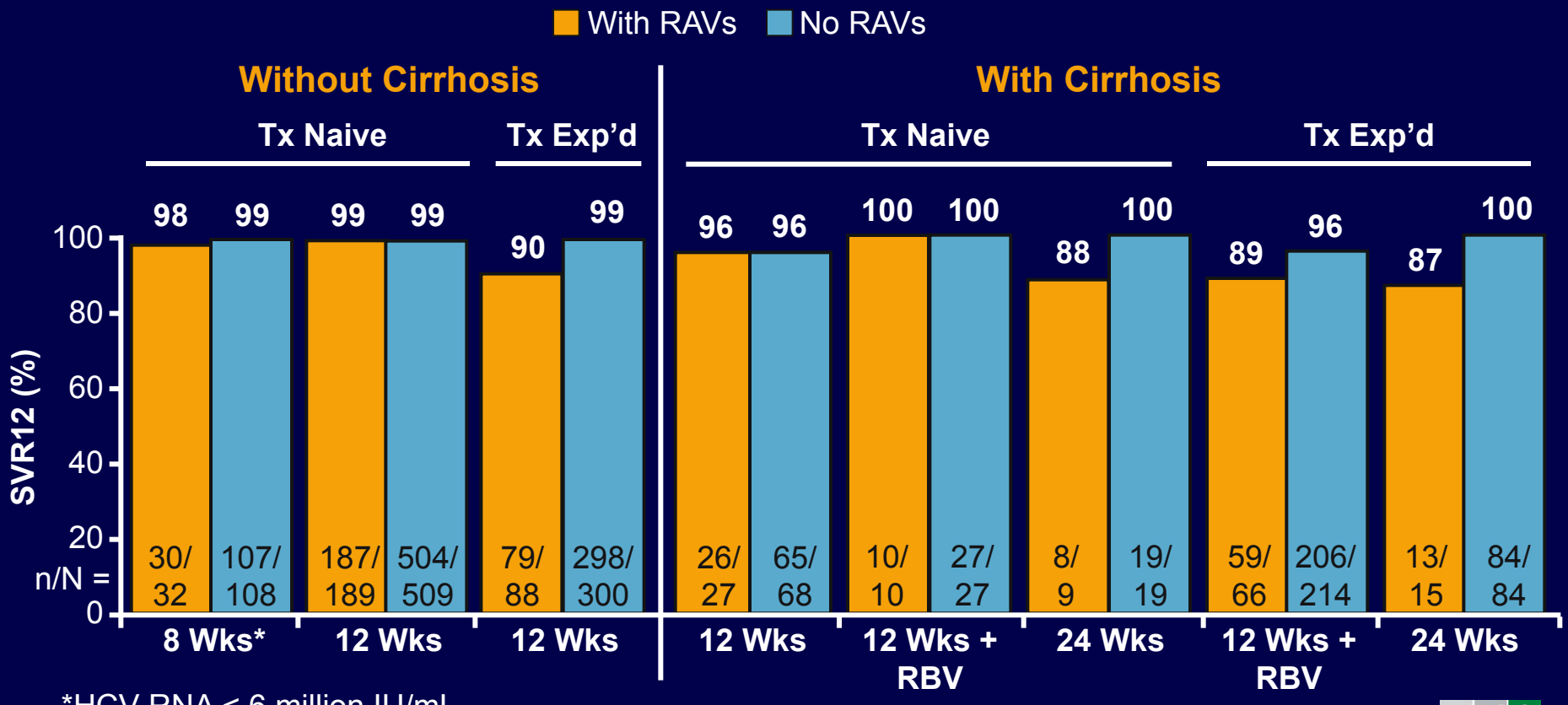
Poordad F, et al. AASLD 2015. Abstract LB-20.

Slide credit: clinicaloptions.com

# Effect of Drug Resistance on HCV Treatment Efficacy

# Effect of BL NS5A RAVs on Ledipasvir/ Sofosbuvir Efficacy in GT1 HCV

- Deep sequencing of baseline samples obtained from 1566 pts treated with guideline-based LDV/SOF regimens in clinical trials




*HCV RNA < 6 million IU/mL.

Zeuzem S, et al. AASLD 2015. Abstract 91.

Slide credit: clinicaloptions.com

# Effect of BL NS5A RAVs on Elbasvir/ Grazoprevir Efficacy in GT1 HCV

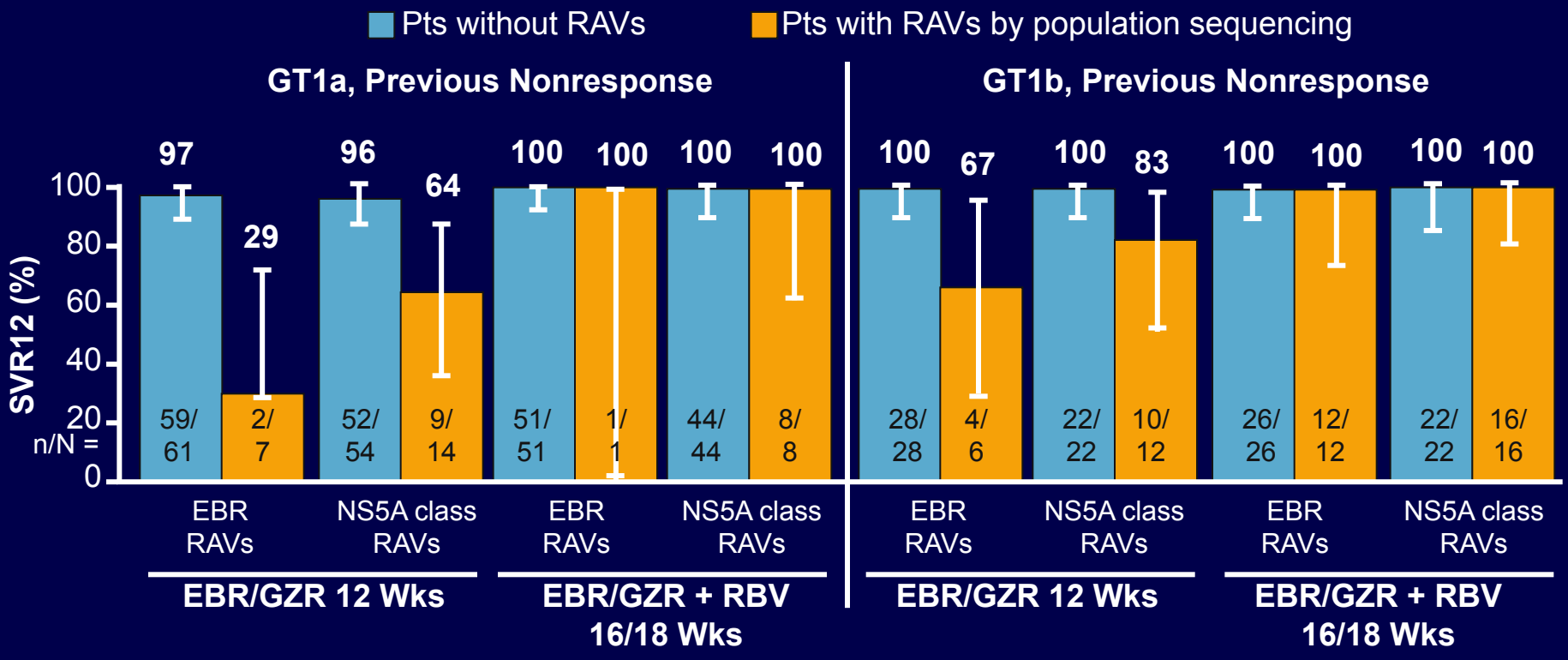
- Analysis included Tx-naive or PR-exp'd pts with GT1a or GT1b HCV treated with EBR/GZR-based regimens in phase II/III trials
  - Pts who did not achieve SVR12 for nonvirologic reasons and pts without baseline resistance analysis excluded
- Evaluated NS5A class RAVs and EBR-specific RAVs (= subset of NS5A class RAVs)
- Baseline prevalence by population sequencing
  - NS5A class RAVs: 15% to 42%
  - EBR-specific RAVs
    - Tx naive or previous relapse to PR: 5% to 17%
    - Previous nonresponse to PR: 2% to 32%

Jacobson IM, et al. AASLD 2015. Abstract LB-22.

Slide credit: clinicaloptions.com

# SVR12 With Elbasvir/Grazoprevir in GT1 HCV With vs Without Baseline NS5A RAVs

- Tx-naïve or previous relapse, EBR/GZR for 12 wks
  - GT1b: high SVR12 rates (98% to 100%) regardless of EBR or NS5A class RAVs
  - GT1a: SVR12 rates lower with EBR (58%) or NS5A class (86%) RAVs vs no RAVs (98%)




Jacobson IM, et al. AASLD 2015. Abstract LB-22.

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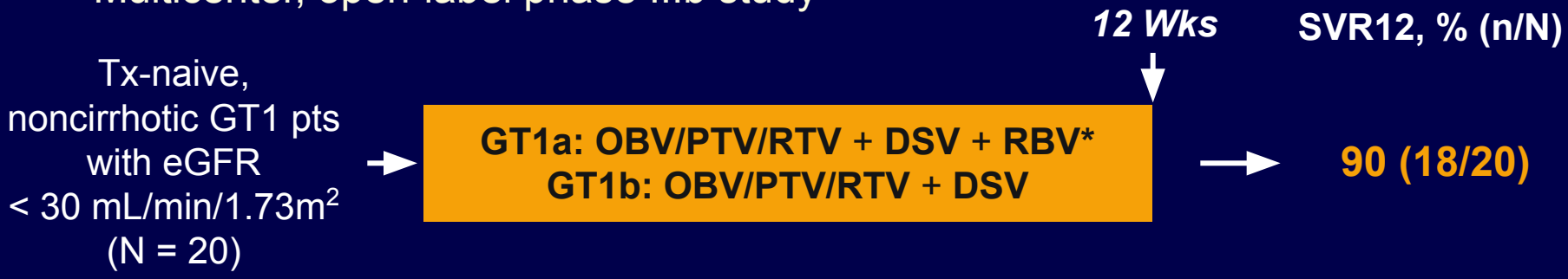
# HCV Treatment in Patients With Renal Dysfunction

# RUBY-1: OBV/PTV/RTV + DSV ± RBV in Tx-naive, Noncirrhotic GT1 Pts With CKD

- Multicenter, open-label phase IIIb study




*RBV dosed at 200 mg QD and managed as follows: RBV dosed 4 hrs before hemodialysis in hemodialysis pts; wkly Hb assessment in Mo 1 and then Wks 6, 8, 12; RBV suspended in pts with > 2 g/dL decline in Hb in < 4 wks or Hb < 10 g/dL; RBV dosing resumed at clinician's discretion if Hb normalized.

- Key baseline characteristics
  - F3 fibrosis: 20%; eGFR 15-30: 30%; eGFR < 15 or on dialysis: 70%
- 2 pts without SVR12: 1 relapsed, 1 died of LV systolic dysfunction, cardiac arrest after treatment completion
- 69% of pts with GT1a required RBV dose reduction for anemia
  - No discontinuations for anemia
- No cases of grade 3 or higher ALT elevations

Pockros P, et al. AASLD 2015. Abstract 1039.

Slide credit: clinicaloptions.com

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