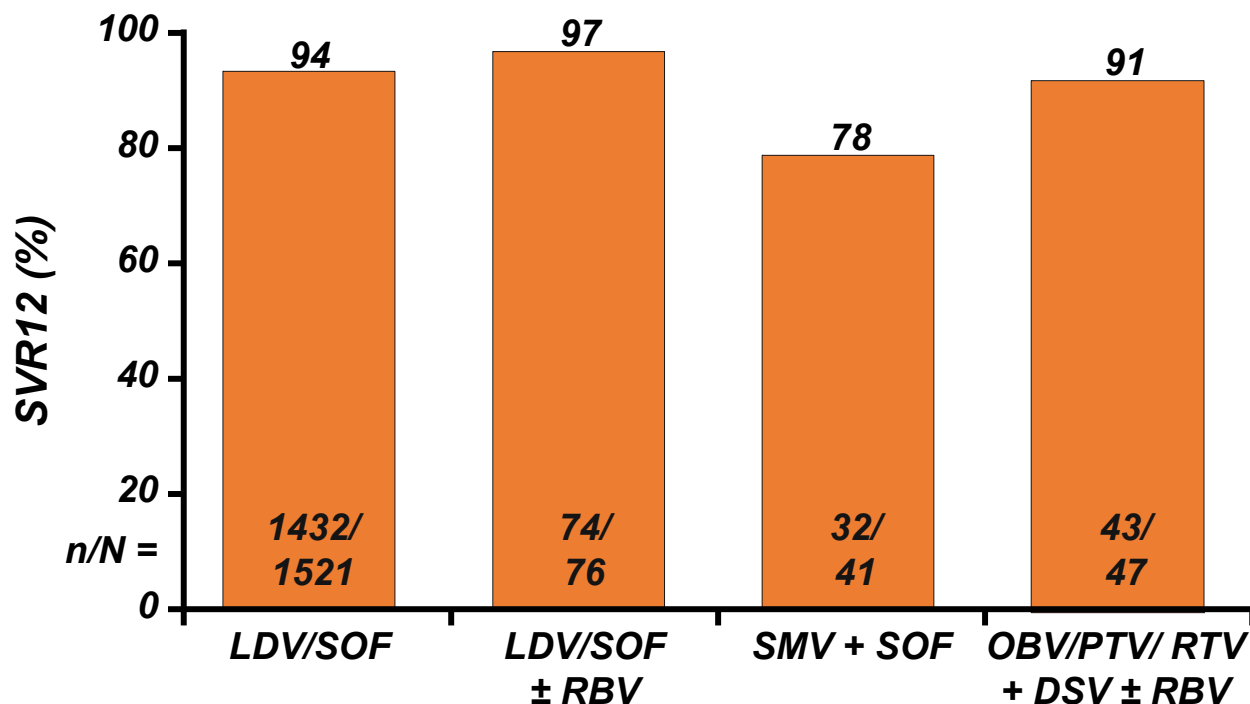


***Traitements des patients atteints de  
cirrhose***

- 1. Quelle sont les bénéfices réels d'un traitement antiviral pour les patients atteints de cirrhose hépatique?***
- 2. Dans tous les cas les patients atteints de cirrhose hépatique doivent-ils recevoir une thérapie antivirale?***
- 3. Pour les patients atteints de cirrhose hépatique le rapport risque/bénéfices justifie-t-il un traitement antiviral?***
- 4. RBV est-elle nécessaire dans le traitement de patients atteints de cirrhose?***

# 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 = 1685)

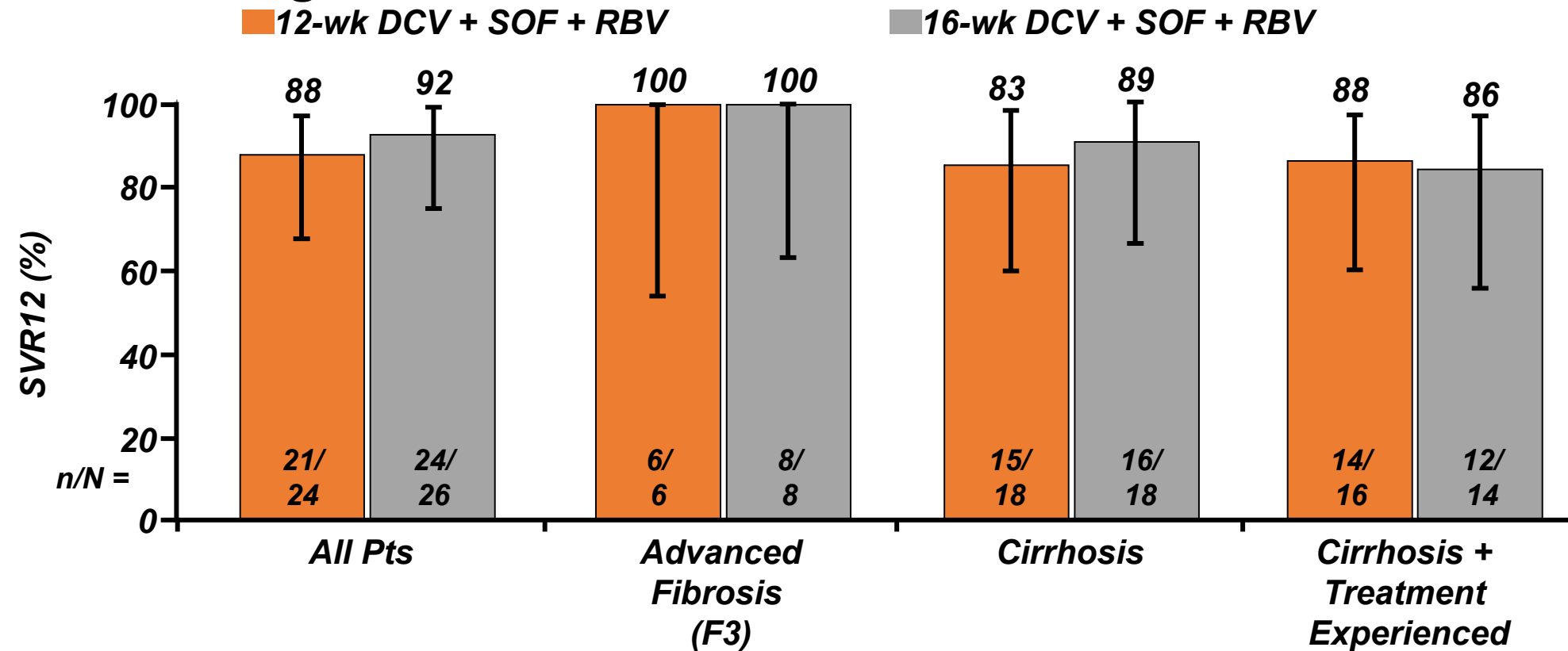


Factors Associated With Lower SVR Rate	P Value
Platelet count < 100K/mL	< .001
<b>Cirrhosis</b>	<b>&lt; .001</b>
Prescribing outside of FDA-approved labeling*	< .001
Male sex	.008

\*149/1685 pts treated outside of FDA-approved labeling.

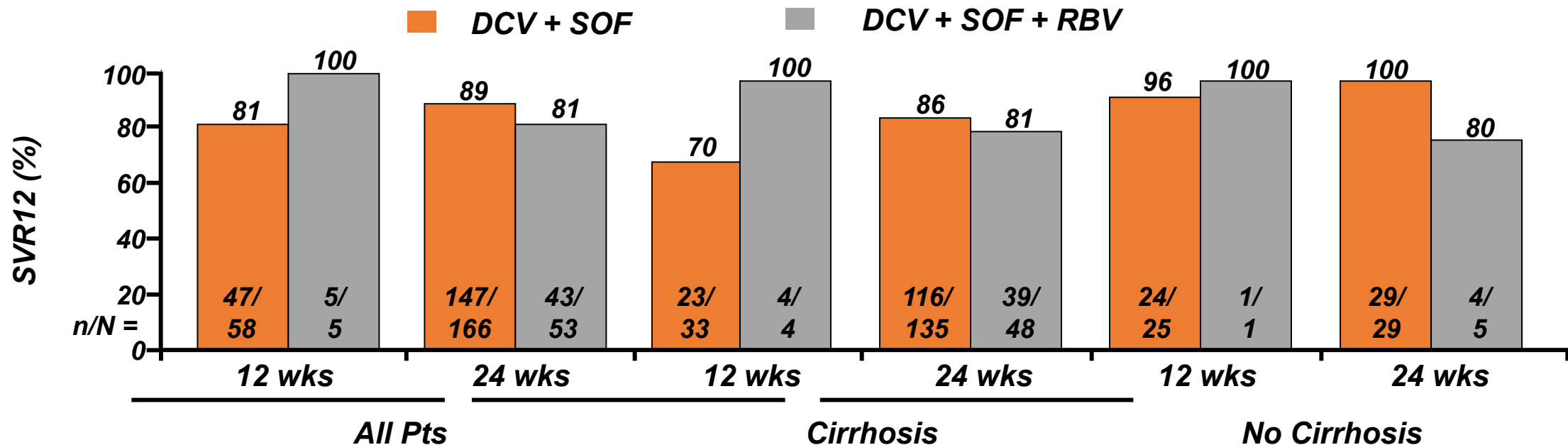
# Virologic Efficacy

- **No virologic failures or AE-related discontinuations**

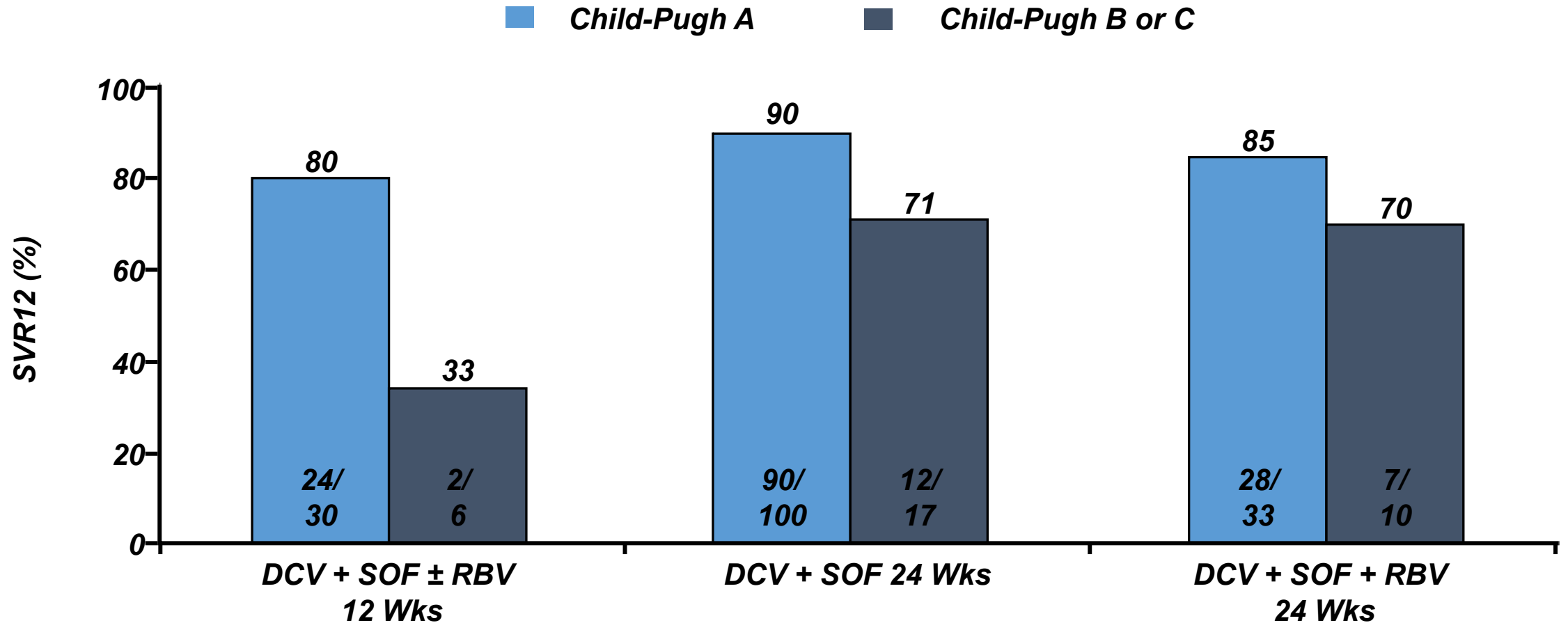


# Interim Analysis: Daclatasvir + Sofosbuvir ± RBV in GT3 HCV in French CUP

- 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



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



# HCC risk 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)**

<b>Predictor of HCC Following SVR*</b>	<b>HR (95% CI)</b>	<b>P Value</b>
<b>Cirrhosis at time of SVR</b>	<b>4.45 (2.53-7.82)</b>	<b>&lt; .0001</b>
<b>Age at SVR, yrs (vs younger than 55 yrs)</b>		
• 55-64	2.40 (1.53-3.77)	.0002
• 65 or older	4.69 (2.04-10.78)	.0003
<b>Diabetes</b>	<b>2.07 (1.35-3.20)</b>	<b>.0010</b>
<b>HCV GT (vs GT1)</b>		
• 2	0.56 (0.32-1.01)	.0522
<b>*Cox<sub>3</sub> proportional hazards model adjusted for competing risk of death.</b>	<b>1.91 (1.14-3.18)</b>	<b>.0131</b>

# ***Elbasvir/Grazoprevir in compensated Cirrhosis: pooled analysis of Ph II/III data***

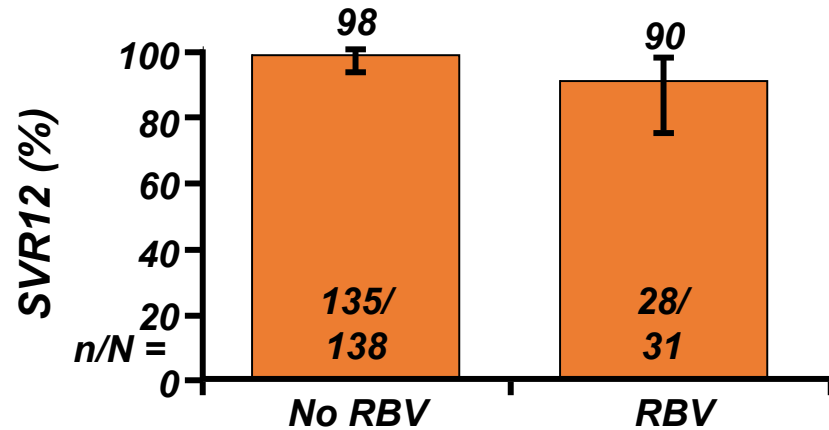
- ***Includes pts with Child-Pugh A cirrhosis and GT1, 4, or 6 HCV who received elbasvir/grazoprevir ± RBV in phase II/III trials***
  - ***Treatment-naive pts treated for 12 wks (n = 169)***
  - ***Treatment-experienced pts treated for 12, 16, or 18 wks (n = 233)***
  - ***FAS: all randomized pts who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

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

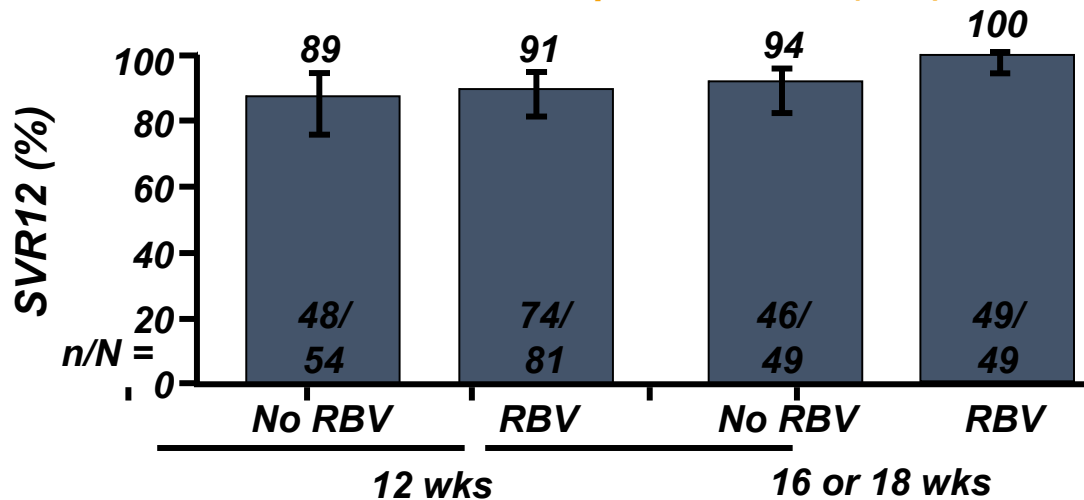


# Elbasvir/Grazoprevir in compensated Cirrhosis: SVR12

Treatment Naive Pts; 12 Wks (FAS)



Treatment Experienced Pts (FAS)



- **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%

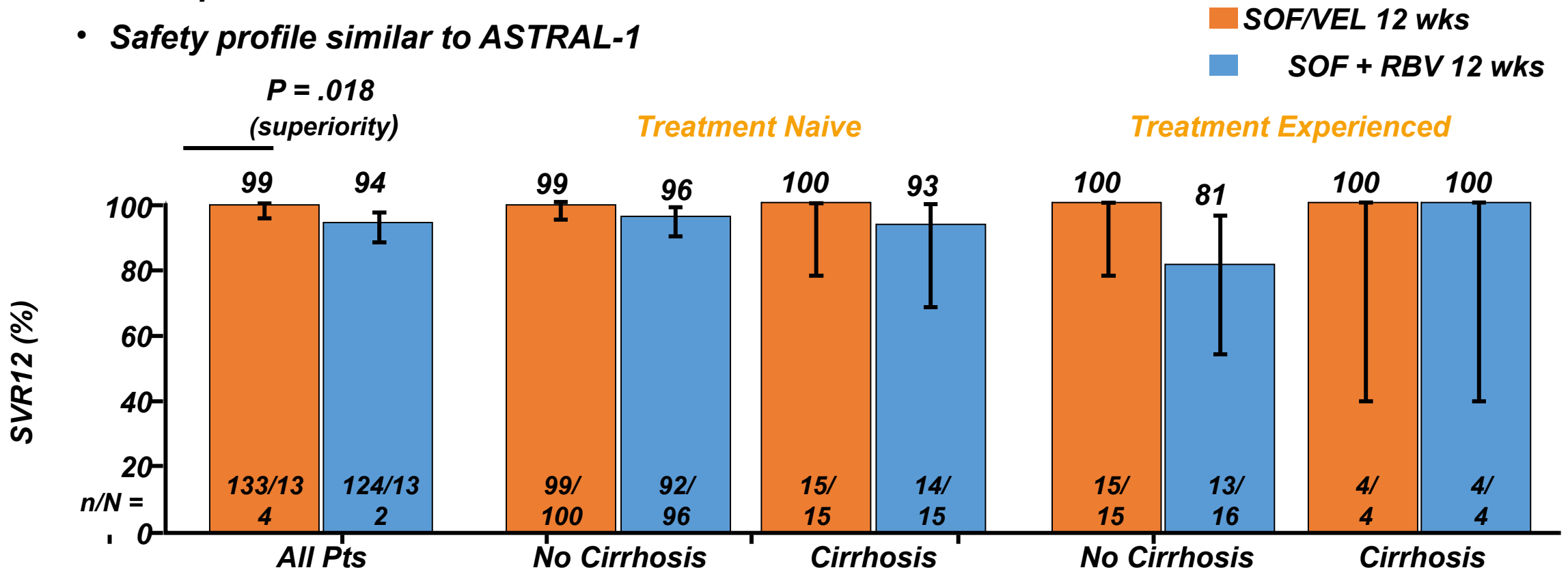
# Elbasvir/Grazoprevir in compensated Cirrhosis: safety

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

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

# 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

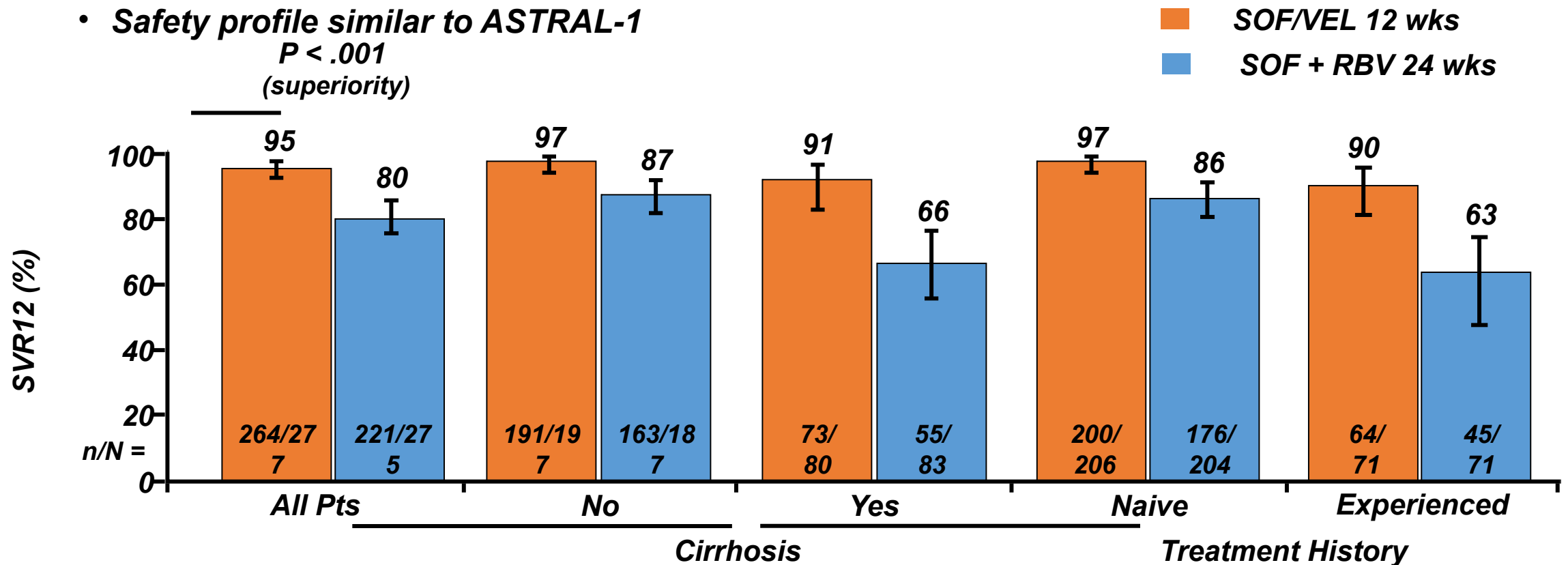


# ASTRAL-3 open-label trial: SVR12, safety with Sofosbuvir/Velpatasvir in GT3 HCV

- SVR12 rate numerically lower with vs without BL NS5A RAVs (88% vs 97%)

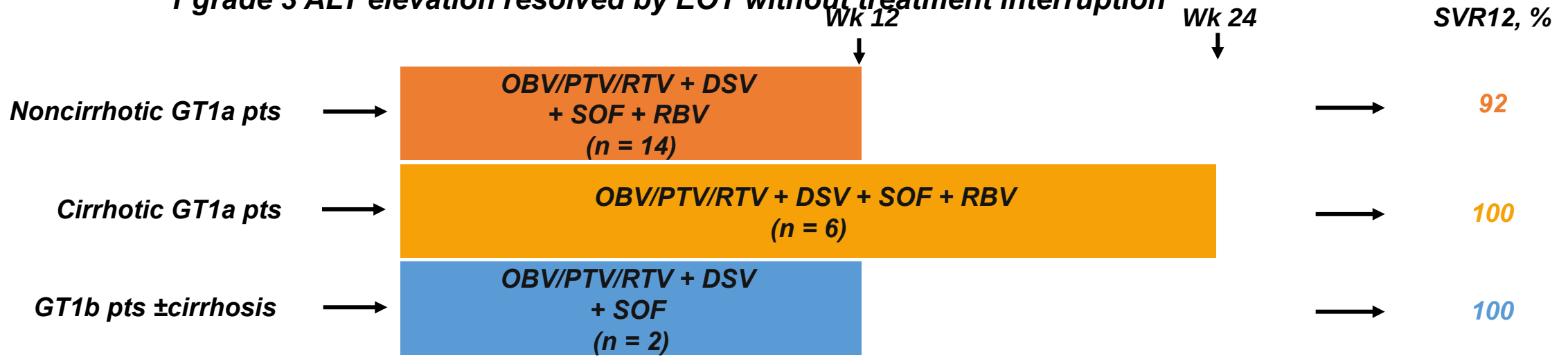
- Safety profile similar to ASTRAL-1

$P < .001$   
(superiority)



# 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.