Ledipasvir-Sofosbuvir +/- Ribavirin in HCV Genotype 1

ION-1

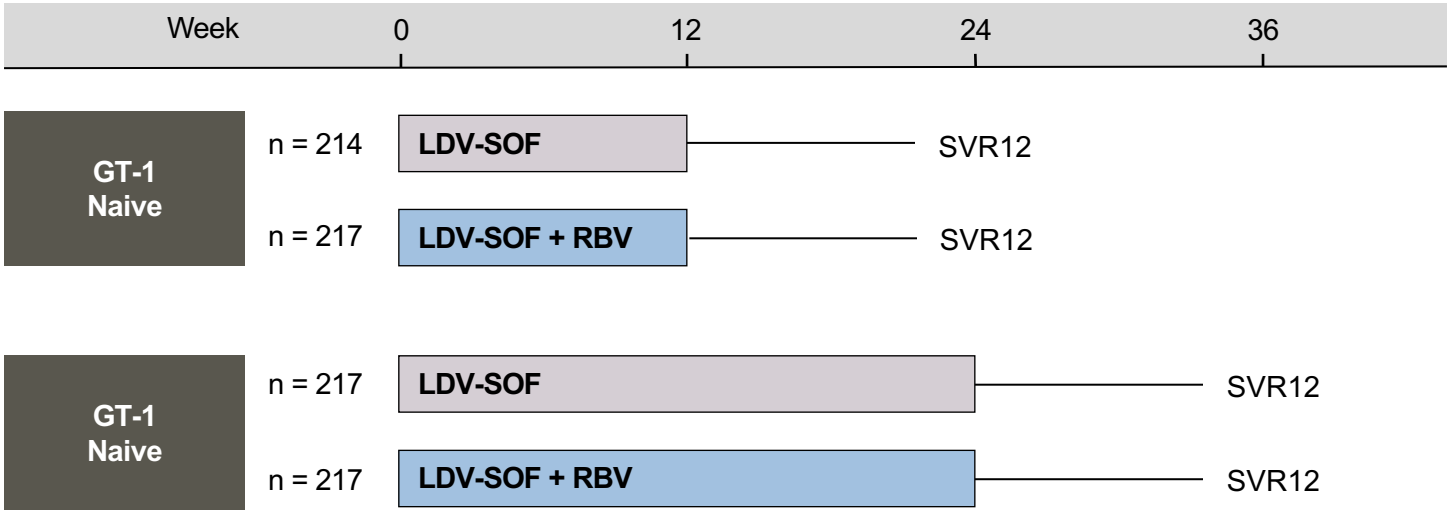
Source: Afdhal N, et al. N Engl J Med. 2014;370:1889-98.

Ledipasvir-Sofosbuvir +/- Ribavirin in Treatment-Naïve HCV GT 1
ION-1 Study: Features

- **Design**: Open-label, randomized, phase 3 trial using fixed-dose combination of ledipasvir-sofosbuvir +/- ribavirin for 12 or 24 weeks in treatment-naïve patients with GT1 HCV
- **Setting**: 99 sites in United States and Europe
- **Entry Criteria**
  - Chronic HCV genotype 1 (n = 865)
  - 18 years or older
  - No prior HCV treatment
  - Patients with compensated cirrhosis accepted (up to 20% of patients)
- **Primary End Point**: SVR12

Source: Afdhal N, et al. N Engl J Med. 2014;370:1889-98.

Ledipasvir-Sofosbuvir +/- Ribavirin in Treatment-Naïve HCV GT 1 ION-1 Study: Study Design



Abbreviations: LDV-SOF=ledipasvir-sofosbuvir; RBV=ribavirin

Drug Dosing: Ledipasvir-sofosbuvir (90/400 mg): fixed dose combination; one pill once daily *or* Ribavirin (weight-based and divided bid): 1000 mg/day if < 75 kg or 1200 mg/day if ≥ 75 kg

Source: Afdhal N, et al. N Engl J Med. 2014;370:1889-98.

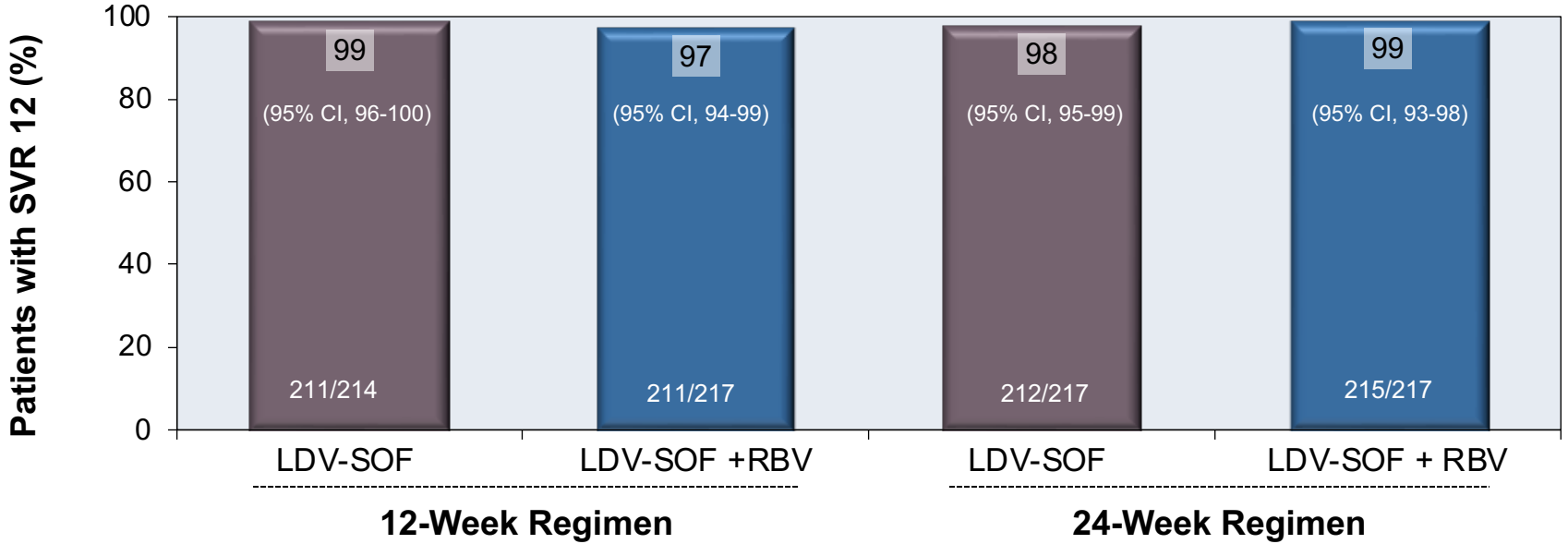
Ledipasvir-Sofosbuvir +/- Ribavirin in Treatment-Naïve HCV GT 1 ION-1 Study: Baseline Characteristics

Baseline Characteristic	12-Week Treatment		24-Week Treatment	
	LDV-SOF (n = 214)	LDV-SOF + RBV (n = 217)	LDV-SOF (n = 217)	LDV-SOF + RBV (n = 217)
Mean age, y (range)	52 (18–75)	52 (18–78)	53 (22–80)	53 (24–77)
BMI, kg/m^2 mean (range)	27 (18–41)	27 (18–42)	27 (18–48)	26 (18–48)
Male sex, n (%)	127 (59)	128 (59)	139 (64)	119 (55)
Race				
White, n (%)	187 (87)	188 (87)	177 (82)	183 (84)
Black, n (%)	24 (11)	26 (12)	32 (15)	26 (12)
Hispanic ethnic group, n (%)	26 (12)	20 (9)	29 (13)	26 (12)
HCV Genotype				
1a, n (%)	144 (67)	148 (68)	146 (67)	143 (66)
1b, n (%)	66 (31)	68 (31)	68 (31)	71 (33)
IL28B non CC, n (%)	175 (76)	141 (65)	165 (76)	144 (66)
Cirrhosis, n (%)	34 (16)	33 (15)	33 (15)	36 (17)
HCV RNA, $\log_{10}$ IU/mL (mean)	6.4	6.4	6.3	6.3

Source: Afdhal N, et al. N Engl J Med. 2014;370:1889-98.

Ledipasvir-Sofosbuvir +/- Ribavirin in Treatment-Naïve HCV GT 1 ION-1 Study: Results

ION-1: SVR 12* by Treatment Duration and Regimen

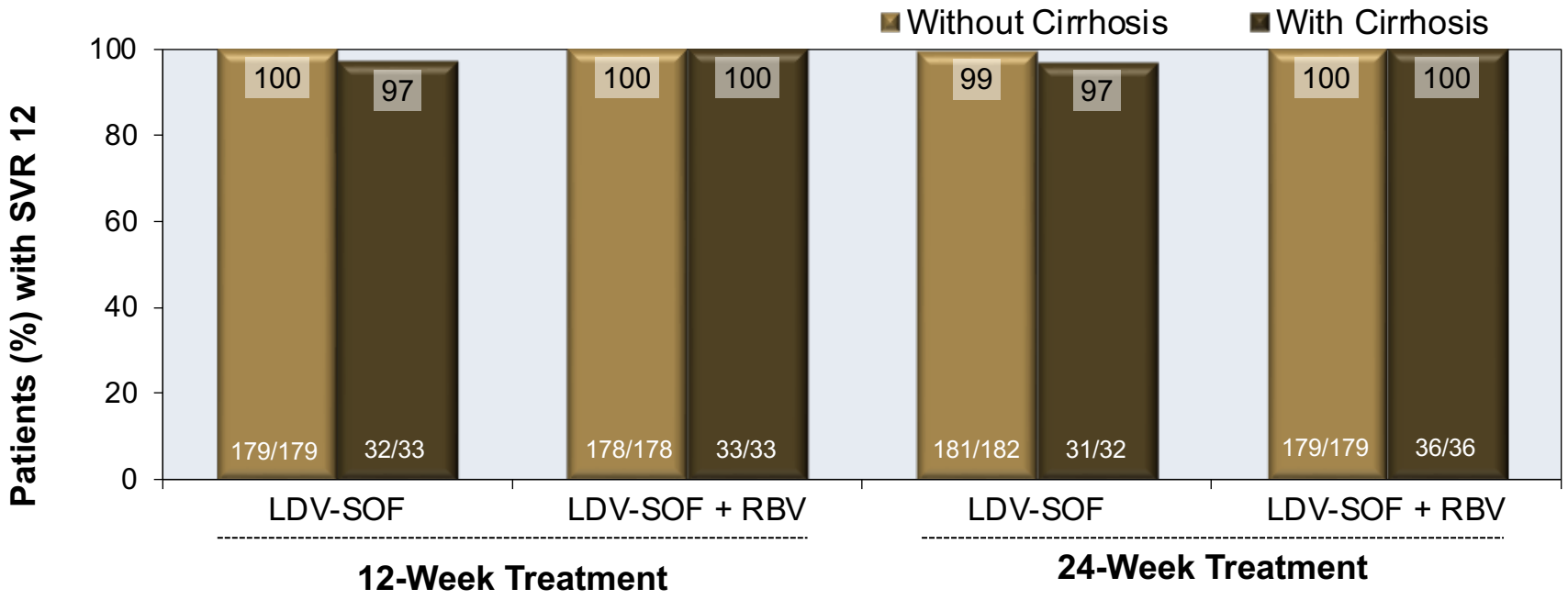


Abbreviations: LDV-SOF=Ledipasvir-sofosbuvir; RBV=ribavirin
* Primary end-point by intention-to-treat analysis

Source: Afdhal N, et al. N Engl J Med. 2014;370:1889-98.

Ledipasvir-Sofosbuvir +/- Ribavirin in Treatment-Naïve HCV GT 1
ION-1 Study: Results

ION-1: SVR12 by Treatment Regimen and Liver Disease

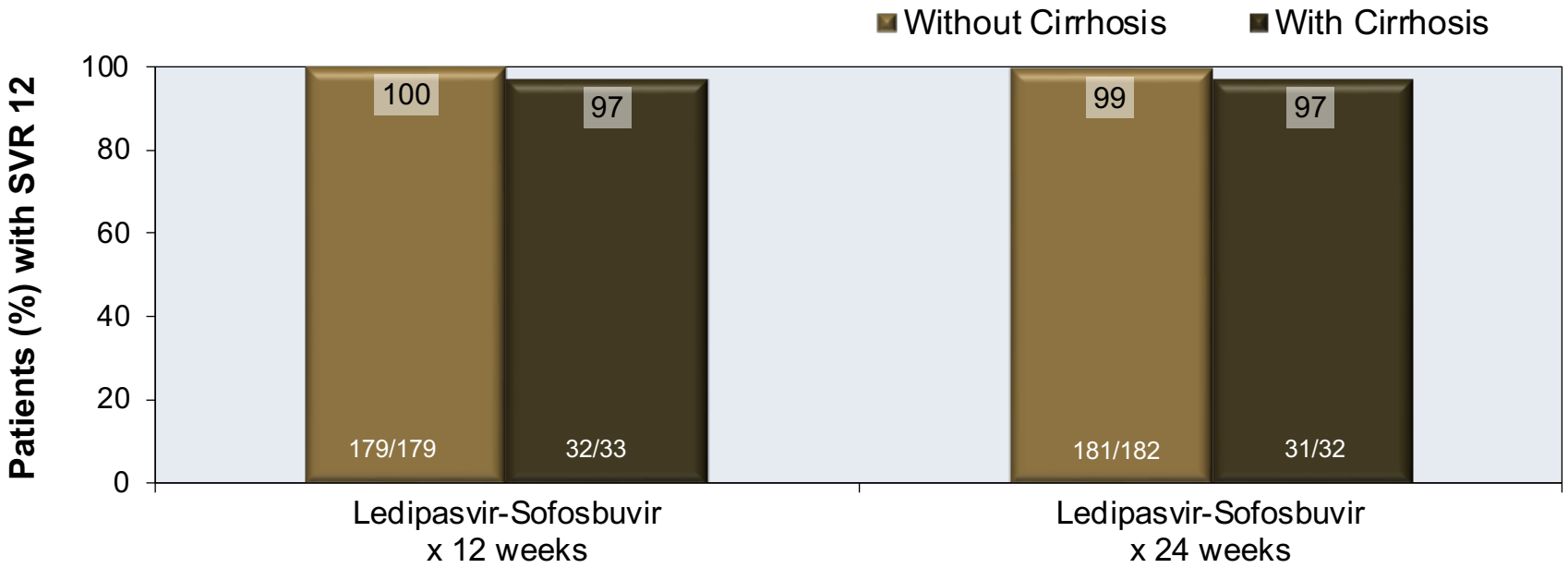


Note: subgroup results do not include patients who withdrew consent or were lost to follow-up

Source: Afdhal N, et al. N Engl J Med. 2014;370:1889-98.

Ledipasvir-Sofosbuvir +/- Ribavirin in Treatment-Naïve HCV GT 1
ION-1 Study: Results for Ledipasvir-Sofosbuvir

ION-1: SVR12 by Treatment Duration and Liver Disease



Source: Afdhal N, et al. N Engl J Med. 2014;370:1889-98.

Ledipasvir-Sofosbuvir +/- Ribavirin in Treatment-Naïve HCV GT 1 ION-1 Study: Resistance Data

- **NS5A resistant variants**
  - Baseline resistance in 140 (16%) of 861 patients tested
  - SVR12 in 135 (96%) of 140 patients with NS5A resistance
  - 2 of the 3 patients with virologic failure had baseline NS5A resistance

Source: Afdhal N, et al. N Engl J Med. 2014;370:1889-98.

Ledipasvir-Sofosbuvir +/- Ribavirin in Treatment-Naïve HCV GT 1
ION-1 Study: Conclusions

Conclusions: “Once-daily ledipasvir–sofosbuvir with or without ribavirin for 12 or 24 weeks was highly effective in previously untreated patients with HCV genotype 1 infection.”

Source: Afdhal N, et al. N Engl J Med. 2014;370:1889-98.

Acknowledgments

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