Ledipasvir-Sofosbuvir in GT1 or GT4 and HIV Coinfection

ION-4

Naggie S, et al. N Engl J Med 2015;378:705-13.

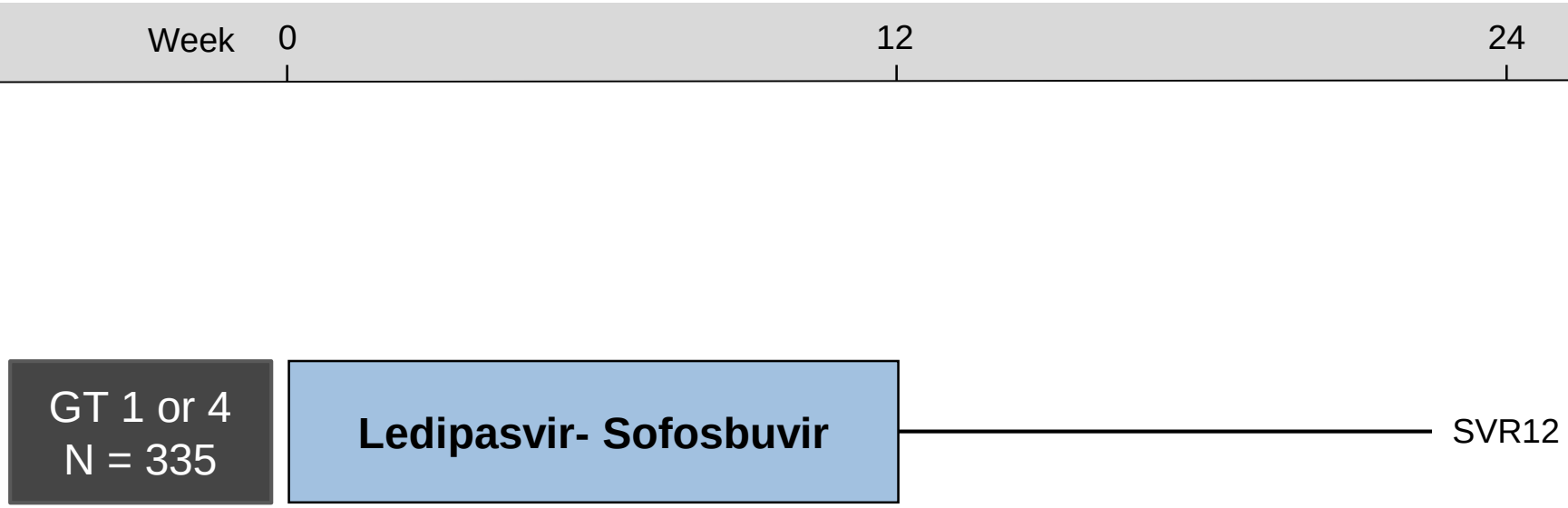
Ledipasvir-Sofosbuvir in GT1 or GT4 with HIV Coinfection
ION-4 Trial: Features

ION-4 Trial

- **Design**: Open-label, single group, phase 3 trial, using ledipasvir-sofosbuvir for 12 weeks in treatment-naïve or treatment-experienced patients with GT 1 or 4 and HIV coinfection
- **Setting**: multicenter in United States, Canada, New Zealand
- **Entry Criteria**
  - Chronic HCV Genotype 1 or 4
  - Treatment-naïve or treatment experienced
  - Noncirrhotic or compensated cirrhosis
  - Platelet count > 50,000/mm^3, hemoglobin ≥10 mg/dL, CrCl≥60 mL/min
  - Stable ARV with HIV RNA < 50 copies/ml and CD4 count > 100 cells/mm^3
  - ARV regimens: tenofovir-emtricitabine plus either efavirenz, rilpivirine, or raltegravir
- **End-Points**: Primary = SVR12; safety and tolerability

Source: Naggie S, et al. N Engl J Med 2015;378:705-13.

Ledipasvir-Sofosbuvir in GT1 or GT4 with HIV Coinfection
ION-4 Trial: Study Design



Drug Dosing: Ledipasvir-sofosbuvir (90/400 mg): fixed dose combination; one pill once daily

Antiretrovirals allowed: tenofovir-emtricitabine plus either efavirenz, rilpivirine, or raltegravir

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Ledipasvir-Sofosbuvir in GT1 or GT4 with HIV Coinfection ION-4 Trial: Baseline Characteristics

Baseline Characteristic	Ledipasvir-Sofosbuvir (n = 335)
Mean age, years	52
Male, n (%)	276 (82)
African American, n (%)	115 (34)
Hispanic or Latino, n (%)	56 (17)
Mean BMI, kg/m^2	26
IL28B CC, n (%)	81 (24)
GT 1 (%)	327 (98)
HCV treatment experienced, n (%)	185 (55)
Cirrhosis, n (%)	67 (20)
Mean HCV RNA, log_{10} IU/mL	6.7 ± 0.6
Median CD4 Count, cells/mm^3 (range)	628 (100-2069)

Source: Naggie S, et al. N Engl J Med 2015;378:705-13.

Ledipasvir-Sofosbuvir in GT1 or GT4 with HIV Coinfection
ION-4 Trial: Antiretroviral Regimens

ION-4: HIV Antiretroviral Regimen	
Antiretroviral Agent	**Antiretroviral Received** (n = 335)
Tenofovir-emtricitabine-efavirenz	160 (48)
Tenofovir-emtricitabine-rilpivirine	29 (9)
Tenofovir-emtricitabine + Raltegravir	146 (44)

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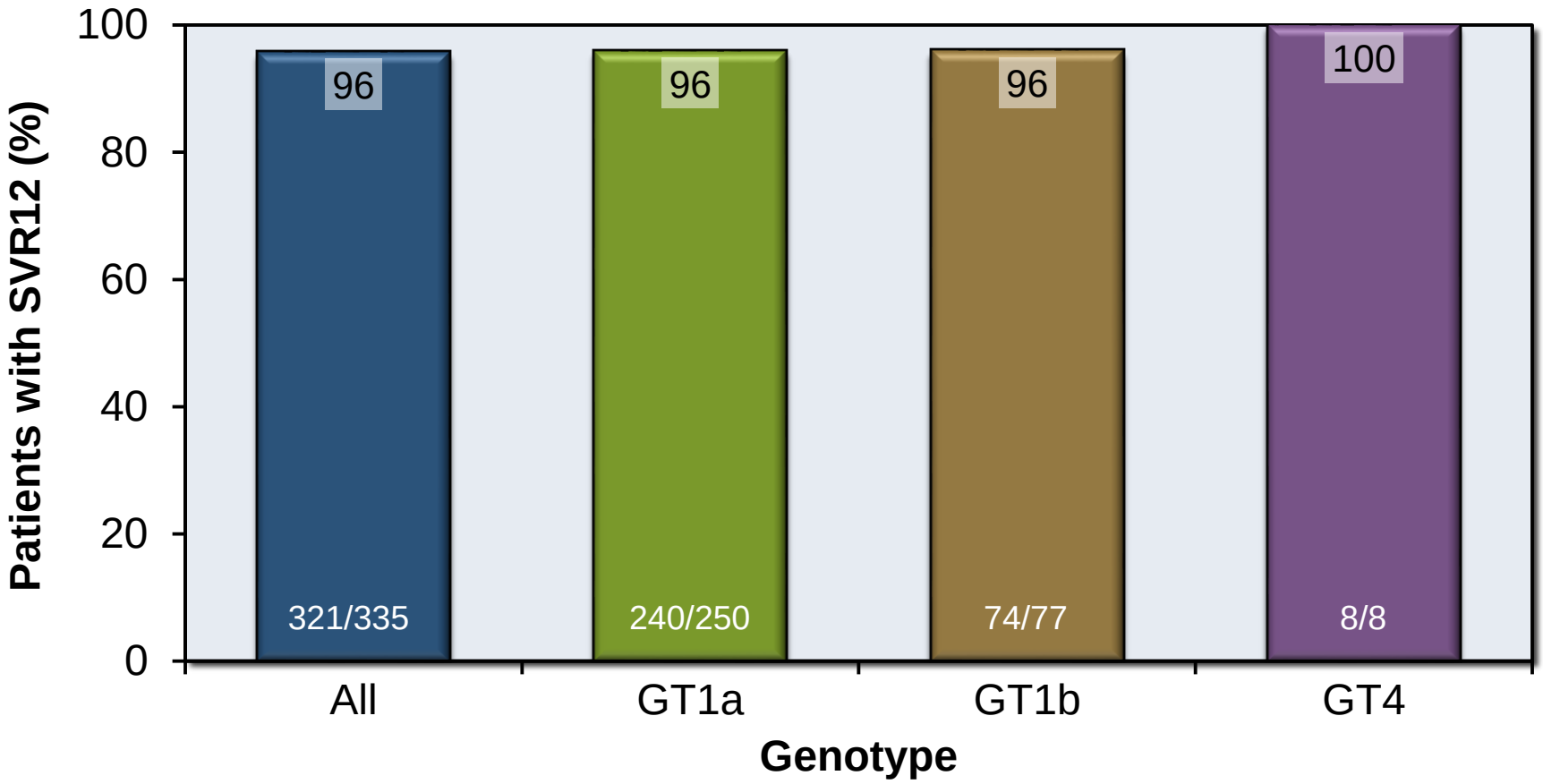
Ledipasvir-Sofosbuvir in GT1 or GT4 with HIV Coinfection
ION-4 Trial: Results

ION-4: SVR12 Results by Genotype



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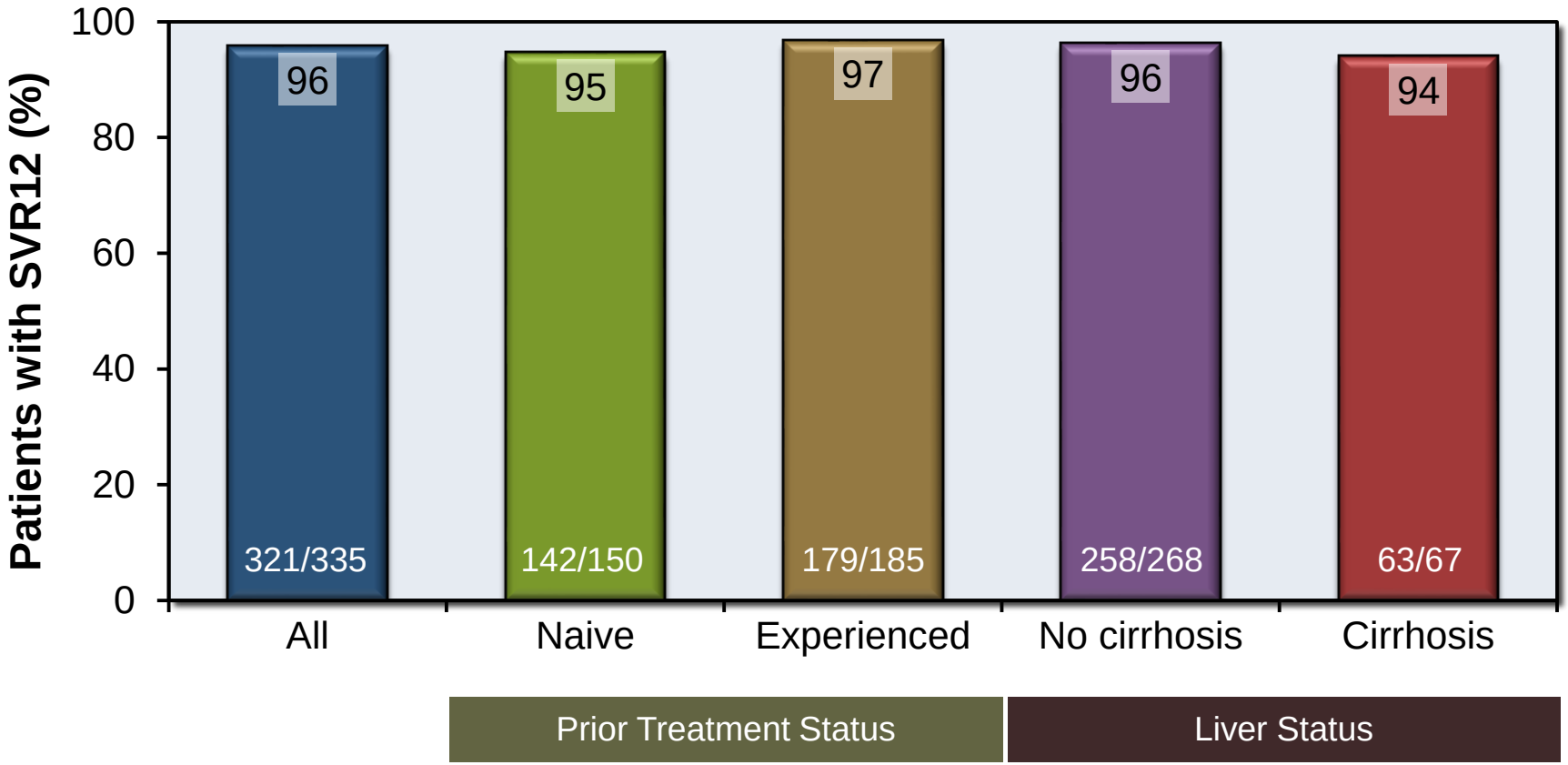
Ledipasvir-Sofosbuvir in GT1 or GT4 with HIV Coinfection
ION-4 Trial: Results

ION-4: SVR12 Results by Prior Treatment Status and Liver Status



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Hepatitis web study

Ledipasvir-Sofosbuvir in GT1 or GT4 with HIV Coinfection ION-4 Trial: Adverse Effects

Event	Ledipasvir-Sofosbuvir (n = 335)
Discontinuation due to adverse event	0
Grade 3-4 Adverse Event	14 (4%)
Serious Adverse Event	8 (2%)
Headache	83 (25%)
Fatigue	71 (21%)
Diarrhea	36 (11%)
Nausea	33 (10%)
Arthralgia	22 (7%)
Upper respiratory tract infection	18 (5%)
Vomiting	14 (4%)
Muscle spasms	11 (3%)

Source: Naggie S, et al. N Engl J Med 2015;378:705-13.

Ledipasvir-Sofosbuvir in GT1 or GT4 with HIV Coinfection ION-4 Trial: Conclusions

Conclusions: “Ledipasvir and sofosbuvir for 12 weeks provided high rates of sustained virologic response in patients coinfected with HIV-1 and HCV genotype 1 or 4.”

Source: Naggie S, et al. N Engl J Med 2015;378:705-13.

This slide deck is from the University of Washington's *Hepatitis C Online* and *Hepatitis Web Study* projects.

Hepatitis C Online

www.hepatitisc.uw.edu

Hepatitis Web Study

http://depts.washington.edu/hepstudy/

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Hepatitis web study