

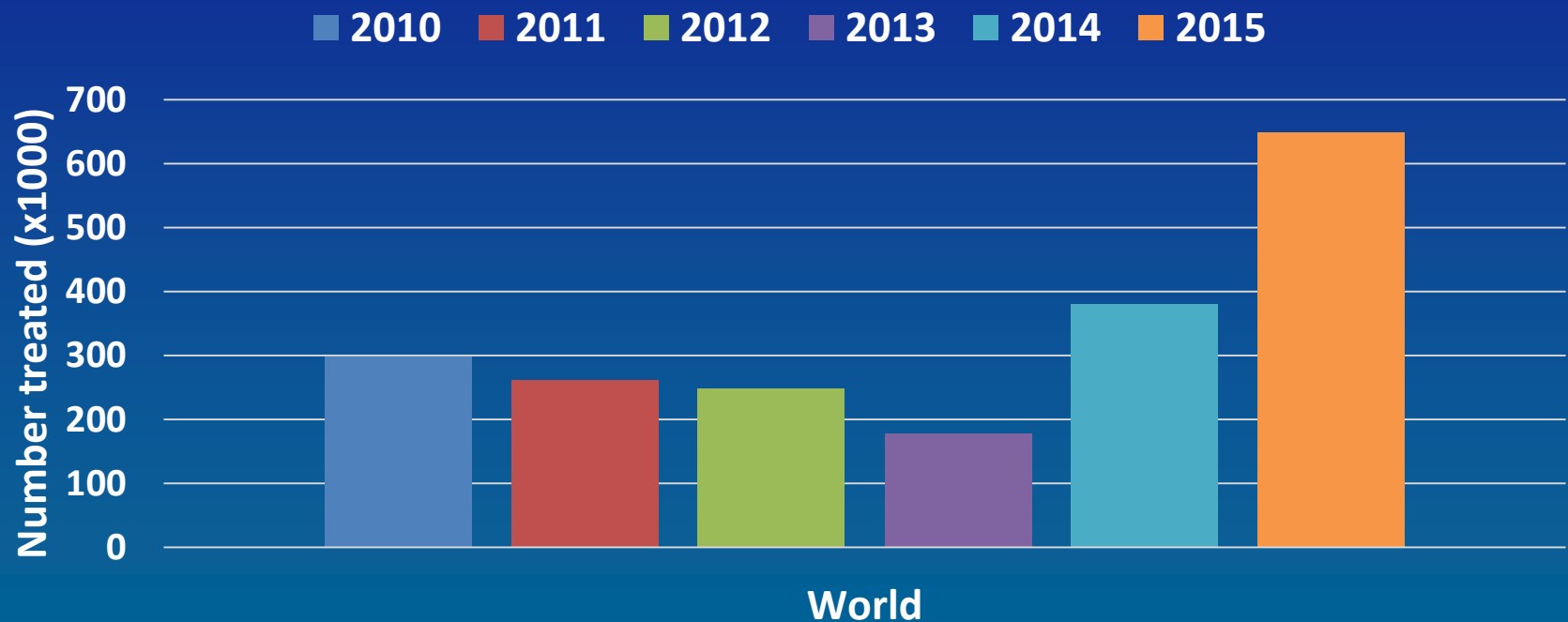
HIV Management  
Hepatitis Management

# THE NEW YORK COURSE

## The Cost of Not Treating Hepatitis C Infection

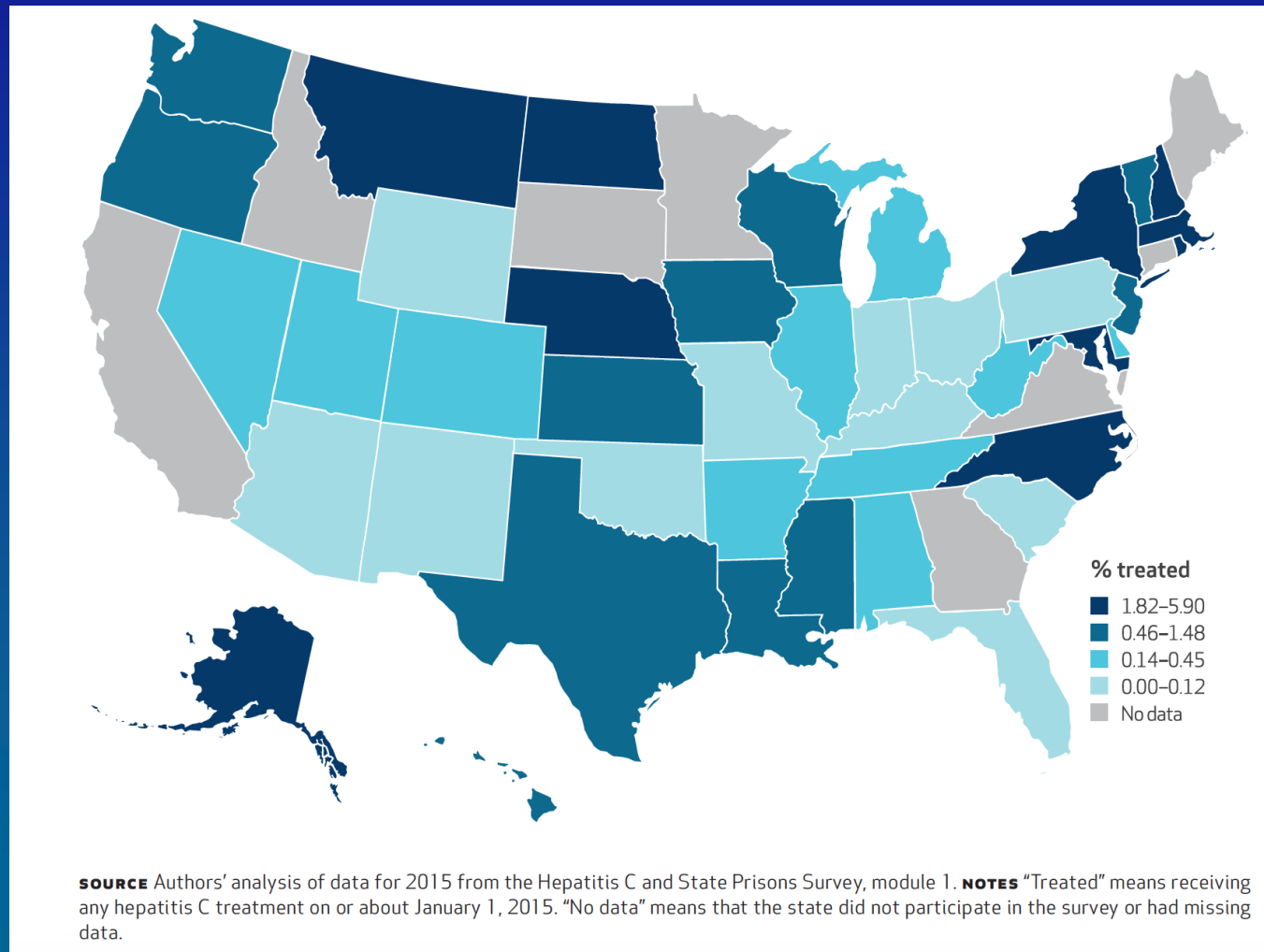
**David Thomas, MD, MPH**  
Johns Hopkins University School of Medicine

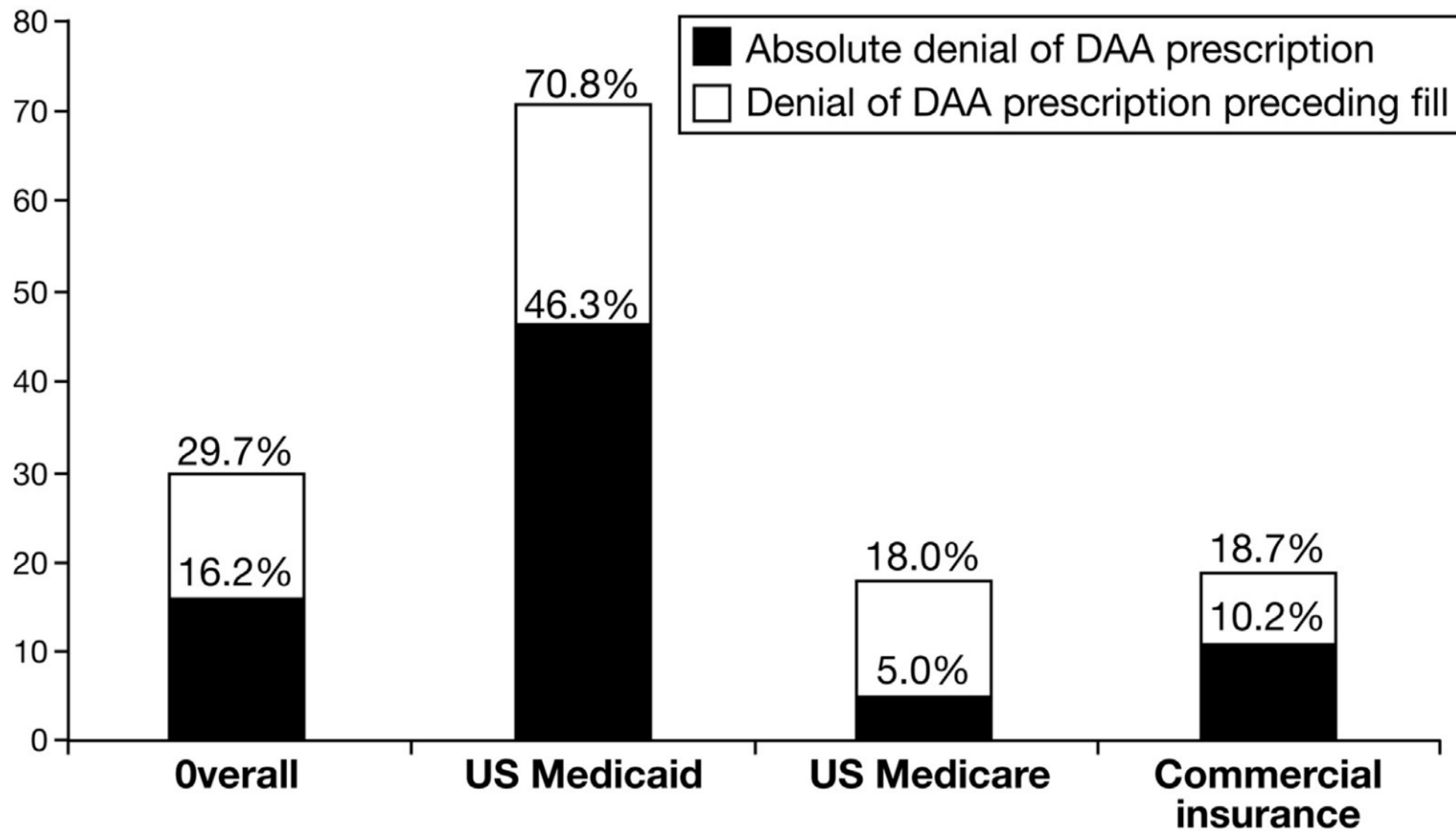
# Treatment of HCV infection is uncommon



<http://polarisobservatory.com/polaris/datasheet.htm> downloaded 9/18/2016

# HCV is not routinely treated in corrections





# The cost of not treating hepatitis C

*“Won’t most people just die with and not of HCV infection?”*

- ▶ Medical
- ▶ Societal
- ▶ Personal
- ▶ Economic
- ▶ Ethical

# In some liver disease will progress

<b>Biopsy Pair Part 1</b>	
<b>Fibrosis Stage</b>	
0	179
1	192
2	51
3	13
	435

# In some liver disease will progress

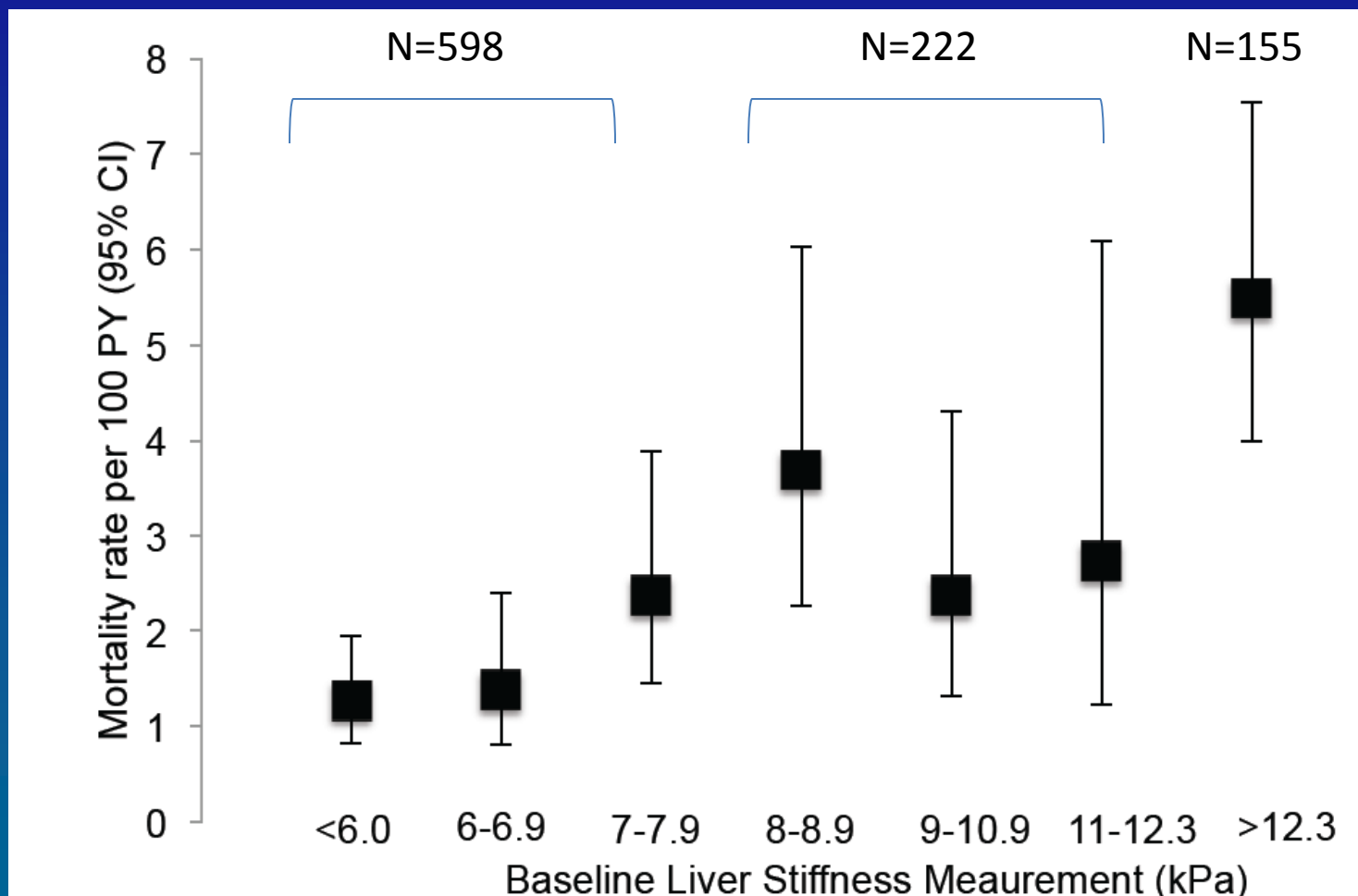
## ▶ Liver disease progression

Median 30 months between bx

Biopsy Pair Part 1 Fibrosis Stage	Biopsy Pair Part 2 Fibrosis Stage					
	0	1	2	3	4	
0	100	65	3	9	2	179
1	20	130	26	8	8	192
2	1	7	19	15	9	51
3	0	1	4	4	4	13
	121	203	52	36	23	435

\*Shaded regions represent subjects in whom fibrosis stage was at least 1 METAVIR stage greater than on prior biopsy.

# More mortality at moderate disease stage





# You don't know which ones will progress

- ▶ HIV/HCV study pairs METAVIR stage 0 or 1 (n = 371)
  - AST level (>100 U/L) was associated with progression
    - Sensitivity = 13%; negative predictive value = 68%.

# You don't even know which ones have F 0-1

Sampling error occurs with all staging

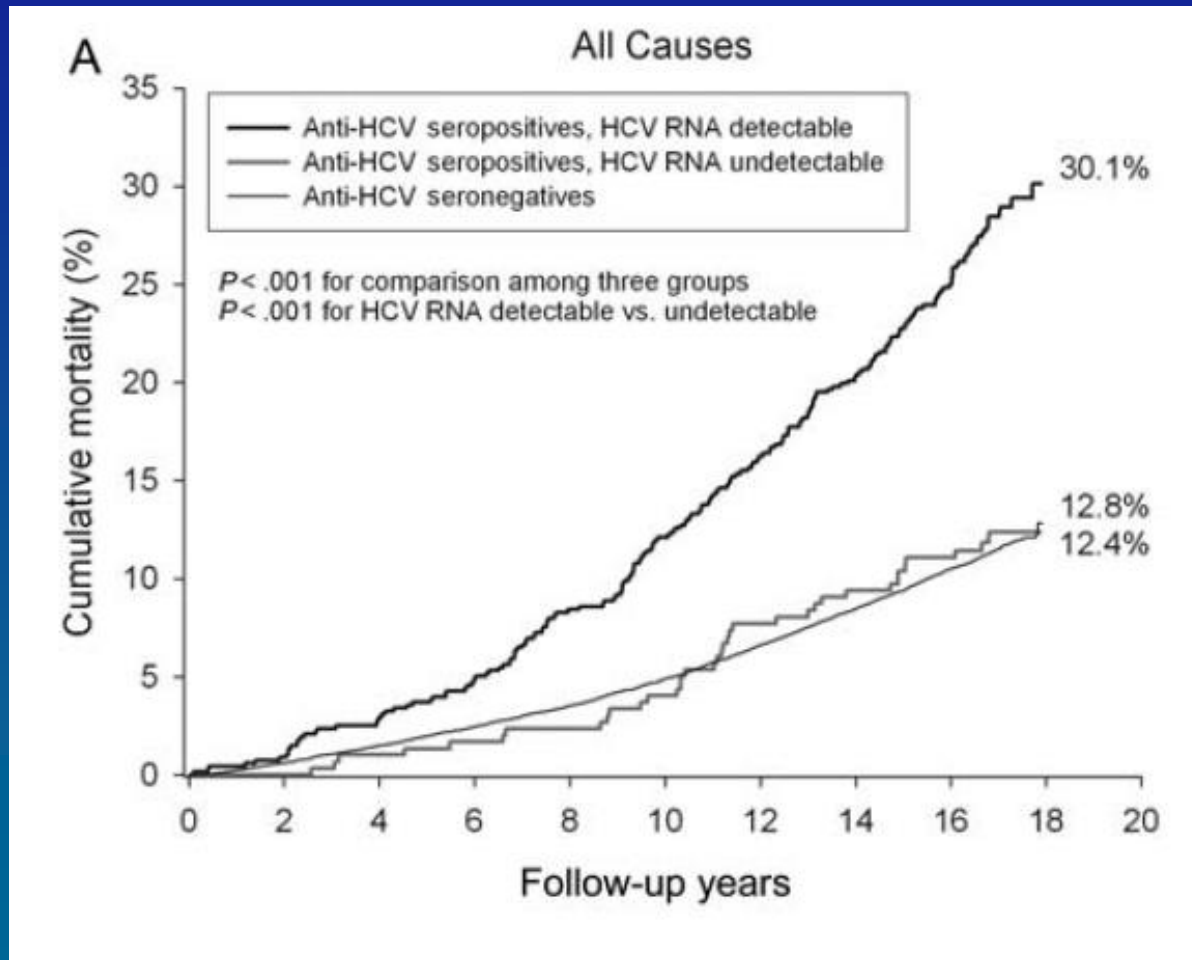
- ▶ 41 of 124 patients (33.1%) had  $\geq 1$  stage difference in R and L lobes<sup>2</sup>

# The cost of not treating hepatitis C

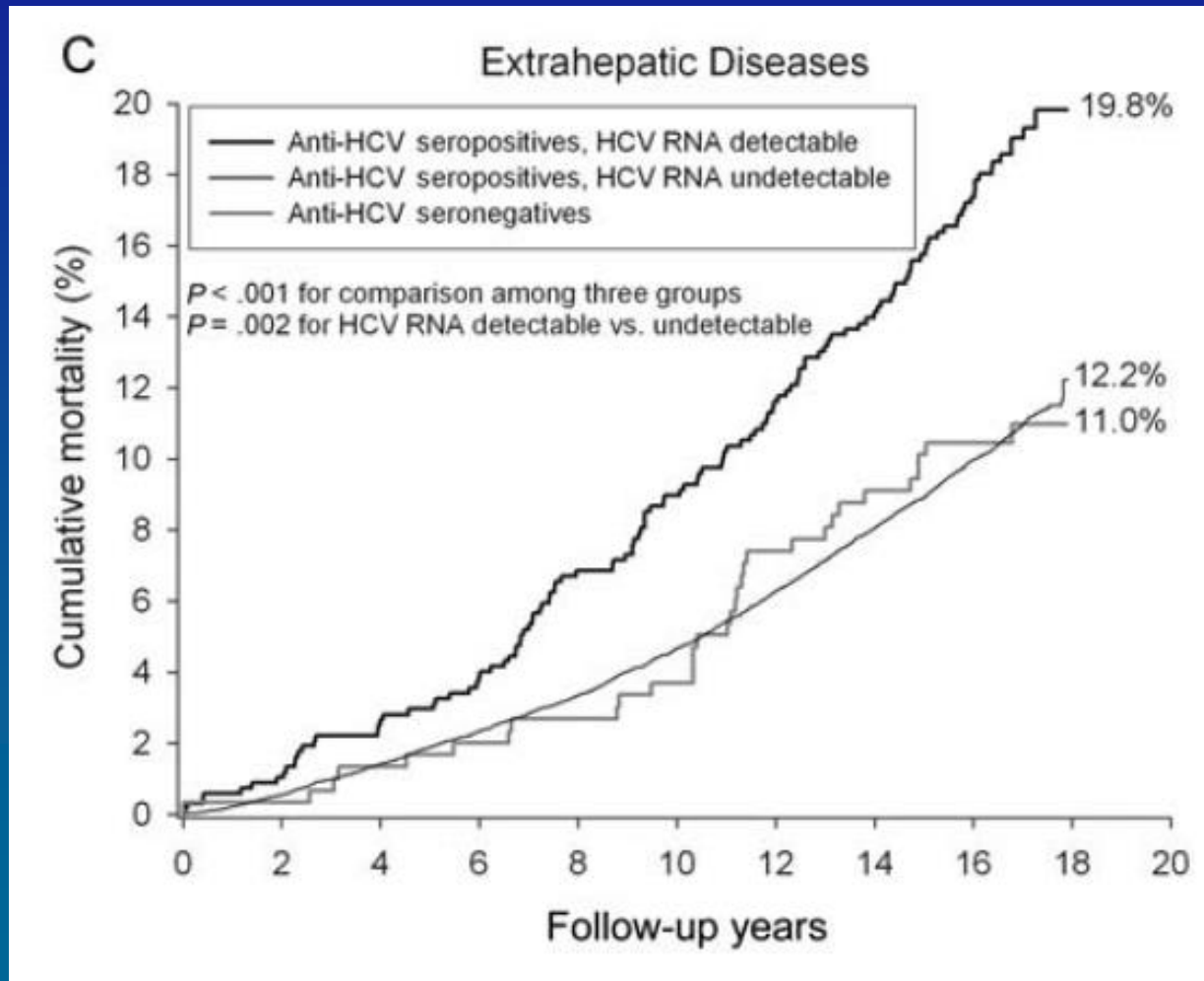
## ▶ Medical

- Liver disease progression
  - Can't tell who will progress
  - Can't even tell who is F—2
- Extrahepatic disease

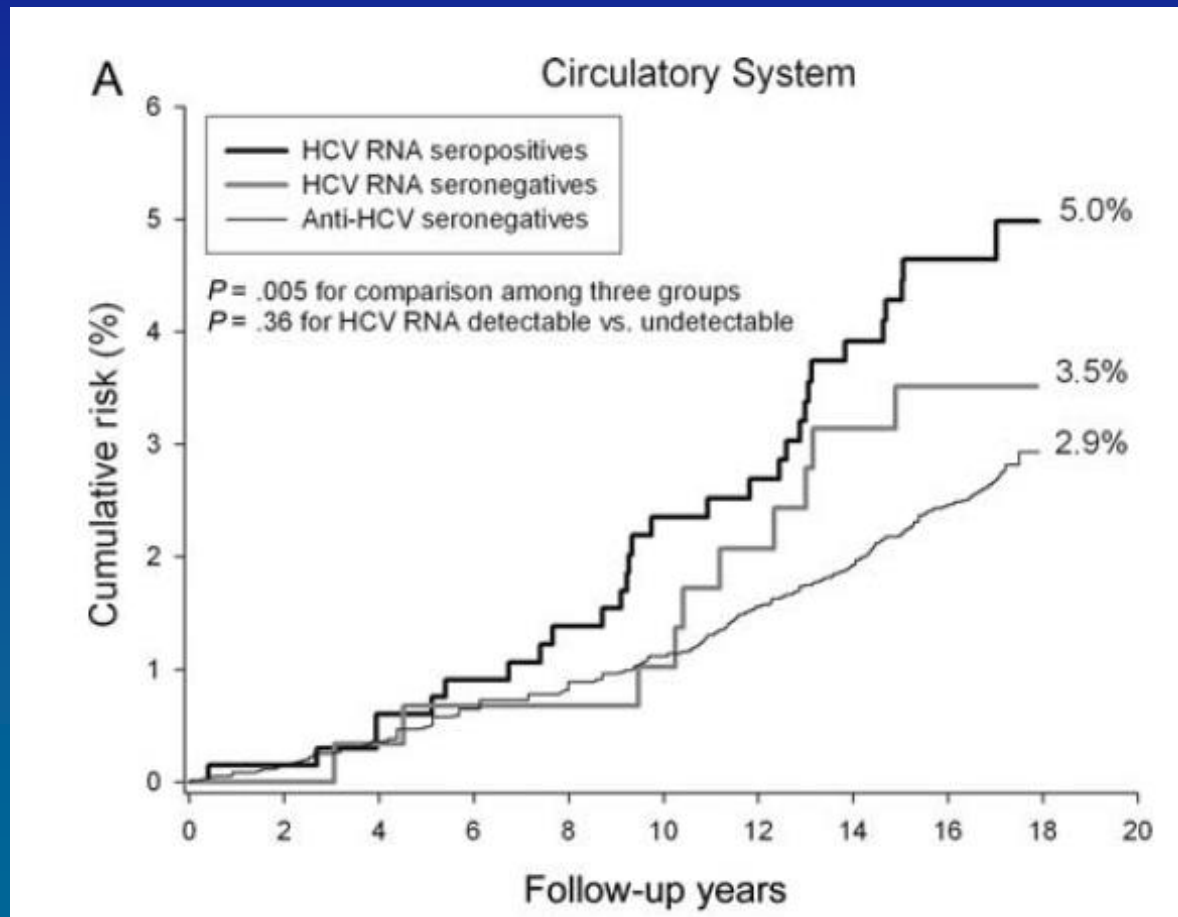
# Higher incidence of outcomes in 677 HCV RNA positive vs 298 HCV AB+ RNA neg and 18,541 seronegative



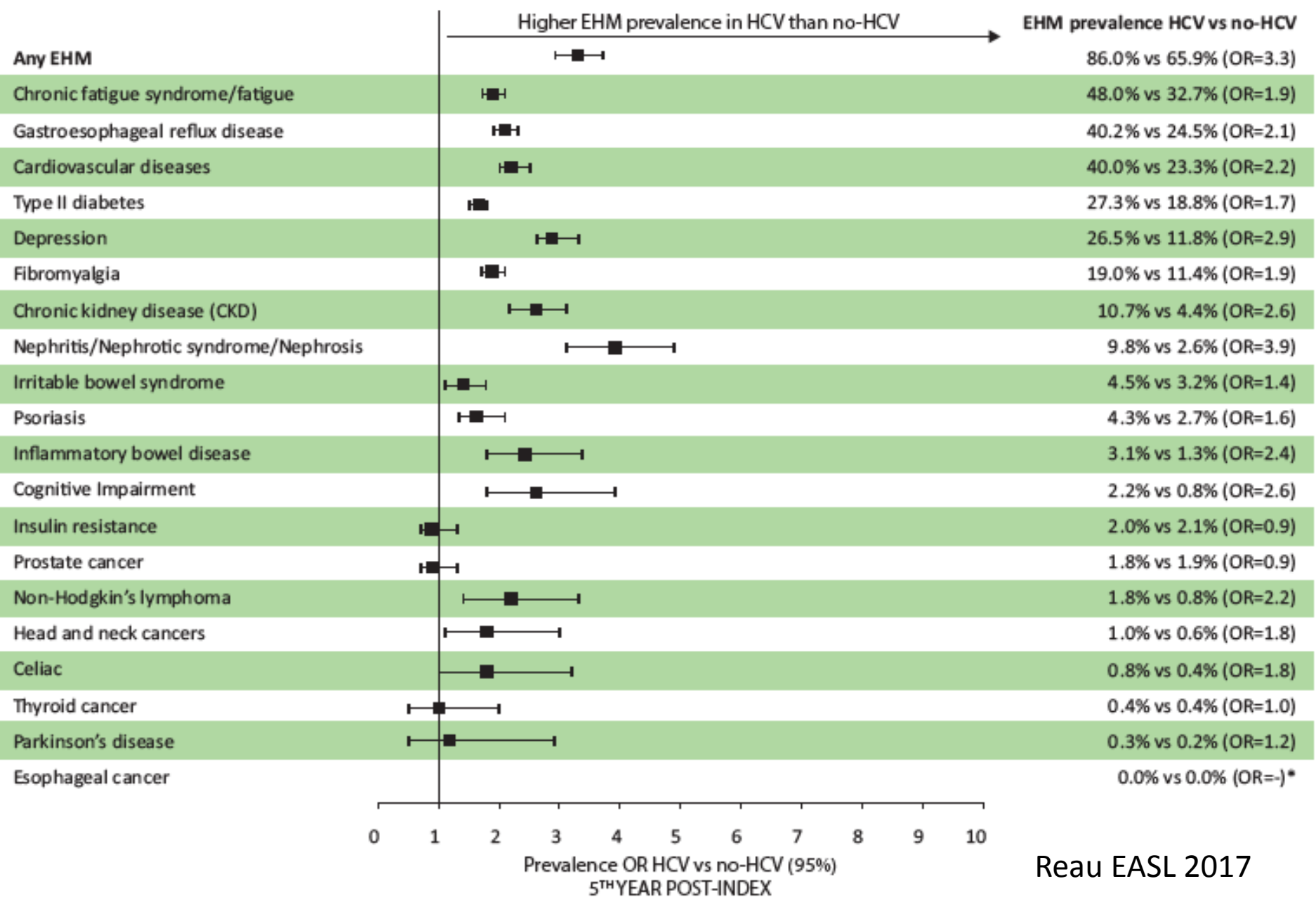
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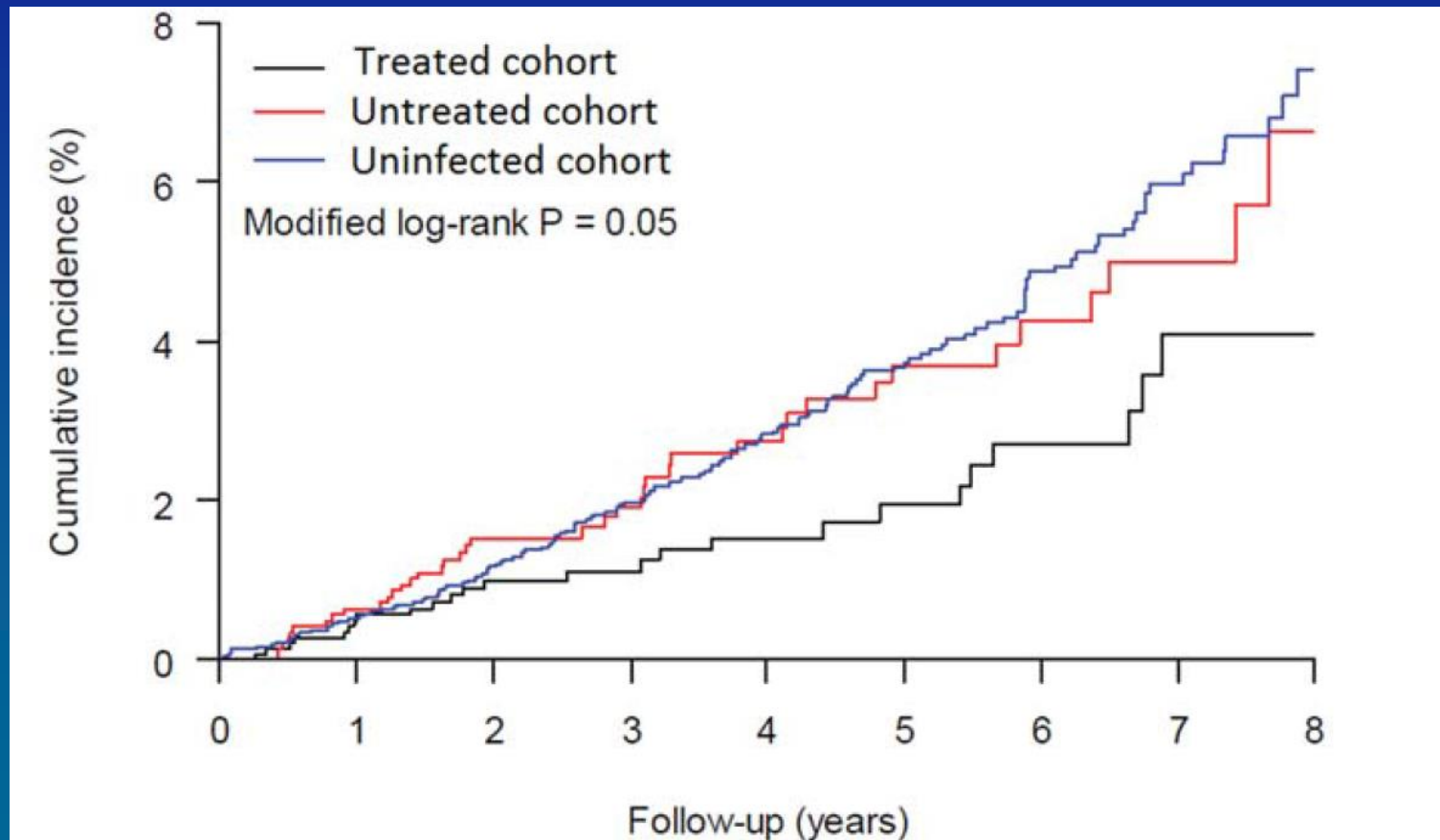
# Higher incidence of outcomes in 677 HCV RNA positive vs 298 HCV AB+ RNA neg and 18,541 seronegative



# More extrahepatic disease in HCV infection

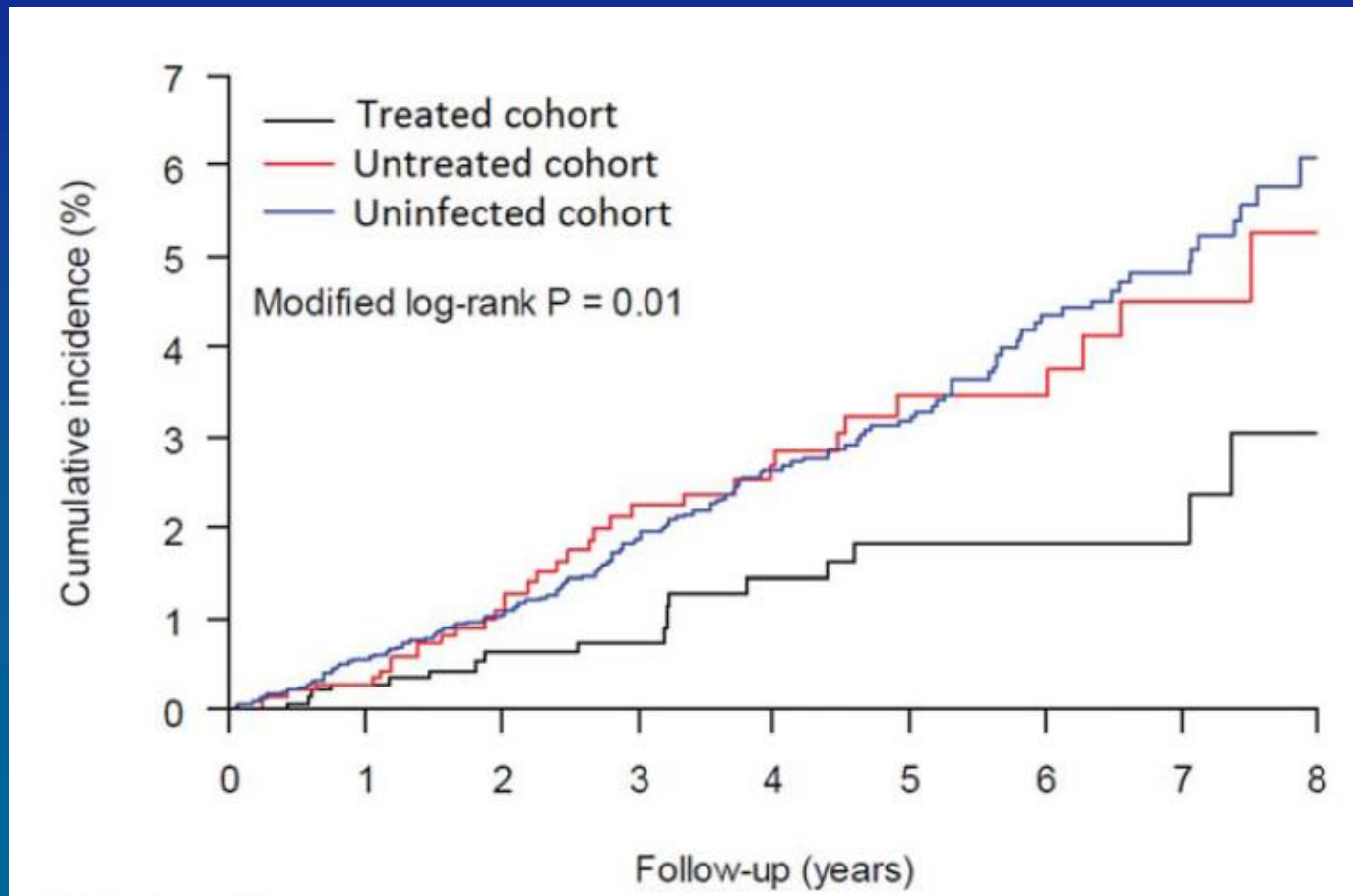


# Cure of HCV improves cardiovascular outcomes: 1,411 treated HCV-infected patients; 1,411 matched untreated controls; 5,644 uninfected

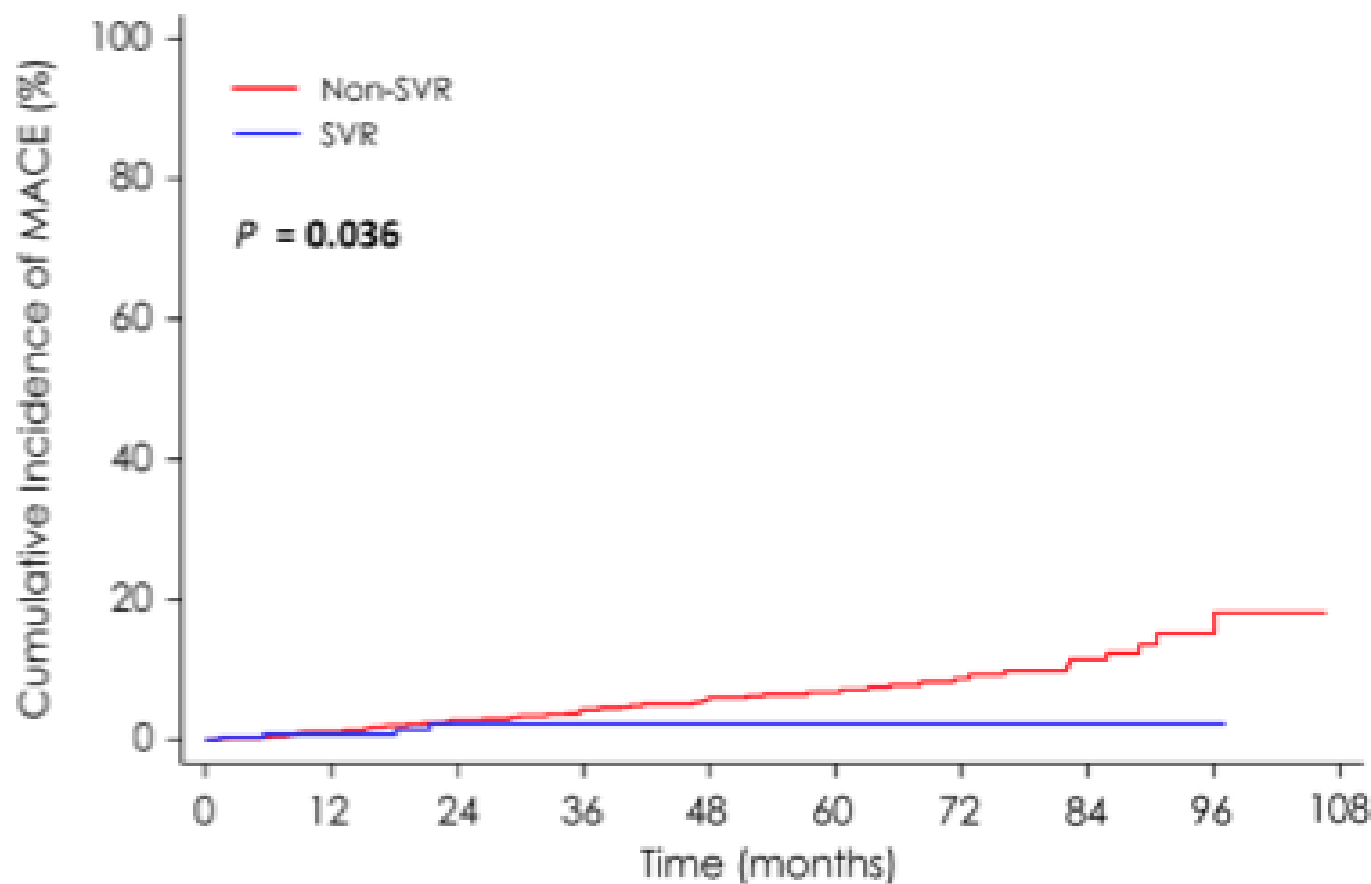




# Cure of HCV improves stroke outcome: 1,411 treated HCV-infected patients; 1,411 matched untreated controls; 5,644 uninfected



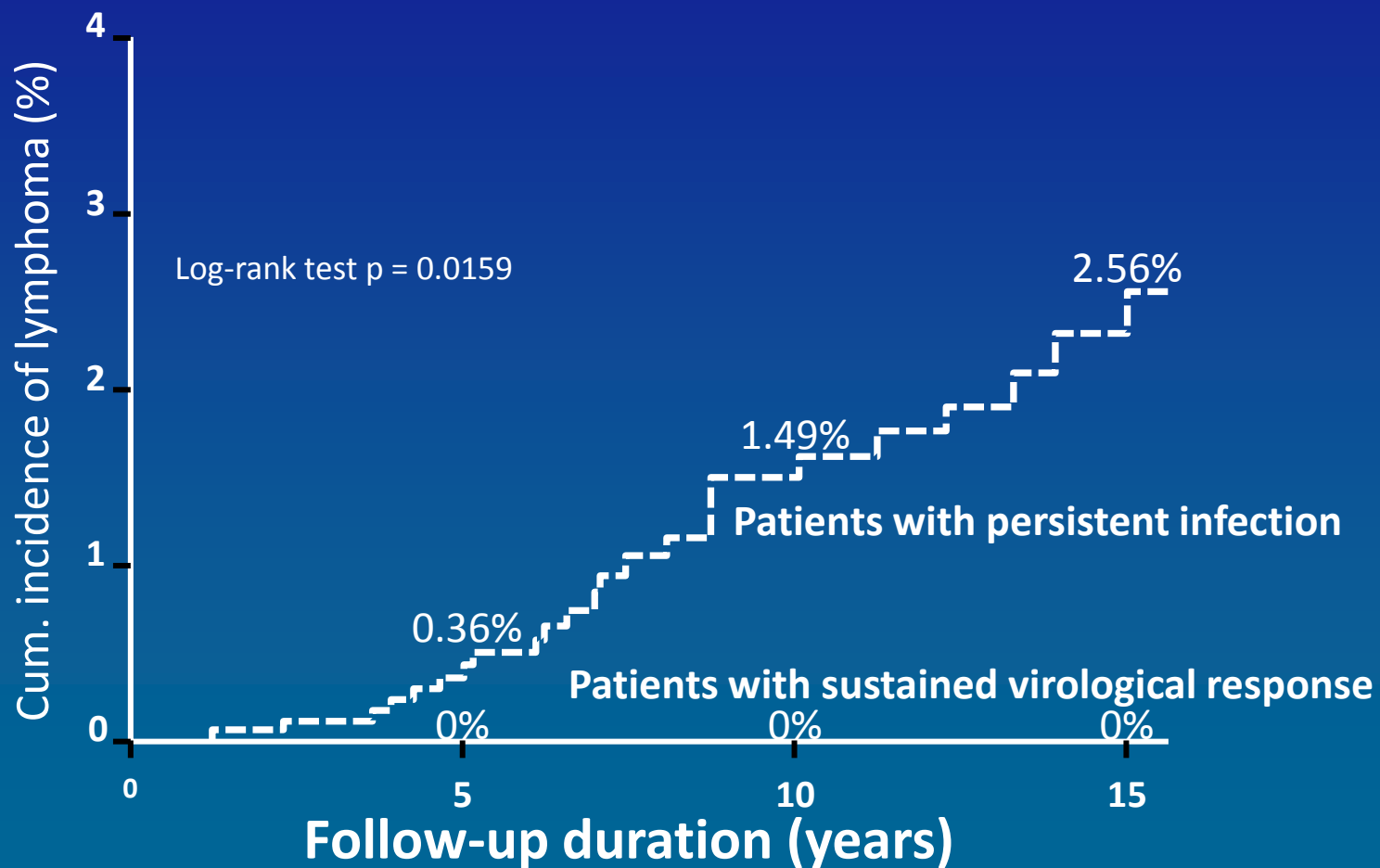
# Cure of HCV improves cardiovascular outcomes



	Number at risk (events)													
Non-SVR	856 (9)	751 (12)	653 (9)	528 (8)	417 (3)	292 (5)	184 (4)	102 (3)	30 (1)	2				
SVR	306 (2)	175 (2)	113 (0)	67 (0)	34 (0)	22 (0)	10 (0)	3 (0)	1 (0)	0				

# Effect of cure on the incidence of lymphoma

HCV patients with SVR (n = 1,048) vs persistently infected (n = 2,161)



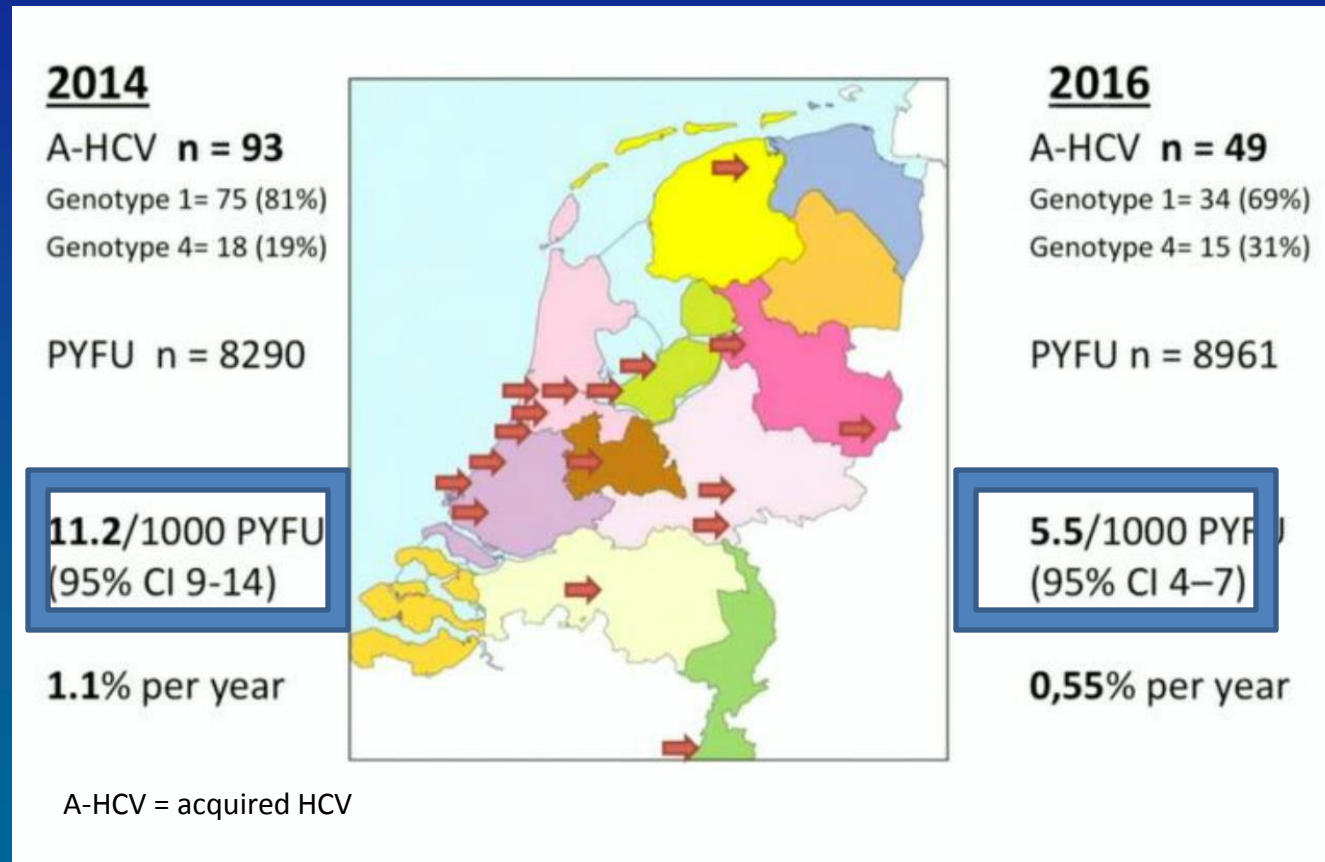
## **Most patients with HCV-associated lymphoma present with mild liver disease: a call to revise antiviral treatment prioritization**

Harrys A. Torres and Parag Mahale

Department of Infectious Diseases, Infection Control and Employee Health, The University of Texas MD Anderson Cancer Center, Houston, TX, USA

- ▶ 89 patients with HCV-related NH lymphoma
- ▶ 82% were stage F0-2
- ▶ 53 had HCV documented before lymphoma
  - 44% not treated, 38% due to low stage

# Treatment of HCV among HIV-pos MSM in Netherlands is associated with lower incident HCV



# The cost of not treating hepatitis C

▶ Medical

▶ Societal

– Treatment for prevention

- MSM
- IDU
- Perinatal
- Heterosexual

# The cost of not treating hepatitis C

- ▶ Medical
- ▶ Societal
- ▶ Personal
- ▶ Economic

# Treating all vs restricting to significant fibrosis prevents outcomes



# “Full access was less costly and more effective for all cohorts and perspectives”

Strategy	Medicare perspective			CMS perspective		
	Costs (\$)	QALYs	ICER (\$/QALY)	Costs (\$)	QALYs	ICER (\$/QALY)
45-y-old cohort						
Full Access	20,196	5.31		93,151	17.14	
Current Practice	27,707	4.50	Dominated	104,426	14.13	Dominated
50-y-old cohort						
Full Access	21,410	6.31		90,524	15.79	
Current Practice	30,610	5.47	Dominated	98,527	13.06	Dominated
55-y-old cohort						
Full Access	22,778	7.58		87,543	14.36	
Current Practice	34,738	6.76	Dominated	92,912	12.05	Dominated

ICER, incremental cost-effectiveness ratio; QALY, quality-adjusted life-year.

Compared with Current Practice, Full Access averted 5,994 hepatocellular carcinoma cases and 121 liver transplants per 100,000 patients

# The cost of not treating hepatitis C

- ▶ Medical
- ▶ Societal
- ▶ Personal
- ▶ Economic
- ▶ Ethical

# The cost of not treating hepatitis C

*“Won’t most people just die with and not of HCV infection?”*

# The cost of not treating hepatitis C is TOO HIGH - all should be treated

- ▶ Medical
- ▶ Societal
- ▶ Personal
- ▶ Economic
- ▶ Ethical

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