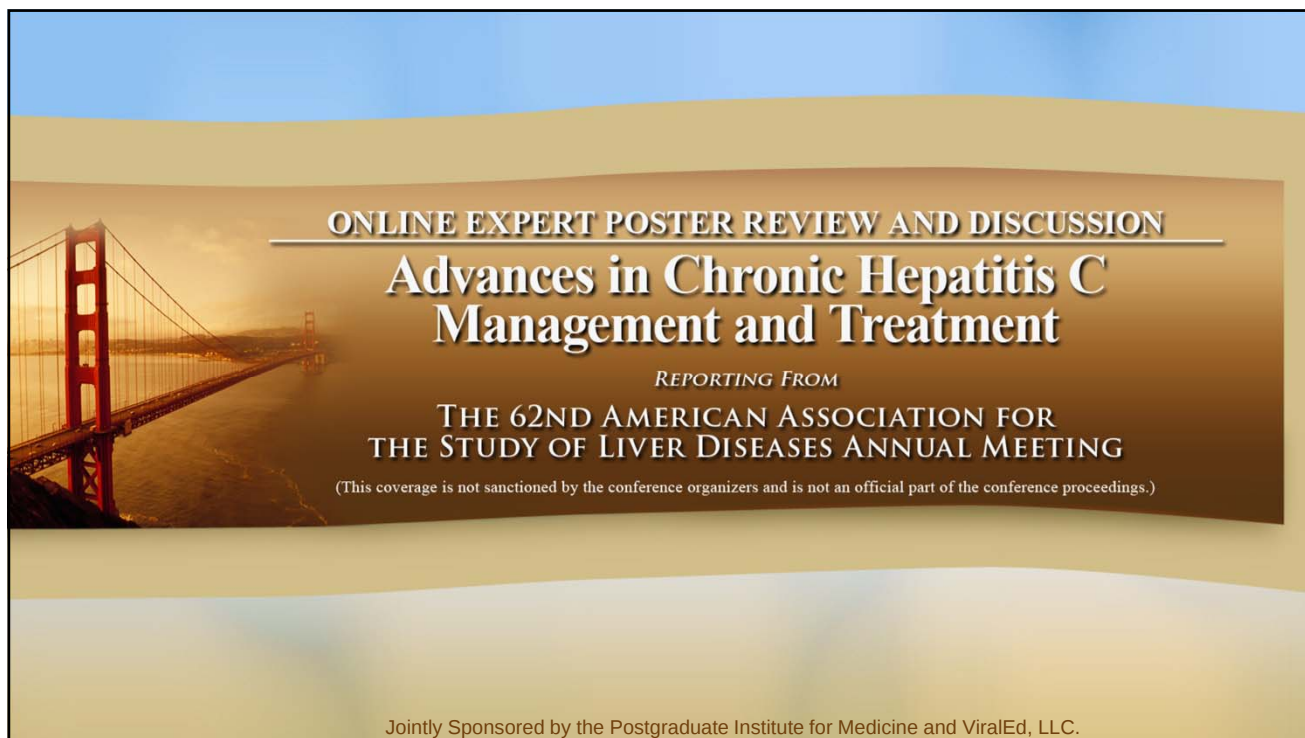


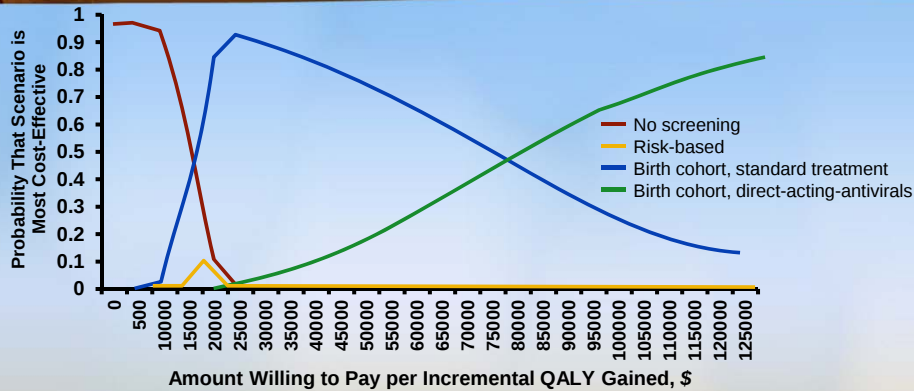


HCV: The Magnitude of the Problem The Cost-Effectiveness of Birth-Cohort Screening for Hepatitis C Antibody in U.S. Primary Care Settings

- 4.1 million, 75% viremic CDC: screen with risk factors (IVDA, ALT etc)
 - 25-50% aware of dx, 1945-1965 cohort highest prevalence
- Previously validated simulation model to estimate the cost-effectiveness of birth-cohort screening for HCV in the united states
- 4 scenarios:
 1. No screening or treatment;
 2. Risk-based screening, in which 18.5% (1% per year over the next 20 years) screened and offered pegifn+r (33% G1 SVR, 69% G2/3)
 3. Birth-cohort screening in which all people born from 1945 through 1965 and unaware of their HCV antibody status were offered one-time HCV antibody screening, offered pegifn+r treatment if identified; (33% G1 SVR, 69% G2/3)
 4. Identical birth-cohort screening scenario in which a) patients with genotype 1 disease who initiated treatment received direct-acting antiviral treatment (DAA) in addition to standard therapy (54% SVR) and b) patients with genotypes 2 and 3 received pegifn+r. 69% svr

Rein D B et al. Ann Intern Med doi:10.1059/0003-4819-156-4-201202210-00378

The Cost-Effectiveness of Birth-Cohort Screening for Hepatitis C Antibody in U.S. Primary Care Settings



- Birth-cohort screening would identify an additional 808,580 cases of HCV
- Prevent 82,000 hcv-related deaths,
- Cost of \$2874 per new case identified
- \$15,700 per QALY saved assuming standard treatment
- \$35,700 per QALY saved assuming DAA with standard therapy

Rein D B et al. Ann Intern Med doi:10.1059/0003-4819-156-4-201202210-00378

ONLINE EXPERT POSTER REVIEW AND DISCUSSION Advances in Chronic Hepatitis C Management and Treatment

REPORTING FROM

THE 62ND AMERICAN ASSOCIATION FOR
THE STUDY OF LIVER DISEASES ANNUAL MEETING

(This coverage is not sanctioned by the conference organizers and is not an official part of the conference proceedings.)

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The Cost-Effectiveness of a Telaprevir-Inclusive Regimen as Initial Therapy for Genotype 1 Hepatitis C Infection in Individuals with the CC IL28B Polymorphism

Ziad F. Gellad; Susanna Naggie; Shelby D. Reed; Paul Clark;
Alex Thompson; Keven A Schulman; Andrew J. Muir

Abstract 118

The Cost-Effectiveness of a Telaprevir-Inclusive Regimen as Initial Therapy for Genotype 1 Hepatitis C Infection in Individuals with the CC IL-28B Polymorphism

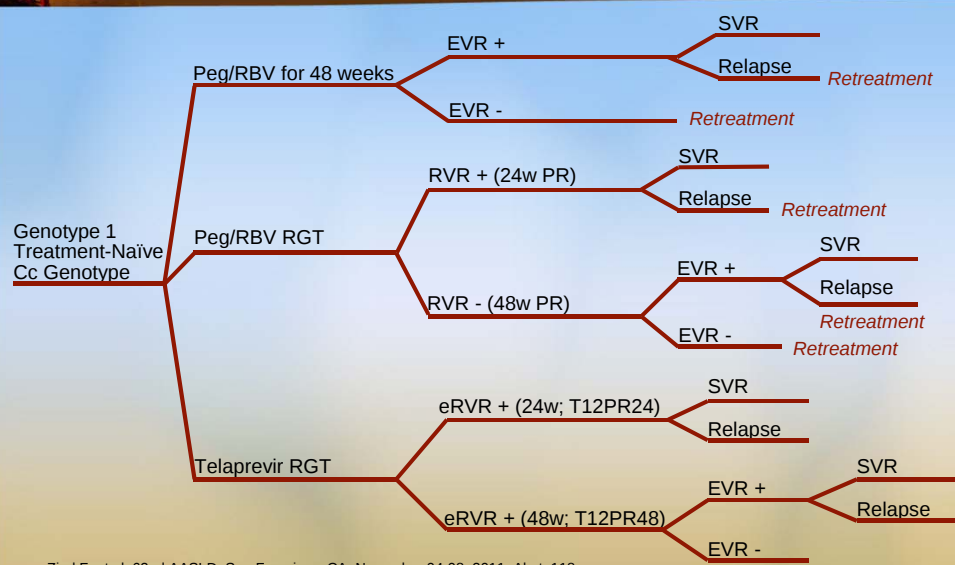
- IL 28B strongest pre-treatment predictor SVR G1 patients
- IL-28B CC with high SVR rates with no DAA/PR

Treatment Regimen	WAC Cost
Pegylated Interferon alfa & Ribavirin (PR) x 48 weeks	\$36,672
Pegylated Interferon alfa & Ribavirin (PR) x 24 weeks	\$18,336
Telaprevir/PR x 12 weeks & PR x 12 weeks	\$67,536
Telaprevir/PR x 12 weeks & PR x 36 weeks	\$85,872
PR x 4 weeks, & Boceprevir/PR x 24 weeks	\$47,792
PR x 4 weeks, & Boceprevir/PR x 32 weeks, & PR x 12 weeks	\$71,873

Question: Is the use of telaprevir as first-line therapy cost-effective in IL 28Bcc?

Ziad F, et al. 62nd AASLD; San Francisco, CA; November 04-08, 2011. Abst. 118.

Decision Tree



Ziad F, et al. 62nd AASLD; San Francisco, CA; November 04-08, 2011. Abst. 118.

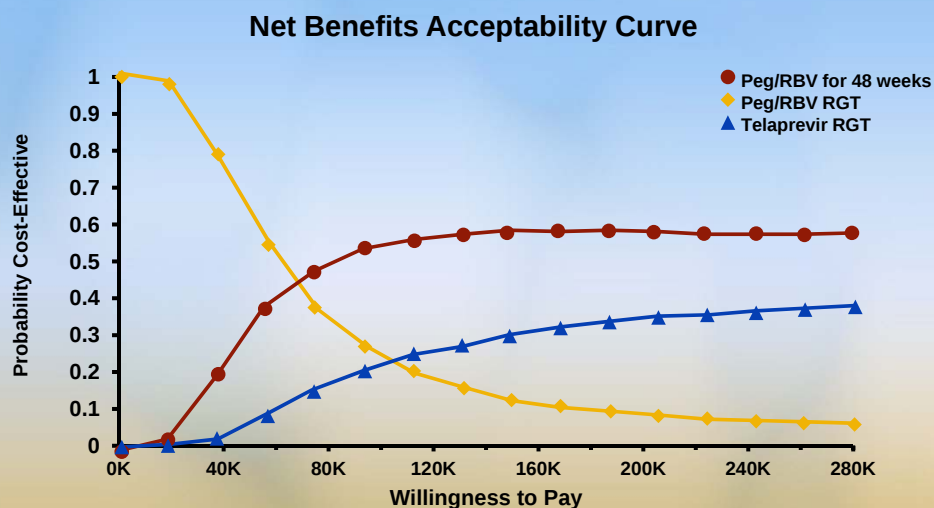
Incremental Cost-effectiveness Ratio (ICER) Similar Efficacy

Strategy	Cost (SE)	QALYs (SE)	ICER
Peg/RBV RGT	\$46,785 (946)	19.26 (0.80)	
PEG/RBV	\$54,931 (867)	19.38 (0.82)	\$65,051/QALY
TVR RGT	\$68,788 (1464)	19.34 (0.86)	(Dominated)

CC *IL28B* polymorphism, initial therapy with a telaprevir-based regimen is unlikely to be cost effective under current cost and efficacy conditions

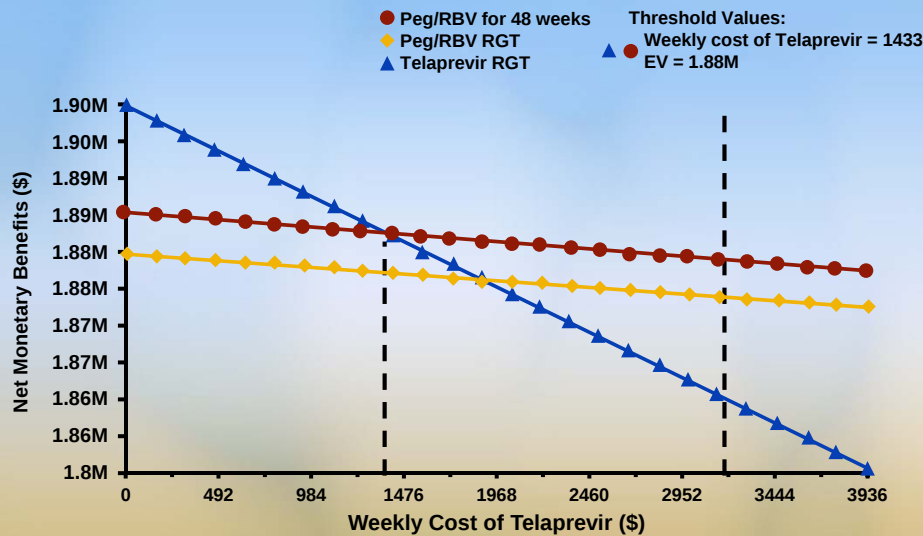
Ziad F, et al. 62nd AASLD; San Francisco, CA; November 04-08, 2011. Abst. 118.

Acceptability Curve



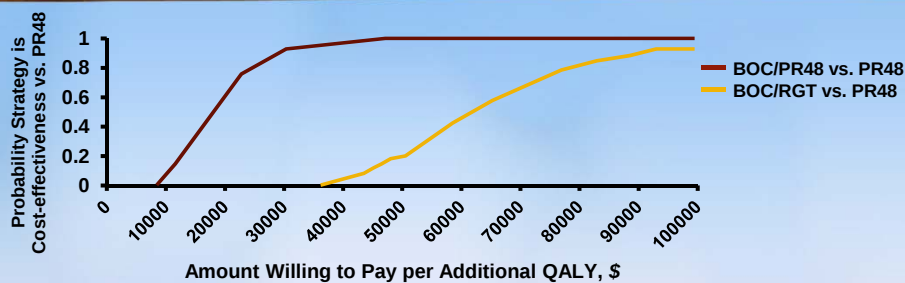
Ziad F, et al. 62nd AASLD; San Francisco, CA; November 04-08, 2011. Abst. 118.

Sensitivity Analyses: Telaprevir Costs



Ziad F, et al. 62nd AASLD; San Francisco, CA; November 04-08, 2011. Abst. 118.

A US-Based Cost-Effectiveness Analysis of Boceprevir-Based Regimens in Previously Untreated Adult Subjects with Chronic Hepatitis C Genotype



Strategy	Cost (\$)	QALYs	ICER (\$)
PR48	57,647	14.77	
BOC/RGT	68,433	15.30	20,367
BOC/PR48	93,883	15.30	68,544

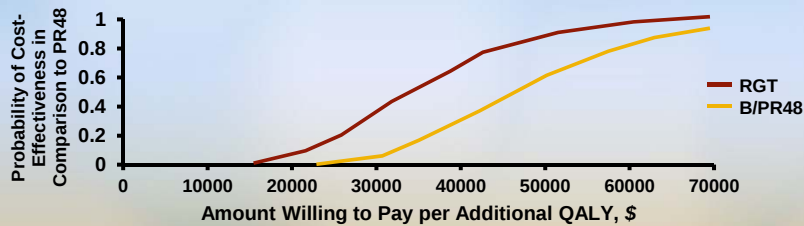
Assuming a willingness to pay threshold of \$50K, BOC/RGT was cost-effective compared to PR48 in nearly 100% of the simulations and BOC/RGT was cost-effective compared to PR48 in approximately 20% of the simulations

BOC/RGT cost-effective at threshold of \$50K for sensitivity analyses The CEAC indicates that the probability that BOC/RGT is cost-effective at a threshold of \$50K is nearly 100%

Ferrante S, et al. 62nd AASLD; San Francisco, CA; November 04-08, 2011. Abst. 929.

Cost-Effectiveness of Boceprevir Use in Patients with Chronic Hepatitis C Genotype-1 Who Failed Prior Treatment with Peginterferon/Ribavirin Markov Model

Complication	RGT versus PR48 (95% CI)	B/PR48 versus PR48 (95% CI)
Decompensated cirrhosis	109 (98-120)	131 (121-142)
Hepatocellular carcinoma	22 (16-28)	26 (20-32)
Liver transplantation	11 (7-15)	13 (9-17)
Liver-related death	74 (64-84)	89 (79-98)



Boceprevir based regimens are cost-effective compared to PR48 in in NRs

- Response-guided therapy is cost-effective at a willingness-to-pay threshold of \$50K
- Fixed duration therapy is cost-effective at willingness-to-pay threshold of \$100K