

SUPPLEMENTARY INFORMATION

Cost-Effectiveness of *IL28B* Genotype-Guided Protease Inhibitor Triple Therapy versus Standard of Care Treatment in Patients with Hepatitis C Genotypes 2 or 3 Infection

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Supplemental Table 1: Health state probabilities and ranges for the short and long-term models.
Abbreviations: Probability (prob), reference (ref), non-response (NR), standard of care response-guided therapy (SOC RGT), partial-response (PR), extended rapid virologic response (eRVR), rapid virologic response (RVR), telaprevir (TVR), sustained virologic response (SVR).

Description of Variable	Base Prob	Lower Limit	Upper Limit	Base Prob Ref	Limits Ref
HCV RNA \geq 1,000 IU/mL after 4 or 12 wks of SOC RGT (Treatment Arm 1)	3.50%	1.75%	5.25%	7	£
Relapse after 24 wks of SOC RGT (Treatment Arm 1)	8.60%	4.30%	12.90%	7	£
SVR after 24 wks of SOC RGT (Treatment Arm 1)	87.90%	79.10%	96.70%	7	£
HCV RNA \geq 1,000 IU/mL after 4 or 12 wks of SOC RGT (Treatment Arm 2)	12.20%	6.10%	18.30%	7	£
Relapse after 24 wks of SOC RGT (Treatment Arm 2)	13.60%	6.80%	20.40%	7	£
SVR after 24 wks of SOC RGT (Treatment Arm 2)	74.20%	66.80%	81.60%	7	£
CC at rs12979860 (Treatment Arm 3)	42.70%	38.40%	46.70%	7	£
CT at rs12979860 (Treatment Arm 3)	45.70%	41.10%	50.30%	7	£
TT at rs12979860 (Treatment Arm 3)	11.60%	10.40%	12.80%	7	£
TG or GG at rs8099917 (Treatment Arm 3)	36.70%	33.00%	40.40%	7	£
TT at rs8099917 (Treatment Arm 3)	63.30%	57.00%	69.60%	7	£
HCV RNA \geq 1,000 IU/mL after 4 or 12 wks of SOC RGT CC at rs12979860 (Treatment Arm 3)	3.40%	1.70%	5.10%	7	£
SVR after 24 wks of SOC RGT HCV RNA<1,000 IU/mL after 4 and 12 wks and CC at rs12979860 (Treatment Arm 3)	90.50%	81.50%	99.50%	7†	£
HCV RNA \geq 1,000 IU/mL after 4 or 12 wks of SOC RGT TG/GG at rs8099917 (Treatment Arm 3)	13.00%	6.50%	19.50%	7	£
SVR after 24 wks of SOC RGT HCV RNA<1,000 IU/mL after 4 and 12 wks and TG/GG at rs8099917 (Treatment Arm 3)	86.10%	77.50%	94.70%	7†	£
HCV RNA \geq 1,000 IU/mL after 4 or 12 wks of SOC RGT TT at rs8099917 (Treatment Arm 3)	7.80%	3.90%	11.70%	7	£
SVR after 24 wks of SOC RGT HCV RNA<1,000 IU/mL after 4 and 12 wks and TT at rs8099917 (Treatment Arm 3)	87.30%	78.60%	96.00%	7†	£
HCV RNA \geq 1,000 IU/mL after 4 or 12 wks of SOC RGT TT at rs12979860 (Treatment Arm 3)	19.20%	9.60%	28.80%	7	£
SVR after 24 wks of SOC RGT HCV RNA<1,000 IU/mL after 4 and 12 wks and TT at rs12979860 (Treatment Arm 3)	90.50%	81.50%	99.50%	7†	£
CC at rs12979860 (Treatment Arm 4)	48.00%	43.20%	52.80%	14	£
CT at rs12979860 (Treatment Arm 4)	41.70%	37.50%	45.90%	14	£
TT at rs12979860 (Treatment Arm 4)	10.30%	9.30%	11.30%	14	£
Early Discontinuation CC at rs12979860 (Treatment Arm 4)	2.40%	1.20%	3.60%	14†	£
SVR Early Discontinuation and CC at rs12979860 (Treatment Arm 4)	38.00%	34.20%	41.80%	14†	£
RVR 12 wks of SOC RGT and CC at rs12979860 (Treatment Arm 4)	66.70%	60.00%	73.40%	14	£
SVR RVR and CC at rs12979860 (Treatment Arm 4)	69.60%	62.60%	76.60%	14	£
No RVR 12 wks of SOC RGT and CC at rs12979860 (Treatment Arm 4)	31.00%	27.90%	34.10%	14	£
SVR No RVR and CC at rs12979860 (Treatment Arm 4)	38.50%	34.60%	42.40%	14	£
Early Discontinuation CT at rs12979860 (Treatment Arm 4)	1.40%	0.70%	2.10%	14†	£
SVR Early Discontinuation and CT at rs12979860 (Treatment Arm 4)	44.00%	39.60%	48.40%	14†	£
RVR 12 wks of SOC RGT and CT at rs12979860 (Treatment Arm 4)	60.30%	54.30%	66.30%	14	£
SVR RVR and CT at rs12979860 (Treatment Arm 4)	75.00%	67.50%	82.50%	14	£
No RVR 12 wks of SOC RGT and CT at rs12979860 (Treatment Arm 4)	38.40%	34.60%	42.20%	14	£
SVR No RVR and CT at rs12979860 (Treatment Arm 4)	46.40%	41.80%	51.00%	14	£
Early Discontinuation TT at rs12979860 (Treatment Arm 4)	0.00%	0.00%	10.00%	14†	£
SVR Early Discontinuation and TT at rs12979860 (Treatment Arm 4)	0.00%	0.00%	10.00%	14†	£
RVR 12 wks of SOC RGT and TT at rs12979860 (Treatment Arm 4)	33.30%	30.00%	36.60%	14	£
SVR RVR and TT at rs12979860 (Treatment Arm 4)	83.30%	75.00%	91.60%	14	£
No RVR 12 wks of SOC RGT and TT at rs12979860 (Treatment Arm 4)	66.70%	60.00%	73.40%	14	£
SVR No RVR and TT at rs12979860 (Treatment Arm 4)	41.70%	37.50%	45.90%	14	£
CC at rs12979860 (Treatment Arm 5)	39.80%	35.80%	43.80%	14	£
CT at rs12979860 (Treatment Arm 5)	48.80%	43.90%	53.70%	14	£
TT at rs12979860 (Treatment Arm 5)	11.40%	10.30%	12.50%	14	£
Early Discontinuation CC at rs12979860 (Treatment Arm 5)	0.00%	0.00%	10.00%	14†	£
SVR Early Discontinuation and CC at rs12979860 (Treatment Arm 5)	72.00%	64.80%	79.20%	14†	£
RVR 24 wks of SOC RGT and CC at rs12979860 (Treatment Arm 5)	65.20%	58.70%	71.70%	14	£
SVR RVR and CC at rs12979860 (Treatment Arm 5)	90.70%	81.60%	99.80%	14	£
No RVR 24 wks of SOC RGT and CC at rs12979860 (Treatment Arm 5)	34.80%	31.30%	38.30%	14	£
SVR No RVR and CC at rs12979860 (Treatment Arm 5)	73.90%	66.50%	81.30%	14	£
Early Discontinuation CT at rs12979860 (Treatment Arm 5)	2.50%	1.25%	3.75%	14†	£

SVR Early Discontinuation and CT at rs12979860 (Treatment Arm 5)	58.00%	52.20%	63.80%	14†	£
RVR 24 wks of SOC RGT and CT at rs12979860 (Treatment Arm 5)	58.00%	52.20%	63.80%	14	£
SVR RVR and CT at rs12979860 (Treatment Arm 5)	91.50%	82.30%	100.00%	14	£
No RVR 24 wks of SOC RGT and CT at rs12979860 (Treatment Arm 5)	39.50%	35.60%	43.50%	14	£
SVR No RVR and CT at rs12979860 (Treatment Arm 5)	59.40%	53.50%	65.30%	14	£
Early Discontinuation TT at rs12979860 (Treatment Arm 5)	5.30%	2.65%	7.95%	14†	£
SVR Early Discontinuation and TT at rs12979860 (Treatment Arm 5)	20.00%	18.00%	22.00%	14†	£
RVR 24 wks of SOC RGT and TT at rs12979860 (Treatment Arm 5)	57.90%	52.10%	63.70%	14	£
SVR RVR and TT at rs12979860 (Treatment Arm 5)	81.80%	73.60%	90.00%	14	£
No RVR 24 wks of SOC RGT and TT at rs12979860 (Treatment Arm 5)	36.80%	33.10%	40.50%	14	£
SVR No RVR and TT at rs12979860 (Treatment Arm 5)	28.60%	25.70%	31.40%	14	£
SVR to No Transition (per yr)	99.88%	N/A	N/A	20†	N/A
SVR to Hepatocellular Carcinoma (per yr)	0.12%	N/A	N/A	20†	N/A
No SVR to No Transition (per yr)	92.40%	N/A	N/A	15	N/A
No SVR to Hepatocellular Carcinoma (per yr)	0.10%	0.00%	0.20%	15	15
No SVR to Compensated Cirrhosis (per yr)	7.30%	5.10%	9.50%	15	15
No SVR to Death from Liver Disease (per yr)	0.20%	0.10%	0.30%	15	‡
Hepatocellular Carcinoma to No Transition (per yr)	47.50%	N/A	N/A	19†	N/A
Hepatocellular Carcinoma to Liver Transplant (per yr)	9.80%	N/A	N/A	19†	N/A
Hepatocellular Carcinoma to Death from Liver Disease (per yr)	43.30%	31.90%	49.90%	21	21
Compensated Cirrhosis to No Transition (per yr)	92.90%	N/A	N/A	15	N/A
Compensated Cirrhosis to Hepatocellular Carcinoma (per yr)	2.10%	1.70%	2.80%	21	21
Compensated Cirrhosis to Decompensated Cirrhosis (per yr)	4.00%	3.20%	5.20%	21	21
Compensated Cirrhosis to Death from Liver Disease (per yr)	1.00%	0.80%	1.20%	15	15†
Decompensated Cirrhosis (1st Year) to No Transition	70.68%	N/A	N/A	15	N/A
Decompensated Cirrhosis (1st Year) to HCC	1.40%	0.80%	2.00%	25	‡
Decompensated Cirrhosis (1st Year) to Liver Transplant	3.10%	1.55%	4.65%	15	15†
Decompensated Cirrhosis (1st Year) to Death from Liver Disease	24.82%	19.00%	30.00%	21†	‡
Decompensated Cirrhosis (Subsequent Years) to No Transition (per yr)	82.80%	N/A	N/A	15	15†
Decompensated Cirrhosis (Subsequent Years) to HCC (per yr)	1.40%	0.80%	2.00%	25	‡
Decompensated Cirrhosis (Subsequent Years) to Liver Transplant (per yr)	3.10%	1.55%	4.65%	15	9†
Decompensated Cirrhosis (Subsequent Years) to Death from Liver Disease (per yr)	12.70%	8.00%	18.00%	21†	‡
Liver Transplant (1st Year) to No Transition	79.00%	N/A	N/A	15	15
Liver Transplant (1st Year) to Death from Liver Disease	21.00%	19.30%	22.70%	15	15
Liver Transplant (Subsequent Years) to No Transition (per yr)	94.30%	N/A	N/A	15	15
Liver Transplant (Subsequent Years) to Death from Liver Disease (per yr)	5.70%	4.70%	6.70%	15	15

1. References that were used in conjunction with expert opinion in the field to derive an accurate value for a particular statistic are marked with the symbol † in the reference columns. Statistics for which the value was based on expert opinion in the field are identified by the symbol ‡ in the reference columns (the lower and upper limits listed were used to conduct rigorous sensitivity analysis on these estimates).

2. When upper and lower limits for the variables in the short-term model were not listed in the literature, the probabilities of non-response, probabilities of relapse, and probabilities of early discontinuation were each varied $\pm 50\%$ in the sensitivity analysis to account for higher uncertainty due to smaller samples sizes for these variables. The remaining variables in the short-term model were varied $\pm 10\%$ for the sensitivity analysis. When the base probability was 0.0%, the lower and upper limits were set to 0.0% and 10.0%, respectively. These circumstances are identified by the symbol £ in the limits reference column.

3. The health state transition probabilities exclude the probability of mortality due to non-liver-related complications.

4. Patients with neither RVR nor No RVR were assumed to have discontinued treatment early.

Supplemental Table 2: Treatment-related costs and health states costs for the short and long-term models.
Abbreviations: Interleukin-28B (*IL28B*), sustained virologic response (SVR), United States dollars (USD), reference (ref).

Description of Variable	Value (2011 USD)	Ref
Average Retail Cost: Pegylated Interferon (180 mcg)	\$650.00	16
Average Retail Cost: Ribavirin (600 mg)	\$20.68	16
Average Retail Cost: Telaprevir (375 mg tablets)	\$52.23	16
Dose Frequency: Pegylated Interferon	180 mcg/week	17
Dose Frequency: Ribavirin	800 mg/day	17
Dose Frequency: Telaprevir	2,250 mg/day	12
Approved Lab Fee (<i>IL28B</i> genotyping)	\$810.00	‡
Medicare Reimbursement (<i>IL28B</i> genotyping)	\$80.00	‡
Laboratory Test Cost per Visit	\$75.24	15,18
SVR Cost per Markov Cycle	\$0.00	N/A
No SVR Cost per Markov Cycle	\$159.89	21
Compensated Cirrhosis Cost per Markov Cycle	\$1,163.45	21
Decompensated Cirrhosis (1st Year) Cost per Markov Cycle	\$12,350.77	21†
Decompensated Cirrhosis (Subsequent Years) Cost per Markov Cycle	\$4,946.78	21†
Liver Transplant (1st Year) Cost per Markov Cycle	\$153,764.49	21
Liver Transplant (Subsequent Years) Cost per Markov Cycle	\$26,853.05	21
Death from Liver Disease Cost per Markov Cycle	\$0.00	N/A

1. References that were used in conjunction with expert opinion in the field to derive an accurate value for a particular statistic are marked with the symbol † in the reference columns.

2. Geisinger Medical Center's approved laboratory fees and Medicare reimbursement for *IL28B* genotyping is the source of information for references marked with the symbol ‡.

Supplemental Table 3: Health-related quality-of-life weights and ranges for the long-term model.
Abbreviations: Health-related quality-of-life (HRQoL), sustained virologic response (SVR), probability (prob), reference (ref).

Health State	HRQoL	Lower Limit	Upper Limit	Base Prob Ref	Limits Ref
SVR	1	N/A	N/A	N/A	N/A
No SVR	0.92	0.72	1.0	21	21
Compensated Cirrhosis	0.82	0.46	1.0	21	21
Decompensated Cirrhosis (1st Year)	0.61	0.30	0.95	21†	21†
Decompensated Cirrhosis (Subsequent Years)	0.62	0.32	0.97	21†	21†
Hepatocellular Carcinoma	0.55	0.15	0.95	21	21
Liver Transplant (1st Year)	0.86	0.66	1.0	21	21
Liver Transplant (Subsequent Years)	0.86	0.66	1.0	21	21
Death from Liver Disease	0	N/A	N/A	N/A	N/A

1. References that were used in conjunction with expert opinion in the field to derive an accurate value for a particular statistic are marked with the symbol † in the reference columns.

Supplemental Table 4: Sensitivity analysis for the short-term model.

Abbreviations: Hepatitis C Virus (HCV), standard of care (SOC), sustained virologic response (SVR), rapid virologic response (RVR), International Units/milliliters (IU/mL).

Description of Variable	Lower Limit	Upper Limit	Treat. Cost (Lower Limit)	Treat. Cost (Upper Limit)	Spread
HCV RNA \geq 1,000 IU/mL after 4 or 12 wks of SOC (Treatment Arm 1)	1.75%	5.25%	\$20,400.31	\$20,155.05	\$245.26
Relapse after 24 wks of SOC (Treatment Arm 1)	4.30%	12.90%	\$21,170.32	\$19,385.04	\$1,785.27
SVR after 24 wks of SOC (Treatment Arm 1)	79.10%	96.70%	\$22,104.47	\$18,450.89	\$3,653.58
HCV RNA \geq 1,000 IU/mL after 4 or 12 wks of SOC (Treatment Arm 2)	6.10%	18.30%	\$19,508.75	\$18,653.84	\$854.91
Relapse after 24 wks of SOC (Treatment Arm 2)	6.80%	20.40%	\$20,492.91	\$17,669.68	\$2,823.22
SVR after 24 wks of SOC (Treatment Arm 2)	66.80%	81.60%	\$20,617.46	\$17,545.13	\$3,072.33
CC at rs12979860 (Treatment Arm 3)	38.40%	46.70%	\$20,455.75	\$18,771.57	\$1,684.19
CT at rs12979860 (Treatment Arm 3)	41.10%	50.30%	\$20,537.71	\$18,750.48	\$1,787.23
TT at rs12979860 (Treatment Arm 3)	10.40%	12.80%	\$19,861.52	\$19,426.67	\$434.85
TG or GG at rs8099917 (Treatment Arm 3)	33.00%	40.40%	\$19,965.00	\$19,323.20	\$641.80
TT at rs8099917 (Treatment Arm 3)	57.00%	69.60%	\$20,210.89	\$19,077.31	\$1,133.58
HCV RNA \geq 1,000 IU/mL after 4 or 12 wks of SOC CC at rs12979860 (Treatment Arm 3)	1.70%	5.10%	\$19,743.92	\$19,544.27	\$199.64
HCV RNA \geq 1,000 IU/mL after 4 or 12 wks of SOC TG/GG at rs8099917 (Treatment Arm 3)	6.50%	19.50%	\$19,792.86	\$19,493.03	\$299.83
HCV RNA \geq 1,000 IU/mL after 4 or 12 wks of SOC TT at rs8099917 (Treatment Arm 3)	3.90%	11.70%	\$19,799.24	\$19,488.95	\$310.29
HCV RNA \geq 1,000 IU/mL after 4 or 12 wks of SOC TT at rs12979860 (Treatment Arm 3)	9.60%	28.80%	\$19,797.23	\$19,536.71	\$260.52
CC at rs12979860 (Treatment Arm 4)	43.20%	52.80%	\$10,900.74	\$9,905.38	\$995.36
CT at rs12979860 (Treatment Arm 4)	37.50%	45.90%	\$10,839.26	\$9,963.89	\$875.36
TT at rs12979860 (Treatment Arm 4)	9.30%	11.30%	\$10,509.48	\$10,299.64	\$209.85
Early Discontinuation CC at rs12979860 (Treatment Arm 4)	1.20%	3.60%	\$10,432.75	\$10,305.94	\$126.81
RVR 12 wks of SOC and CC at rs12979860 (Treatment Arm 4)	60.00%	73.40%	\$10,949.02	\$10,021.10	\$927.92
No RVR 12 wks of SOC and CC at rs12979860 (Treatment Arm 4)	27.90%	34.10%	\$10,572.79	\$10,209.35	\$363.44
Early Discontinuation CT at rs12979860 (Treatment Arm 4)	0.70%	2.10%	\$10,459.58	\$10,385.61	\$73.97
RVR 12 wks of SOC and CT at rs12979860 (Treatment Arm 4)	54.30%	66.30%	\$10,980.89	\$10,109.84	\$871.05
No RVR 12 wks of SOC and CT at rs12979860 (Treatment Arm 4)	34.60%	42.20%	\$10,751.93	\$10,225.36	\$526.57
Early Discontinuation TT at rs12979860 (Treatment Arm 4)	0.00%	10.00%	\$11,020.73	\$10,492.35	\$528.38
RVR 12 wks of SOC and TT at rs12979860 (Treatment Arm 4)	30.00%	36.60%	\$10,835.10	\$10,318.73	\$516.37
No RVR 12 wks of SOC and TT at rs12979860 (Treatment Arm 4)	60.00%	73.40%	\$11,198.84	\$10,145.11	\$1,053.72
CC at rs12979860 (Treatment Arm 5)	35.80%	43.80%	\$21,412.30	\$19,751.59	\$1,660.72
CT at rs12979860 (Treatment Arm 5)	43.90%	53.70%	\$21,579.20	\$19,569.66	\$2,009.54
TT at rs12979860 (Treatment Arm 5)	10.30%	12.50%	\$20,786.59	\$20,341.78	\$444.81
Early Discontinuation CC at rs12979860 (Treatment Arm 5)	0.00%	10.00%	\$21,808.22	\$20,758.98	\$1,049.24
RVR 24 wks of SOC and CC at rs12979860 (Treatment Arm 5)	58.70%	71.70%	\$22,118.38	\$20,096.63	\$2,021.75
No RVR 24 wks of SOC and CC at rs12979860 (Treatment Arm 5)	31.30%	38.30%	\$21,475.48	\$20,394.67	\$1,080.81
Early Discontinuation CT at rs12979860 (Treatment Arm 5)	1.25%	3.75%	\$20,639.88	\$20,377.57	\$262.31
RVR 24 wks of SOC and CT at rs12979860 (Treatment Arm 5)	52.20%	63.80%	\$21,445.31	\$19,907.49	\$1,537.82
No RVR 24 wks of SOC and CT at rs12979860 (Treatment Arm 5)	35.60%	43.50%	\$21,075.49	\$20,104.45	\$971.04
Early Discontinuation TT at rs12979860 (Treatment Arm 5)	2.65%	7.95%	\$20,500.55	\$19,944.45	\$556.09
RVR 24 wks of SOC and TT at rs12979860 (Treatment Arm 5)	52.10%	63.70%	\$20,871.52	\$19,623.71	\$1,247.81
No RVR 24 wks of SOC and TT at rs12979860 (Treatment Arm 5)	33.10%	40.50%	\$20,594.18	\$19,834.45	\$759.73

Supplemental Table 5a: Sensitivity analysis for cost outcomes in the long-term model for Cohort A.
Abbreviations: Sustained virologic response (SVR), year (yr).

Description of Variable	Lower Limit	Upper Limit	Treatment Arm	Long-Term Cost Lower Limit	Long-Term Cost Upper Limit	Spread
No SVR to Hepatocellular Carcinoma (per yr)	0.00%	0.20%	Arm 1	\$14,114.94	\$14,352.51	\$237.57
			Arm 2	\$18,685.43	\$19,191.98	\$506.55
			Arm 3	\$16,183.34	\$16,542.64	\$359.30
			Arm 4	\$23,189.19	\$23,960.80	\$771.61
			Arm 5	\$17,250.89	\$17,673.02	\$422.13
No SVR to Compensated Cirrhosis (per yr)	5.10%	9.50%	Arm 1	\$13,461.67	\$14,771.82	\$1,310.15
			Arm 2	\$17,292.50	\$20,086.04	\$2,793.54
			Arm 3	\$15,195.33	\$17,176.80	\$1,981.47
			Arm 4	\$21,067.40	\$25,322.69	\$4,255.29
			Arm 5	\$16,090.12	\$18,418.07	\$2,327.95
No SVR to Death from Liver Disease (per yr)	0.10%	0.30%	Arm 1	\$14,275.23	\$14,194.81	-\$80.42
			Arm 2	\$19,027.20	\$18,855.74	-\$171.46
			Arm 3	\$16,425.76	\$16,304.14	-\$121.62
			Arm 4	\$23,709.80	\$23,448.61	-\$261.19
			Arm 5	\$17,535.71	\$17,392.82	-\$142.89
Hepatocellular Carcinoma to Death from Liver Disease (per yr)	31.90%	49.90%	Arm 1	\$16,991.20	\$13,081.45	-\$3,909.75
			Arm 2	\$22,037.39	\$17,645.49	-\$4,391.90
			Arm 3	\$19,274.88	\$15,146.93	-\$4,127.95
			Arm 4	\$27,009.90	\$22,142.91	-\$4,866.99
			Arm 5	\$20,453.55	\$16,212.98	-\$4,240.57
Compensated Cirrhosis to Hepatocellular Carcinoma (per yr)	1.70%	2.80%	Arm 1	\$13,987.82	\$14,629.62	\$641.80
			Arm 2	\$18,414.38	\$19,782.85	\$1,368.47
			Arm 3	\$15,991.08	\$16,961.74	\$970.66
			Arm 4	\$22,776.31	\$24,860.84	\$2,084.53
			Arm 5	\$17,025.02	\$18,165.41	\$1,140.39
Compensated Cirrhosis to Decompensated Cirrhosis (per yr)	3.20%	5.20%	Arm 1	\$14,107.26	\$14,395.93	\$288.67
			Arm 2	\$18,669.04	\$19,284.55	\$615.51
			Arm 3	\$16,171.71	\$16,608.30	\$436.59
			Arm 4	\$23,164.23	\$24,101.81	\$937.58
			Arm 5	\$17,237.24	\$17,750.16	\$512.92
Compensated Cirrhosis to Death from Liver Disease (per yr)	0.80%	1.20%	Arm 1	\$14,313.24	\$14,158.41	-\$154.83
			Arm 2	\$19,108.25	\$18,778.10	-\$330.15
			Arm 3	\$16,483.25	\$16,249.07	-\$234.18
			Arm 4	\$23,833.26	\$23,330.36	-\$502.90
			Arm 5	\$17,603.25	\$17,328.13	-\$275.12
Decompensated Cirrhosis (1st Year) to Hepatocellular Carcinoma	0.80%	2.00%	Arm 1	\$14,224.68	\$14,244.82	\$20.14
			Arm 2	\$18,919.41	\$18,962.37	\$42.96
			Arm 3	\$16,349.30	\$16,379.77	\$30.47
			Arm 4	\$23,545.60	\$23,611.04	\$65.44
			Arm 5	\$17,445.88	\$17,481.68	\$35.80
Decompensated Cirrhosis (1st Year) to Liver Transplant	1.55%	4.65%	Arm 1	\$14,126.97	\$14,342.53	\$215.56
			Arm 2	\$18,711.07	\$19,170.70	\$459.63
			Arm 3	\$16,201.53	\$16,527.54	\$326.01
			Arm 4	\$23,228.26	\$23,928.38	\$700.12
			Arm 5	\$17,272.27	\$17,655.29	\$383.02
Decompensated Cirrhosis (1st Year) to Death from Liver Disease	19.00%	30.00%	Arm 1	\$14,355.66	\$14,127.13	-\$228.53
			Arm 2	\$19,198.70	\$18,711.41	-\$487.29
			Arm 3	\$16,547.40	\$16,201.76	-\$345.64
			Arm 4	\$23,971.03	\$23,228.76	-\$742.27
			Arm 5	\$17,678.62	\$17,272.54	-\$406.08
Decompensated Cirrhosis (Subsequent Years) to Hepatocellular Carcinoma (per yr)	0.80%	2.00%	Arm 1	\$14,201.11	\$14,266.64	\$65.53
			Arm 2	\$18,869.15	\$19,008.87	\$139.72
			Arm 3	\$16,313.65	\$16,412.76	\$99.11
			Arm 4	\$23,469.05	\$23,681.88	\$212.83
			Arm 5	\$17,404.00	\$17,520.43	\$116.43
Decompensated Cirrhosis (Subsequent Years) to Liver Transplant (per yr)	1.55%	4.65%	Arm 1	\$13,876.22	\$14,548.86	\$672.64
			Arm 2	\$18,176.42	\$19,610.65	\$1,434.23
			Arm 3	\$15,822.30	\$16,839.60	\$1,017.30
			Arm 4	\$22,413.85	\$24,598.54	\$2,184.69
			Arm 5	\$16,826.72	\$18,021.91	\$1,195.19

Decompensated Cirrhosis (Subsequent Years) to Death from Liver Disease (per yr)	8.00%	18.00%	Arm 1	\$14,602.31	\$13,960.87	-\$641.44
			Arm 2	\$19,724.60	\$18,356.90	-\$1,367.70
			Arm 3	\$16,920.43	\$15,950.31	-\$970.12
			Arm 4	\$24,772.12	\$22,688.77	-\$2,083.35
			Arm 5	\$18,116.88	\$16,977.13	-\$1,139.75
Liver Transplant (1st Year) to Death from Liver Disease	19.30%	22.70%	Arm 1	\$14,301.95	\$14,167.55	-\$134.40
			Arm 2	\$19,029.72	\$18,852.05	-\$177.67
			Arm 3	\$16,441.52	\$16,287.54	-\$153.98
			Arm 4	\$23,688.48	\$23,468.16	-\$220.32
			Arm 5	\$17,545.82	\$17,381.73	-\$164.09
Liver Transplant (Subsequent Years) to Death from Liver Disease (per yr)	4.70%	6.70%	Arm 1	\$14,495.31	\$14,007.87	-\$487.44
			Arm 2	\$19,281.74	\$18,643.57	-\$638.17
			Arm 3	\$16,661.43	\$16,105.78	-\$555.65
			Arm 4	\$23,998.30	\$23,211.60	-\$786.70
			Arm 5	\$17,779.43	\$17,188.57	-\$590.86

Supplemental Table 5b: Sensitivity analysis for effectiveness outcomes in the long-term model for Cohort A.
Abbreviations: Quality-adjusted life expectancy (QALE), sustained virologic response (SVR), year (yr).

Description of Variable	Lower Limit	Upper Limit	Treatment Arm	QALE Lower Limit	QALE Upper Limit	Spread
No SVR to Hepatocellular Carcinoma (per yr)	0.00%	0.20%	Arm 1	20.01	19.99	-0.02
			Arm 2	19.09	19.04	-0.05
			Arm 3	19.60	19.56	-0.04
			Arm 4	18.19	18.11	-0.08
			Arm 5	19.38	19.34	-0.04
No SVR to Compensated Cirrhosis (per yr)	5.10%	9.50%	Arm 1	20.12	19.92	-0.20
			Arm 2	19.31	18.89	-0.42
			Arm 3	19.75	19.45	-0.30
			Arm 4	18.52	17.87	-0.65
			Arm 5	19.57	19.21	-0.36
No SVR to Death from Liver Disease (per yr)	0.10%	0.30%	Arm 1	20.02	19.99	-0.03
			Arm 2	19.10	19.04	-0.06
			Arm 3	19.60	19.56	-0.04
			Arm 4	18.19	18.10	-0.09
			Arm 5	19.39	19.34	-0.05
Hepatocellular Carcinoma to Death from Liver Disease (per yr)	31.90%	49.90%	Arm 1	20.04	19.98	-0.06
			Arm 2	19.11	19.05	-0.06
			Arm 3	19.62	19.56	-0.06
			Arm 4	18.20	18.12	-0.08
			Arm 5	19.41	19.34	-0.07
Compensated Cirrhosis to Hepatocellular Carcinoma (per yr)	1.70%	2.80%	Arm 1	20.02	19.97	-0.05
			Arm 2	19.10	19.01	-0.09
			Arm 3	19.61	19.54	-0.07
			Arm 4	18.20	18.05	-0.15
			Arm 5	19.39	19.31	-0.08
Compensated Cirrhosis to Decompensated Cirrhosis (per yr)	3.20%	5.20%	Arm 1	20.03	19.96	-0.07
			Arm 2	19.13	18.99	-0.14
			Arm 3	19.62	19.52	-0.10
			Arm 4	18.24	18.03	-0.21
			Arm 5	19.41	19.30	-0.11
Compensated Cirrhosis to Death from Liver Disease (per yr)	0.80%	1.20%	Arm 1	20.01	19.99	-0.02
			Arm 2	19.09	19.04	-0.05
			Arm 3	19.60	19.56	-0.04
			Arm 4	18.18	18.11	-0.07
			Arm 5	19.38	19.34	-0.04
Decompensated Cirrhosis (1st Year) to Hepatocellular Carcinoma	0.80%	2.00%	Arm 1	20.00	20.00	0.00
			Arm 2	19.07	19.07	0.00
			Arm 3	19.58	19.58	0.00
			Arm 4	18.15	18.15	0.00
			Arm 5	19.36	19.36	0.00
Decompensated Cirrhosis (1st Year) to Liver Transplant	1.55%	4.65%	Arm 1	20.00	20.00	0.00
			Arm 2	19.06	19.07	0.01
			Arm 3	19.58	19.58	0.00
			Arm 4	18.14	18.15	0.01
			Arm 5	19.36	19.36	0.00
Decompensated Cirrhosis (1st Year) to Death from Liver Disease	19.00%	30.00%	Arm 1	20.01	20.00	-0.01
			Arm 2	19.08	19.06	-0.02
			Arm 3	19.59	19.57	-0.02
			Arm 4	18.17	18.13	-0.04
			Arm 5	19.37	19.35	-0.02
Decompensated Cirrhosis (Subsequent Years) to Hepatocellular Carcinoma (per yr)	0.80%	2.00%	Arm 1	20.00	20.00	0.00
			Arm 2	19.07	19.07	0.00
			Arm 3	19.58	19.58	0.00
			Arm 4	18.15	18.14	-0.01
			Arm 5	19.36	19.36	0.00
Decompensated Cirrhosis (Subsequent Years) to Liver Transplant (per yr)	1.55%	4.65%	Arm 1	20.00	20.00	0.00
			Arm 2	19.06	19.07	0.01
			Arm 3	19.57	19.58	0.01
			Arm 4	18.13	18.16	0.03
			Arm 5	19.35	19.37	0.02

Decompensated Cirrhosis (Subsequent Years) to Death from Liver Disease (per yr)	8.00%	18.00%	Arm 1	20.02	19.99	-0.03
			Arm 2	19.11	19.04	-0.07
			Arm 3	19.61	19.56	-0.05
			Arm 4	18.21	18.10	-0.11
			Arm 5	19.39	19.34	-0.05
Liver Transplant (1st Year) to Death from Liver Disease	19.30%	22.70%	Arm 1	20.00	20.00	0.00
			Arm 2	19.07	19.06	-0.01
			Arm 3	19.58	19.58	0.00
			Arm 4	18.15	18.14	-0.01
			Arm 5	19.36	19.36	0.00
Liver Transplant (Subsequent Years) to Death from Liver Disease (per yr)	4.70%	6.70%	Arm 1	20.01	19.99	-0.02
			Arm 2	19.08	19.06	-0.02
			Arm 3	19.59	19.57	-0.02
			Arm 4	18.16	18.13	-0.03
			Arm 5	19.37	19.35	-0.02

Supplemental Table 6a: Sensitivity analysis for cost outcomes in the long-term model for Cohort B.
Abbreviations: Sustained virologic response (SVR), year (yr).

Description of Variable	Lower Limit	Upper Limit	Treatment Arm	Long-Term Cost Lower Limit	Long-Term Cost Upper Limit	Spread
No SVR to Hepatocellular Carcinoma (per yr)	0.00%	0.20%	Arm 1	\$11,229.00	\$11,460.51	\$231.51
			Arm 2	\$14,844.53	\$15,338.17	\$493.64
			Arm 3	\$12,865.23	\$13,215.36	\$350.13
			Arm 4	\$18,407.28	\$19,159.21	\$751.93
			Arm 5	\$13,709.73	\$14,121.09	\$411.36
No SVR to Compensated Cirrhosis (per yr)	5.10%	9.50%	Arm 1	\$10,653.01	\$11,853.35	\$1,200.34
			Arm 2	\$13,616.38	\$16,175.78	\$2,559.40
			Arm 3	\$11,994.10	\$13,809.49	\$1,815.39
			Arm 4	\$16,536.49	\$20,435.12	\$3,898.63
			Arm 5	\$12,686.27	\$14,819.11	\$2,132.84
No SVR to Death from Liver Disease (per yr)	0.10%	0.30%	Arm 1	\$11,373.57	\$11,318.03	-\$55.54
			Arm 2	\$15,152.79	\$15,034.36	-\$118.43
			Arm 3	\$13,083.88	\$12,999.88	-\$84.00
			Arm 4	\$18,876.84	\$18,696.44	-\$180.40
			Arm 5	\$13,966.61	\$13,867.92	-\$98.69
Hepatocellular Carcinoma to Death from Liver Disease (per yr)	31.90%	49.90%	Arm 1	\$13,482.44	\$10,443.74	-\$3,038.70
			Arm 2	\$17,492.56	\$14,080.20	-\$3,412.36
			Arm 3	\$15,297.24	\$12,089.44	-\$3,207.80
			Arm 4	\$21,444.13	\$17,663.58	-\$3,780.55
			Arm 5	\$16,233.91	\$12,938.83	-\$3,295.08
Compensated Cirrhosis to Hepatocellular Carcinoma (per yr)	1.70%	2.80%	Arm 1	\$11,129.10	\$11,696.47	\$567.37
			Arm 2	\$14,631.51	\$15,841.29	\$1,209.78
			Arm 3	\$12,714.13	\$13,572.23	\$858.10
			Arm 4	\$18,082.80	\$19,925.60	\$1,842.80
			Arm 5	\$13,532.22	\$14,540.36	\$1,008.14
Compensated Cirrhosis to Decompensated Cirrhosis (per yr)	3.20%	5.20%	Arm 1	\$11,226.72	\$11,500.37	\$273.65
			Arm 2	\$14,839.66	\$15,423.15	\$583.49
			Arm 3	\$12,861.77	\$13,275.64	\$413.87
			Arm 4	\$18,399.86	\$19,288.66	\$888.80
			Arm 5	\$13,705.67	\$14,191.91	\$486.24
Compensated Cirrhosis to Death from Liver Disease (per yr)	0.80%	1.20%	Arm 1	\$11,398.60	\$11,293.91	-\$104.69
			Arm 2	\$15,206.15	\$14,982.92	-\$223.23
			Arm 3	\$13,121.72	\$12,963.39	-\$158.33
			Arm 4	\$18,958.11	\$18,618.08	-\$340.03
			Arm 5	\$14,011.08	\$13,825.05	-\$186.03
Decompensated Cirrhosis (1st Year) to Hepatocellular Carcinoma	0.80%	2.00%	Arm 1	\$11,336.91	\$11,354.38	\$17.47
			Arm 2	\$15,074.61	\$15,111.86	\$37.25
			Arm 3	\$13,028.43	\$13,054.84	\$26.41
			Arm 4	\$18,757.76	\$18,814.48	\$56.72
			Arm 5	\$13,901.47	\$13,932.50	\$31.03
Decompensated Cirrhosis (1st Year) to Liver Transplant	1.55%	4.65%	Arm 1	\$11,262.41	\$11,428.87	\$166.46
			Arm 2	\$14,915.77	\$15,270.70	\$354.93
			Arm 3	\$12,915.76	\$13,167.51	\$251.75
			Arm 4	\$18,515.79	\$19,056.45	\$540.66
			Arm 5	\$13,769.09	\$14,064.87	\$295.78
Decompensated Cirrhosis (1st Year) to Death from Liver Disease	19.00%	30.00%	Arm 1	\$11,433.35	\$11,267.57	-\$165.78
			Arm 2	\$15,280.25	\$14,926.77	-\$353.48
			Arm 3	\$13,174.28	\$12,923.56	-\$250.72
			Arm 4	\$19,070.99	\$18,532.56	-\$538.43
			Arm 5	\$14,072.83	\$13,778.27	-\$294.56
Decompensated Cirrhosis (Subsequent Years) to Hepatocellular Carcinoma (per yr)	0.80%	2.00%	Arm 1	\$11,318.78	\$11,371.23	\$52.45
			Arm 2	\$15,035.97	\$15,147.79	\$111.82
			Arm 3	\$13,001.01	\$13,080.33	\$79.32
			Arm 4	\$18,698.89	\$18,869.23	\$170.34
			Arm 5	\$13,869.26	\$13,962.45	\$93.19
Decompensated Cirrhosis (Subsequent Years) to Liver Transplant (per yr)	1.55%	4.65%	Arm 1	\$11,093.33	\$11,569.56	\$476.23
			Arm 2	\$14,555.26	\$15,570.68	\$1,015.42
			Arm 3	\$12,660.04	\$13,380.29	\$720.25
			Arm 4	\$17,966.64	\$19,513.39	\$1,546.75
			Arm 5	\$13,468.67	\$14,314.85	\$846.18

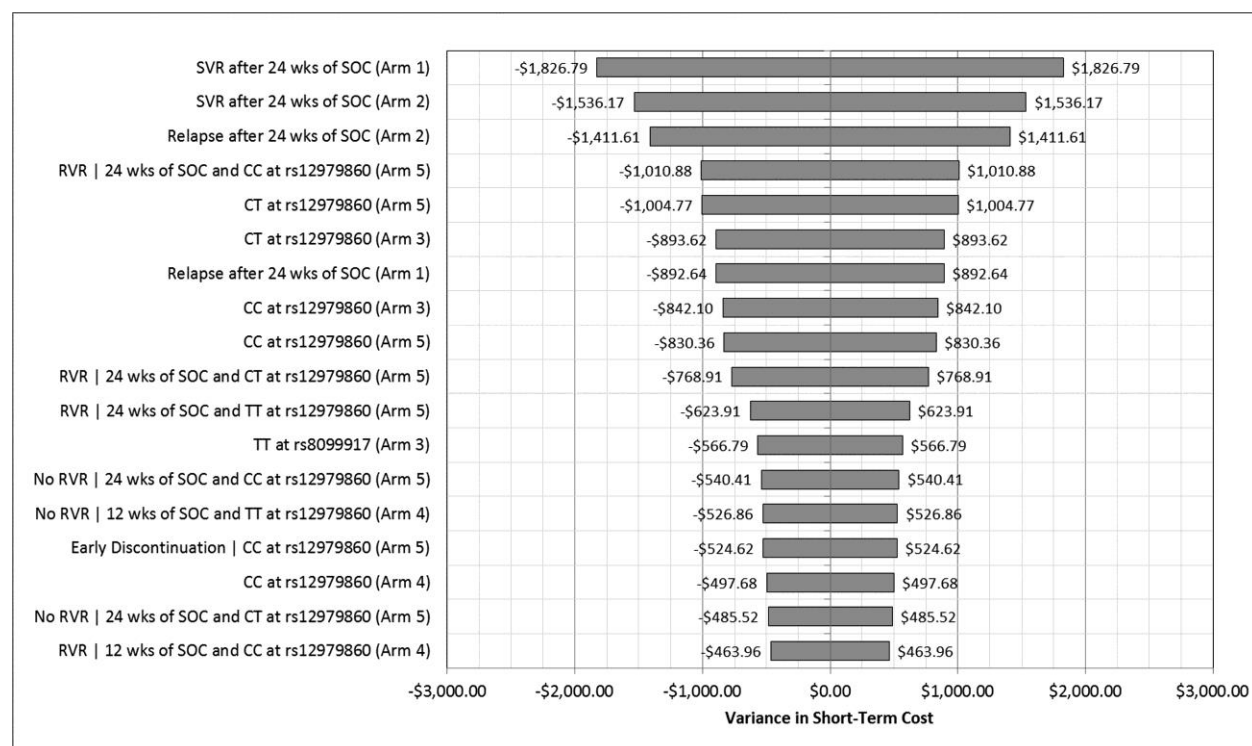
Decompensated Cirrhosis (Subsequent Years) to Death from Liver Disease (per yr)	8.00%	18.00%	Arm 1	\$11,580.66	\$11,162.25	-\$418.41
			Arm 2	\$15,594.34	\$14,702.20	-\$892.14
			Arm 3	\$13,397.07	\$12,764.27	-\$632.80
			Arm 4	\$19,549.43	\$18,190.47	-\$1,358.96
			Arm 5	\$14,334.57	\$13,591.12	-\$743.45
Liver Transplant (1st Year) to Death from Liver Disease	19.30%	22.70%	Arm 1	\$11,392.39	\$11,298.89	-\$93.50
			Arm 2	\$15,154.25	\$15,032.22	-\$122.03
			Arm 3	\$13,094.84	\$12,988.43	-\$106.41
			Arm 4	\$18,861.18	\$18,711.05	-\$150.13
			Arm 5	\$13,973.52	\$13,860.45	-\$113.07
Liver Transplant (Subsequent Years) to Death from Liver Disease (per yr)	4.70%	6.70%	Arm 1	\$11,495.21	\$11,212.13	-\$283.08
			Arm 2	\$15,284.86	\$14,921.82	-\$363.04
			Arm 3	\$13,210.23	\$12,890.97	-\$319.26
			Arm 4	\$19,019.18	\$18,577.36	-\$441.82
			Arm 5	\$14,095.41	\$13,757.47	-\$337.94

Supplemental Table 6b: Sensitivity analysis for effectiveness outcomes in the long-term model for Cohort B.
Abbreviations: Quality-adjusted life expectancy (QALE), sustained virologic response (SVR), year (yr).

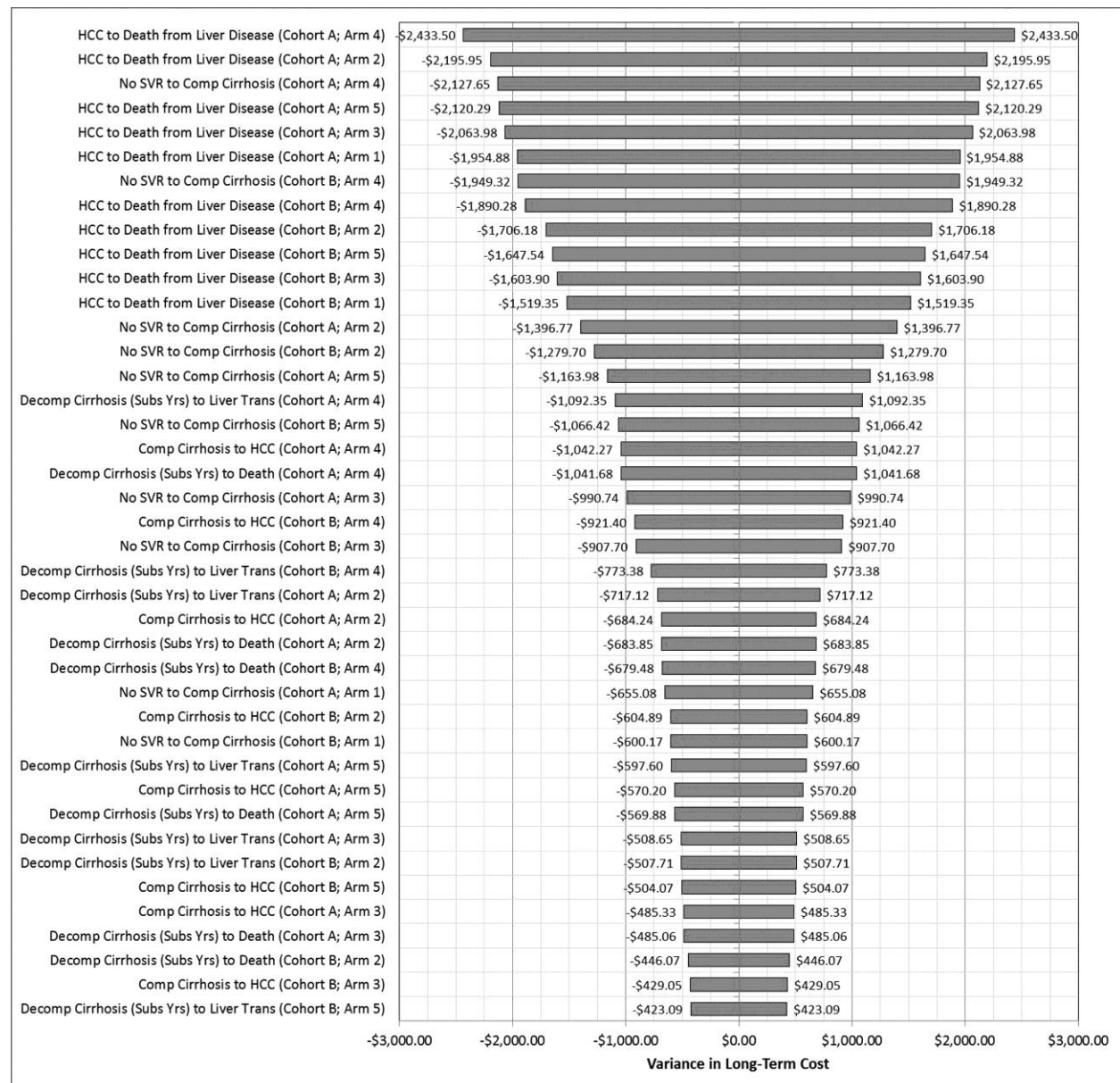
Description of Variable	Lower Limit	Upper Limit	Treatment Arm	QALE Lower Limit	QALE Upper Limit	Spread
No SVR to Hepatocellular Carcinoma (per yr)	0.00%	0.20%	Arm 1	16.82	16.80	-0.02
			Arm 2	16.17	16.13	-0.04
			Arm 3	16.52	16.50	-0.02
			Arm 4	15.53	15.47	-0.06
			Arm 5	16.37	16.34	-0.03
No SVR to Compensated Cirrhosis (per yr)	5.10%	9.50%	Arm 1	16.89	16.74	-0.15
			Arm 2	16.33	16.01	-0.32
			Arm 3	16.64	16.41	-0.23
			Arm 4	15.77	15.29	-0.48
			Arm 5	16.50	16.24	-0.26
No SVR to Death from Liver Disease (per yr)	0.10%	0.30%	Arm 1	16.82	16.80	-0.02
			Arm 2	16.17	16.13	-0.04
			Arm 3	16.53	16.49	-0.04
			Arm 4	15.54	15.46	-0.08
			Arm 5	16.38	16.34	-0.04
Hepatocellular Carcinoma to Death from Liver Disease (per yr)	31.90%	49.90%	Arm 1	16.84	16.79	-0.05
			Arm 2	16.18	16.13	-0.05
			Arm 3	16.54	16.50	-0.04
			Arm 4	15.54	15.49	-0.05
			Arm 5	16.39	16.34	-0.05
Compensated Cirrhosis to Hepatocellular Carcinoma (per yr)	1.70%	2.80%	Arm 1	16.82	16.79	-0.03
			Arm 2	16.18	16.11	-0.07
			Arm 3	16.53	16.48	-0.05
			Arm 4	15.54	15.44	-0.10
			Arm 5	16.38	16.32	-0.06
Compensated Cirrhosis to Decompensated Cirrhosis (per yr)	3.20%	5.20%	Arm 1	16.83	16.78	-0.05
			Arm 2	16.19	16.09	-0.10
			Arm 3	16.54	16.47	-0.07
			Arm 4	15.57	15.42	-0.15
			Arm 5	16.39	16.31	-0.08
Compensated Cirrhosis to Death from Liver Disease (per yr)	0.80%	1.20%	Arm 1	16.82	16.80	-0.02
			Arm 2	16.17	16.13	-0.04
			Arm 3	16.52	16.50	-0.02
			Arm 4	15.53	15.48	-0.05
			Arm 5	16.37	16.34	-0.03
Decompensated Cirrhosis (1st Year) to Hepatocellular Carcinoma	0.80%	2.00%	Arm 1	16.81	16.81	0.00
			Arm 2	16.15	16.15	0.00
			Arm 3	16.51	16.51	0.00
			Arm 4	15.50	15.50	0.00
			Arm 5	16.36	16.36	0.00
Decompensated Cirrhosis (1st Year) to Liver Transplant	1.55%	4.65%	Arm 1	16.81	16.81	0.00
			Arm 2	16.15	16.15	0.00
			Arm 3	16.51	16.51	0.00
			Arm 4	15.50	15.50	0.00
			Arm 5	16.35	16.36	0.01
Decompensated Cirrhosis (1st Year) to Death from Liver Disease	19.00%	30.00%	Arm 1	16.81	16.80	-0.01
			Arm 2	16.16	16.14	-0.02
			Arm 3	16.52	16.50	-0.02
			Arm 4	15.52	15.49	-0.03
			Arm 5	16.36	16.35	-0.01
Decompensated Cirrhosis (Subsequent Years) to Hepatocellular Carcinoma (per yr)	0.80%	2.00%	Arm 1	16.81	16.81	0.00
			Arm 2	16.15	16.15	0.00
			Arm 3	16.51	16.51	0.00
			Arm 4	15.50	15.50	0.00
			Arm 5	16.36	16.35	-0.01
Decompensated Cirrhosis (Subsequent Years) to Liver Transplant (per yr)	1.55%	4.65%	Arm 1	16.80	16.81	0.01
			Arm 2	16.14	16.15	0.01
			Arm 3	16.51	16.51	0.00
			Arm 4	15.49	15.51	0.02
			Arm 5	16.35	16.36	0.01

Decompensated Cirrhosis (Subsequent Years) to Death from Liver Disease (per yr)	8.00%	18.00%	Arm 1	16.82	16.80	-0.02
			Arm 2	16.18	16.13	-0.05
			Arm 3	16.53	16.49	-0.04
			Arm 4	15.54	15.47	-0.07
			Arm 5	16.38	16.34	-0.04
Liver Transplant (1st Year) to Death from Liver Disease	19.30%	22.70%	Arm 1	16.81	16.81	0.00
			Arm 2	16.15	16.15	0.00
			Arm 3	16.51	16.51	0.00
			Arm 4	15.50	15.50	0.00
			Arm 5	16.36	16.35	-0.01
Liver Transplant (Subsequent Years) to Death from Liver Disease (per yr)	4.70%	6.70%	Arm 1	16.81	16.80	-0.01
			Arm 2	16.16	16.14	-0.02
			Arm 3	16.51	16.50	-0.01
			Arm 4	15.51	15.50	-0.01
			Arm 5	16.36	16.35	-0.01

Supplemental Figure 1: Tornado diagram for the most cost-sensitive short-term variables.
Abbreviations: Sustained virologic response (SVR), standard of care (SOC), rapid virologic response (RVR).



Supplemental Figure 2: Tornado diagram depicting the most cost-sensitive long-term variables for Cohorts A and B. Abbreviations: Hepatocellular carcinoma (HCC), sustained virologic response (SVR), compensated (comp), decompensated (decomp), subsequent years (Subs Yrs), transplant (trans).



Supplemental Figure 3: Tornado diagram depicting the most QALE-sensitive long-term variables for Cohorts A and B. Abbreviations: Sustained virologic response (SVR), compensated (comp), decompensated (decomp), hepatocellular carcinoma (HCC), subsequent years (Subs Yrs).

