

Supplementary Materials

Supplementary Table 1: Annual transition probability matrix for people who enter the model as HBsAg+ and HBeAg+ derived from Shepherd(1) and Marcellin(2)

From:	To:	HBsAg seroconverted	HBeAg seroconverted	CHB HBeAg+ active disease	CC	DC	HCC	LT1	LT2	Dead ⁺
HBsAg seroconverted		#	0	0	0	0	0.00005	0	0	0
HBeAg seroconverted		0.02	#	0.03	0.01	0	0.005	0	0	0
CHB HBeAg+ active disease no treatment		0.0175	0.05	#	0.05	0	0.005	0	0	0.0035
CHB HBeAg+ active disease or CC on treatment										
Treatment response with peglyated interferon		0.0175	0.20	#	0.05	0	0.005	0	0	0.0035
Treatment response with tenofovir		0.0175	0.054	#	0.05	0	0.005	0	0	0.0035
Compensated cirrhosis (CC) no treatment		0	0.05	0	#	0.05	0.025	0	0	0.051
Decompensated cirrhosis (DC)		0	0	0	0	#	0.025	0.03	0	0.39
Hepatocellular carcinoma (HCC)		0	0	0	0	0	#	0	0	0.56
Liver transplant – first year (LT1)		0	0	0	0	0	0	#	0	0.21
Liver transplant – subsequent years (LT2)		0	0	0	0	0	0	0	#	0.057

⁺an age-adjusted general population mortality is added to this amount; #, indicates the residual row probability; all values are converted to a Dirichlet distribution by assuming an effective sample size of 200 for each row(3)

Supplementary Table 2: Annual transition probability matrix for people who enter the model as HBsAg+ and HBeAg-derived from Shepherd(1) and Marcellin(2)

From:	To:	HBsAg seroconverted	HBeAg seroconverted	CHB HBeAg- active disease	CC	DC	HCC	LT1	LT2	Dead[†]
HBsAg seroconverted		#	0	0	0	0	0.00005	0	0	0
HBeAg seroconverted		0.0175	#	0.03	0.01	0	0.005	0	0	0
CHB HBeA- active disease no treatment		0	0.015	#	0.05	0	0.005	0	0	0.0035
CHB HBeAg- active disease or CC on treatment										
Treatment response with peglyated interferon		0	0.75	#	0.05	0	0.005	0	0	0.0035
Treatment response with tenofovir		0	0.023	#	0.05	0	0.005	0	0	0.0035
Decompensated cirrhosis (DC)		0	0	0	0	#	0.025	0.03	0	0.39
Hepatocellular carcinoma (HCC)		0	0	0	0	0	#	0	0	0.56
Liver transplant – first year (LT1)		0	0	0	0	0	0	#	0	0.21
Liver transplant – subsequent years (LT2)		0	0	0	0	0	0	0	#	0.057

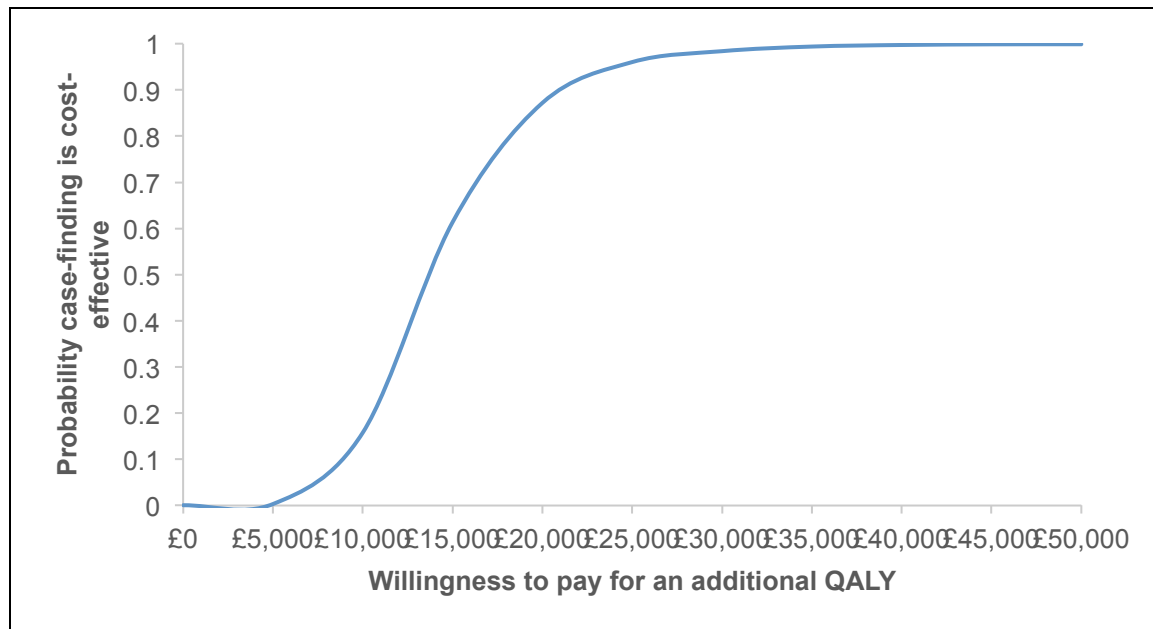
[†]an age-adjusted general population mortality is added to this amount; #, indicates the residual row probability; all values are converted to a Dirichlet distribution by assuming an effective sample size of 200 for each row(3)

Supplementary Table 3: Utility values from Shepherd(1) and Takeda(4)

Utility	Mean decrement	95% interval of sampled range[^]
Age		
0-44	0.09	-
45-54	0.15	-
55-64	0.20	-
65-74	0.22	-
75+	0.27	-
HBsAg-	0	-
HBeAg+ seroconverted / HBeAg- ALT/DNA low	0	-
HBeAg+ / HBeAg- active disease	0.04	0.023-0.062
Compensated cirrhosis	0.44	0.34-0.55
Decompensated cirrhosis	0.54	0.43-0.73
Hepatocellular carcinoma	0.54	0.43-0.73
Liver transplant (first year)	0.54	0.43-0.73
Liver transplant (subsequent years)	0.32	0.22-0.43

Utility values are calculated by subtracting appropriate decrements from 1; [^]Sampled values from the probabilistic sensitivity analysis using a beta distribution

Supplementary Figure 1. Cost-effectiveness acceptability curve for the base-case 2% HBsAg prevalence.



Reference

1. Shepherd J, Jones J, Takeda A, Davidson P, Price A. Adefovir dipivoxil and pegylated interferon alfa-2a for the treatment of chronic hepatitis B: a systematic review and economic evaluation. *Health Technology Assessment*. 2006;10(28).
2. Marcellin P, Gane E, Buti M, Afdhal N, Sievert W, Jacobson IM, et al. Regression of cirrhosis during treatment with tenofovir disoproxil fumarate for chronic hepatitis B: a 5-year open-label follow-up study. *Lancet*. 2013 Feb 9;381(9865):468-75. PubMed PMID: 23234725. Epub 2012/12/14. eng.
3. Briggs A, Sculpher M, Claxton K. Decision modelling for health economic evaluation. Gray A, Briggs A, editors. Oxford: Oxford University Press; 2006.
4. Takeda A, Jones J, Shepherd J, Davidson P, Price A. A systematic review and economic evaluation of adefovir dipivoxil and pegylated interferon-alpha-2a for the treatment of chronic hepatitis B. *Journal of Viral Hepatitis*. 2007;14:75-88.