BayesCTDesign: An R Package for Bayesian Trial Design Using Historical Control Data: Supplementary Tables

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Time savings and accuracy

These supplemental tables illustrate more information about the accuracy of **BayesCTDesign** for parameter estimation and the time savings that are available when using **BayesCTDesign** (see Section 3.2 of the paper). The MCMC approach used for these comparisons involved the same simulation process as used by **BayesCTDesign** except MCMC estimation results were used to construct the credible interval for treatment effect estimate. The corresponding R code is available in the `Table*.Rmd` files which also rely on the materials from the `v100i21-simulation.zip` supplementary file.

In all simulations except for the piecewise exponential, flat $N(\mu = 0, \sigma = 100)$ priors were used for base priors of model parameters in the MCMC models. In the MCMC model for the piecewise exponential the treatment effect base prior was a flat $N(\mu = 0, \sigma = 100)$; however, a multivariate gamma prior was used for the set of hazards defined for the time intervals. Each MCMC call used the R package **rjags** and the **JAGS** software to generate the MCMC chains. For posterior approximation using MCMC, 2 chains were created, using 1000 adaptations, 1000 burn ins, and then 10000 samples were collected. No thinning was used on the final chains. The total estimation approaches were compared using a late 2014 Mac mini with a 2.6 GHz i5 and 8 GB of RAM. In these time and accuracy assessment simulations, 2 cores were used by utilizing the R packages **doParallel** and **foreach**.

Tables 1 through 6 contain the time trial results for Bernoulli, Gaussian, Poisson, Weibull, lognormal, and piecewise exponential outcomes respectively. Each table reports: effect value, a_0 value, estimation mode (MCMC or BayesCTDesign), posterior treatment effect estimates (transformed and untransformed if applicable), posterior standard deviation of transformed or untransformed

treatment effect as applicable, power, single trial replication run time (in seconds), ratio of MCMC run time to **BayesCTDesign** run time, total time for 1000 trial replications (in minutes). In the tables, the treatment effect estimates are averages based on 1000 trial replications. In all simulations, the outcome distributions for the randomized controls was the same as the outcome distributions for the historical controls.

For Bernoulli outcomes, a trial with 80 subjects per arm and 60 historical groups were simulated. The proportion in the historical controls was 0.57, and the treatment effect was 0.45. Table 1 shows that the posterior treatment effect estimates, standard deviation estimates, and power are within 0.01 of each other. On the other hand, using **BayesCTDesign**, 1000 trial replications were ran and summarized in about 0.1 minutes of clock time, while the MCMC approach took up to 47.5 minutes.

For Gaussian outcomes, a trial with 80 subjects per arm and 60 historical groups were simulated. The mean in the historical controls was 25.93, standard deviation was 2.60, and the treatment effect was set to a mean difference of 1.1. Table 2 shows that the posterior treatment effect estimates, standard deviation estimates, and power are within 0.02 of each other. On the other hand, using **BayesCTDesign**, 1000 trial replications were ran and summarized in about 0.15 minutes of clock time, while the MCMC approach took up to 442 minutes.

For Poisson outcomes, a trial with 80 subjects per arm and 60 historical groups were simulated. The mean in the historical controls was 0.95, and the treatment effect was set to a mean ratio of 0.6. Table 3 shows that the posterior treatment effect estimates, standard deviation estimates, and power are within 0.02 of each other. On the other hand, using **BayesCTDesign**, 1000 trial replications were ran and summarized in about 0.11 minutes of clock time, while the MCMC approach took up to 50 minutes.

For Weibull outcomes, a trial with 80 subjects per arm and 60 historical groups were simulated. The median event-time among the historical controls was 2.5 years, and the treatment effect was set to a hazard ratio of 0.6. Weibull parameters for the historical controls were `scale = 2.814651` and `shape = 3.091710`(using `rweibull()` parameterization). Among historical controls and randomized trial data, the event times were right censored at 3 years. Table 4 shows that the posterior treatment effect estimates, standard deviation estimates, and power are within 0.04 of each other. On the other hand, using **BayesCTDesign**, 1000 trial replications were ran and summarized in about 0.35 minutes of clock time, while the MCMC approach took up to 452 minutes.

For lognormal outcomes, a trial with 80 subjects per arm and 60 historical groups were simulated. The median event-time among the historical controls was 2.54 years, and the treatment effect was set to a mean ratio of 0.6. Lognormal parameters for the historical controls were `meanlog = 0.9332408` and `sdlog = 1.147586` (using `rlnorm()` parameterization). Among historical controls and randomized trial data, the event times were right censored at 3 years. Table 5 shows that the posterior treatment effect estimates, standard deviation estimates, and power are within 0.03 of each other. On the other hand, using **BayesCTDesign**, 1000 trial replications were ran and summarized in about 0.31

minutes of clock time, while the MCMC approach took up to 580 minutes.

Finally, for piecewise exponential outcomes, a trial with 80 subjects per arm and 60 historical groups were simulated. The time intervals among historical controls were created by using cutpoints at 0.3, 0.9, 1.5, 2.1, and 2.4 years. The corresponding interval hazards were 0.1707802, 0.3213363, 0.5089973, 0.4216200, 0.2620553, and 0.3884450. The median event-time among the historical controls was 1.92 years, and the treatment effect was set to a hazard ratio of 0.6. Among historical controls and randomized trial data, the event times were right censored at 3 years. The `rpch()` function in the **eha** package is used to generate draws from a piecewise exponential distribution. Table 6 shows that the posterior treatment effect estimates, standard deviation estimates, and power are within 0.03 of each other. On the other hand, using **BayesCTDesign**, 1000 trial replications were ran and summarized in about 12.5 minutes of clock time, while the MCMC approach took up to 608 minutes. The piecewise exponential simulation process is slower than the other processes, because extra data processing is needed to determine if each combination of time interval and control/experimental treatment group combination has at least 5 events. This extra processing is a conservative step to ensure likelihoods can be evaluated across many simulated trials.

To look into the possibility of bias when sample size is small, **BayesCTDesign** code was used to estimate power when no historical data is used and samples sizes range from 10 to 80. Tables 7 through 12 show that when the sample size is small, differences in power estimates can occur between MCMC and the results given by **BayesCTDesign**; yet, as sample size increases, the differences and bias are reduced. These differences at small sample sizes are not problematic, because the power at these low sample sizes is not at a desirable level. By the time a power of 80% is reached by the MCMC method, the results of **BayesCTDesign** is roughly the same as the MCMC results; therefore, for purposes of study design **BayesCTDesign** gives improved run times with no lose of accuracy.

True Effect	a_0	Mode	Est. Log Effect	sd(Est. log Effect)	Est. Effect	Power	Run Time (sec/iter)	Run Time Ratio (MCMC/BayesCT)	Run Time (Min. per 1000)
0.45 (OR)	0.0	MCMC	-0.81	0.327	0.49	0.71	2.850 sec	470.2	47.50 min
		BayesCT	-0.80	0.325	0.47	0.71	0.006 sec		0.10 min
	0.5	MCMC	-0.80	0.304	0.49	0.80	2.847 sec	477.5	47.44 min
		BayesCT	-0.80	0.303	0.47	0.79	0.006 sec		0.10 min
	1.0	MCMC	-0.80	0.290	0.48	0.83	2.854 sec	469.3	47.56 min
		BayesCT	-0.80	0.289	0.47	0.83	0.006 sec		0.10 min
1.0 (OR)	0.0	MCMC	0.00	0.323	1.11	0.05	2.851 sec	514.3	47.52 min
		BayesCT	0.00	0.321	1.06	0.05	0.006 sec		0.09 min
	0.5	MCMC	0.01	0.300	1.09	0.04	2.850 sec	499.7	47.44 min
		BayesCT	0.00	0.298	1.04	0.04	0.006 sec		0.09 min
	1.0	MCMC	0.01	0.286	1.08	0.03	2.851 sec	477.1	47.52 min
		BayesCT	0.00	0.284	1.04	0.03	0.006 sec		0.10 min

Table 1: Time trials - Bernoulli outcome (OR = odds ratio).

True Effect	a_0	Mode	Est. Effect	sd(Est. Effect)	Power	Run Time (sec/iter)	Run Time Ratio (MCMC/BayesCT)	Run Time (per 1000)
1.1	0.0	MCMC	1.12	0.414	0.78	25.929 sec	3154.5	432.14 min
		BayesCT	1.10	0.410	0.77	0.008 sec		0.14 min
	0.5	MCMC	1.11	0.385	0.85	26.435 sec	3092.9	440.58 min
		BayesCT	1.10	0.381	0.84	0.009 sec		0.14 min
	1.0	MCMC	1.11	0.366	0.88	26.597 sec	3165.6	443.28 min
		BayesCT	1.10	0.363	0.87	0.008 sec		0.14 min
0	0.0	MCMC	0.02	0.415	0.05	26.416 sec	3170.6	440.26 min
		BayesCT	-0.00	0.410	0.05	0.008 sec		0.14 min
	0.5	MCMC	0.02	0.384	0.04	26.555 sec	3119.2	442.59 min
		BayesCT	-0.00	0.381	0.05	0.009 sec		0.14 min
	1.0	MCMC	0.01	0.366	0.04	26.466 sec	3108.8	441.10 min
		BayesCT	-0.00	0.363	0.04	0.009 sec		0.15 min

Table 2: Time trials - Gaussian outcome (effect is a mean difference).

True Effect	a_0	Mode	Est. Log Effect	sd(Est. log Effect)	Est. Effect	Power	Run Time (sec/iter)	Run Time Ratio (MCMC/BayesCT)	Run Time (per 1000)
0.6 (MR)	0.0	MCMC	-0.51	0.189	0.62	0.78	2.946 sec	458.18	49.11 min
		BayesCT	-0.51	0.188	0.61	0.78	0.006 sec		0.11 min
	0.5	MCMC	-0.52	0.179	0.62	0.86	2.962 sec	477.27	49.37 min
		BayesCT	-0.51	0.178	0.61	0.85	0.006 sec		0.10 min
	1.0	MCMC	-0.52	0.173	0.61	0.91	2.967 sec	434.61	49.45 min
		BayesCT	-0.51	0.172	0.61	0.90	0.007 sec		0.11 min
1.0 (MR)	0.0	MCMC	0.01	0.163	1.04	0.05	2.986 sec	518.11	49.77 min
		BayesCT	0.01	0.163	1.02	0.05	0.006 sec		0.10 min
	0.5	MCMC	0.00	0.151	1.02	0.04	3.004 sec	498.27	50.06 min
		BayesCT	0.00	0.151	1.01	0.04	0.006 sec		0.10 min
	1.0	MCMC	0.00	0.144	1.02	0.04	2.989 sec	476.56	49.82 min
		BayesCT	0.00	0.144	1.01	0.04	0.006 sec		0.10 min

Table 3: Time trials - Poisson outcome (MR = mean ratio).

True Effect	a_0	Mode	Est. Log Effect	sd(Est. log Effect)	Est. Effect	Power	Run Time (sec/iter)	Run Time Ratio (MCMC/BayesCT)	Run Time (per 1000)
0.6 (HR)	0.0	MCMC	-0.52	0.207	0.62	0.74	23.603 sec	1193.0	393.38 min
		BayesCT	-0.51	0.206	0.61	0.74	0.020 sec		0.33 min
	0.5	MCMC	-0.52	0.195	0.62	0.80	23.024 sec	1132.5	383.74 min
		BayesCT	-0.51	0.194	0.61	0.79	0.020 sec		0.34 min
	1.0	MCMC	-0.52	0.187	0.61	0.85	23.312 sec	1125.7	388.53 min
		BayesCT	-0.51	0.186	0.61	0.83	0.021 sec		0.35 min
1.0 (HR)	0.0	MCMC	-0.00	0.190	1.04	0.05	27.119 sec	1408.0	451.98 min
		BayesCT	-0.00	0.189	1.02	0.05	0.019 sec		0.32 min
	0.5	MCMC	-0.00	0.177	1.03	0.04	26.534 sec	1305.2	442.23 min
		BayesCT	-0.00	0.176	1.01	0.04	0.020 sec		0.34 min
	1.0	MCMC	-0.00	0.168	1.02	0.03	26.928 sec	1311.7	448.80 min
		BayesCT	-0.00	0.168	1.01	0.03	0.021 sec		0.34 min

Table 4: Time trials - Weibull outcome (HR = hazard ratio).

True Effect	a_0	Mode	Est. Log Effect	sd(Est. log Effect)	Est. Effect	Power	Run Time (sec/iter)	Run Time Ratio (MCMC/BayesCT)	Run Time (per 1000)
0.6 (MR)	0.0	MCMC	-0.51	0.197	0.62	0.74	34.816 sec	1963.4	580.26 min
		BayesCT	-0.51	0.192	0.61	0.75	0.018 sec		0.30 min
	0.5	MCMC	-0.51	0.182	0.62	0.83	34.499 sec	1881.6	574.98 min
		BayesCT	-0.51	0.178	0.61	0.83	0.018 sec		0.31 min
	1.0	MCMC	-0.51	0.173	0.62	0.87	33.606 sec	1788.0	560.10 min
		BayesCT	-0.51	0.170	0.61	0.87	0.019 sec		0.31 min
1.0 (MR)	0.0	MCMC	0.00	0.202	1.04	0.05	29.862 sec	1721.3	497.70 min
		BayesCT	0.00	0.196	1.02	0.05	0.017 sec		0.29 min
	0.5	MCMC	0.00	0.187	1.04	0.04	30.259 sec	1655.5	504.32 min
		BayesCT	0.00	0.182	1.02	0.04	0.018 sec		0.30 min
	1.0	MCMC	0.01	0.178	1.04	0.04	30.312 sec	1631.4	505.19 min
		BayesCT	0.00	0.174	1.02	0.04	0.019 sec		0.31 min

Table 5: Time trials - lognormal outcome (MR = mean ratio).

True Effect	a_0	Mode	Est. Log Effect	sd(Est. log Effect)	Est. Effect	Power	Run Time (sec/iter)	Run Time Ratio (MCMC/BayesCT)	Run Time (per 1000)
0.6	0.0	MCMC	-0.52	0.213	0.62	0.70	35.998 sec	87.6	583.29 min
		BayesCT	-0.51	0.212	0.61	0.70	0.399 sec		6.66 min
	0.5	MCMC	-0.52	0.200	0.62	0.78	35.636 sec	49.7	593.93 min
		BayesCT	-0.52	0.199	0.61	0.77	0.717 sec		11.94 min
	1.0	MCMC	-0.52	0.193	0.61	0.83	35.469 sec	47.3	591.15 min
		BayesCT	-0.51	0.191	0.61	0.81	0.750 sec		12.50 min
1.0	0.0	MCMC	-0.00	0.194	1.03	0.04	35.814 sec	89.4	596.89 min
		BayesCT	-0.00	0.194	1.02	0.04	0.400 sec		6.67 min
	0.5	MCMC	-0.00	0.181	1.03	0.03	36.006 sec	52.3	600.11 min
		BayesCT	-0.00	0.180	1.01	0.03	0.688 sec		11.47 min
	1.0	MCMC	-0.01	0.172	1.02	0.03	36.503 sec	49.2	608.38 min
		BayesCT	-0.00	0.171	1.01	0.03	0.743 sec		12.38 min

Table 6: Time trials - piecewise exponential outcome (HR = hazard ratio).

Historical control size	Trial Size per arm	True Effect	Mode	Est. Log Effect	sd(Est. log Effect)	Est. Effect	Power	Run Time (sec/iter)	Run Time Ratio (MCMC/BayesCT)	Run Time (Min. per 1000)
0	20	0.35	MCMC	-1.19	0.741	0.52	0.38	0.83	165.7	13.83
			BayesCT	-1.11	0.711	0.42	0.30	0.01		0.08
0	40	0.35	MCMC	-1.13	0.499	0.41	0.63	1.30	244.6	21.71
			BayesCT	-1.10	0.490	0.38	0.62	0.01		0.09
0	60	0.35	MCMC	-1.10	0.401	0.39	0.81	1.78	314.6	29.62
			BayesCT	-1.08	0.397	0.37	0.80	0.01		0.09
0	80	0.35	MCMC	-1.07	0.344	0.39	0.90	2.24	374.4	37.41
			BayesCT	-1.05	0.342	0.37	0.89	0.01		0.10
0	20	1.00	MCMC	0.02	0.666	1.64	0.07	0.82	176.0	13.69
			BayesCT	0.02	0.650	1.27	0.04	0.00		0.08
0	40	1.00	MCMC	-0.01	0.458	1.22	0.04	1.31	273.1	21.75
			BayesCT	-0.01	0.453	1.09	0.04	0.00		0.08
0	60	1.00	MCMC	-0.02	0.371	1.13	0.05	1.78	354.3	29.71
			BayesCT	-0.02	0.368	1.05	0.05	0.01		0.08
0	80	1.00	MCMC	-0.01	0.320	1.10	0.05	2.24	407.9	37.25
			BayesCT	-0.01	0.318	1.05	0.05	0.01		0.09

Table 7: Accuracy trials - Bernoulli outcome (OR = odds ratio).

Historical control size	Trial Size per arm	True Effect	Mode	Est. Effect	sd(Est. Effect)	Power	Run Time (sec/iter)	Run Time Ratio (MCMC/BayesCT)	Run Time (per 1000)
0	20	1.3	MCMC	1.33	0.550	0.67	3.93	512.8	65.54
			BayesCT	1.29	0.523	0.68	0.01		0.13
0	40	1.3	MCMC	1.34	0.388	0.93	9.01	1108.8	150.11
			BayesCT	1.32	0.378	0.93	0.01		0.14
0	60	1.3	MCMC	1.32	0.315	0.98	14.44	1748.1	240.65
			BayesCT	1.31	0.310	0.98	0.01		0.14
0	80	1.3	MCMC	1.31	0.272	1.00	19.26	2229.3	321.01
			BayesCT	1.30	0.269	1.00	0.01		0.14
0	20	0.0	MCMC	0.03	0.550	0.04	4.07	488.8	67.89
			BayesCT	-0.01	0.523	0.06	0.01		0.14
0	40	0.0	MCMC	0.04	0.387	0.06	8.95	1129.2	149.19
			BayesCT	0.02	0.378	0.07	0.01		0.13
0	60	0.0	MCMC	0.02	0.315	0.07	14.15	1788.4	235.75
			BayesCT	0.01	0.310	0.07	0.01		0.13
0	80	0.0	MCMC	0.01	0.272	0.05	19.11	2294.0	318.45
			BayesCT	-0.00	0.269	0.05	0.01		0.14

Table 8: Accuracy trials - Gaussian outcome (effect is a mean difference).

Historical control size	Trial Size per arm	True Effect	Mode	Est. Log Effect	sd(Est. log Effect)	Est. Effect	Power	Run Time (sec/iter)	Run Time Ratio (MCMC/BayesCT)	Run Time (per 1000)
0	20	0.5	MCMC	-0.73	0.389	0.56	0.49	0.9	169.68	14.56
			BayesCT	-0.71	0.381	0.53	0.45	0.0		0.09
0	40	0.5	MCMC	-0.72	0.268	0.52	0.78	1.4	254.44	22.83
			BayesCT	-0.71	0.266	0.51	0.77	0.0		0.09
0	60	0.5	MCMC	-0.70	0.216	0.52	0.92	1.9	319.62	31.00
			BayesCT	-0.70	0.215	0.51	0.91	0.0		0.10
0	80	0.5	MCMC	-0.70	0.186	0.52	0.96	2.3	372.42	38.75
			BayesCT	-0.69	0.186	0.51	0.96	0.0		0.10
0	20	1.0	MCMC	0.00	0.311	1.11	0.05	0.9	180.50	14.89
			BayesCT	0.00	0.308	1.05	0.04	0.0		0.08
0	40	1.0	MCMC	0.00	0.216	1.05	0.03	1.4	266.83	23.29
			BayesCT	0.00	0.215	1.02	0.03	0.0		0.09
0	60	1.0	MCMC	0.00	0.176	1.03	0.04	1.9	349.48	31.45
			BayesCT	0.00	0.175	1.02	0.04	0.0		0.09
0	80	1.0	MCMC	0.01	0.152	1.03	0.05	2.4	427.00	39.52
			BayesCT	0.01	0.151	1.02	0.05	0.0		0.09

Table 9: Accuracy trials - Poisson outcome (MR = mean ratio).

Historical control size	Trial Size per arm	True Effect	Mode	Est. Log Effect	sd(Est. log Effect)	Est. Effect	Power	Run Time (sec/iter)	Run Time Ratio (MCMC/BayesCT)	Run Time (per 1000)
0	20	0.5	MCMC	-0.72	0.405	0.58	0.43	3.70	240.2	61.69
			BayesCT	-0.70	0.397	0.54	0.41	0.02		0.26
0	40	0.5	MCMC	-0.71	0.282	0.53	0.73	8.01	480.5	133.51
			BayesCT	-0.70	0.279	0.51	0.72	0.02		0.28
0	60	0.5	MCMC	-0.71	0.229	0.52	0.89	12.88	739.8	214.61
			BayesCT	-0.70	0.227	0.51	0.88	0.02		0.29
0	80	0.5	MCMC	-0.70	0.197	0.52	0.95	17.75	941.5	295.82
			BayesCT	-0.69	0.196	0.51	0.95	0.02		0.31
0	20	1.0	MCMC	0.01	0.362	1.17	0.07	4.18	269.2	69.60
			BayesCT	0.01	0.357	1.09	0.06	0.02		0.26
0	40	1.0	MCMC	0.01	0.252	1.07	0.05	9.39	558.0	156.50
			BayesCT	0.01	0.251	1.04	0.05	0.02		0.28
0	60	1.0	MCMC	-0.00	0.205	1.04	0.05	15.03	822.4	250.46
			BayesCT	-0.00	0.204	1.02	0.05	0.02		0.30
0	80	1.0	MCMC	-0.00	0.177	1.03	0.05	21.10	1133.1	351.71
			BayesCT	-0.00	0.177	1.02	0.05	0.02		0.31

Table 10: Accuracy trials - Weibull outcome (HR = hazard ratio).

Historical control size	Trial Size per arm	True Effect	Mode	Est. Log Effect	sd(Est. log Effect)	Est. Effect	Power	Run Time (sec/iter)	Run Time Ratio (MCMC/BayesCT)	Run Time (per 1000)
0	20	0.7	MCMC	-0.39	0.273	0.73	0.32	4.52	298.8	75.40
			BayesCT	-0.36	0.236	0.72	0.34	0.02		0.25
0	40	0.7	MCMC	-0.52	0.179	0.61	0.86	10.46	643.1	174.33
			BayesCT	-0.51	0.169	0.61	0.87	0.02		0.27
0	60	0.7	MCMC	-0.51	0.143	0.61	0.96	16.47	973.8	274.56
			BayesCT	-0.50	0.138	0.61	0.96	0.02		0.28
0	80	0.7	MCMC	-0.51	0.123	0.61	0.99	21.75	1225.9	362.58
			BayesCT	-0.51	0.119	0.61	0.99	0.02		0.30
0	20	1.0	MCMC	-0.00	0.297	1.10	0.04	3.94	260.1	65.62
			BayesCT	-0.00	0.244	1.03	0.04	0.02		0.25
0	40	1.0	MCMC	0.00	0.189	1.04	0.06	8.12	502.7	135.30
			BayesCT	0.00	0.173	1.02	0.06	0.02		0.27
0	60	1.0	MCMC	0.01	0.150	1.03	0.05	12.96	779.0	216.02
			BayesCT	0.01	0.142	1.02	0.06	0.02		0.28
0	80	1.0	MCMC	0.00	0.128	1.02	0.06	17.75	1021.7	295.87
			BayesCT	0.00	0.123	1.01	0.06	0.02		0.29

Table 11: Accuracy trials - lognormal outcome (MR = mean ratio).

Historical control size	Trial Size per arm	True Effect	Mode	Est. Log Effect	sd(Est. log Effect)	Est. Effect	Power	Run Time (sec/iter)	Run Time Ratio (MCMC/BayesCT)	Run Time (per 1000)
0	40	0.6	MCMC	-0.53	0.325	0.65	0.38	21.12	71.8	351.96
			BayesCT	-0.52	0.321	0.62	0.36	0.29		4.90
0	80	0.6	MCMC	-0.53	0.227	0.62	0.66	32.41	76.4	540.18
			BayesCT	-0.52	0.226	0.61	0.65	0.42		7.07
0	120	0.6	MCMC	-0.51	0.185	0.62	0.81	48.51	104.6	808.54
			BayesCT	-0.51	0.184	0.61	0.80	0.46		7.73
0	140	0.6	MCMC	-0.52	0.171	0.61	0.86	52.18	113.8	869.68
			BayesCT	-0.52	0.170	0.61	0.86	0.46		7.64
0	40	1.0	MCMC	-0.00	0.293	1.09	0.04	20.81	53.6	346.85
			BayesCT	-0.00	0.290	1.04	0.04	0.39		6.48
0	80	1.0	MCMC	-0.01	0.206	1.04	0.04	35.32	80.6	588.68
			BayesCT	-0.01	0.205	1.01	0.03	0.44		7.30
0	120	1.0	MCMC	0.01	0.167	1.03	0.04	49.48	106.6	824.67
			BayesCT	0.01	0.167	1.02	0.04	0.46		7.74
0	140	1.0	MCMC	-0.00	0.155	1.03	0.06	54.94	118.5	915.72
			BayesCT	-0.00	0.154	1.01	0.06	0.46		7.73

Table 12: Accuracy trials - piecewise exponential outcome (HR = hazard ratio).