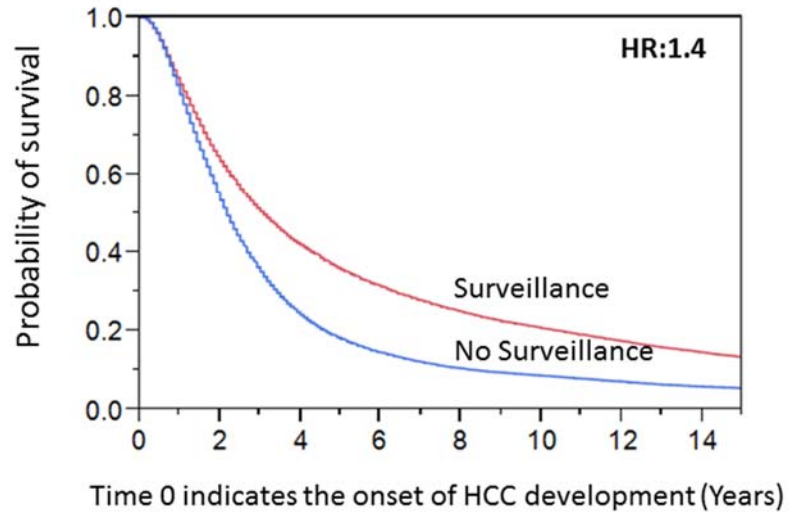
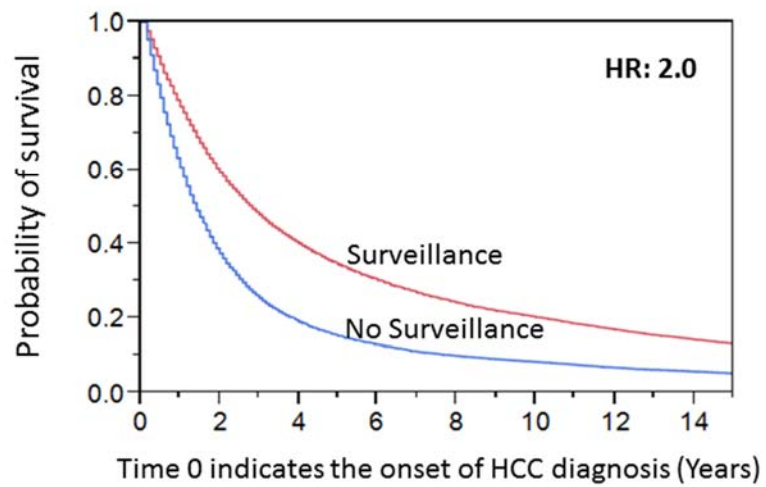


Supplementary Figure 1: Overall survival of patients from HCC development

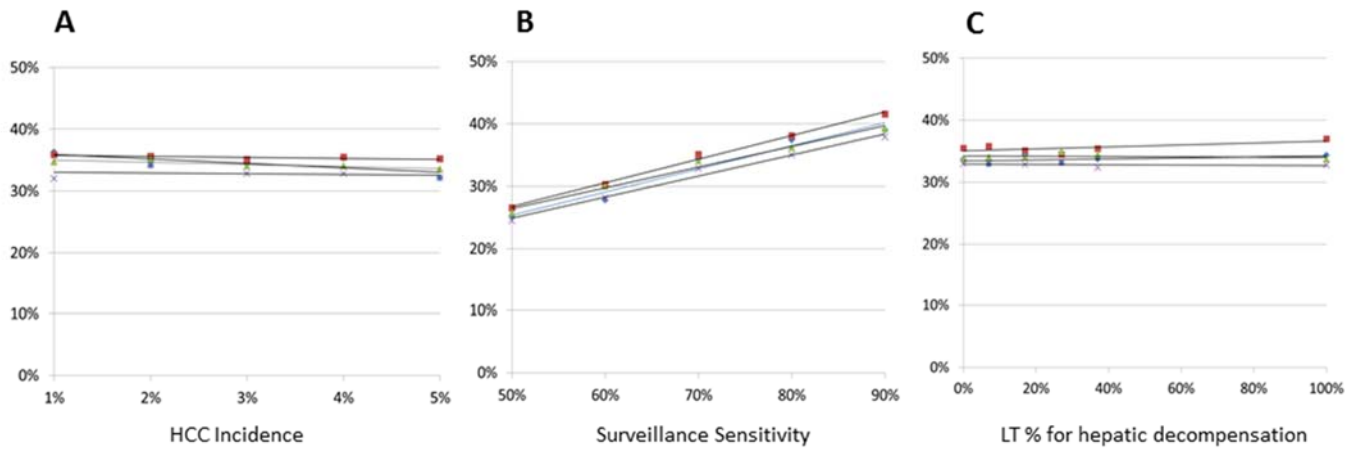


Supplementary Figure 2: Overall survival of patients from HCC diagnosis



Supplementary Figure 3. One way sensitivity analysis: Impact of HCC surveillance on Relative Risk Reduction of HCC mortality

Relative Reduction of HCC-Specific Death



Blue diamond- 3 year; Red square- 5 year; Green triangle-10 year; Violet X -15 year

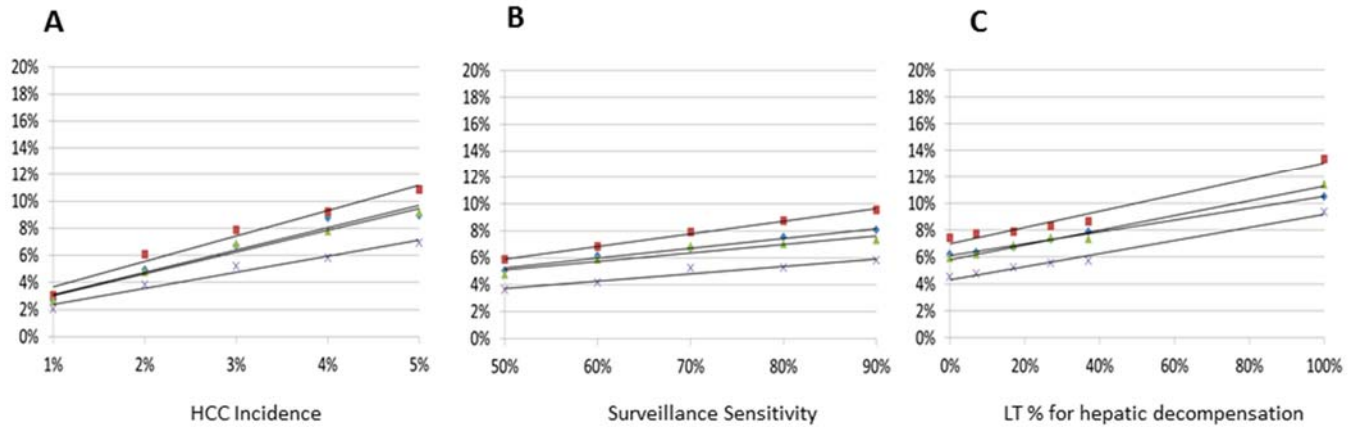
A: HCC incidence and relative risk reduction of HCC specific mortality from HCC surveillance (X axis- annual incidence of HCC, Y axis-relative risk reduction of HCC mortality)

B: Surveillance test sensitivity and relative risk reduction of HCC specific mortality from HCC surveillance (X axis- surveillance sensitivity of HCC detection, Y axis-relative risk reduction of HCC mortality)

C: Rate of rescue transplant for hepatic decompensation and relative risk reduction of HCC specific mortality from HCC surveillance (X axis- Percent of rescue transplant for hepatic decompensation, Y axis-relative risk reduction of HCC mortality)

Supplementary Figure 4. One way sensitivity analysis: Impact of HCC surveillance on Relative Risk Reduction of All-cause mortality

Relative Reduction of All-Cause Death



Blue diamond- 3 year; Red square- 5 year; Green triangle-10 year; Violet X -15 year

A: HCC incidence and relative risk reduction of all cause mortality from HCC surveillance (X axis- annual incidence of HCC, Y axis-relative risk reduction of all cause mortality)

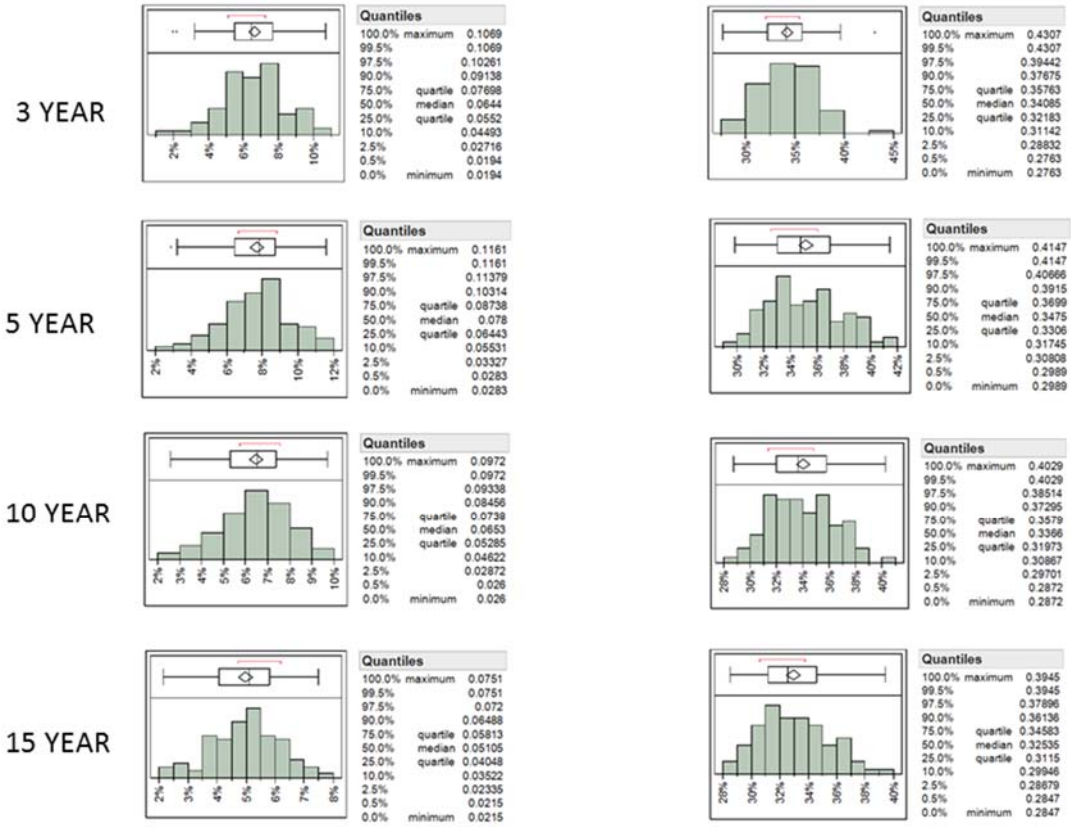
B: Surveillance test sensitivity and relative risk reduction of all cause mortality from HCC surveillance (X axis- surveillance sensitivity of HCC detection, Y axis-relative risk reduction of all cause mortality)

C: Rate of rescue transplant for hepatic decompensation and relative risk reduction of all cause mortality from HCC surveillance (X axis- Percent of rescue transplant for hepatic decompensation, Y axis-relative risk reduction of all cause mortality)

Supplementary Figure 5. The probabilistic sensitivity analysis

Relative Risk Reduction for All-Cause Mortality

Relative Risk Reduction for HCC-Specific Mortality



Supplementary Tables 1: Two way Sensitivity analysis: Effect of non-progression of cirrhosis stage and reduced incidence rate of HCC to 1%

	Mortality		NNS		Relative Risk Reduction	
	Overall	HCC	Overall	HCC	Overall	HCC
3 years			340	267	4.8%	35.4%
No Surveillance	6.1%	1.1%				
Surveillance	5.8%	0.7%				
5 years			137	116	7.0%	36.4%
No Surveillance	10.3%	2.4%				
Surveillance	9.6%	1.5%				
10 years			61	50	7.6%	35.3%
No Surveillance	21.4%	5.7%				
Surveillance	19.8%	3.7%				
15 years			44	34	7.2%	34.6%
No Surveillance	31.2%	8.5%				
Surveillance	28.9%	5.6%				

HCC- hepatocellular carcinoma; LTx- liver transplant; NNS- number needed to be surveillance (in comparison to no surveillance); RFA- radiofrequency ablation

Supplementary Tables 2: Effect of HCC incidence on All-cause and HCC-specific mortality with/without surveillance

	3 Year Mortality		5 Year Mortality		10 Year Mortality		15 Year Mortality	
	All	HCC	All	HCC	All	HCC	All	HCC
1%								
No Surveillance	10.6%	0.9%	20.1%	2.1%	44.0%	4.6%	61.8%	6.2%
Surveillance	10.3%	0.6%	19.4%	1.3%	42.9%	3.0%	60.6%	4.2%
2%								
No Surveillance	11.3%	2.0%	22.2%	4.3%	47.9%	9.1%	65.7%	12.0%
Surveillance	10.8%	1.3%	20.8%	2.8%	45.6%	5.9%	63.2%	7.9%
4%								
No Surveillance	13.4%	4.0%	25.6%	8.4%	53.6%	17.3%	71.3%	22.1%
Surveillance	12.2%	2.6%	23.2%	5.4%	49.4%	11.4%	67.2%	14.8%
5%								
No Surveillance	14.3%	4.8%	27.7%	10.1%	56.6%	20.8%	73.9%	26.3%
Surveillance	13.1%	3.2%	24.7%	6.5%	51.4%	13.8%	68.7%	17.8%

Supplementary Tables 3: Effect of Surveillance test sensitivity on All-cause and HCC-specific mortality with/without surveillance

	3 Year Mortality		5 Year Mortality		10 Year Mortality		15 Year Mortality	
	All	HCC	All	HCC	All	HCC	All	HCC
No Surveillance	12.3%	2.9%	23.5%	6.2%	50.2%	13.1%	68.2%	17.1%
Surveillance								
50%	12.0%	2.3%	22.5%	4.7%	48.5%	9.9%	66.2%	12.9%
60%	12.0%	2.2%	22.7%	4.5%	48.1%	9.2%	65.6%	12.2%
80%	11.3%	1.8%	21.8%	4.0%	47.4%	8.6%	64.9%	11.3%
90%	11.4%	1.8%	21.9%	3.7%	46.9%	7.9%	64.3%	10.5%

Supplementary Tables 4: Sensitivity analysis: Liver transplantation unavailable at all

	Mortality		NNS		Relative Risk Reduction	
	Overall	HCC	Overall	HCC	Overall	HCC
3 years			123	101	6.2%	34.6%
No Surveillance	13.1%	2.9%				
Surveillance	12.3%	1.9%				
5 years			56	46	7.1%	35.6%
No Surveillance	25.1%	6.2%				
Surveillance	23.3%	4.0%				
10 years			34	22	5.5%	34.0%
No Surveillance	53.8%	13.1%				
Surveillance	50.8%	8.7%				
15 years			35	18	3.9%	32.6%
No Surveillance	73.1%	17.1%				
Surveillance	70.3%	11.5%				

HCC- hepatocellular carcinoma; LTx- liver transplant; NNS- number needed to be surveillance (in comparison to no surveillance); RFA- radiofrequency ablation

Supplementary Tables 5: Effect of rescue transplant for hepatic decompensation on All-cause and HCC-specific mortality with/without surveillance

	3 Year Mortality		5 Year Mortality		10 Year Mortality		15 Year Mortality	
	All	HCC	All	HCC	All	HCC	All	HCC
0%								
No Surveillance	13.0%	2.9%	25.7%	6.4%	54.3%	13.4%	72.8%	17.4%
Surveillance	12.2%	1.9%	23.8%	4.1%	51.0%	8.9%	69.5%	11.6%
27%								
No Surveillance	12.0%	3.0%	23.2%	6.4%	48.9%	13.2%	65.8%	17.1%
Surveillance	11.2%	2.0%	21.3%	4.2%	45.3%	8.6%	62.2%	11.4%
37%								
No Surveillance	11.6%	3.0%	22.3%	6.4%	46.9%	13.4%	63.2%	17.3%
Surveillance	10.7%	2.0%	20.4%	4.1%	43.4%	8.8%	59.6%	11.7%
100%								
No Surveillance	8.6%	2.9%	16.0%	6.2%	33.6%	13.1%	46.6%	17.0%
Surveillance	7.7%	1.9%	13.9%	3.9%	29.8%	8.7%	42.2%	11.4%