

Supplementary Table S1: The result of logistic regression analysis for inverse probability of treatment weighting models

| | OR | 95% CI | <i>p</i> |
|---|------|--------------|----------|
| Age, year | 1.01 | 0.99 – 1.04 | 0.3856 |
| Sex, male | 0.49 | 0.26 – 0.93 | 0.0301 |
| ASA class ≥ 3 | 1.48 | 0.84 – 2.60 | 0.1729 |
| HBsAg positive | 0.89 | 0.47 – 1.69 | 0.7126 |
| Anti-HCV Ab positive | 0.69 | 0.32 – 1.50 | 0.3510 |
| Alcoholism | 1.54 | 0.58 – 4.13 | 0.3883 |
| Liver cirrhosis | 1.31 | 0.72 – 2.38 | 0.3759 |
| Child-Pugh class B | 1.40 | 0.34 – 5.74 | 0.6366 |
| Clinically significant portal hypertension | 0.24 | 0.07 – 0.84 | 0.0249 |
| Oesophageal varices | 2.48 | 0.89 – 6.93 | 0.0840 |
| Diabetes mellitus | 2.96 | 1.72 – 5.08 | 0.0001 |
| Chronic kidney disease | 0.74 | 0.28 – 1.91 | 0.5308 |
| Haemoglobin, g·dL ⁻¹ | 1.02 | 0.87 – 1.20 | 0.7873 |
| Platelet count, 10 ³ ·µL ⁻¹ | 1.00 | 1.00 – 1.00 | 0.3015 |
| Thrombocytopenia | 0.58 | 0.27 – 1.27 | 0.1737 |
| International normalized ratio | 1.06 | 0.04 – 29.37 | 0.9734 |
| Total bilirubin ≥ 1.0 mg·dL ⁻¹ | 1.22 | 0.66 – 2.27 | 0.5244 |
| AST > 40 IU·L ⁻¹ | 1.14 | 0.58 – 2.23 | 0.7047 |
| ALT > 40 IU·L ⁻¹ | 1.06 | 0.56 – 2.01 | 0.8502 |
| Alpha-fetoprotein > 20 ng·mL ⁻¹ | 1.00 | 0.56 – 1.79 | 0.9924 |
| Albumin ≤ 3.5 g·dL ⁻¹ | 1.60 | 0.73 – 3.53 | 0.2396 |
| Serum creatinine, mg·dL ⁻¹ | 0.88 | 0.59 – 1.32 | 0.5434 |
| BCLC stage | | | 0.3121 |
| Stage A vs. 0 | 1.56 | 0.50 – 4.86 | 0.4453 |
| Stage B vs. 0 | 2.99 | 0.68 – 13.05 | 0.1463 |
| Tumour diameter > 5 cm | 0.35 | 0.13 – 0.96 | 0.0412 |
| Multifocal cancer | 1.79 | 0.92 – 3.49 | 0.0858 |
| Poor or undifferentiated histology | 0.58 | 0.21 – 1.59 | 0.2885 |
| Microvascular invasion | 0.72 | 0.36 – 1.42 | 0.3367 |
| Extracapsular invasion | 0.90 | 0.49 – 1.62 | 0.7166 |
| Positive surgical margin | 1.32 | 0.51 – 3.40 | 0.5703 |
| Preoperative TACE/RFA/PEI | 0.59 | 0.23 – 1.56 | 0.2921 |
| Hepatectomy > 2 segments | 1.33 | 0.75 – 2.38 | 0.3320 |
| Laparoscopic or robotic surgery | 0.55 | 0.15 – 1.95 | 0.3532 |
| Epidural blockade | 0.92 | 0.50 – 1.67 | 0.7740 |
| Intraoperative blood loss, mL [†] | 1.43 | 1.10 – 1.86 | 0.0075 |
| Blood transfusion rate | 1.66 | 0.75 – 3.70 | 0.2120 |
| Anaesthesia duration, min [†] | 2.58 | 1.26 – 5.26 | 0.0092 |
| Operation period (2011-2016 vs. 2005-2010) | 1.50 | 0.76 – 2.94 | 0.2416 |

ALT: alanine aminotransferase; Anti-HCV Ab: hepatitis C antibody; ASA: American Society of Anesthesiologists; AST: aspartate aminotransferase; CI: confidence interval; BCLC: Barcelona Clinic Liver Cancer; HBsAg: hepatitis B surface antigen; HCC: hepatocellular carcinoma; OR: odds ratio; PEI: percutaneous ethanol injection; RFA: radiofrequency ablation; TACE: transarterial chemoembolization. [†] On base-2 logarithmic scale