

Fig. S1. Study flow chart. No. 216 included in analysis. BSC, best supportive care.

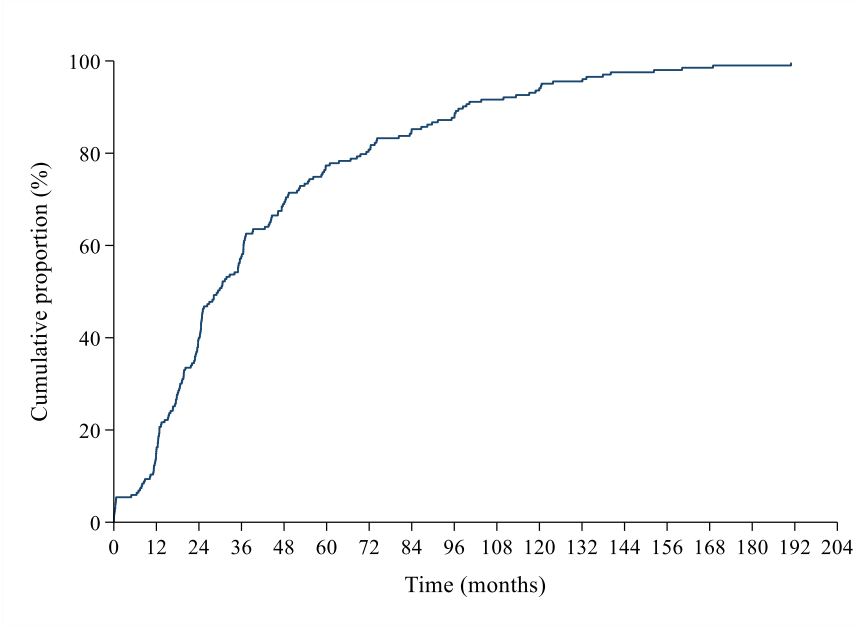


Fig. S2. Cumulative frequency plot of distant metastasis-free interval to the diagnosis of metastases.

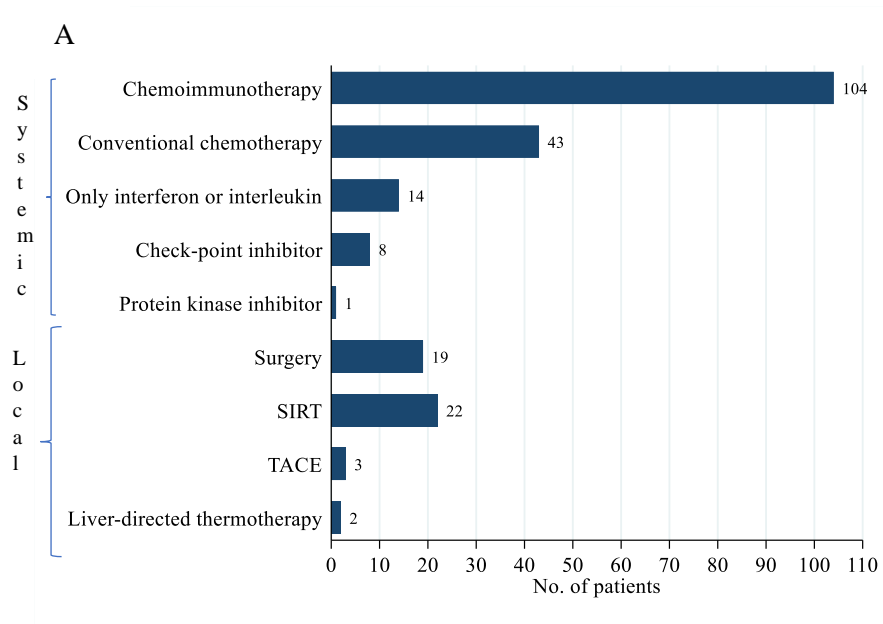
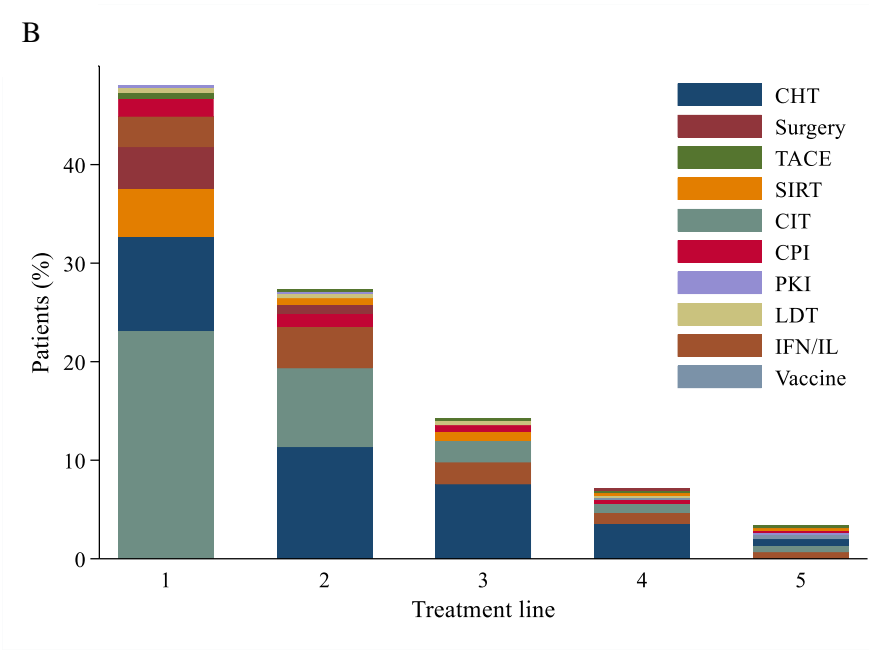


Fig. S3. Treatment modalities. (A) 1st-line treatment modalities and number of patients; (B) Treatment lines and treatment modalities for the first five treatment lines. The median time between the initiation of the 1st- and 2nd-line treatment was 129 days (interquartile range, 88-204). CHT, conventional chemotherapy; CIT, chemoimmunotherapy with IFN/IL; CPI, check-point inhibitor; IFN/IL, interferon or interleukin; LDT, other liver-directed therapies; PKI, protein kinase inhibitor; SIRT, selective internal radiation therapy; TACE, trans-arterial chemoembolization.

B



A

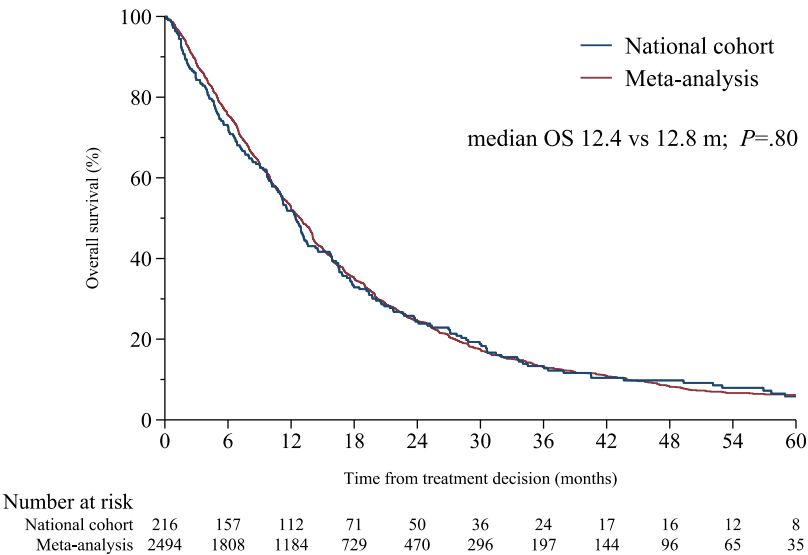
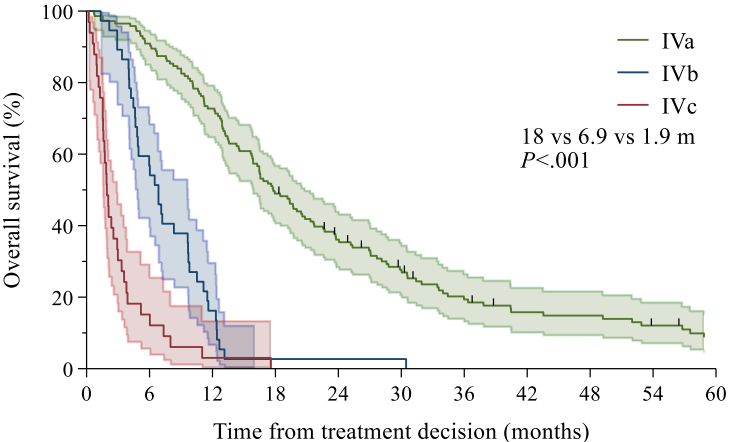


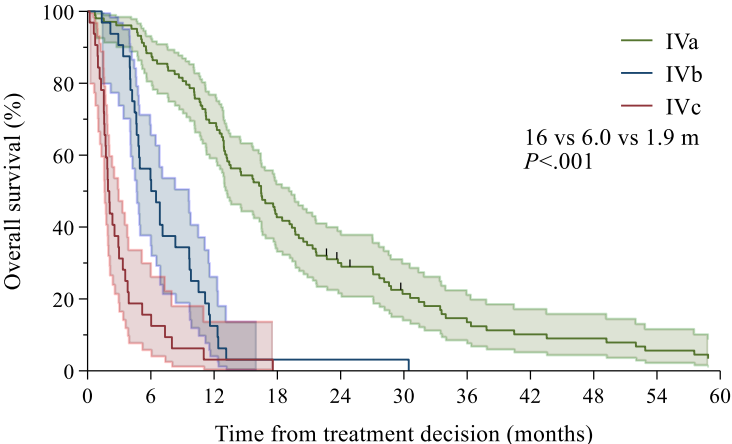
Fig. S4. Kaplan-Meier graph of overall survival (OS) from decision to treat to death, shaded area shows the confidence intervals. (A) Entire actively treated cohort against the meta-analysis of 2,494 patients [Rantala et al. Overall survival after treatment for metastatic uveal melanoma: a systematic review and meta-analysis. *Melanoma Res.* 2019 Dec;29(6):561-568].; (B) according to the Helsinki University Hospital Working Formulation (WF), three patients could not be staged and were omitted; (C) systemic treatment modalities according to the WF; (D) local therapy according to the WF.

B



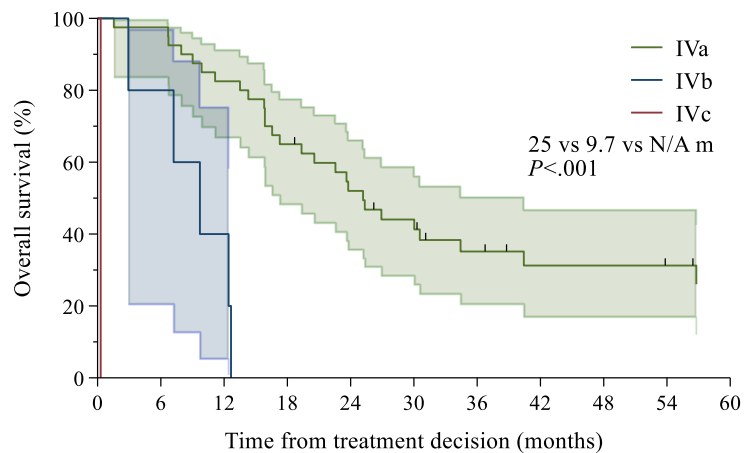
Number at risk											
IVa	143	130	104	70	49	35	23	17	16	12	8
IVb	37	21	6	1	1	1	0	0	0	0	0
IVc	33	5	1	0	0	0	0	0	0	0	0

C



Number at risk											
IVa	103	91	71	44	29	19	12	9	8	5	3
IVb	32	17	4	1	1	1	0	0	0	0	0
IVc	32	5	1	0	0	0	0	0	0	0	0

D

[illegible]

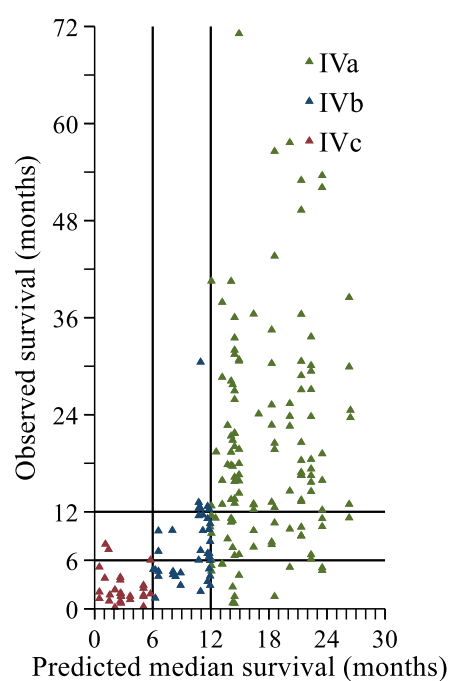
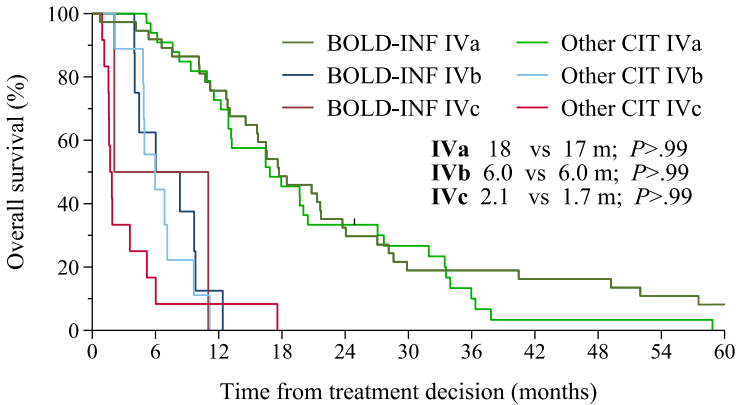


Fig. S5. Scatterplot of the predicted median overall survival time against observed overall survival by the Helsinki University Hospital Working Formulation stages IVa (predicted median survival >12 months), IVb (predicted <12-6 months), and IVc (predicted <6 months).

A



Number at risk	37	34	28	18	12	7	7	6	6	4	3
BOLD-INF IVa	37	34	28	18	12	7	7	6	6	4	3
BOLD-INF IVb	8	5	1	0	0	0	0	0	0	0	0
BOLD-INF IVc	2	1	0	0	0	0	0	0	0	0	0
Other CIT IVa	2	1	1	0	0	0	0	0	0	0	0
Other CIT IVb	33	31	24	15	11	8	3	1	1	1	0
Other CIT IVc	9	4	0	0	0	0	0	0	0	0	0

Fig. S6. Kaplan-Meier graph of overall survival (OS) from decision to treat to death for (A) chemoimmunotherapy with interferon or interleukin (CIT) according to the chemotherapeutic combinations: BOLD (bleomycin + vincristine + lomustine + dacarbazine) in combination with interferon and other CITs according to the Helsinki University Hospital Working Formulation (WF); (B) interferon or interleukin (IFN/IL) against best supportive care (BSC) according to the WF; (C) check-point inhibitor (CPI) against BSC according to the WF. Median OS is given, and P value calculated by log-rank test and adjusted with Bonferroni correction.

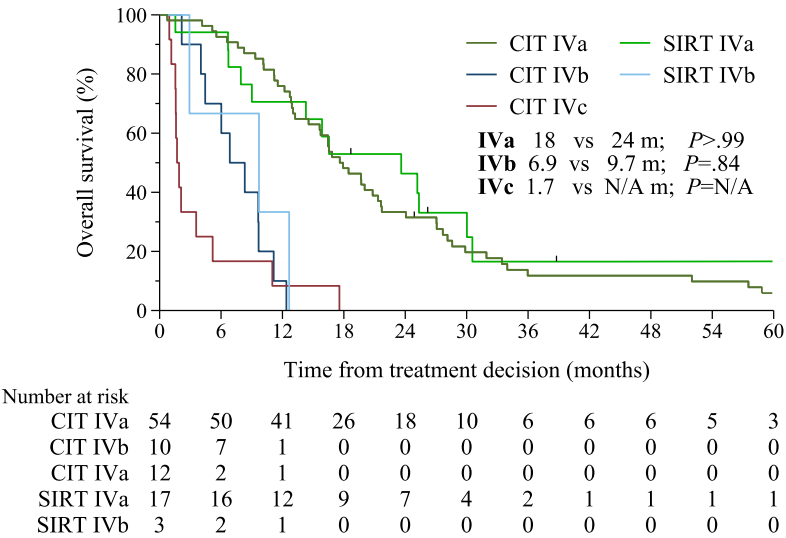


Fig. S7. Kaplan-Meier graph of overall survival (OS) from treatment decision to death for chemoimmunotherapy with interferon or interleukin (CIT) against selective internal radiation therapy (SIRT) staged with Helsinki University Hospital Working Formulation for patients with only hepatic metastases. Median OS is given, and P value is calculated by log-rank test and adjusted with Bonferroni correction.

A

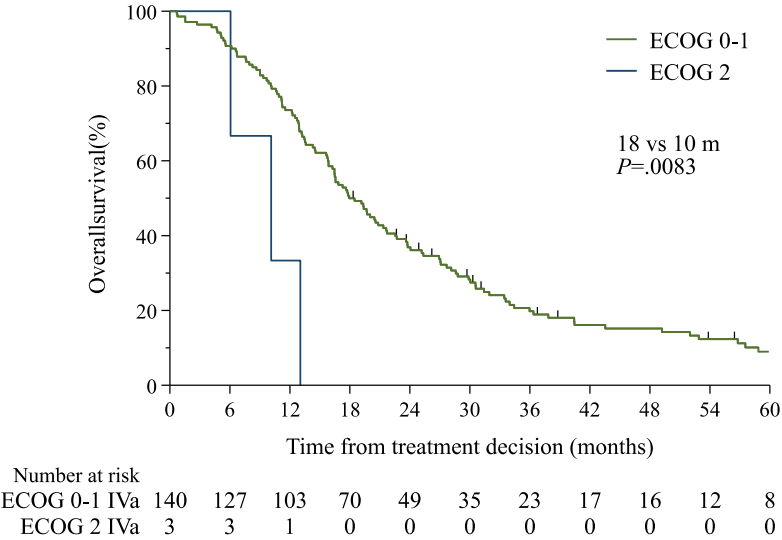
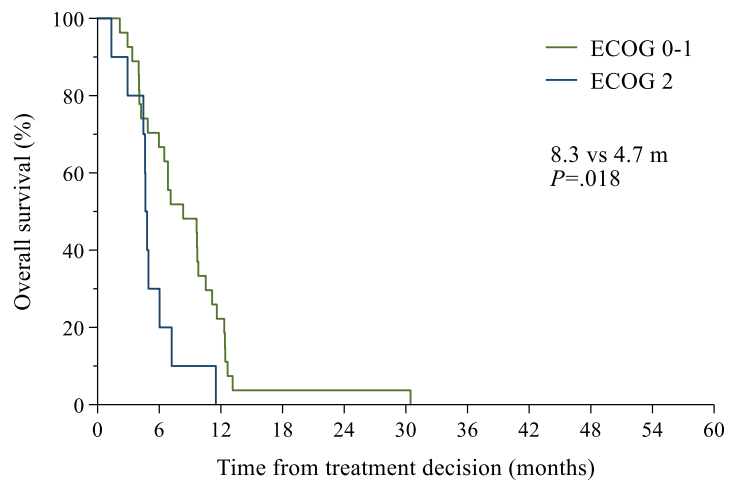


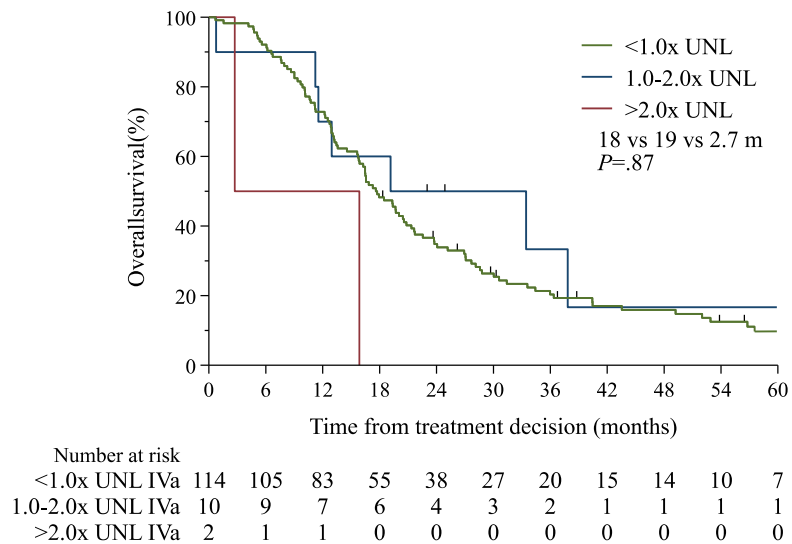
Fig. S8. Kaplan-Meier graph of overall survival (OS) from treatment decision to death according to components of Helsinki University Hospital Working Formulation and staged by it (A) Eastern Cooperative Oncology Group (ECOG) performance status by stage IVa; (B) by IVb; (C) by IVc; (D) plasma or serum level of alkaline phosphatase by stage IVa; (E) by IVb; (F) by IVc; (G) the largest diameter of the largest metastasis by TNM M1 classification by stage IVa; (H) by IVb; and (I) by IVc. Median OS is given, and P value is calculated by log-rank test for unordered and log-rank test for trend for ordered categories. UNL, upper normal limit.

B



Number at risk										
ECOG 0-1 IvB	27	18	6	1	1	1	0	0	0	0
ECOG 2 IvB	10	3	0	0	0	0	0	0	0	0

D



Overall survival (%)

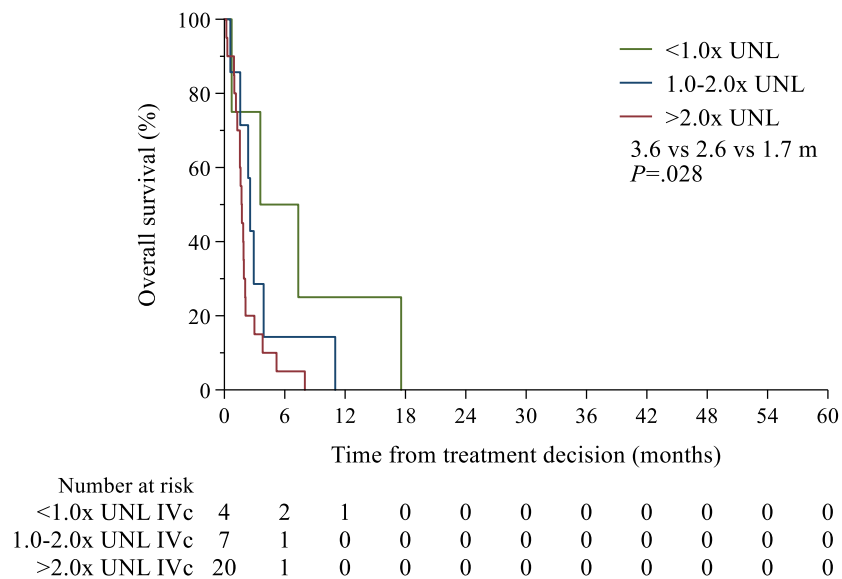
Time from treatment decision (months)

— <1.0x UNL
— 1.0-2.0x UNL
— >2.0x UNL

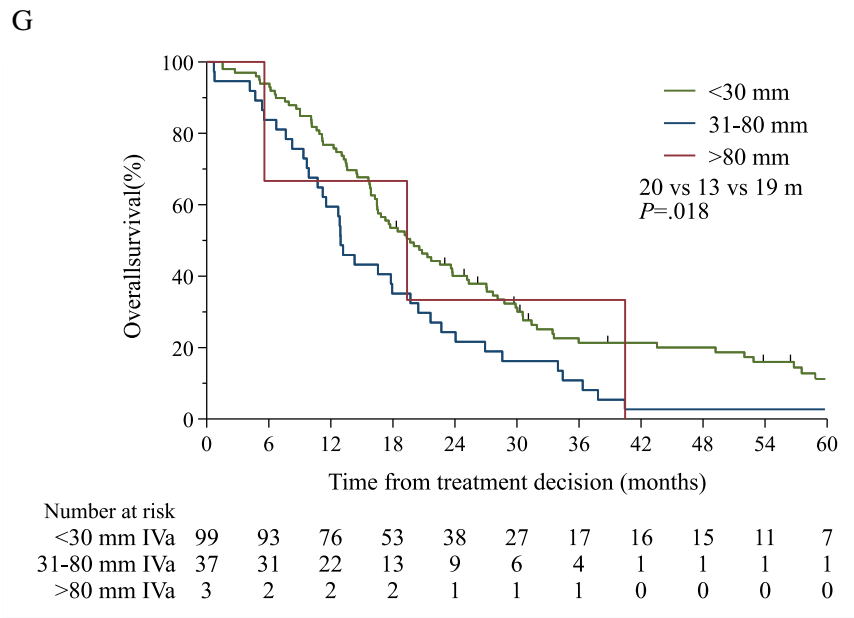
6.9 vs 6.0 vs 4.0 m
 $P=.66$

Number at risk											
<1.0x UNL IVb	14	9	2	1	1	1	0	0	0	0	0
1.0-2.0x UNL IVb	15	8	3	0	0	0	0	0	0	0	0
>2.0x UNL IVb	5	2	1	0	0	0	0	0	0	0	0

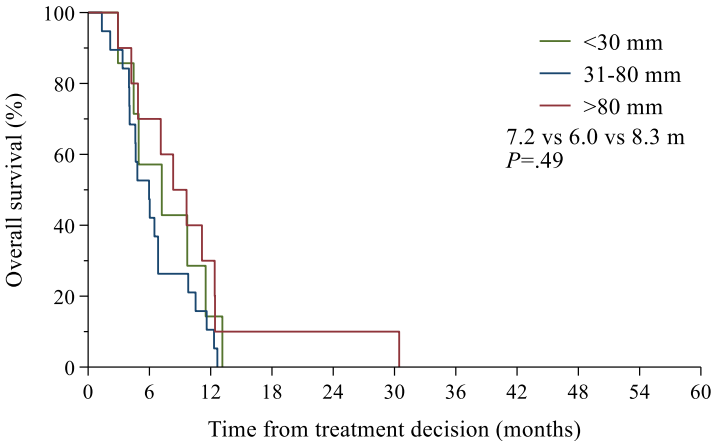
F



G



H



Number at risk										
<30 mm IVb	7	4	1	0	0	0	0	0	0	0
31-80 mm IVb	19	9	2	0	0	0	0	0	0	0
>80 mm IVb	10	7	3	1	1	1	0	0	0	0

A

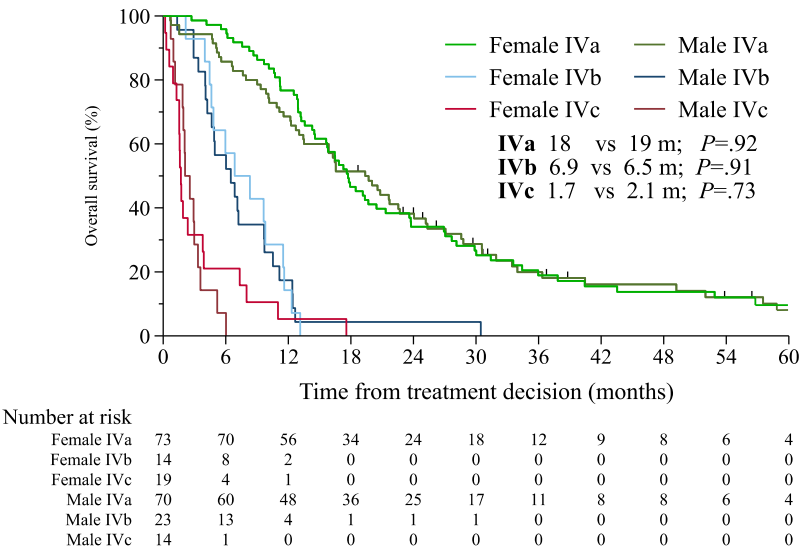
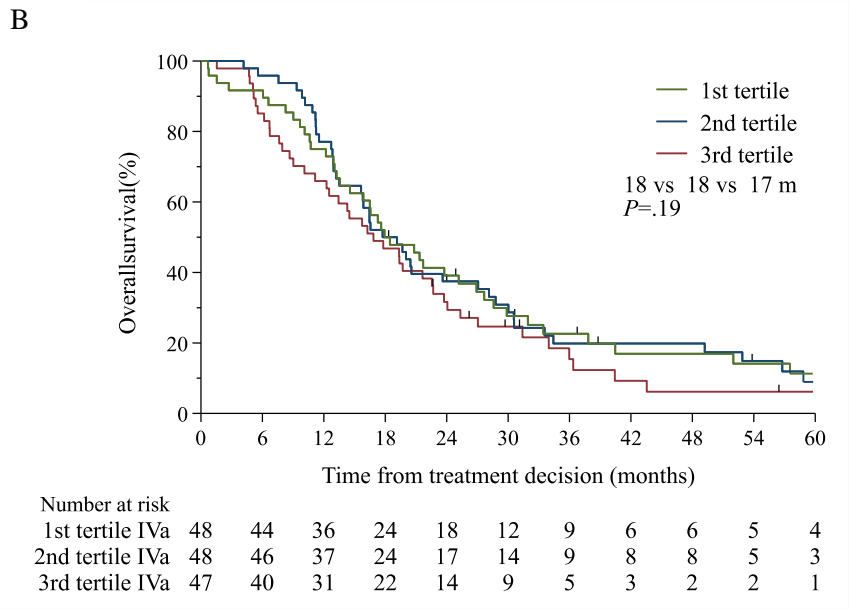
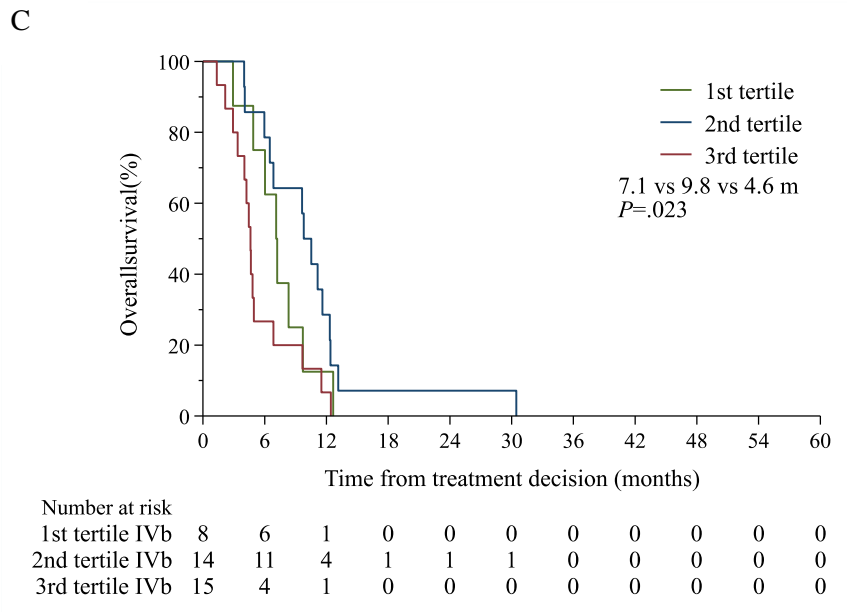


Fig. S9. Kaplan-Meier graph of overall survival (OS) from treatment decision to death staged by Helsinki University Hospital Working Formulation according to (A) gender; (B) age tertiles IVa; (C) IVb; (D) IVc; (E) symptoms; (F) distant metastasis-free interval <2.0, 2.0-3.5, 3.5-5.0, and >5.0 years stage IVa; (G) IVb; (H) IVc; (I) sites of metastases IVa; (J) IVb; (K) IVc; (L) plasma or serum level lactate dehydrogenase by stage IVa; (M) IVb; and (N) IVc. Median OS is given, and P value is calculated by log-rank test for unordered and log-rank test for trend for ordered categories. UNL, upper normal limit.

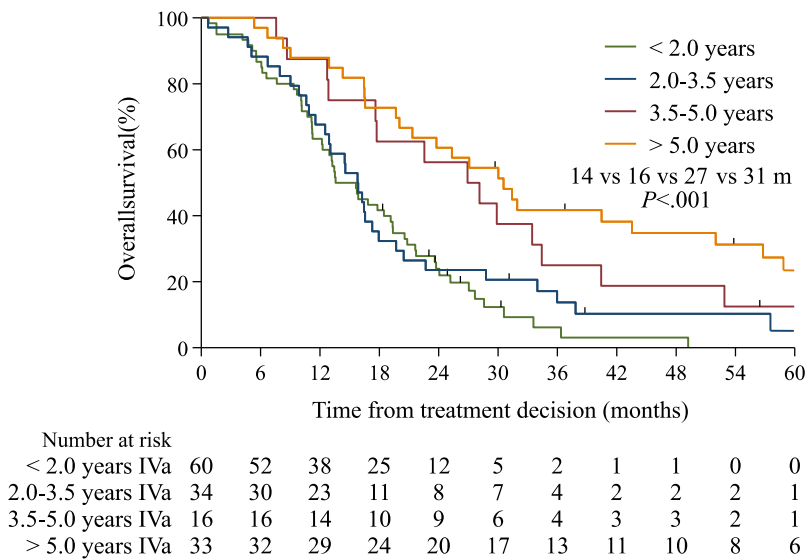
B



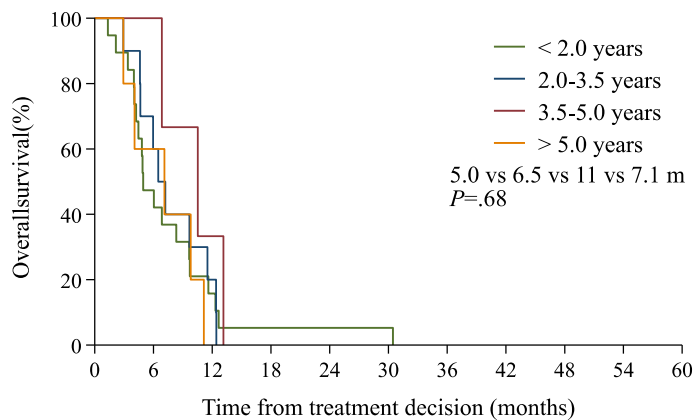
C



F

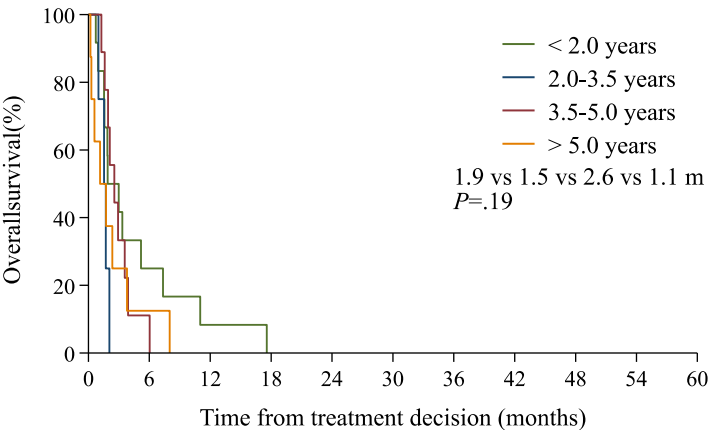


G



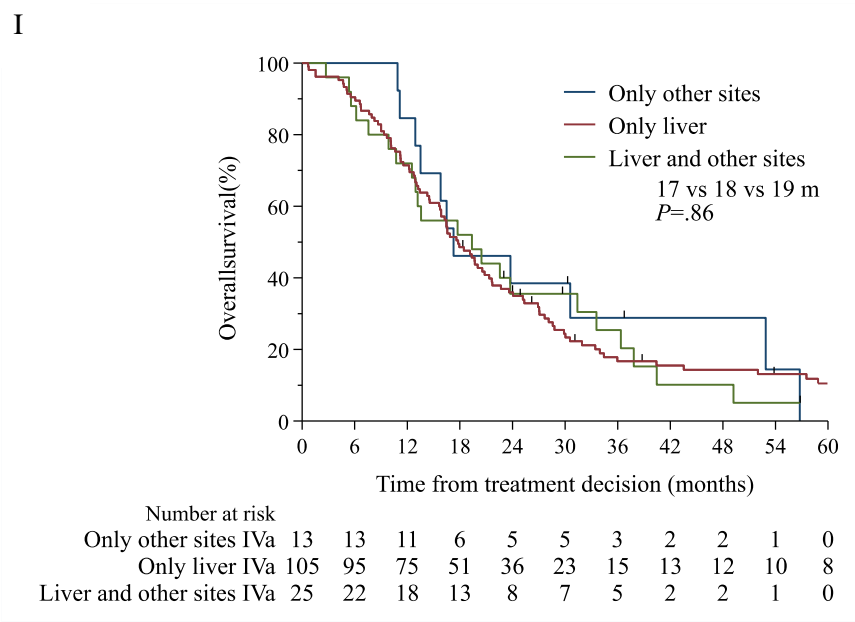
	Number at risk									
< 2.0 years IVb	19	9	3	1	1	1	0	0	0	0
2.0-3.5 years IVb	10	6	2	0	0	0	0	0	0	0
3.5-5.0 years IVb	3	3	1	0	0	0	0	0	0	0
> 5.0 years IVb	5	3	0	0	0	0	0	0	0	0

H

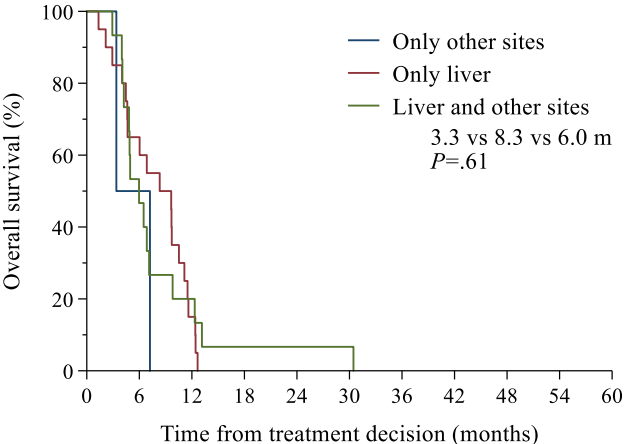


Number at risk										
< 2.0 years IVc	12	3	1	0	0	0	0	0	0	0
2.0-3.5 years IVc	4	0	0	0	0	0	0	0	0	0
3.5-5.0 years IVc	9	1	0	0	0	0	0	0	0	0
> 5.0 years IVc	8	1	0	0	0	0	0	0	0	0

I

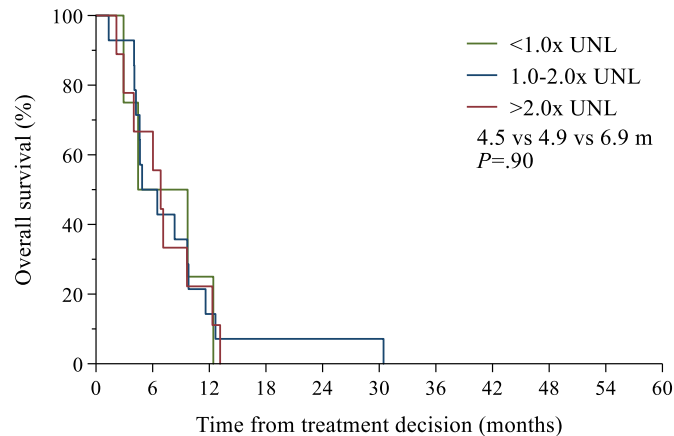


J



Number at risk										
Only other sites IVb	2	1	0	0	0	0	0	0	0	0
Only liver IVb	20	13	3	0	0	0	0	0	0	0
Liver and other sites IVb	15	7	3	1	1	1	0	0	0	0

M



Number at risk										
<1.0x UNL IVb	4	2	1	0	0	0	0	0	0	0
1.0-2.0x UNL IVb	14	7	2	1	1	1	0	0	0	0
>2.0x UNL IVb	9	6	2	0	0	0	0	0	0	0

