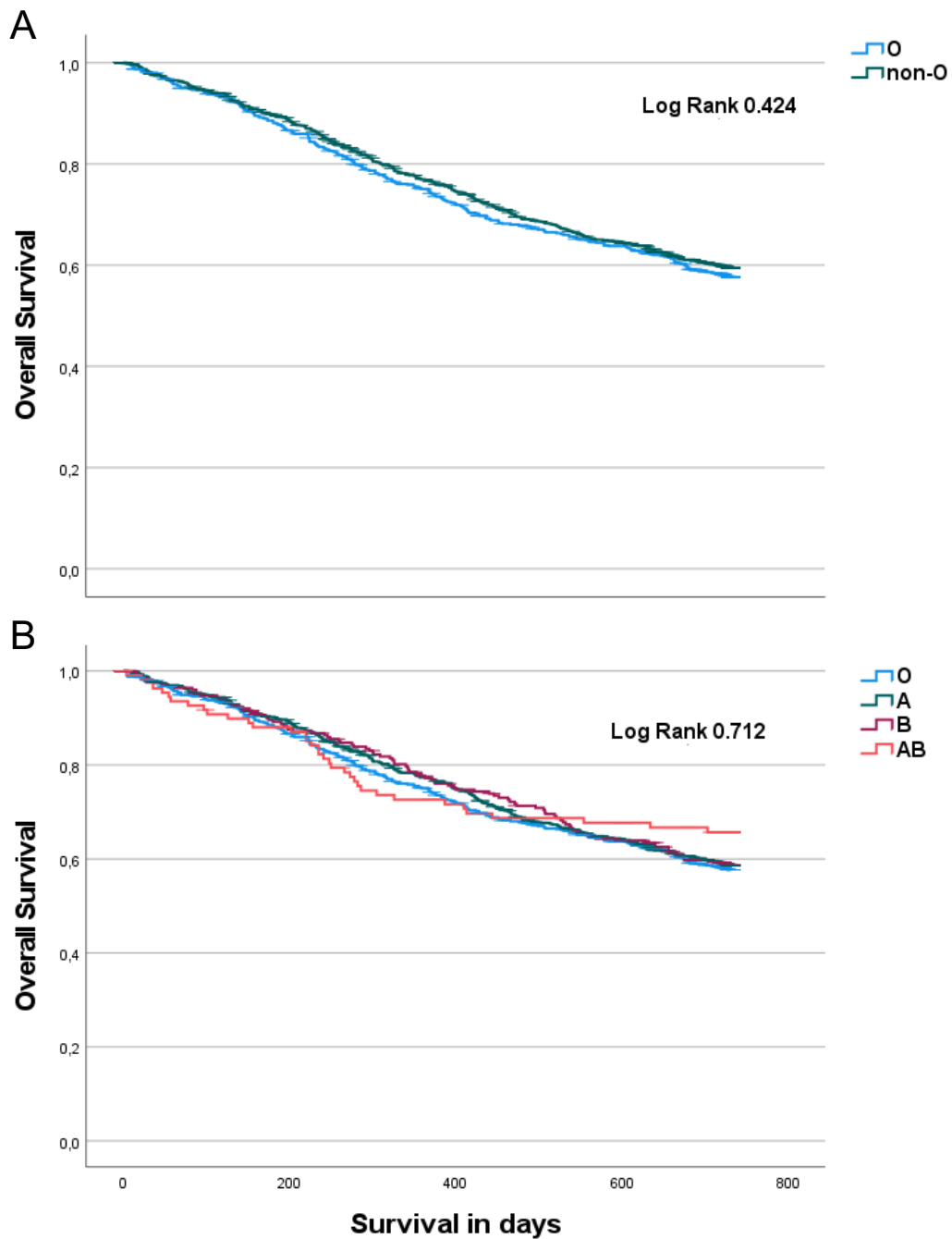


## Supplement



**Figure S 1.** Overall survival of patients with (A) blood group O (n=653) versus A (n=682) versus B (n=262) versus AB (n=111) and (B) blood group O (n=653) versus non-O (n=1,055). Cumulative survival was calculated with Kaplan Meier analysis and Log Rank test.

**Table S 1. ABO blood group type is independent of cancer type.** Chi-Square test for independence  $p=0.549$

<b>ABO blood group and cancer type</b>				
	<b>O [n (%)]</b>	<b>A [n (%)]</b>	<b>B [n (%)]</b>	<b>AB [n (%)]</b>
<b>Brain (n=234)</b>	94 (40%)	94 (40%)	27 (12%)	19 (8%)
<b>Lymphoma (n=221)</b>	82 (37%)	85 (38%)	35 (16%)	19 (9%)
<b>Others (n=132)</b>	61 (46%)	51 (39%)	13 (10%)	7 (5%)
<b>Breast (n=267)</b>	101 (38%)	99 (37%)	49 (18%)	18 (7%)
<b>Lung (n=321)</b>	113 (35%)	133 (41%)	53 (17%)	22 (7%)
<b>Gastric (n=53)</b>	22 (41%)	21 (40%)	8 (15%)	2 (4%)
<b>Colorectal (n=159)</b>	57 (36%)	69 (43%)	24 (15%)	9 (6%)
<b>Pancreatic (n=117)</b>	45 (38%)	50 (43%)	18 (15%)	4 (4%)
<b>Renal (n=37)</b>	20 (54%)	11 (30%)	5 (13%)	1 (3%)
<b>Prostate (n=125)</b>	39 (31%)	51 (41%)	26 (21%)	9 (7%)
<b>Multiple Myeloma (n=42)</b>	19 (45%)	18 (43%)	4 (10%)	1 (2%)

**Table S 2. ABO blood group type is independent of prothrombotic tumor risk group.** Very high VTE risk tumor types: pancreatic, gastroesophageal, glioblastoma; intermediate risk: lymphoma, lung, colorectal, renal, multiple myeloma and other; low risk: breast and prostate cancer. Chi-Square for independence  $p = 0.250$

<b>ABO blood group and tumor risk group</b>				
	<b>O [n (%)]</b>	<b>A [n (%)]</b>	<b>B [n (%)]</b>	<b>AB [n (%)]</b>
<b>Low risk (n=395)</b>	140 (35%)	151 (38%)	77 (19%)	27 (7%)
<b>Intermediate risk (n=986)</b>	382 (39%)	398 (40%)	143 (15%)	63 (6%)
<b>Very high risk (n=327)</b>	131 (40%)	133 (41%)	42 (13%)	21 (6%)

**Table S 3. Likelihood of stage 4 disease at baseline in patients with blood group O (n=653) versus non-O (n=1,055).** Stage 4 disease was evaluated according to underlying cancer type, as this is available in all included cancer types and metastatic diseases would not be possible to evaluate in e.g., primary brain tumors or lymphoma. Chi-Square test for independence  $p = 0.632$

<b>Stage 4 disease in non-O versus O</b>		
	<b>O [n (%)]</b>	<b>Non-O [n (%)]</b>
<b>Stage 4 (n=548)</b>	214 (39%)	334 (61%)
<b>Other (n=1,160)</b>	439 (38%)	721 (62%)

**Table S 4. Additional multivariate analysis in patients with cancer beyond 3 months of follow up (n=1,523)**

<b>Model 1 (n=1,523)</b>	SHR [95%CI], p-value
ABO (non-O vs 0)	1.76 [1.10-2.81], p=0.018
<b>Model 2 (n=1,517)</b>	
ABO (non-O vs 0)	1.76 [1.11-2.81], p=0.017
Platelet count (per 1 unit increase in G/L)	0.99 [0.97-1.01], p=0.538
<b>Model 3 (n=1,515)</b>	
ABO (non-O vs 0)	1.79 [1.12-2.86], p=0.015
sP-selectin (per double; ng/mL)	1.17 [0.81-1.68], p=0.403
<b>Model 4 (1,398)</b>	
ABO (non-O vs 0)	1.74 [1.07-2.84], p=0.026
D-Dimer (per double; mg/dl)	1.54 [1.27-1.87], p<0.001
<b>Model 5 (n=1,510)</b>	
ABO (non-O vs 0)	1.80 [1.13-2.88], p=0.014
Platelet count (per 1 unit increase in G/L)	0.99 [0.97-1.01], p=0.402
sP-selectin (per double; ng/mL)	1.20 [0.84-1.70], p=0.314
<b>Model 6 (n=1,391)</b>	
ABO (non-O vs 0)	1.75 [1.07-2.87], p=0.026
Platelet count (per 1 unit increase in G/L)	0.99 [0.97-1.01], p=0.301
sP-selectin (per double; ng/mL)	0.96 [0.69-1.35], p=0.827
D-Dimer (per double; mg/dl)	1.57 [1.29-1.92], p<0.001

**Table S 5. Additional multivariate analysis in the subgroup of patients with intermediate/low risk tumor types (n=1,340).**

<b>Model 1 (n=1,340)</b>	<b>SHR [95%CI], p-value</b>
ABO (non-O vs 0)	1.73 [1.09-2.73], p=0.019
<b>Model 2 (n=1,335)</b>	
ABO (non-O vs 0)	1.73 [1.09-2.74], p=0.019
Platelet count (per 1 unit increase in G/L)	1.00 [0.98-1.02], p=0.816
<b>Model 3 (1,336)</b>	
ABO (non-O vs 0)	1.75 [1.11-2.77], p=0.016
sP-selectin (per double; ng/mL)	1.10 [0.77-1.57], p=0.590
<b>Model 4 (1,398)</b>	
ABO (non-O vs 0)	1.67 [1.04-2.69], p=0.034
D-Dimer (per double; mg/dl)	1.56 [1.28-1.90], p<0.001
<b>Model 5 (1,332)</b>	
ABO (non-O vs 0)	1.76 [1.11-2.78], p=0.016
Platelet count (per 1 unit increase in G/L)	1.00 [0.98-1.02], p=0.712
sP-selectin (per double; ng/mL)	1.12 [0.78-1.60], p=0.543
<b>Model 6 (n=1,391)</b>	
ABO (non-O vs 0)	1.68 [1.04-2.71], p=0.034
Platelet count (per 1 unit increase in G/L)	0.99 [0.97-1.01], p=0.485
sP-selectin (per double; ng/mL)	0.92 [0.66-1.28], p=0.607
D-Dimer (per double; mg/dl)	1.62 [1.32-1.98], p<0.001