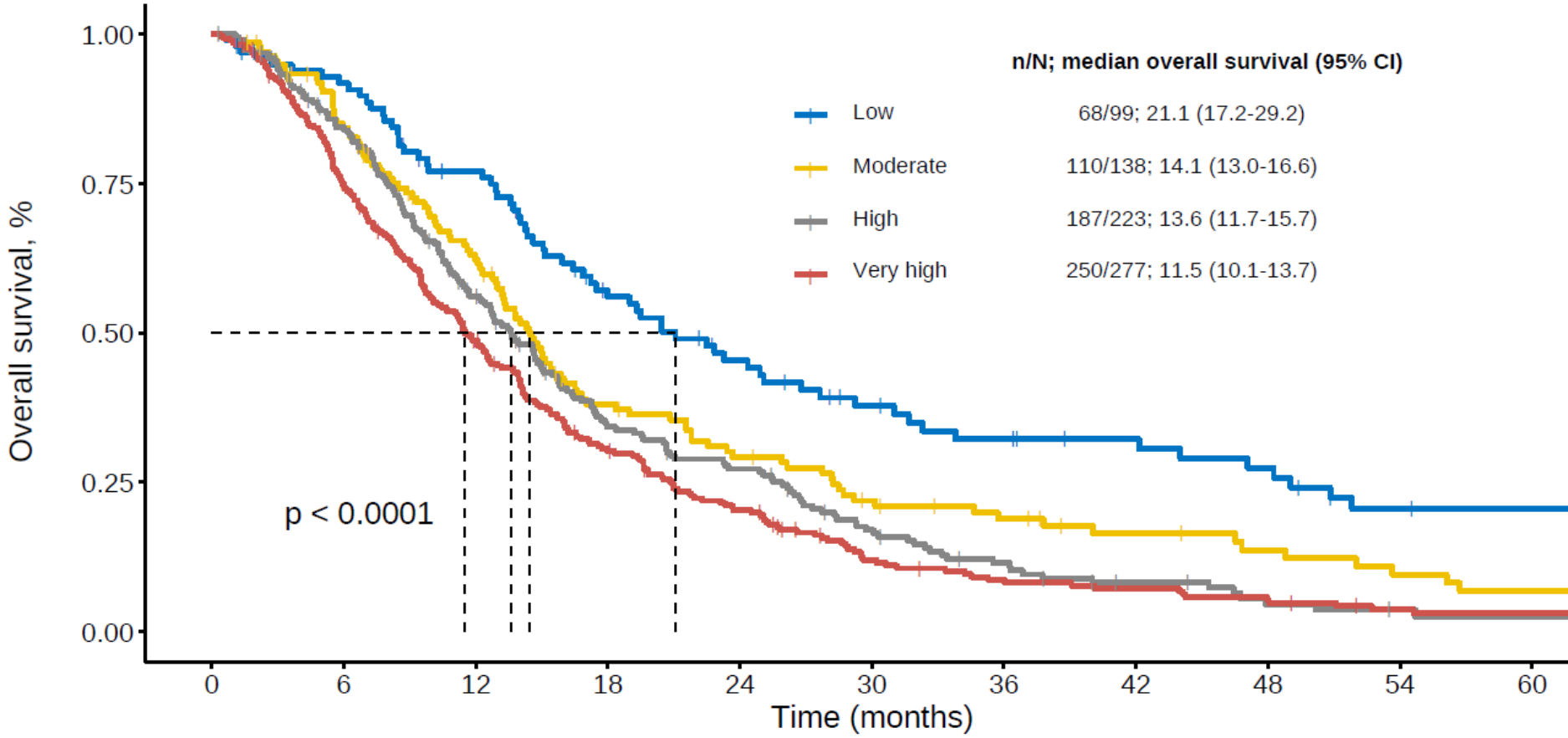
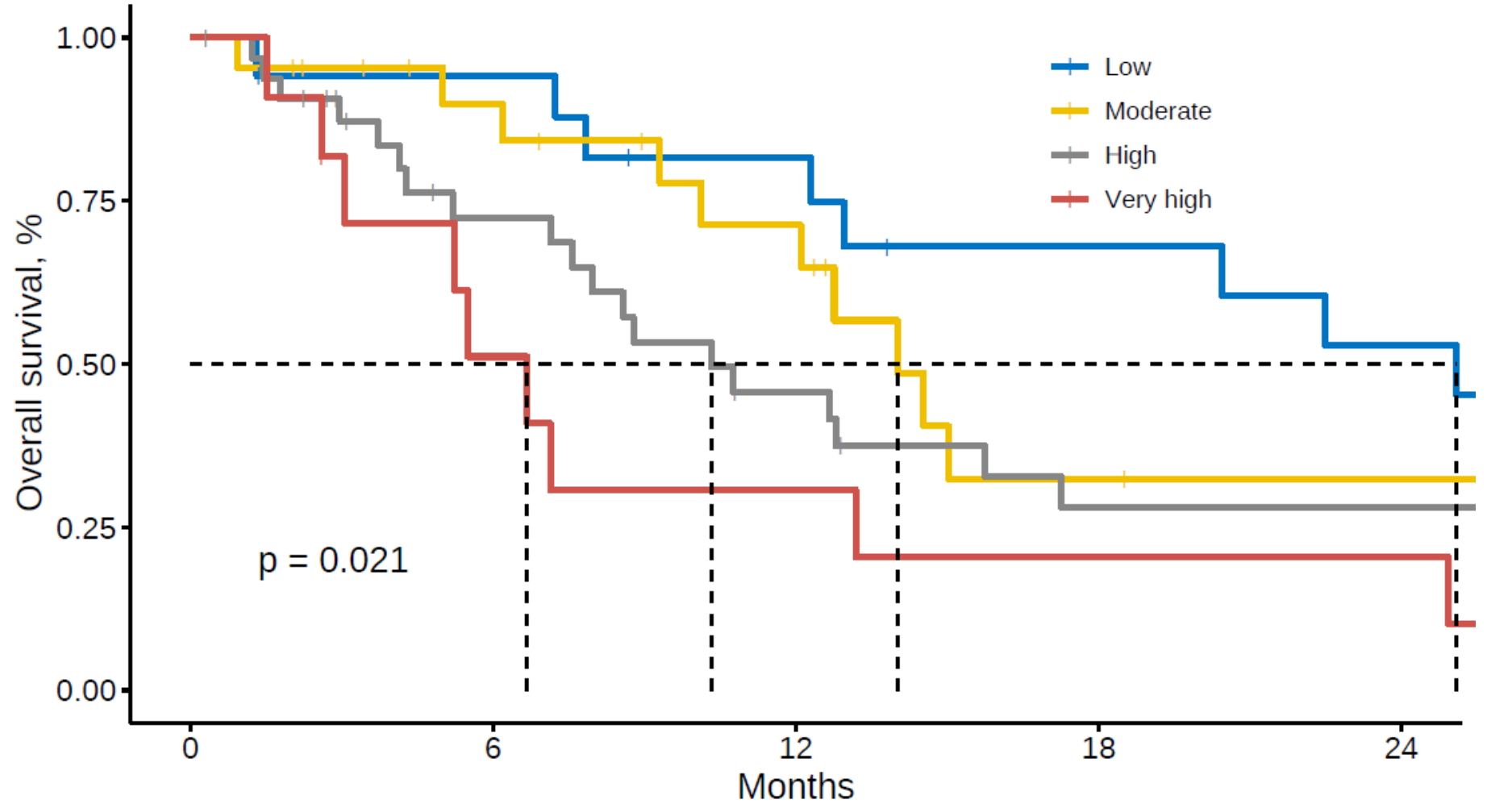
Annex Figure 1A. Kaplan-Meier survival estimates by tumour burden (complete dataset)



Number at risk

Low	99	88	71	48	37	28	23	20	17	11	10
Moderate	138	111	78	44	33	23	18	13	10	7	5
High	223	180	114	64	50	29	18	10	5	3	2
Very high	277	203	128	78	51	26	18	15	11	6	5

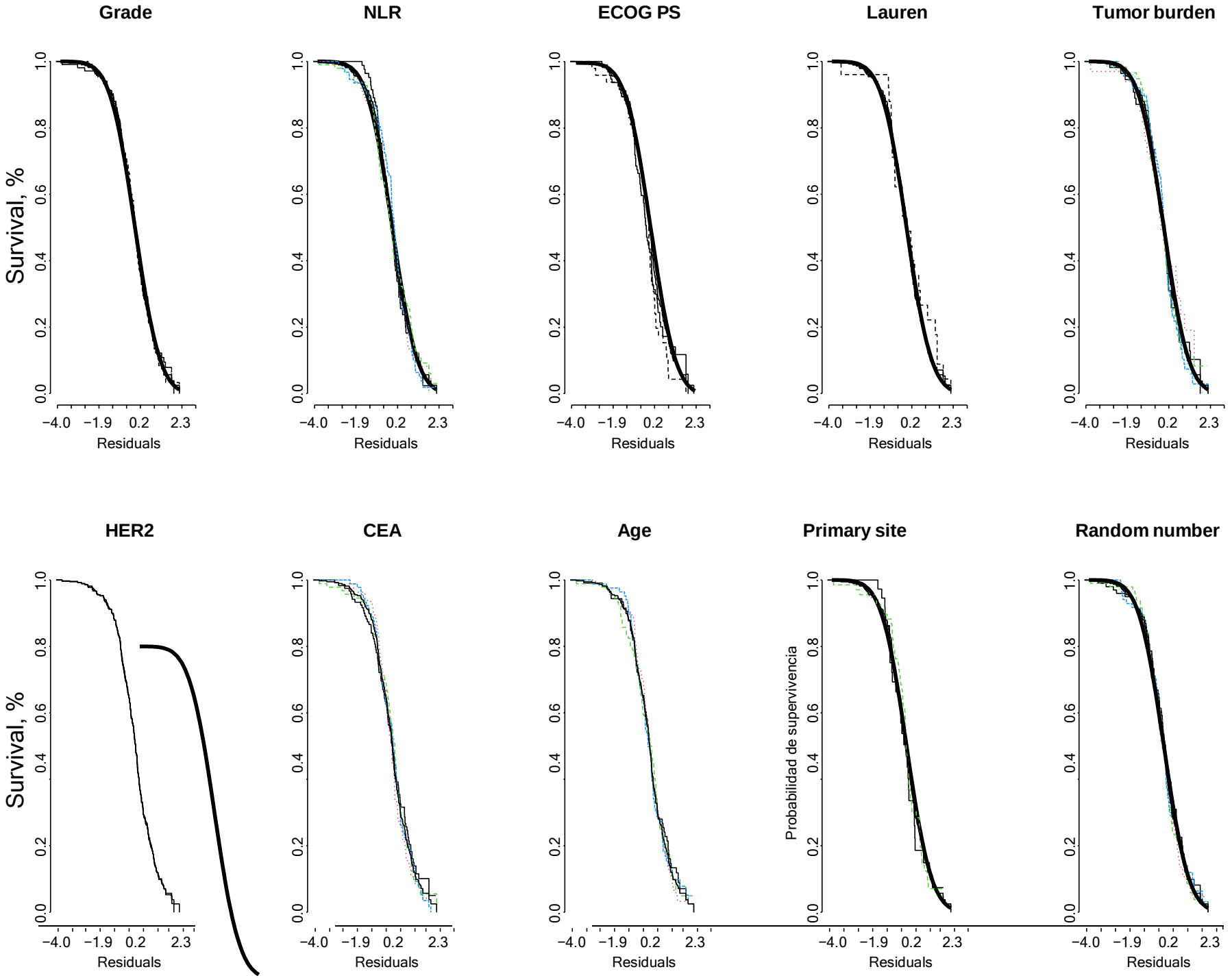
Annex Figure 1B. Kaplan-Meier survival estimates by tumour burden (validation cohort)



Number at risk

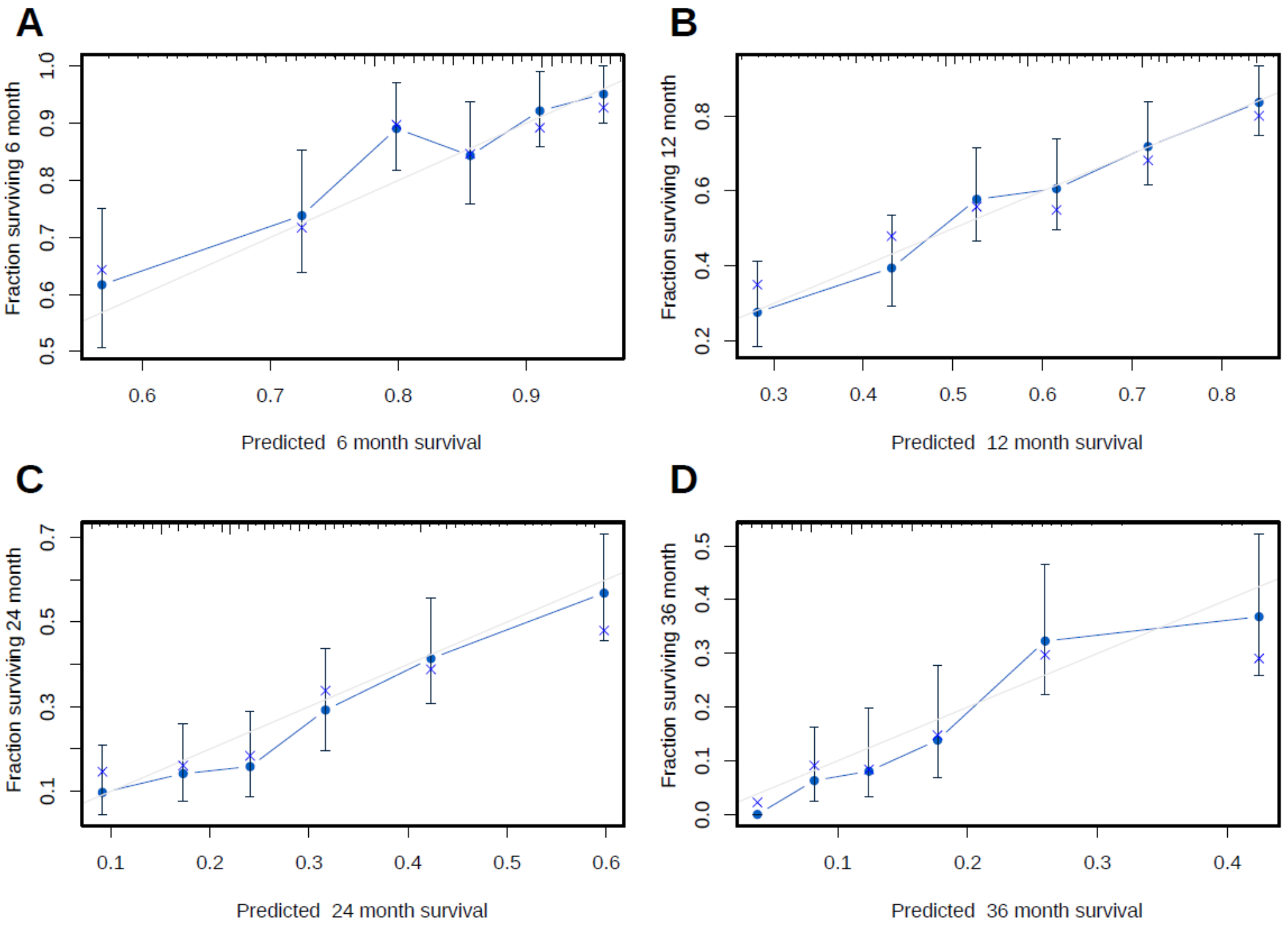
17	15	12	9	7
22	16	11	4	3
33	19	11	6	6
11	5	3	2	2

Annex Figure 2. Kaplan-Meier curves for the standardised distribution of the residuals of the fitted log-normal AFT model

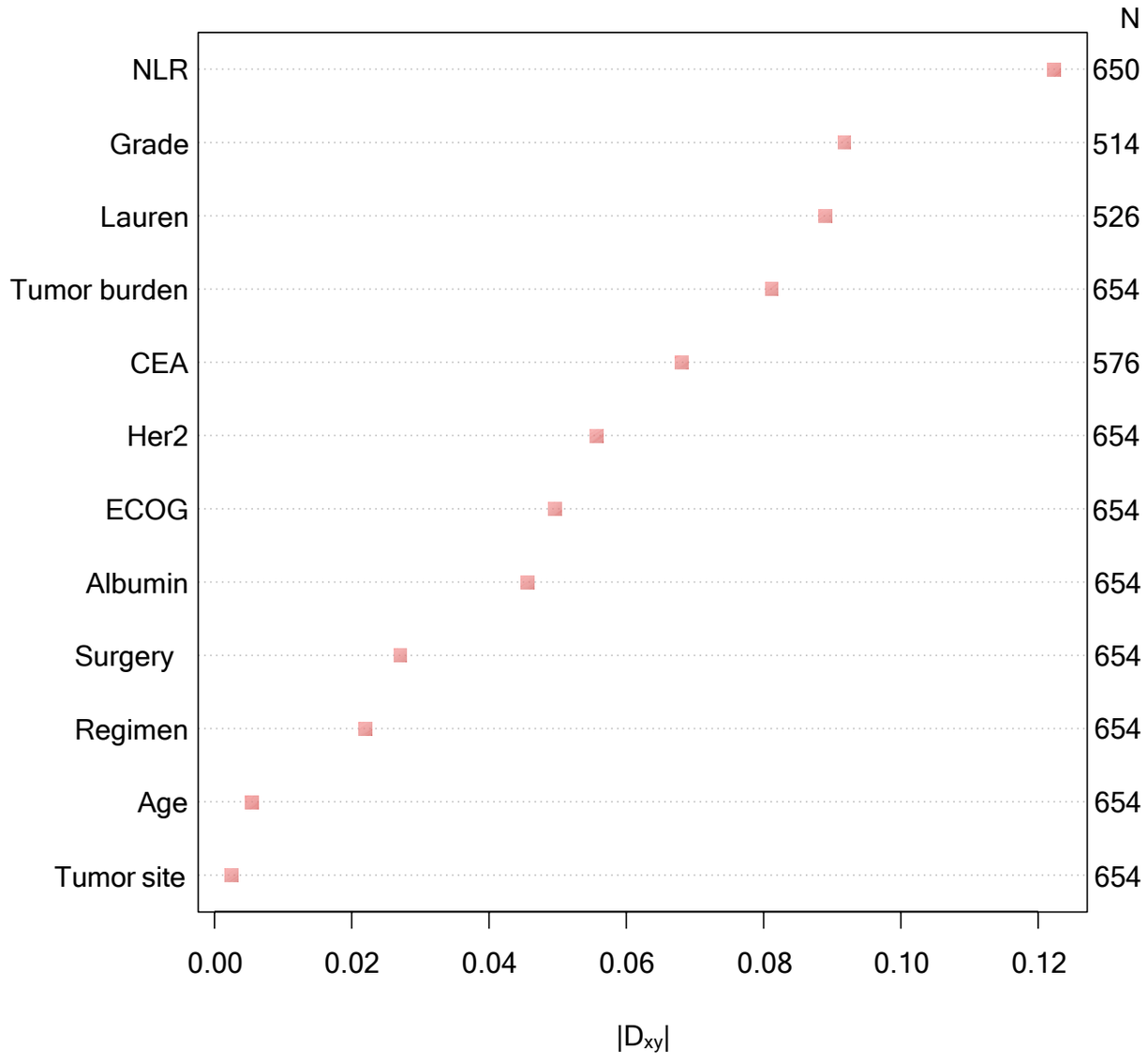


Residuals have been stratified by the covariates in the model, plus a random variable to demonstrate natural variability. The theoretical distribution of the residues is shown with a thicker line.

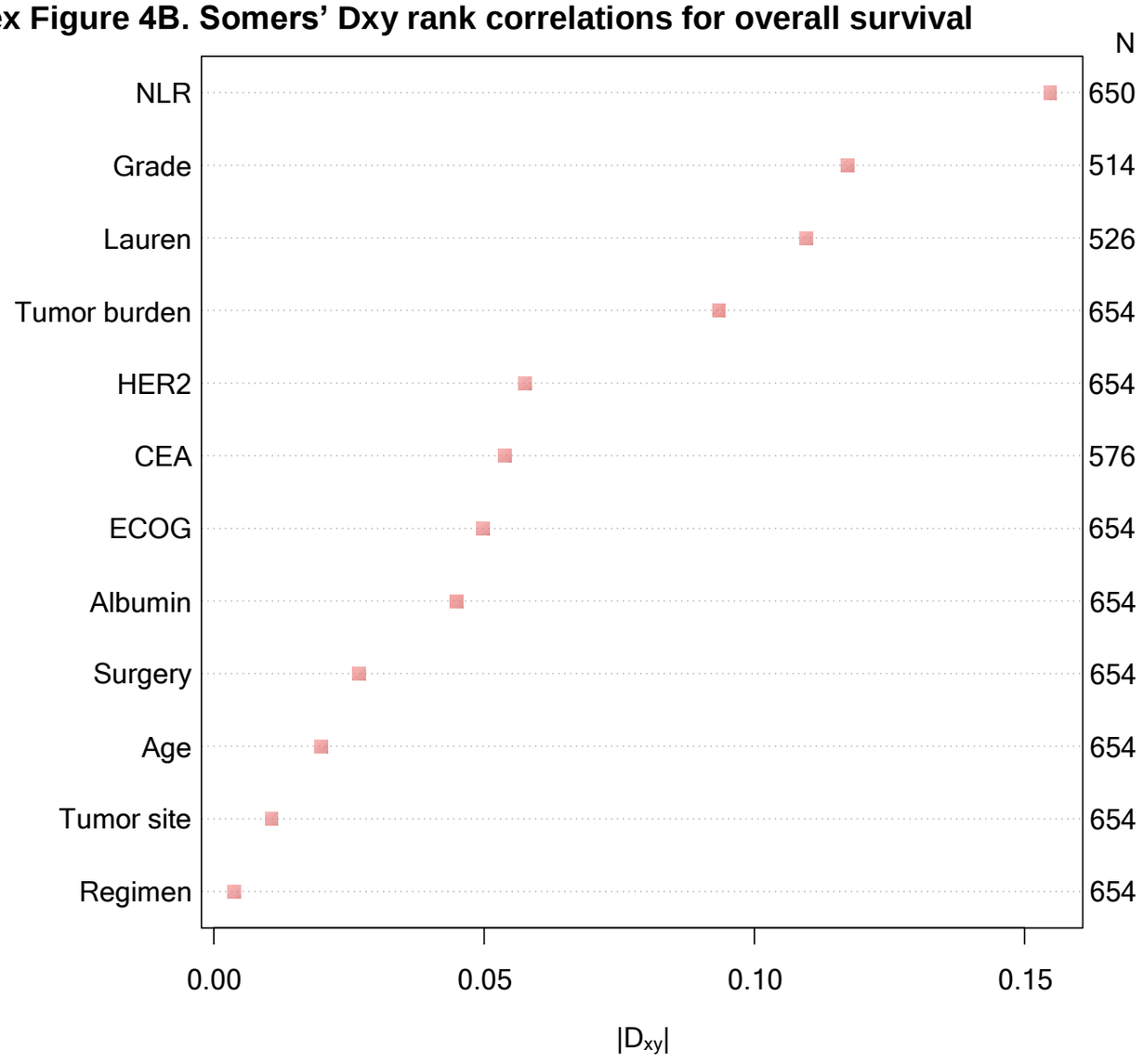
Annex Figure 3. Calibration plots for overall survival in the training (AGAMENON-SEOM) cohort



Annex Figure 4A. Somers' Dxy rank correlations for progression-free survival

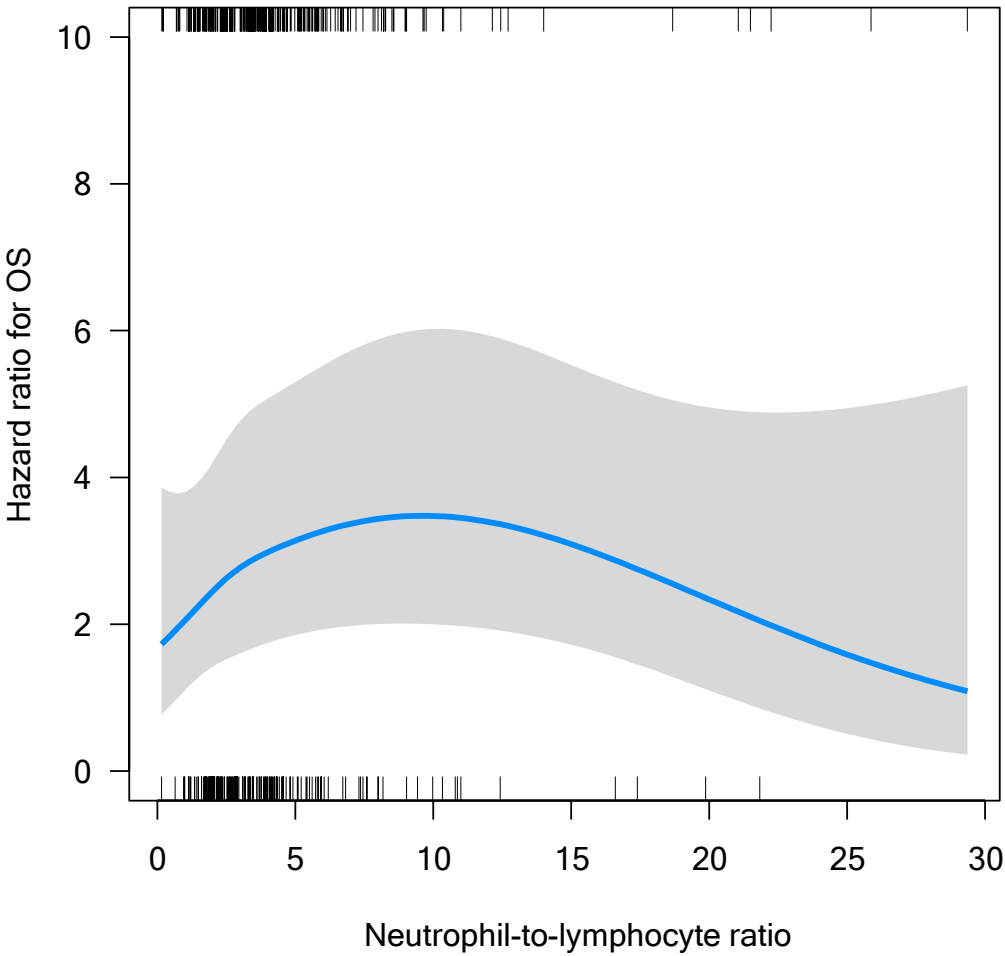


Annex Figure 4B. Somers' Dxy rank correlations for overall survival



Abbreviations: NLR= neutrophil-to-lymphocyte ratio, HER2= human epidermal growth factor receptor 2, CEA= carcinoembrionary antigen, ECOG= Eastern Cooperative Group performance status.

Annex Figure 5. Hazard ratio for overall survival associated with the neutrophil-lymphocyte ratio.



Estimates are derived from the multivariable accelerated failure time model. The nonlinear effect is captured by a restricted cubic spline with three knots. OS= overall survival.

Model formulas for HER2-positive gastric tumors

Alberto Carmona Bayonas

15/07/22

Overall survival

$$\text{Prob}\{T \geq t\} = 1 - \Phi(\frac{\log(t) - X\beta}{0.8968617}) \text{ where}$$

$X\hat{\beta} =$

$$\begin{aligned}
&4.311043 \\
&-0.2125658\text{rnl}_2 + 0.007033983(\text{rnl}_2 - 1.641729)_+^3 \\
&-0.01002682(\text{rnl}_2 - 3.464815)_+^3 + 0.00299284(\text{rnl}_2 - 7.74956)_+^3 \\
&-0.1018133[1] - 0.5737084[2] \\
&-0.2836102[2] - 0.1687748\,\text{Her}_2 \\
&-0.2321276[2] - 0.3280515[3] \\
&-0.1830526[3] - 0.4491247[4] - 0.5440473[5]
\end{aligned}$$

and $[c] = 1$ if subject is in group c, 0 otherwise; $(x)_+ = x$ if $x > 0$, 0 otherwise

Progression-free survival

$$\text{Prob}\{T \geq t\} = 1 - \Phi(\frac{\log(t) - X\beta}{0.9310029}) \text{ where}$$

$$
\begin{aligned}
X\hat{\beta} = \\
&3.652705 \\
&-0.1739737\text{rnl}_2 + 0.005849147(\text{rnl}_2 - 1.641729)_+^3 \\
&-0.00833786(\text{rnl}_2 - 3.464815)_+^3 + 0.002488713(\text{rnl}_2 - 7.74956)_+^3 \\
&-0.02141783[1] - 0.4300332[2] \\
&-0.3035236[2] - 0.2728151\ \text{Her}_2 \\
&-0.1578525[2] - 0.2193954[3] \\
&-0.09823317[3] - 0.4553912[4] - 0.4728883[5]
\end{aligned}
$$

and $[c] = 1$ if subject is in group c, 0 otherwise; $(x)_+ = x$ if $x > 0$, 0 otherwise