

Figure S1 Standardized mean difference between unresectable and resectable cohort before and after adjustment by PSM. PSM, propensity score matching.

Table S1 Univariable and multivariable Cox regression for DFS and OS

Characteristic	DFS				OS			
	Univariable HR (95% CI)	P value	Multivariable HR (95% CI)	P value	Univariable HR (95% CI)	P value	Multivariable HR (95% CI)	P value
Resectability								
Resectable	1				1			
Unresectable	0.95 (0.65-1.38)	0.77			1.07 (0.57-2.02)	0.83		
Age, years								
<65	1				1			
≥65	1.19 (0.83-1.72)	0.34			1.31 (0.72-2.41)	0.38		
Sex								
Male	1		1		1			
Female	1.96 (1.15-3.33)	0.01	1.27 (0.68-2.37)	0.45	1.83 (0.77-4.35)	0.17		
Smoking history								
No	1				1			
Yes	1.1 (0.73-1.65)	0.65			1.27 (0.64-2.53)	0.50		
Histotype								
Adenocarcinoma	1		1		1		1	
Squamous cell carcinoma	0.51 (0.34-0.75)	0.001	0.55 (0.33-0.93)	0.03	0.68 (0.36-1.28)	0.23	0.69 (0.36-1.3)	0.25
Others	0.52 (0.28-0.99)	0.045	0.45 (0.23-0.9)	0.03	0.14 (0.02-1.05)	0.055	0.14 (0.02-1.1)	0.06
PD-L1 expression								
<1%	1		1		1			
1-49%	1.78 (0.95-3.34)	0.07	1.75 (0.92-3.35)	0.09	0.84 (0.28-2.52)	0.76		
≥50%	0.74 (0.32-1.7)	0.48	0.59 (0.25-1.39)	0.23	0.55 (0.15-2.08)	0.38		
Unknown	1.55 (0.93-2.58)	0.09	1.48 (0.87-2.51)	0.14	1.14 (0.53-2.44)	0.74		
Gene mutation								
No mutation	1		1		1			
<i>KRAS</i>	0.92 (0.5-1.71)	0.80	0.67 (0.33-1.35)	0.27	0.91 (0.32-2.64)	0.87		
<i>ALK</i> or <i>EGFR</i>	0.99 (0.24-4.05)	0.99	0.64 (0.15-2.75)	0.55	1.31 (0.18-9.69)	0.79		
Others	1.37 (0.66-2.86)	0.40	0.95 (0.43-2.09)	0.90	0.9 (0.21-3.82)	0.89		
Unknown	0.55 (0.35-0.87)	0.01	0.66 (0.4-1.07)	0.09	0.72 (0.35-1.48)	0.37		
PD-1/PD-L1 antibody								
Pembrolizumab	1		1		1		1	
Nivolumab	2.63 (0.79-8.77)	0.12	2.46 (0.72-8.35)	0.15	1.62 (0.17-15.68)	0.68	1.32 (0.14-12.8)	0.81
Durvalumab	2.21 (0.47-10.46)	0.32	1.79 (0.36-8.82)	0.47	5.77 (0.96-34.65)	0.055	5.64 (0.92-34.47)	0.06
Other PD-1 antibodies	3.81 (1.85-7.83)	<0.001	3.78 (1.8-7.92)	<0.001	3.2 (0.98-10.39)	0.053	2.62 (0.8-8.58)	0.11

Table S1 (continued)

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Characteristic	DFS				OS			
	Univariable HR (95% CI)	P value	Multivariable HR (95% CI)	P value	Univariable HR (95% CI)	P value	Multivariable HR (95% CI)	P value
Neoadjuvant/induction therapy cycle								
1-2	1				1			
≥3	1.13 (0.78-1.63)	0.52			0.74 (0.4-1.36)	0.33		
Radiological response								
SD	1		1		1			
PR/CR	0.65 (0.45-0.95)	0.03	0.82 (0.55-1.23)	0.34	0.52 (0.28-0.97)	0.04		
Baseline BMI								
18.5-24.9	1		1		1			
<18.5	1.35 (0.42-4.31)	0.62	1.37 (0.4-4.66)	0.62	2.03 (0.48-8.63)	0.34		
>24.9	0.86 (0.55-1.33)	0.49	0.9 (0.57-1.42)	0.66	0.51 (0.22-1.19)	0.12		
Unknown	0.63 (0.39-1.01)	0.06	0.73 (0.44-1.22)	0.23	0.63 (0.3-1.33)	0.23		
Preoperative BMI								
18.5-24.9	1				1			
<18.5	0.41 (0.06-2.98)	0.38			0 (0-Inf)	>0.99		
>24.9	0.75 (0.51-1.09)	0.13			0.72 (0.38-1.35)	0.30		
Surgical approach								
Open	1				1			
VATS	0.82 (0.55-1.22)	0.33			0.51 (0.27-0.97)	0.04		
RATS	0.75 (0.33-1.7)	0.50			0.7 (0.21-2.42)	0.58		
Surgical type								
Lobectomy	1				1			
Sleeve lobectomy	0.87 (0.54-1.38)	0.54			1.27 (0.62-2.61)	0.51		
Pneumonectomy	0.62 (0.25-1.55)	0.31			0.82 (0.19-3.47)	0.79		

DFS, disease-free survival; OS, overall survival; HR, hazard ratio; SD, stable disease; PD, progressive disease; PR, partial response; CR, complete response; VATS, video-assisted thoracoscopic surgery; RATS, robotic-assisted thoracoscopic surgery.

Table S2 Univariable and multivariable Logistic regression for MPR and pCR

Characteristic	MPR				pCR			
	Univariable OR (95% CI)	P value	Multivariable OR (95% CI)	P value	Univariable OR (95% CI)	P value	Multivariable OR (95% CI)	P value
Resectability								
Resectable	1				1		1	
Unresectable	1.37 (0.91-2.05)	0.13			1.45 (0.94-2.25)	0.09	1.44 (0.88-2.36)	0.15
Age, years								
<65	1				1			
≥65	1.05 (0.72-1.55)	0.79			1.27 (0.85-1.91)	0.24		
Sex								
Male	1		1		1		1	
Female	0.53 (0.26-1.06)	0.07	0.70 (0.26-1.89)	0.49	0.31 (0.12-0.82)	0.02	0.29 (0.10-0.88)	0.03
Smoking history								
No	1				1			
Yes	1.04 (0.68-1.57)	0.87			0.90 (0.58-1.38)	0.62		
Histotype								
Adenocarcinoma	1		1		1		1	
Squamous cell carcinoma	2.41 (1.54-3.77)	<0.001	1.49 (0.78-2.83)	0.23	2.39 (1.41-4.06)	0.001	1.31 (0.65-2.65)	0.45
Others	3.78 (1.84-7.76)	<0.001	4.07 (1.67-9.93)	0.002	4.63 (2.25-9.54)	<0.001	4.48 (1.97-10.17)	<0.001
PD-L1 expression								
<1%	1		1		1		1	
1-49%	1.58 (0.82-3.01)	0.17	1.51 (0.68-3.33)	0.31	1.72 (0.85-3.47)	0.13	1.64 (0.75-3.58)	0.21
≥50%	3.49 (1.59-7.65)	0.002	5.67 (2.25-14.25)	<0.001	2.53 (1.20-5.31)	0.01	3.87 (1.64-9.14)	0.002
Unknown	1.39 (0.86-2.25)	0.18	1.44 (0.79-2.63)	0.24	1.61 (0.93-2.78)	0.09	1.64 (0.87-3.07)	0.12
Gene mutation								
No mutation	1		1		1		1	
<i>KRAS</i>	1.61 (0.78-3.32)	0.20	1.97 (0.79-4.94)	0.15	1.57 (0.72-3.43)	0.26	1.52 (0.60-3.82)	0.38
<i>ALK</i> or <i>EGFR</i>	0.17 (0.02-1.43)	0.10	0.20 (0.02-2.33)	0.20	0.49 (0.06-4.07)	0.51	0.83 (0.09-7.89)	0.87
Others	0.70 (0.27-1.86)	0.48	0.62 (0.20-1.92)	0.40	0.91 (0.29-2.87)	0.87	1.08 (0.31-3.82)	0.90
Unknown	4.68 (2.90-7.55)	<0.001	5.15 (2.93-9.05)	<0.001	3.56 (2.26-5.59)	<0.001	3.80 (2.23-6.48)	<0.001
PD-1/PD-L1 antibody								
Pembrolizumab	1		1		1		1	
Nivolumab	0.36 (0.13-1.00)	0.05	0.29 (0.09-0.92)	0.04	0.66 (0.26-1.70)	0.39	0.70 (0.24-2.00)	0.50
Durvalumab	0.16 (0.04-0.62)	0.009	0.16 (0.03-0.81)	0.03	0.00 (0.00-Inf)	0.98	0.00 (0.00-Inf)	0.98
Other PD-1 antibodies	0.25 (0.14-0.46)	<0.001	0.23 (0.11-0.47)	<0.001	0.43 (0.26-0.72)	0.001	0.50 (0.28-0.87)	0.01

Table S2 (continued)

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Characteristic	MPR				pCR			
	Univariable OR (95% CI)	P value	Multivariable OR (95% CI)	P value	Univariable OR (95% CI)	P value	Multivariable OR (95% CI)	P value
Neoadjuvant/induction therapy cycle								
1-2	1				1			
≥3	0.85 (0.57-1.24)	0.40			1.07 (0.72-1.61)	0.73		
Radiological response								
SD	1		1		1		1	
PR/CR	3.10 (2.05-4.70)	<0.001	2.66 (1.62-4.37)	<0.001	2.02 (1.28-3.18)	0.002	1.64 (0.99-2.72)	0.06
Baseline BMI, kg/m ²								
18.5-24.9	1		1		1			
<18.5	0.08 (0.01-0.67)	0.02	0.04 (0.00-0.51)	0.01	0.26 (0.03-2.10)	0.21		
>24.9	0.67 (0.41-1.08)	0.10	0.56 (0.31-1.00)	0.051	0.89 (0.53-1.49)	0.66		
Unknown	1.09 (0.69-1.74)	0.71	0.79 (0.44-1.44)	0.45	1.24 (0.77-1.98)	0.38		
Preoperative BMI, kg/m ²								
18.5-24.9	1				1			
<18.5	0.95 (0.25-3.62)	0.94			0.56 (0.11-2.78)	0.48		
>24.9	1.05 (0.71-1.56)	0.80			0.98 (0.65-1.48)	0.92		
Surgical approach								
Open	1		1		1		1	
VATS	1.57 (1.01-2.44)	0.04	1.52 (0.89-2.61)	0.13	1.54 (0.95-2.52)	0.08	1.78 (1.02-3.09)	0.04
RATS	2.11 (0.94-4.75)	0.07	1.89 (0.69-5.19)	0.21	2.41 (1.08-5.40)	0.03	2.47 (0.98-6.21)	0.054
Surgical type								
Lobectomy	1				1			
Sleeve lobectomy	1.00 (0.62-1.60)	0.99			0.89 (0.54-1.47)	0.64		
Pneumonectomy	0.81 (0.33-1.96)	0.63			1.84 (0.76-4.48)	0.18		

MPR, major pathological response; pCR, pathological complete response; OR, odds ratio; SD, stable disease; PD, progressive disease; PR, partial response; CR, complete response; VATS, video-assisted thoracoscopic surgery; RATS, robotic-assisted thoracoscopic surgery.

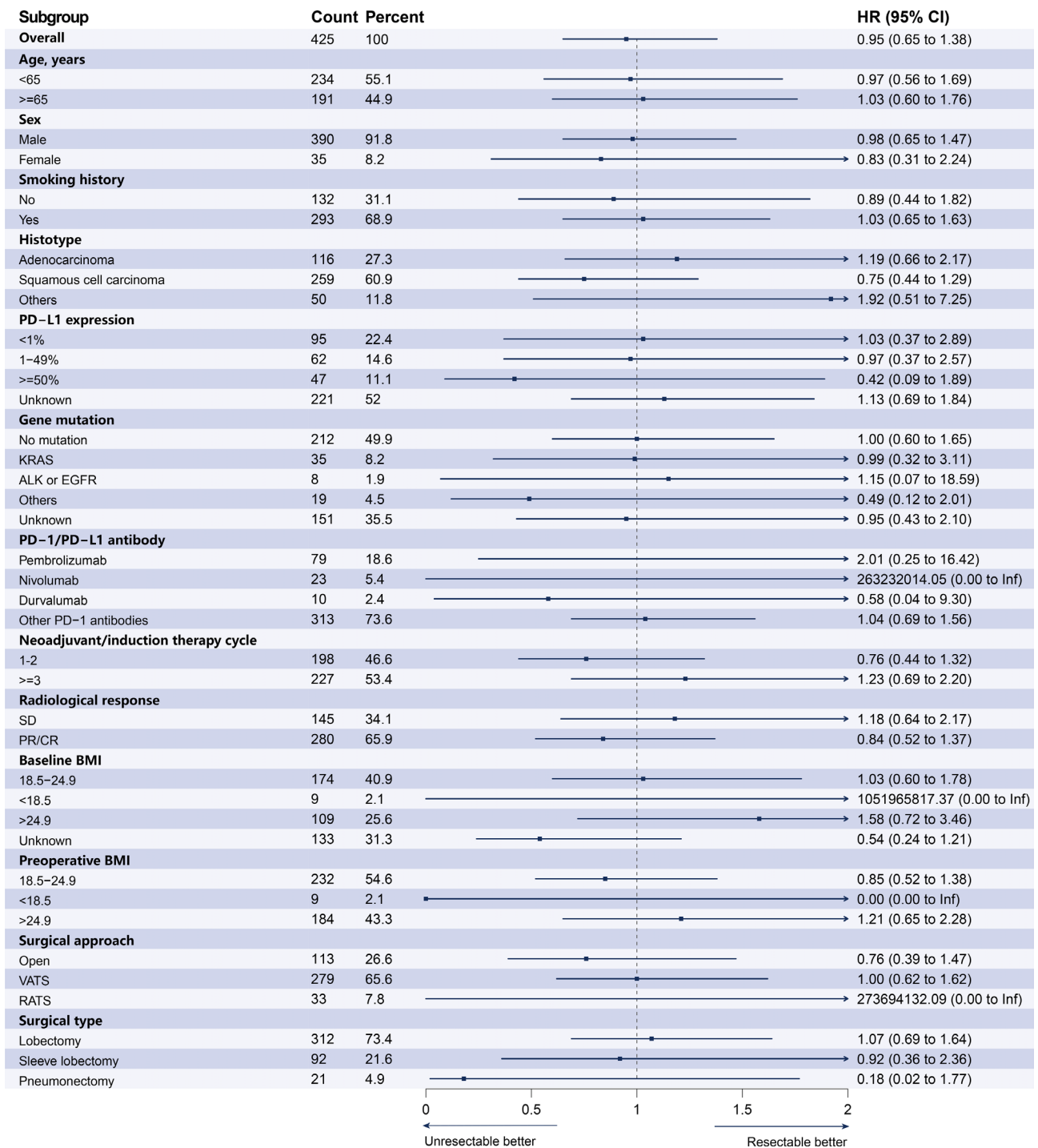


Figure S2 Subgroup analysis for DFS. DFS, disease-free survival.

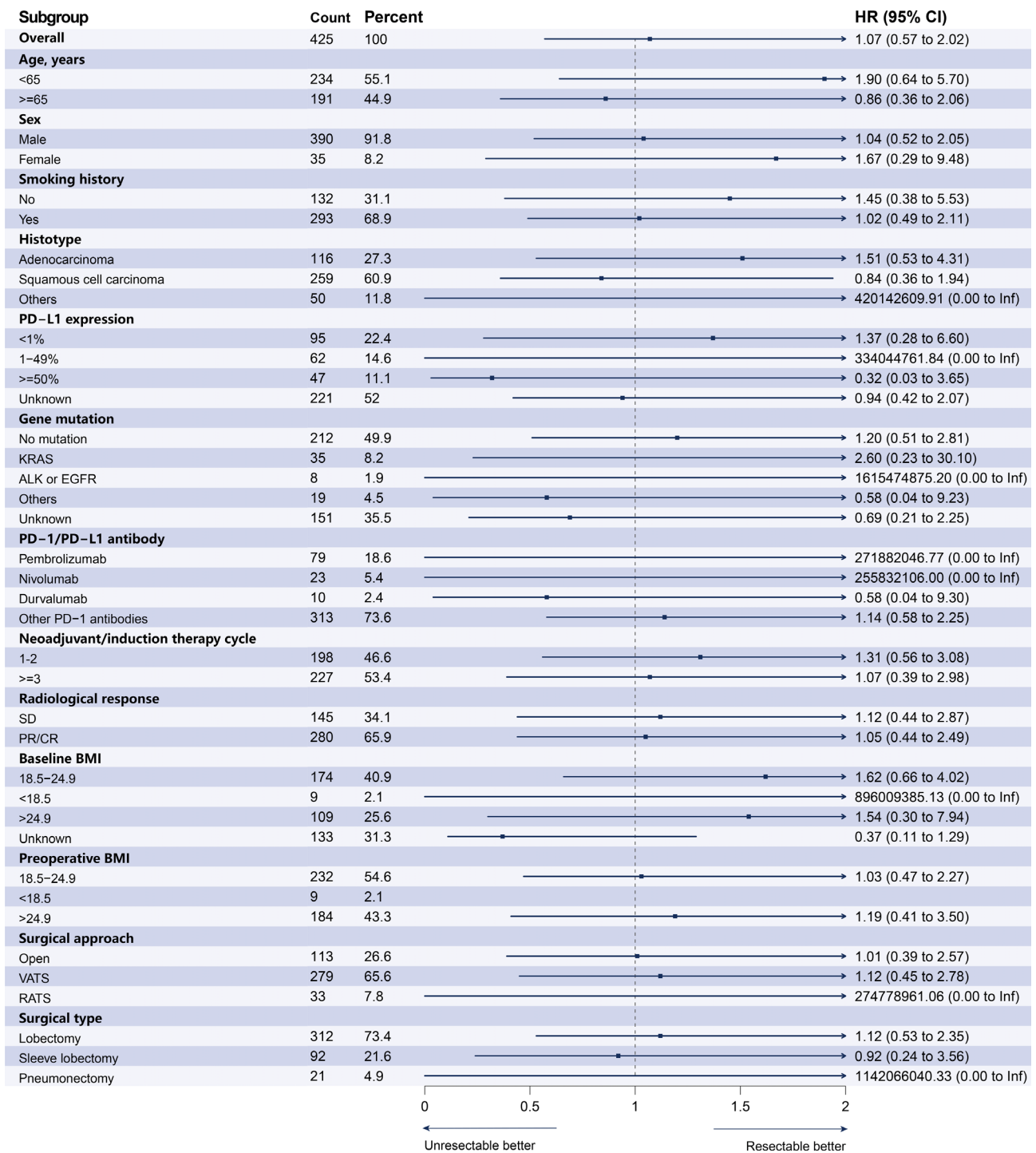


Figure S3 Subgroup analysis for OS. OS, overall survival.

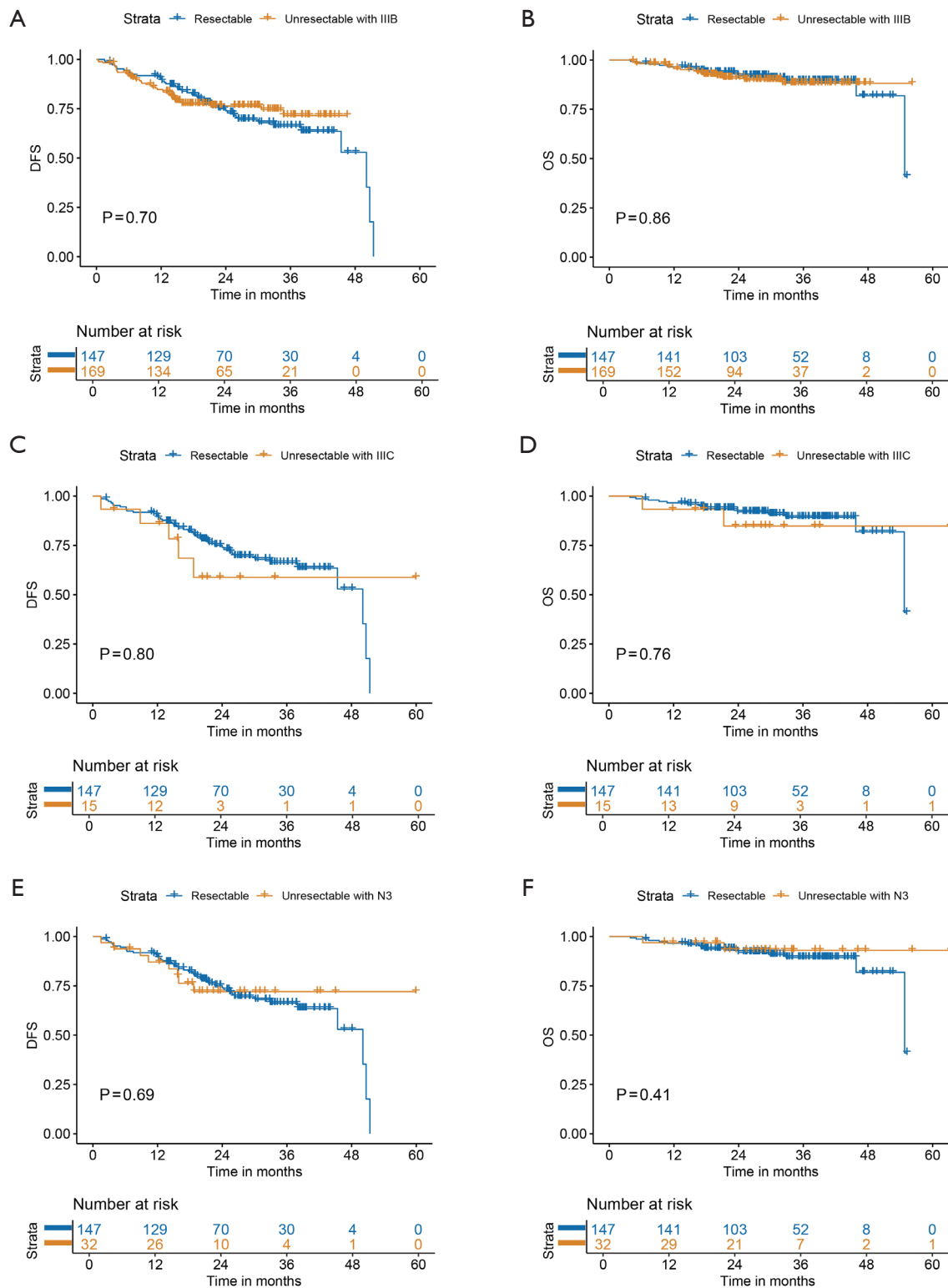


Figure S4 Sensitivity analysis. Kaplan-Meier estimates of DFS (A) and OS (B) stratified by unresectable with stage IIIB and resectable cohort, DFS (C) and OS (D) stratified by unresectable with stage IIIC and resectable cohort, DFS (E) and OS (F) stratified by unresectable with N3 and resectable cohort. DFS, disease-free survival; OS, overall survival.