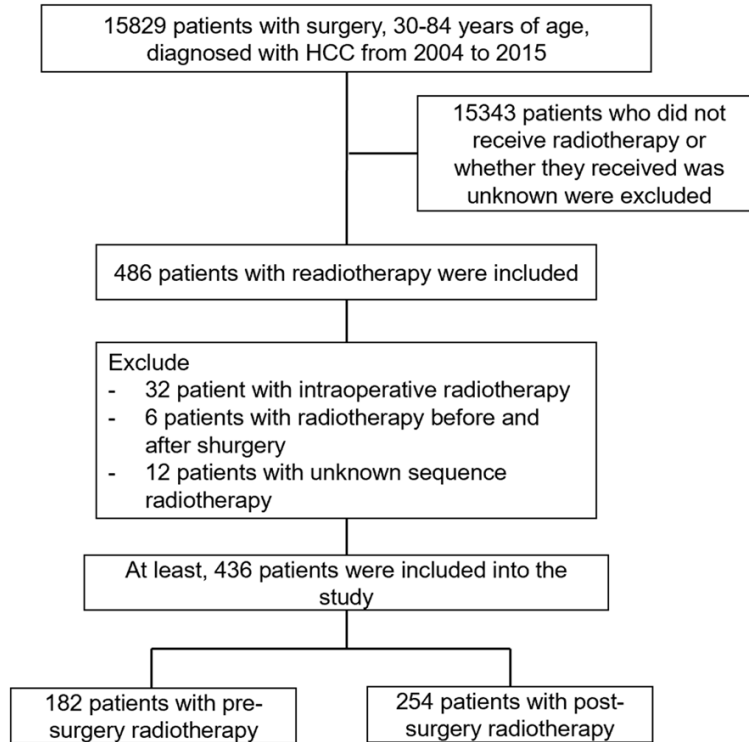


Radiotherapy in the treatment of HCC



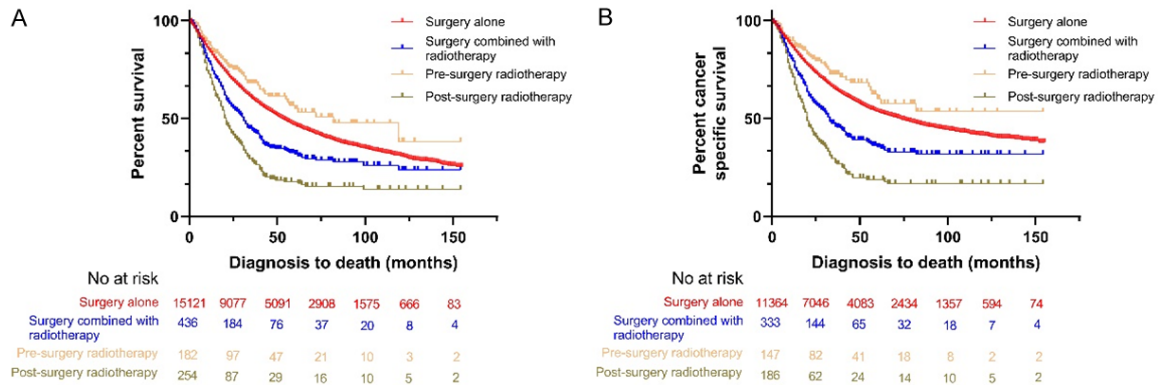
Supplementary Figure 1. Flowchart of patient selection.

Supplementary Table 1. The baseline characteristics of patients with surgery alone and surgery combined with radiotherapy

Characteristics	Surgery alone (n=15121, %)	Surgery combined with radiotherapy (n=436, %)	P value
Age (Years)			0.311
30-49	1311 (8.7)	31 (7.1)	
50-69	10429 (69.0)	297 (68.1)	
70-84	3381 (22.3)	108 (24.8)	
Gender			0.661
Male	11341 (75.0)	331 (75.9)	
Female	3780 (25.0)	105 (24.1)	
Race			<0.001
White	10052 (66.5)	327 (75.0)	
Black	1684 (11.1)	48 (11.0)	
Other	3385 (22.4)	61 (14.0)	
Year of diagnosis			<0.001
2004-2007	4435 (29.3)	89 (20.4)	
2008-2011	4839 (32.0)	111 (25.5)	
2012-2015	5847 (38.7)	236 (54.1)	
Marital status			0.171
Married	9003 (59.5)	259 (59.4)	
Single	5516 (36.5)	152 (34.9)	
Other	602 (4.0)	25 (5.7)	
AJCC staging			<0.001
I	8240 (54.5)	146 (33.5)	
II	4131 (27.3)	117 (26.8)	

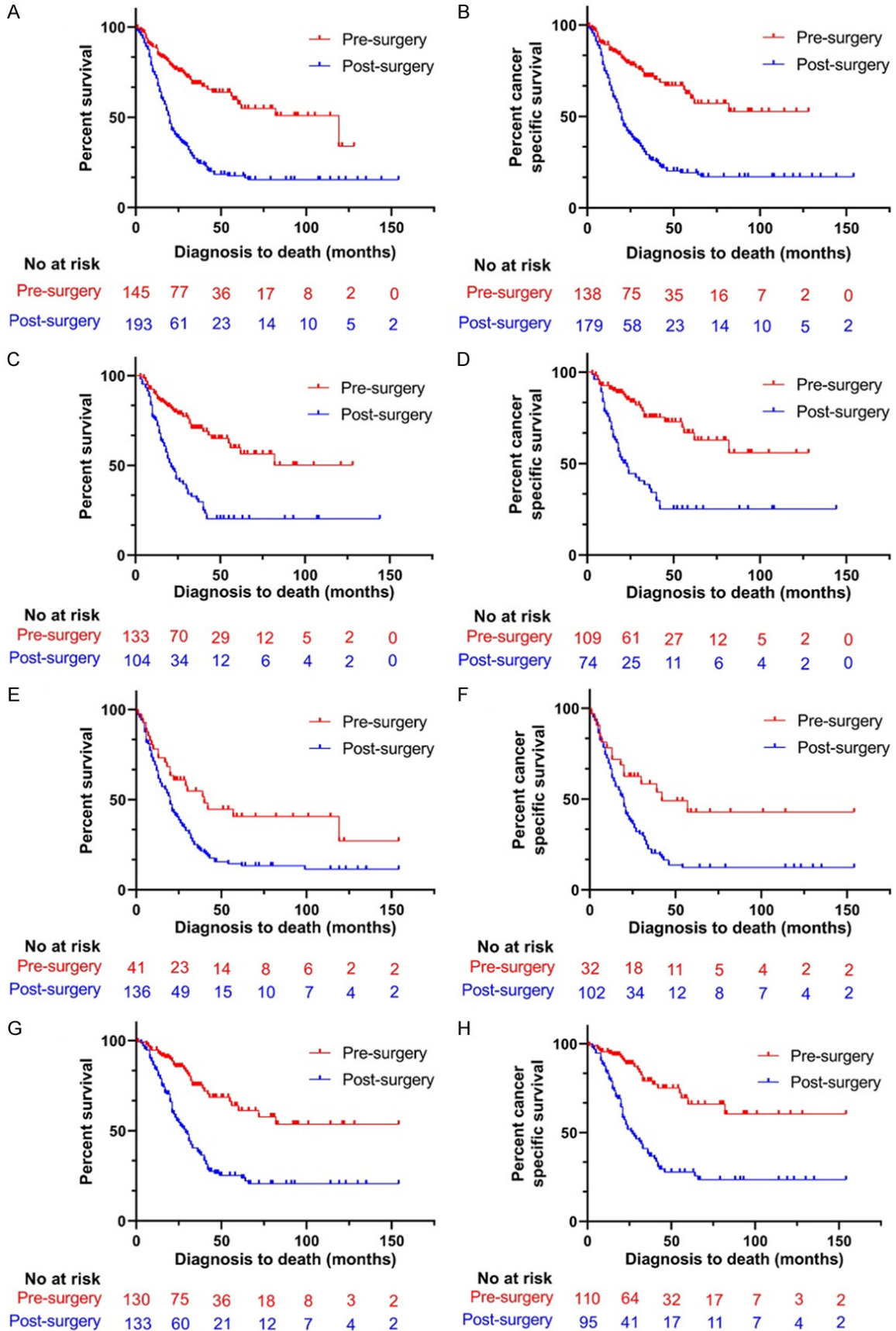
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III	1679 (11.1)	97 (22.2)	
IV	271 (1.8)	47 (10.8)	
Unknown	800 (5.3)	29 (6.7)	
Tumor size			<0.001
≤3 cm	6774 (44.8)	130 (29.8)	
3-5 cm	3967 (26.2)	104 (23.9)	
>5 cm	3612 (23.9)	167 (38.3)	
Unknown	768 (5.1)	35 (8.0)	
Tumor number			0.436
1	12166 (80.5)	338 (77.5)	
2	2403 (15.9)	82 (18.8)	
3	428 (2.8)	13 (3.0)	
>3	124 (0.8)	3 (0.7)	
Chemotherapy			<0.001
Yes	4823 (31.9)	185 (42.4)	
No/Unknown	10298 (68.1)	251 (57.6)	
Surgery			0.759
Transplantation	3117 (20.6)	96 (22.0)	
Liver resection	5327 (35.2)	149 (34.2)	
Non-liver resection	6677 (44.2)	191 (43.8)	

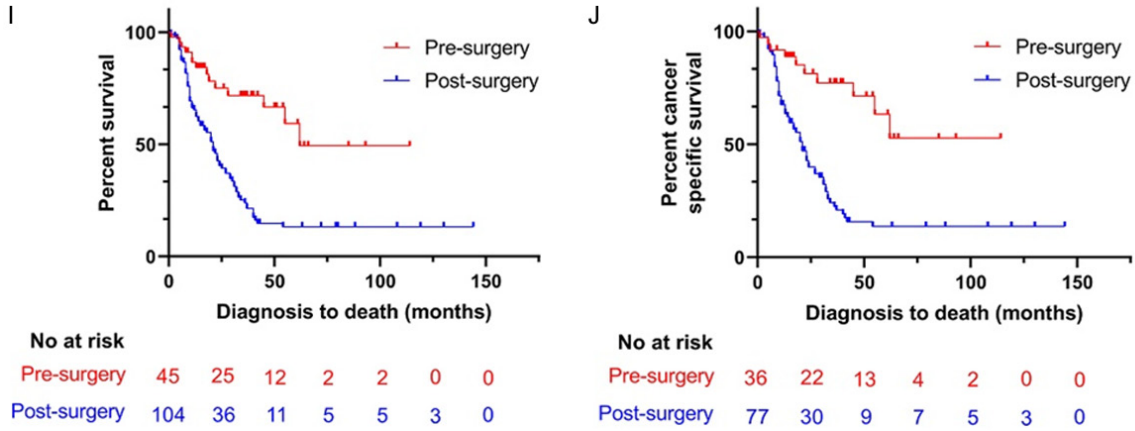


Supplementary Figure 2. Kaplan-Meier curve of patients with surgery alone, surgery combined with radiotherapy, pre-surgery radiotherapy, and post-surgery radiotherapy; A. Kaplan-Meier curve of OS; B. Kaplan-Meier curve of CSS.

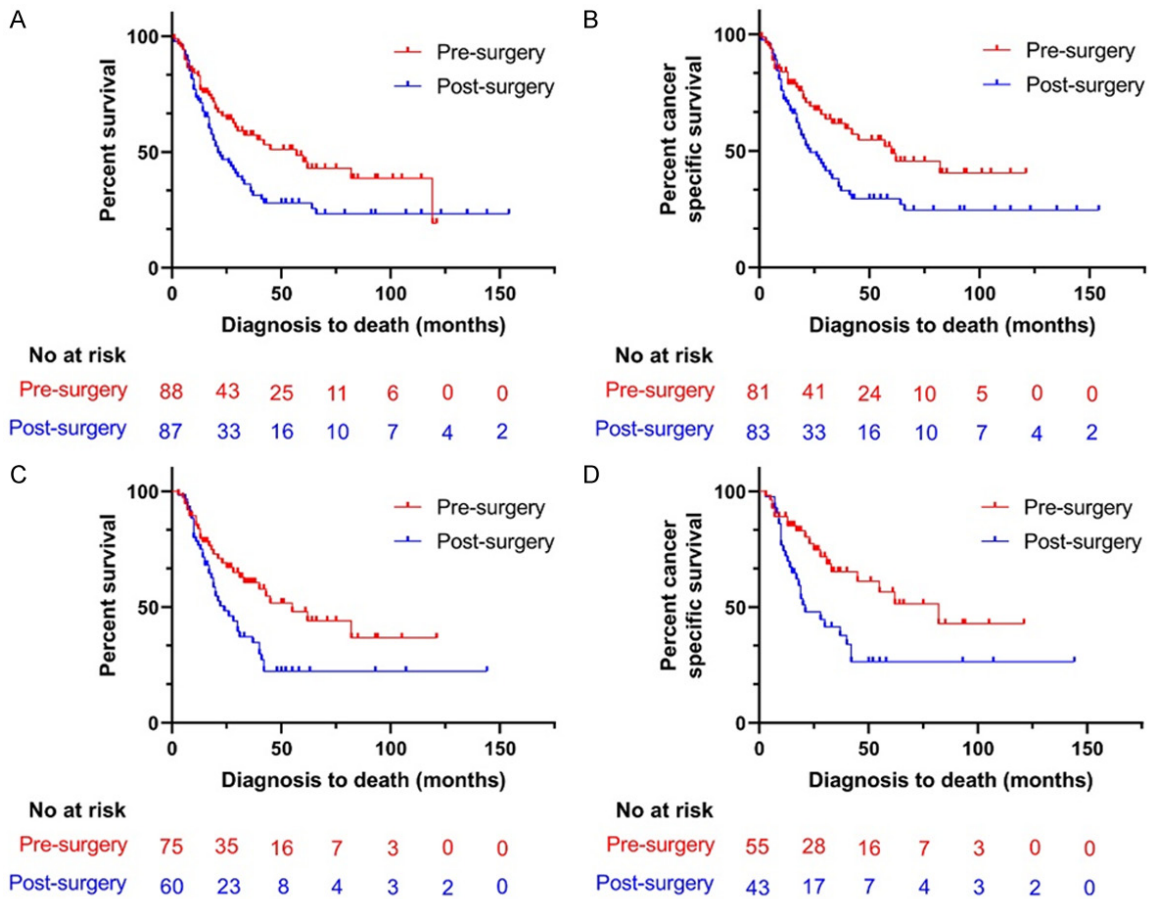
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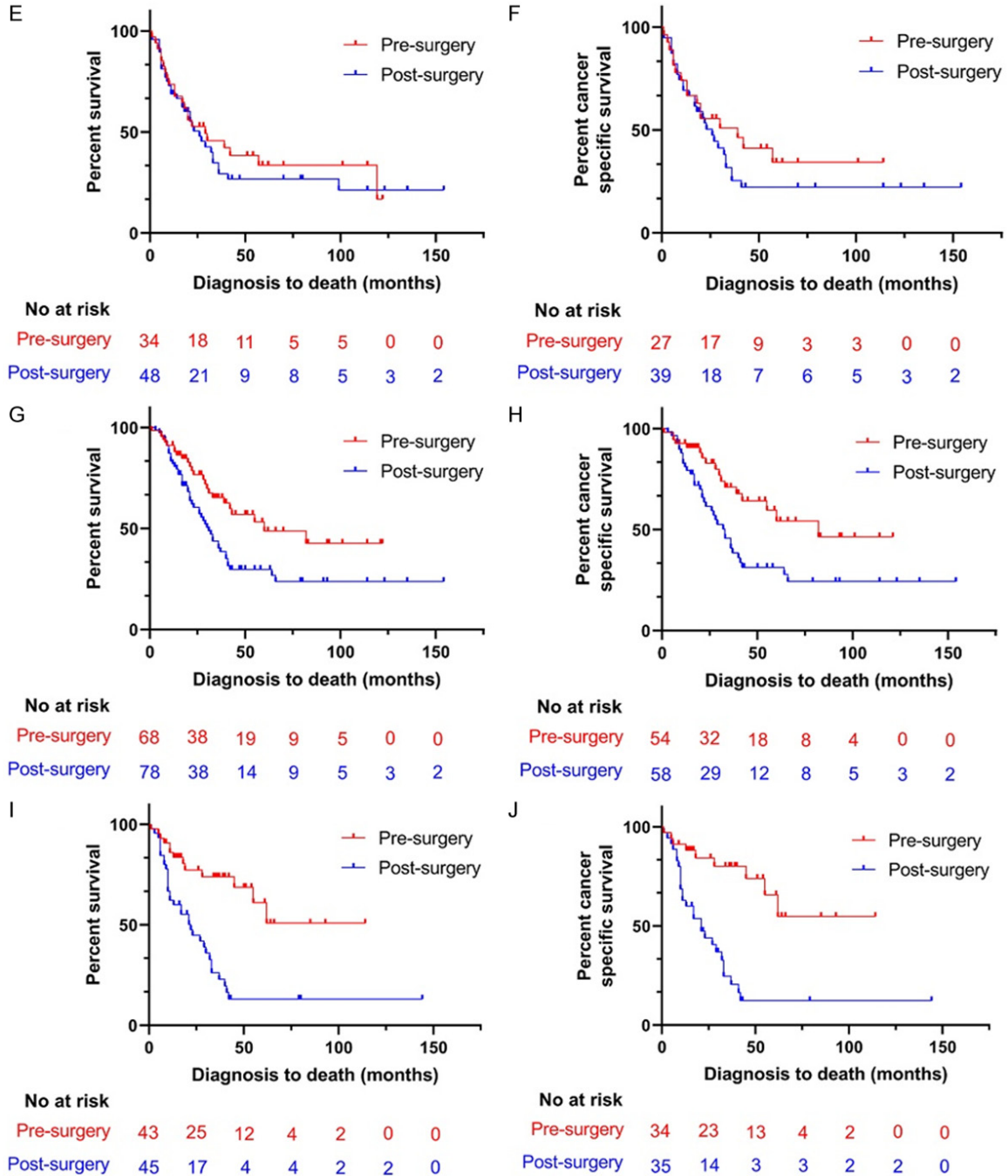
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Supplementary Figure 3. Kaplan-Meier curve of patients in the subgroup before PSM; A, B. Kaplan-Meier curve of OS and CSS of patients with single tumor; C, D. Kaplan-Meier curve of OS and CSS of patients with internal radiotherapy; E, F. Kaplan-Meier curve of OS and CSS of patients with external radiotherapy; G, H. Kaplan-Meier curve of OS and CSS of patients with AJCC stage I and II; I, J. Kaplan-Meier curve of OS and CSS of patients with liver resection.



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Supplementary Figure 4. Kaplan-Meier curve of patients in the subgroup after PSM; A, B. Kaplan-Meier curve of OS and CSS of patients with single tumor; C, D. Kaplan-Meier curve of OS and CSS of patients with internal radiotherapy; E, F. Kaplan-Meier curve of OS and CSS of patients with external radiotherapy; G, H. Kaplan-Meier curve of OS and CSS of patients with AJCC stage I and II; I, J. Kaplan-Meier curve of OS and CSS of patients with liver resection.