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Article

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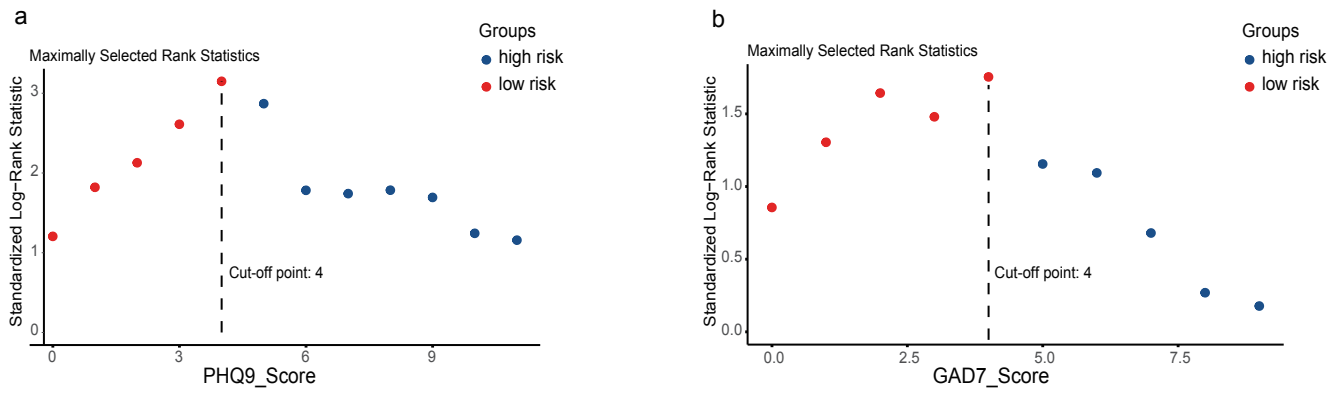
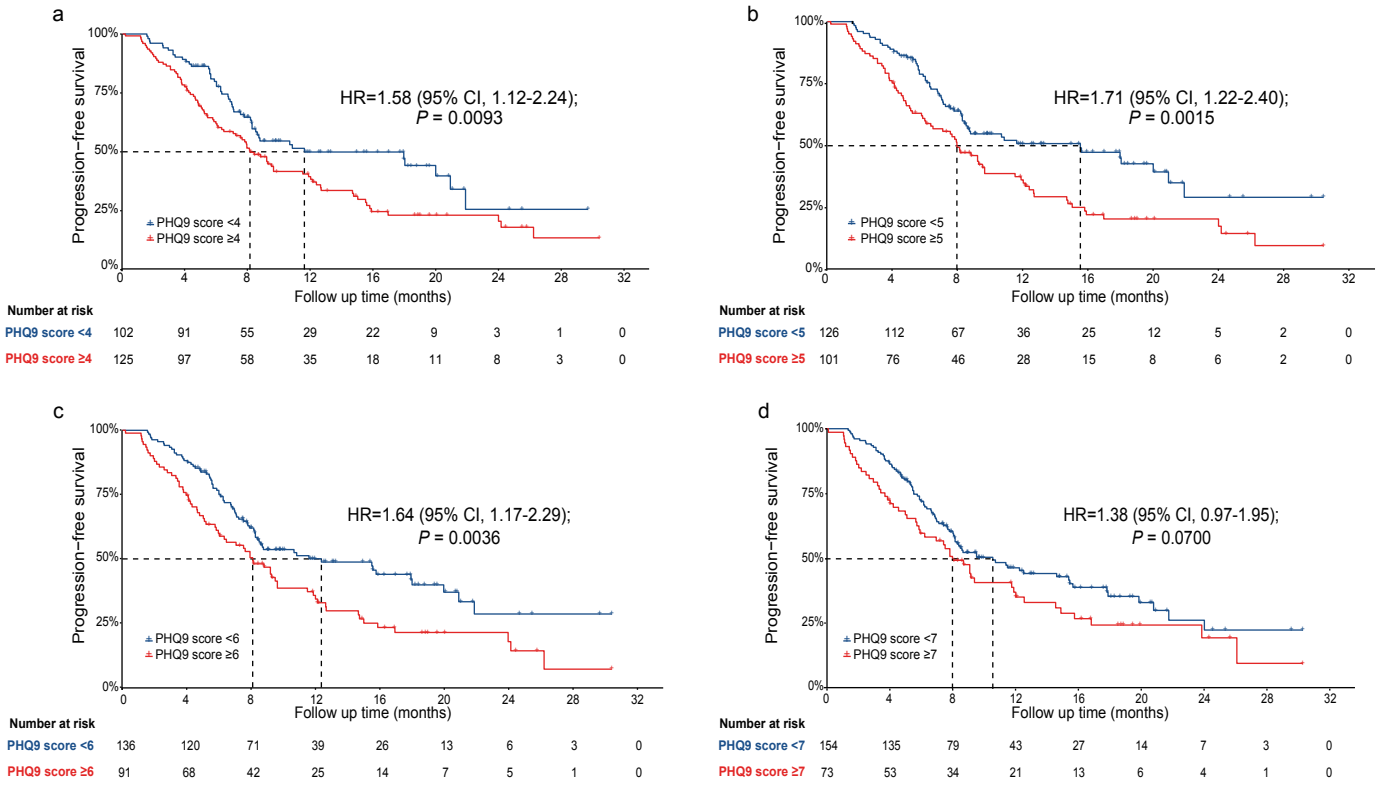
Association between pretreatment emotional distress and immune checkpoint inhibitor response in non-small-cell lung cancer

In the format provided by the authors and unedited

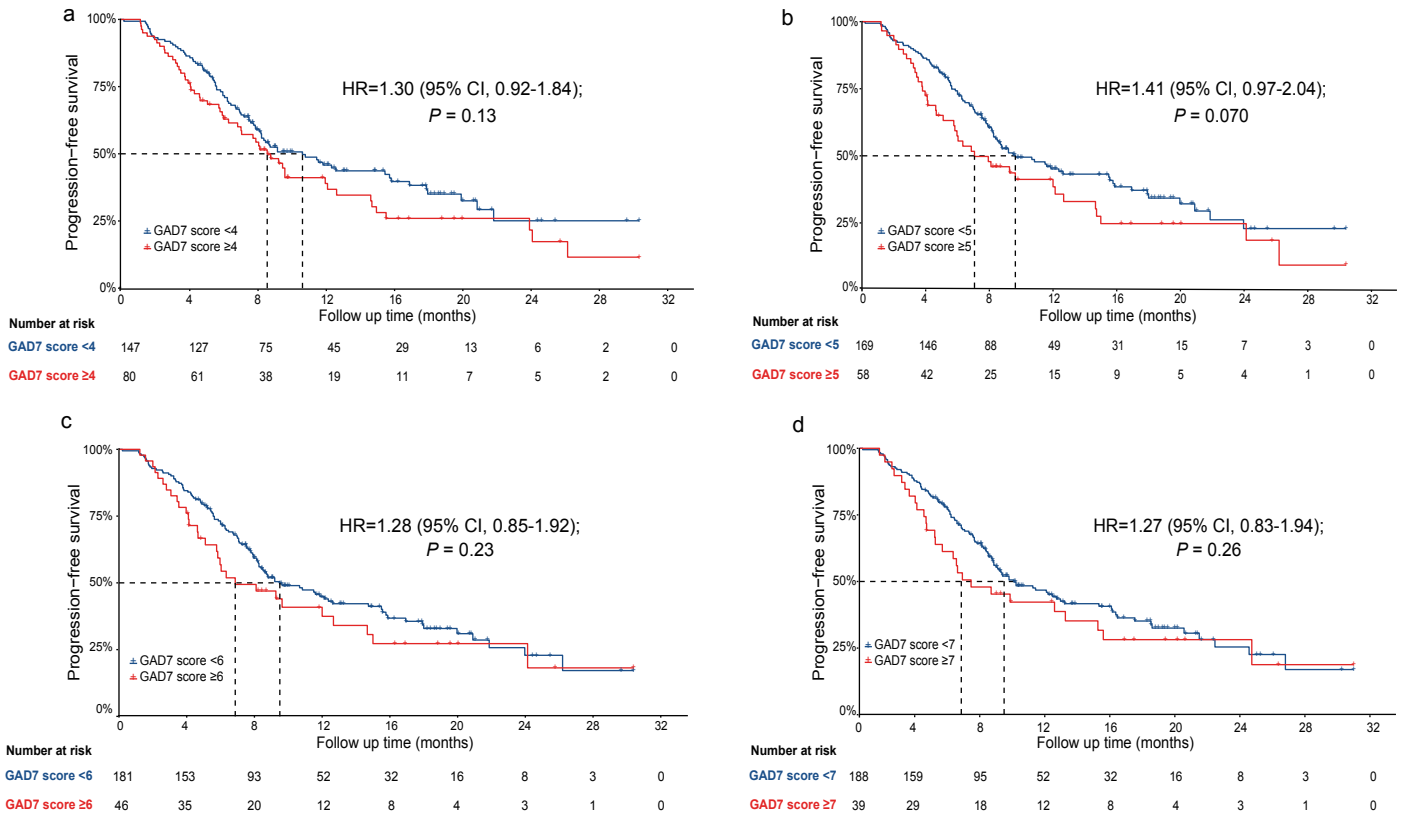
Supplementary Figures



Supplementary Figure 1. The optimal cut-off score analysis of PHQ-9 and GAD-7 to distinguish progression-free survival of immune checkpoint inhibitors.
The tool of Surv_cutpoint in R was utilized to determine the optimal cut-off score for predicting the efficacy of immune checkpoint inhibitors. a, the optimal cut-off point of PHQ-9 is identified as 4. Red dots represent PHQ-9 score ≤ 4, indicating a lower risk of disease progression, while blue dots represent PHQ-9 score ≥ 5, indicating a higher risk of disease progression. b, the optimal cut-off point of GAD-7 is determined as 4 with red dots representing score ≤ 4 and blue dots representing score ≥ 5, corresponding to lower and higher risks of disease progression, respectively.



Supplementary Figure 2. Kaplan–Meier curves for progression-free survival according to different PHQ-9 cut-off scores; a, The cut-off point for PHQ-9 was 4, and the hazard ratio (HR) was 1.58 (95% CI: 1.12-2.24), *P* = 0.0093; b, The cut-off point for PHQ-9 was 5, and the HR was 1.71 (95% CI: 1.22-2.40), *P* = 0.0015; c, The cut-off point for PHQ-9 was 6, and the HR was 1.64 (95% CI: 1.17-2.29), *P* = 0.0036; d, The cut-off point for PHQ-9 was 7, and the HR was 1.38 (95% CI: 0.97-1.95), *P* = 0.0700. *P*-values were calculated using the two-sided log-rank test.



Supplementary Figure 3. Kaplan–Meier curves for progression-free survival according to different GAD-7 cut-off scores; a, The cut-off point for GAD-7 was 4, and the hazard ratio (HR) was 1.30 (95% CI: 0.92-1.84), *P* = 0.13; b, The cut-off point for GAD-7 was 5, and the HR was 1.41 (95% CI: 0.97-2.04), *P* = 0.070; c, The cut-off point for GAD-7 was 6, and the HR was 1.28 (95% CI: 0.85-1.92), *P* = 0.23; d, The cut-off point for GAD-7 was 7, and the HR was 1.27 (95% CI: 0.83-1.94), *P* = 0.26. *P*-values were calculated using the two-sided log-rank test.

STROBE Statement—Checklist of items that should be included in reports of ***cohort studies***

	Item No	Recommendation	Page No
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	1
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	1
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	1-2
Objectives	3	State specific objectives, including any prespecified hypotheses	2
Methods			
Study design	4	Present key elements of study design early in the paper	10
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	10
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up	10
		(*b*) For matched studies, give matching criteria and number of exposed and unexposed	N/A
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	10
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	10-11
Bias	9	Describe any efforts to address potential sources of bias	11
Study size	10	Explain how the study size was arrived at	N/A
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	11
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	11
		(*b*) Describe any methods used to examine subgroups and interactions	11
		(*c*) Explain how missing data were addressed	11
		(*d*) If applicable, explain how loss to follow-up was addressed	N/A
		(*e*) Describe any sensitivity analyses	11
Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	2
		(b) Give reasons for non-participation at each stage	2
		(c) Consider use of a flow diagram	2
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	2
		(b) Indicate number of participants with missing data for each variable of interest	3
		(c) Summarise follow-up time (eg, average and total amount)	3
Outcome data	15*	Report numbers of outcome events or summary measures over time	3

Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included (*b*) Report category boundaries when continuous variables were categorized (*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	3-5 3-4 N/A
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	3-5
Discussion			
Key results	18	Summarise key results with reference to study objectives	6-7
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	7
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	7
Generalisability	21	Discuss the generalisability (external validity) of the study results	7
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	12

*Give information separately for exposed and unexposed groups.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at http://www.strobe-statement.org.