## The REMARK checklist

| Item to be reported | | Reported on Page Number/Line Number | Reported on Section/Paragraph |
|---|---|---|---|
| **INTRODUCTION** | | | |
| 1 | State the marker examined, the study objectives, and any pre-specified hypotheses. | Line 98-99, Line 104-112 | INTRODUCTION/Paragr |
| **MATERIALS AND METHODS** | | | |
| Patients | | | |
| 2 | Describe the characteristics (e.g., disease stage or co-morbidities) of the study patients, including their source and inclusion and exclusion criteria. | Line 117-140 | MATERIALS AND METHODS/Paragraph 1-3 |
| 3 | Describe treatments received and how chosen (e.g., randomized or rule-based). | This study does not screen | This study does not screen |
| Specimen characteristics | | | |
| 4 | Describe type of biological material used (including control samples) and methods of preservation and storage. | This study does not | This study does not |
| Assay methods | | | |
| 5 | Specify the assay method used and provide (or reference) a detailed protocol, including specific reagents or kits used, quality control procedures, reproducibility assessments, quantitation methods, and scoring and reporting protocols. Specify whether and how assays were performed blinded to the study endpoint. | This study does not include any assay methods. | This study does not include any assay methods. |
| Study design | | | |
| 6 | State the method of case selection, including whether prospective or retrospective and whether stratification or matching (e.g., by stage of disease or age) was used. Specify the time period from which cases were taken, the end of the follow-up period, and the median follow-up time. | Line 117-140 | MATERIALS AND METHODS/Paragraph 1-3 |
| 7 | Precisely define all clinical endpoints examined. | Line 143-161 | MATERIALS AND |
| 8 | List all candidate variables initially examined or considered for inclusion in models. | Line 131-140 | MATERIALS AND |
| 9 | Give rationale for sample size; if the study was designed to detect a specified effect size, give the target power and effect size. | Due to the limitation of | Due to the limitation of |
| Statistical analysis methods | | | |
| 10 | Specify all statistical methods, including details of any variable selection procedures and other model-building issues, how model assumptions were verified, and how missing data were handled. | Line 164-179 | MATERIALS AND METHODS/Paragraph 6 |
| 11 | Clarify how marker values were handled in the analyses; if relevant, describe methods used for cutpoint determination. | Line 144-146, Line | MATERIALS AND |

| | | | |
|---|---|---|---|
| **RESULTS** | | | |
| Data | | | |
| 12 | Describe the flow of patients through the study, including the number of patients included in each stage of the analysis (a diagram may be helpful) and reasons for dropout. Specifically, both overall and for each subgroup extensively examined report the numbers of patients and the number of events. | Line 190-191. Patients with pathologically confirmed GBM with complete | RESULTS/Paragraph 1 |
| 13 | Report distributions of basic demographic characteristics (at least age and sex), standard (disease-specific) prognostic variables, and tumor marker, including numbers of missing values. | Line 215-217, Raw data | RESULTS/Paragraph 3 |
| Analysis and presentation | | | |
| 14 | Show the relation of the marker to standard prognostic variables. | Line 189-212 | RESULTS/Paragraph 1-2 |
| 15 | Present univariable analyses showing the relation between the marker and outcome, with the estimated effect (e.g., hazard ratio and survival probability). Preferably provide similar analyses for all other variables being analyzed. For the effect of a tumor marker on a time-to-event outcome, a Kaplan-Meier plot is recommended. | Lin 189-212, Figure 3 and 5, Supplementary Figure 2 and 3 | RESULTS/Paragraph 1-2 |
| 16 | For key multivariable analyses, report estimated effects (e.g., hazard ratio) with confidence intervals for the marker and, at least for the final model, all other variables in the model. | Line 189-212 Figure 3 | RESULTS/Paragraph 1-2 |
| 17 | Among reported results, provide estimated effects with confidence intervals from an analysis in which the marker and standard prognostic variables are included, regardless of their statistical significance. | Line 227-228 Figure 5 | RESULTS/Paragraph 4 |
| 18 | If done, report results of further investigations, such as checking assumptions, sensitivity analyses, and internal validation. | Line 227-238 | RESULTS/Paragraph 4 |
| **DISCUSSION** | | | |
| 19 | Interpret the results in the context of the pre-specified hypotheses and other relevant studies; include a discussion of limitations of the study. | Line 277-352 | DISCUSSION/Paragraph |
| 20 | Discuss implications for future research and clinical value. | Line 355-364 | CONCLUSIONS/Paragrap |

**From:** McShane LM, Altman DG, Sauerbrei W, Taube SE, Gion M, Clark GM: Reporting recommendations for tumor marker prognostic studies (REMARK). J Natl Cancer Inst 2005; 97: 1180-1184.

Article Information: https://dx.doi.org/10.21037/tcr-22-2562
*As the checklist was provided upon initial submission, the page number/line number reported may be changed due to copyediting and may not be referable in the published version. In this case, the section/paragraph may be used as an alternative reference.