

We thank all the reviewers for their comments. These inputs have helped us improve the manuscript immensely. Please find the answers to the reviewers' comments below.

REVIEWER #1

In this present study, the authors analyzed the largest set of paired KPS-ECOG assessments in a cohort of lung cancer patients. They suggest that the KPS categories 10-40, 50-60, 70, 80-90, 100 were equivalent to ECOG PS categories of 4, 3, 2, 1, and 0 respectively. **Even though the topic of this study was the interconversion of KPS and ECOG assessments, the common and specific characteristics, the strengths and weakness of them need be demonstrated clearly.**

The common characteristics, strength, and weakness of the KPS and ECOG-PS scales have now been described in detail in the introduction section. [Page 5, Lines 119-128]

“The KPS scale is an 11-point numerical scale with scores ranging from 100 (normal functional status) to 0 (death), in decremental steps of 10.^[8] The ECOG PS scale is a 6-point numerical scale with scores ranging from 0 (normal functional status) to 5 (death), in incremental steps of 1.^[9] No conclusive evidence exists in the literature to suggest that one scale is better than the other. However, the ECOG PS scale is often preferred as it is simpler to apply with a smaller number of choices. Both the scores have been shown to be good predictors of mortality.^[1, 4, 10, 11] The ECOG PS may have a slightly better prognostic value compared to KPS.^[10] Although both the scales have been used to predict treatment response in lung cancer, results have been variable.^{[12]”}

We have also discussed the interobserver variability of the two scales in detail now. [Pages 5-6, Lines 129-140]

“Several studies have shown that PS assessment made using the KPS and ECOG PS by different healthcare professionals (doctors, medical students, nurses) to have moderate to high interobserver correlation, albeit with considerable variation.^[13-16] Assessments made by technical staff or patients have been shown to have a relatively larger variability compared to assessments by healthcare workers.^[11, 13, 16] These differences could be attributed to variation in the level of overall training and exposure of the individual which might affect the interpretation of the existing disability. Moreover, interobserver variability can get aggravated when assessments are made on patients with lower KPS scores.^[17] Closer attention to certain behavioral issues might help to improve the PS assessments in such situations.^[17] However, neither of these two scales have been shown to be consistently superior to the other with respect to interobserver variability.^[13-15]

REVIEWER #2

This is an interesting manuscript about the correlation between KPS and ECOG PS in a large cohort from a lung cancer patients database. The authors suggest that the KPS categories 10-40, 50-60, 70, 80-90, 100 are equivalent to ECOG PS categories of 4, 3, 2, 1, and 0 respectively, in the South Asian population. First of all, I would like to thank to the authors for their work. Possible corrections on the mentioned issues will provide a better understanding.

1. In Methods, it must be specified if the manuscript obtained the approval of the ethical committee.

We have submitted study for approval by the institutional ethics committee.

2. The Discussion is too short. Factors that might explain the differences in PS scores given by different health care professionals should be discussed. The variation of inter-rater reliability of PS

scores also lacks a clear consensus in the literature and so it should be discussed. I would like the authors to discuss what is the utility in clinical practice of their results

We have now incorporated the discussion on the interobserver variability of PS scales among different healthcare professionals as suggested. We have also discussed the lack of consensus in the literature as to which scale is better in terms of interobserver variability. These have been discussed under 'Introduction'. [Pages 5-6, Lines 129-140]

“Several studies have shown that PS assessment made using the KPS and ECOG PS by different healthcare professionals (doctors, medical students, nurses) to have moderate to high interobserver correlation, albeit with considerable variation.^[13-16] Assessments made by technical staff or patients have been shown to have a relatively larger variability compared to assessments by healthcare workers.^[11, 13, 16] These differences could be attributed to variation in the level of overall training and exposure of the individual which might affect the interpretation of the existing disability. Moreover, interobserver variability can get aggravated when assessments are made on patients with lower KPS scores.^[17] Closer attention to certain behavioral issues might help to improve the PS assessments in such situations.^[17] However, neither of these two scales have been shown to be consistently superior to the other with respect to interobserver variability.^{[13-15]”}

We have now discussed the clinical utility of the interconversion categories suggested in the study. [Page 13, Lines 268-283]

“Among all the interconversion categories for KPS suggested in the literature, the KPS categories which we suggest in this study had the best agreement with the actual PS measurements. Although, the categories suggested by Minna et al. and Ma et al. had the next best agreement, the categories suggested in our study appear more appropriate clinically. This can be illustrated by the following two examples. A patient who requires occasional assistance for daily activities (KPS 60), would be classified as ECOG 2 (capable of all self-care) using the categories suggested by Minna et al. or Ma et al., while they will be classified more appropriately as ECOG 3 (capable of limited self-care) using the categories suggested in the current study. Similarly, a patient who is disabled and requires special care and assistance (KPS 40) would be classified as ECOG 3 (capable of limited self-care) using the categories suggested by Minna et al. or Ma et al., while they will be classified more appropriately as ECOG 4 (cannot carry out any self-care) using the categories suggested in the current study. It should also be borne in mind that a change in the ECOG scale by a single score in the above situations entails a change in 1-year survival by at least 10%.^{[4]”}

3. In Conclusions the authors should include the usefulness of the results of their study.

We have now described the clinical utility of the interconversion categories in a concise manner in the 'Conclusions' section. [Page 15, Lines 310-315]

“In conclusion, we suggest that the KPS categories 10-40, 50-60, 70, 80-90, 100 are equivalent to ECOG PS categories of 4, 3, 2, 1, and 0 respectively. These categories may be useful for interconversion of KPS to ECOG PS scale when attempting to compare patient populations across different studies in whom investigators have used one of the two different scales (KPS or ECOG PS) for assessment of PS.”

4.The reference numbers should be superscripted in square brackets at the end of the sentence

The reference numbers have now been formatted now as per the requirements.

5. The References should be up-dated.

We have updated the references as per the requirements of the journal.

6. Add one more keyword

One more keyword, “Chemotherapy” has been added.

REVIEWER #3

1 Such a study could be more practicable. One or more typical case could be provided for the reader to know and understand the two scales.

We have now provided two clinical scenarios to understand the two scales in the ‘Discussion’ section. [Page 13, Lines 272-283]

“This can be illustrated by the following two examples. A patient who requires occasional assistance for daily activities (KPS 60), would be classified as ECOG 2 (capable of all self-care) using the categories suggested by Minna et al. or Ma et al., while they will be classified more appropriately as ECOG 3 (capable of limited self-care) using the categories suggested in the current study. Similarly, a patient who is disabled and requires special care and assistance (KPS 40) would be classified as ECOG 3 (capable of limited self-care) using the categories suggested by Minna et al. or Ma et al., while they will be classified more appropriately as ECOG 4 (cannot carry out any self-care) using the categories suggested in the current study. It should also be borne in mind that a change in the ECOG scale by a single score in the above situations entails a change in 1-year survival by at least 10%.^{[4]”}

2 As the authors said, there is a controversy. The advantages and the disadvantages of the two scales could be introduced.

We agree with the reviewer that there is a controversy in the literature as to which scale is better. We have now discussed this and described the advantages and disadvantages of the scales in the ‘Introduction’ section. [Page 5, Lines 119-128]

“The KPS scale is an 11-point numerical scale with scores ranging from 100 (normal functional status) to 0 (death), in decremental steps of 10.^[8] The ECOG PS scale is a 6-point numerical scale with scores ranging from 0 (normal functional status) to 5 (death), in incremental steps of 1.^[9] No conclusive evidence exists in the literature to suggest that one scale is better than the other. However, the ECOG PS scale is often preferred as it is simpler to apply with a smaller number of choices. Both the scores have been shown to be good predictors of mortality.^[1, 4, 10, 11] The ECOG PS may have a slightly better prognostic value compared to KPS.^[10] Although both the scales have been used to predict treatment response in lung cancer, results have been variable.^{[12]”}

We have also discussed the interobserver variability of the two scales in detail now. [Pages 5-6, Lines 129-140]

“Several studies have shown that PS assessment made using the KPS and ECOG PS by different healthcare professionals (doctors, medical students, nurses) to have moderate to high interobserver correlation, albeit with considerable variation.^[13-16] Assessments made by technical staff or patients have been shown to have a relatively larger variability compared to assessments by healthcare workers.^[11, 13, 16] These differences could be attributed to variation in the level of overall training and exposure of the individual which might affect the interpretation of the existing disability. Moreover, interobserver variability can get aggravated when assessments are made on patients with lower KPS scores.^[17] Closer attention to certain behavioral issues might help to improve the PS assessments in such situations.^[17] However, neither of these two scales have been shown to be consistently superior to the other with respect to interobserver variability.^[13-15]

3 Typical cases could be demonstrated to show which scale is better for clinical use.

We have now given two examples to illustrate the clinical utility of the current scales in comparison to the scales which have been suggested earlier in the 'Discussion' section. [Page 13, Lines 268-283]

“Among all the interconversion categories for KPS suggested in the literature, the KPS categories which we suggest in this study had the best agreement with the actual PS measurements. Although, the categories suggested by Minna et al. and Ma et al. had the next best agreement, the categories suggested in our study appear more appropriate clinically. This can be illustrated by the following two examples. A patient who requires occasional assistance for daily activities (KPS 60), would be classified as ECOG 2 (capable of all self-care) using the categories suggested by Minna et al. or Ma et al., while they will be classified more appropriately as ECOG 3 (capable of limited self-care) using the categories suggested in the current study. Similarly, a patient who is disabled and requires special care and assistance (KPS 40) would be classified as ECOG 3 (capable of limited self-care) using the categories suggested by Minna et al. or Ma et al., while they will be classified more appropriately as ECOG 4 (cannot carry out any self-care) using the categories suggested in the current study. It should also be borne in mind that a change in the ECOG scale by a single score in the above situations entails a change in 1-year survival by at least 10%.^[4]”

4 Typo- and grammatical errors exist. For example, the phrase “and hence” should be preceded by a comma.

We apologize for the errors. We have carefully revised the manuscript again and corrected the errors.