**Peer Review File** 

Article Information: http://dx.doi.org/10.21037/apm-20-2045

Response to the reviewer's comments:

Thank you very much for the opportunity to review this interesting manuscript. The

authors have studied the agreement between patients' understanding and physicians' explanation of palliative care and current health condition among patients with advanced

cancer, which is important to consider in decision making about treatment. As a second

objective, they explored factors that are associated with optimistic understanding in

patients, meaning they did not agree or had a more optimistic view on palliative treatment

and their current health condition (as I understood correctly?) as compared to the

physician (page 13 line 7-8). The authors used a survey and found that more than half of

the included patients had a more optimistic view on palliative care (55%) and on health

condition (63%) as compared to the physicians.

Though the manuscript is interesting, there are some aspects that would benefit from

further explanation. My main concern is about the methods section, about a clear

description of enrollment procedure, about methods used to ask physicians about their

communication and the subsequent comparison with the patients' answers and about

analysis. These concerns hamper the interpretation of the results and discussion section.

Comment 1:

Description of major concepts can be more concise. The authors define palliative care but

a reference is lacking (derived from WHO?). Suggestion to add at least some of the

description to the background section.

Reply 1:

Thank you for your comments. We have added references (No. 4 and 17) about definition

of palliative care in the section of introduction and method.

Change in the text:

Please see page 6, line 6-9.

#### Comments 2:

Furthermore, optimistic understanding lacks an adequate description in the background section.

## Reply 2:

Thank you for your comments. We have added the description about optimistic understanding in the introduction section.

## Change in the text:

Please see page 6, line 13-15.

#### Comments 3:

Population is patients from outpatient hospital settings with unresectable or recurrent solid cancer/advanced cancer/ incurable cancer, for clarity I would suggest to use one description and add the outpatient population to the background.

## Reply 3:

Thank you for your suggestion. As the reviewer suggested, we unified the description as "unresectable/recurrent cancer". For population of enrolled patients, we enrolled both inpatients and outpatients. We added the explanation in the section of methods.

# Change in the text:

Please see page 7, line 12-13.

#### Comments 4:

Background: According to the authors, no studies in Japan have examined the gap between patients and physicians. Why do they expect this to differ from other studies in other countries?

## Reply 4:

Thank you for pointing this out. We would like to emphasis that there were few studies which examined the gap between patients and physicians. Therefore, we excluded "Japan" and changed the word "no" to "few".

# Change in text:

Please see page 6, line 15-17.

#### Comments 5:

Methods, page 7 line 10 and on: The enrollment procedure is not clear to me. Did the researcher or the physician enroll the patients? Also see the results section. Were patients asked to participate when they visited the outpatient clinic? Why would you

skip enrollment when the researcher is unavailable? And what about "...allowed each institution to skip patient enrollment for the specific periods and the numbers of the patients were recorded." Does that mean no consecutive enrollment but convenience? With the option to ignore patients? Please be more clear about the enrollment procedure. Reply 5:

Thank you for pointing this out. The researcher checked medical records and asked physicians to enroll the patients. The patients were asked to participate both on visiting the outpatient clinic and on admission. Because the number of researchers was limited, we skipped enrollment when we identified several eligible patients on the same day at two hospitals. As the reviewer suggested, we used convenience enrollment rather than consecutive enrollment. In addition, although we had the option to ignore patients, no patients were excluded for this reason.

## Change in text:

Please see from page 7, line 10 to page 8, line 3.

#### Comments 6:

Methods section: as I understand correctly, the primary physician provided care/communication AND had to ask for informed consent (page 8 line 7-8)? Or someone else? Who is "we" (page 8 line 1)? If the primary physician asked for IC, can you elaborate in the discussion on the possibility of bias, due to patients not daring to refuse or physicians selecting adequate patients?

#### Reply 6:

Thank you for your comments. As the reviewer understood, the primary responsible physician provided care/communication and obtained informed consent. We have described the role clearly. In the part of ethics, we described "we" as the primary responsible physicians. In addition, we considered the selection bias as the reviewer pointed out. Therefore, we described the explanation in the part of limitation.

## Change in text:

Please see page 8 line 5-6, line 13, and from page 22, line 18 to page 23 line 4.

#### Comments 7:

Methods, page 8 line 8-11: Physicians were asked about the explanations provided to their patients, and their approach about the explanations. Who asked the physician? Did the authors use structured or semi structured interviews or surveys? Please provide more

information about the method used and about how you were notified that you had to ask? Also see the physician survey subsection (page 11 line 11), do you refer to the same questions? Survey or interview?

## Reply 7:

Thank you for your comments. We have added further explanation of the physician survey. Change in text:

Please see page 8, line 5-6 and page 12, line 1.

#### Comments 8:

Methods page 9 line 4-5: eligibility criteria, especially criterion 7 (patients deemed ineligible by physician), elaborate on possibility of selection bias in discussion section. Furthermore: what other reasons did physicians provide?

## Reply 8:

Thank you for your suggestion. Please see "Reply 6", and we have added the possibility of selection bias in the part of limitation. For other reasons, although the exclusion criteria were not met, it was possible that the physician-patient relationship was not good.

## Change in text:

Please see from page 22, line 18 to page 23, line 4.

#### Comments 9:

Patient survey: patients were asked about palliative care. Are they familiar with the concept or was a definition provided to them? And how were communication scores converted from 0-15 to 100? What did you do with other scores?

## Reply 9:

Thank you for your comments. This concept and definition were written on the questionnaire. For communication scores, we converted the total scores (0-15) to 100-point scales by multiplying by 100/15. Regarding EORTC QLQ C30 score, we calculated based on EORTC QLQ C30 scoring manual.

# Change in text:

Please see from page 11, line 2-3 and page 11, line 12.

## Comments 10:

Physician survey (page 12): "..we investigated physicians' approach about explanation. We asked each physician only once during the survey period". Again how? Through interviews? Did you take into account that this can be different, depending on patients? Reply 10:

Thank you for your comments. We asked these questions about the physician's general communication strategy only once by the questionnaire. In addition, we asked physicians about their approach in routine clinical situation. As the reviewer suggested, the approach might differ depending on patients. We had added the explanation in the section of discussion.

## Change in text:

Please see page 12, line 12-15 and from page 22, line 1-4.

#### Comments 11:

Page 12 line 15: "Based on the figure of 19% reported by Weeks et al., we estimated that 20% of patients would report that their cancers were incurable". This is not clear to me, as far as I understand incurable cancer is part of your selection criteria.

# Reply 11:

Thank you for pointing this out. We assumed that 20% of enrolled patients would correctly understand that their cancer was incurable based on a previous study. As the reviewer pointed out, unresectable/recurrent cancer means that incurability was one of selection criteria. However, prior work suggested that few patients would understand their incurability.

## Change in text:

Please see page 13, line 6-9.

#### Comments 12:

Analysis, page 13 line 5: As I understand correctly, patients had to answer the questions and physicians had to discuss palliative care and health condition in order to be included in analysis. This should be described more clear. Furthermore, why do the authors take 'Agree' and 'Pessimistic' as one group (agree)? The pessimistic group did clearly not agree. Then in the optimistic group the authors include disagree or a more optimistic view. This grouping should be explained more clearly.

## Reply 12:

Thank you for your suggestion. We have added additional information about the inclusion criteria for analysis. As the reviewer pointed out, patients with pessimistic views might not agree with physicians. Therefore, we have changed the group name to "Realistic".

#### Change in text:

Please see from page 13, line 15 to page 14, line 1.

## Comments 13:

As I understand correctly, the answer of the physician was taken as golden standard, whether or not the physician actually discussed the subject or the patient understood it.

This should be discussed in the discussion section

## Reply 13:

Thank you for your suggestion. We agree with the reviewer's suggestion. We have added the limitation in the section of discussion.

## Change in text:

Please see page 22, line 12-14.

#### Comments 14:

Page 14, lines 3-5: did you check for multicollinearity on the variables before adding them to the regression model?

# Reply 14:

Thank you for your comments. We checked the multicollinearity and have added this information to the analytic methods.

## Change in text:

Please see from page 14, line 18 to page 15, line 3.

## Comments 15:

Title, manuscript: the terms 'discussion' and 'communication' are used interchangeably. I should suggest 'communication'

# Reply 15:

Thank you for your suggestion. We have changed the terms 'discussion' to 'communication'.

## Change in text:

Please see title, abstract and multiple places within the manuscript.

I am sorry to trouble you for checking many change points.

#### Comments 16:

Abstract, methods: patients and physicians responded to questionnaires I assume? Otherwise you cannot compare their opinions

#### Reply 16:

Thank you for pointing this out. Please see Reply 7 too. We have added the explanation about the survey by the questionnaire.

## Change in text:

Please see page 4, line 12 and page 12 line 1.

Comments 17:

Page 5 line 5: related to = as compared to

Reply 17:

Thank you for your comments. We have changed the phrase as the reviewer suggested.

Change in text:

Please see page 5, line 8.

Comments 18:

Page 6 line 6: measure = treatment?

Reply 18:

Thank you for your suggestion. We have changed the phrase as the reviewer suggested.

Change in text:

Please see page 6, line 6.

Comments 19:

Page 9 line 5: a medical record does not apply criteria, people do (screen records apply a 'query')

Reply 19:

Thank you for pointing this out. We have changed the phrase as the reviewer suggested.

Change in text:

Please see page 9, line 12.

Comments 20:

Page 13 line 2: where does JMP stand for?

Reply 20:

Thank you for your comments. JMP is the name of statistical software. Please see the following website: <a href="https://www.jmp.com/en\_gb/home.html">https://www.jmp.com/en\_gb/home.html</a>

Change in text:

N/A

Comments 21:

Throughout the manuscript, 2 decimals for statistics is sufficient.

Reply 21:

Thank you for your suggestion. We have modified text and tables as the reviewer suggested.

# Change in text:

Please see the section of results and table 3-5.