Author's response to reviews

Title: How different is the care of terminal pancreatic cancer patients in inpatient palliative care units and acute hospital wards? A nationwide population-based study

Authors:

Jack P. Wang (jackwang@mail2000.com.tw)
Chen-Yi Wu (chenyiok@gmail.com)
I-Hsuan Hwang (anniehwang2001@yahoo.com.tw)
Chien-Hui Kao (sally.k0214@msa.hinet.net)
Yi-Ping Hung (yphong@vghtpe.gov.tw)
Shinn-Jang Hwang (sjhwang@vghtpe.gov.tw)
Chung-Pin Li (cpli@vghtpe.gov.tw)

Version: 3
Date: 27 June 2015

Author's response to reviews: see over
Author's response to reviews

Title: How different is the care of terminal pancreatic cancer patients in inpatient palliative care units and acute hospital wards? A nationwide population-based study

Authors:

- Jack P. Wang (jackwang@mail2000.com.tw)
- Chen-Yi Wu (chennyiok@gmail.com)
- I-Hsuan Hwang (anniehwang2001@yahoo.com.tw)
- Chien-Hui Kao (sally.k0214@msa.hinet.net)
- Yi-Ping Hung (ypthong@vghtpe.gov.tw)
- Shinn-Jang Hwang (sjhwang@vghtpe.gov.tw)
- Chung-Pin Li (cpli@vghtpe.gov.tw)

Version: 2 Date: 8 May 2015

Author's response to reviews:

RE: MS: 2076227771150801 entitled “Hospices offer more and inexpensive palliative care than standard hospital care for terminal pancreatic cancer patients: a nationwide population-based study”

A point-by-point response to the comments that were provided by the reviewers:

Reviewers: 1

Major Compulsory Revisions

1. There is no clear definition about the patients population described. In order to compare these two group of patients, it is better to have a clear description of the population studied and especially the time frame involved in describing all the medical procedure provided.

Response to the Reviewer:

Thank you for this constructive critique. Based on your comments, we have revised the Study population and Baseline characteristics subsections, as indicated below.

Study population

In this study, we identified 854 pancreatic cancer patients who were admitted and died in-hospital between January 2003 and December 2006. Pancreatic cancer was defined using an ICD-9-CM compatible code (157) from the Registry for Catastrophic Illness Patient database, which is a separate subsection of the NHI database. All patients who are diagnosed with cancer can apply for a Catastrophic Illness Card in Taiwan, and these cardholders are exempt from cost sharing, which is required under the NHI program. The effects of comorbidities were estimated using the Charlson comorbidity index [13]. Propensity score
matching was performed to minimize the potential influence of selection bias, whereby logistic regression was used to create a propensity score for the inpatient palliative care and acute hospital care groups [14]. The covariates that we examined included patient characteristics (age and sex), Charlson comorbidity index, hospital location, and hospital accreditation level. Next, one-to-one matching was performed for the two patients groups, using the nearest-neighbor matching method. (page 9, line 6 to page 10, line 2)

Baseline characteristics
Among the 854 terminally ill pancreatic cancer patients that we identified, 276 (32%) were treated at inpatient palliative care units (173 men and 103 women; mean age = 68.6 years) and 578 (68%) were treated at acute hospital wards (354 men and 224 women; mean age = 67.5 years) (Table 1). All physicians who treated these patients had passed standardized hospice specialist training courses in Taiwan. The inpatient palliative care group was typically managed by family physicians (39%) and oncologists (25%), whereas the acute hospital care group was typically managed by internal medicine physicians (39%, P < 0.001), who were generally gastroenterologists (24%). Significant differences between the palliative care and pre-matched acute care patients were observed for the hospital accreditation level (P = 0.03) and hospital regional location (P = 0.021). The Charlson comorbidity indices were not significantly different between the two groups, although the length of hospital stay was significantly shorter for the inpatient palliative care group (10.6 ± 11.1 days vs. 20.6 ± 16.7 days, respectively; P < 0.001). After one-to-one propensity score matching, 276 matched controls were selected, and we found that the baseline patient characteristics in the two groups were similar (Table 1). (page 11, lines 2–18)

Furthermore, upon further reflection, we have noted that the medical procedures were relatively short and within the patients’ final hospital stay (10.6 ± 11.1 in the inpatient palliative care group vs. 20.6 ± 16.7 days in the acute hospital care group). Therefore, given the relatively short hospital stays, we could not perform a detailed analysis of the duration for all medical procedures. We have added the following statement to the Discussion section.

Discussion
“However, given the relatively short hospital stays, we could not perform a detailed analysis of the duration for all medical procedures.” (page 14, lines 11–12)

2. There is no clear objectives for this study. We needs clear data about the usage of medical interventions for these terminally ill patients in order to have impact on the provision of hospice care for these patients.

Response to the Reviewer:
Thank you for this suggestion. We have clearly stated the research objectives in the revised manuscript:

“Therefore, using information from Taiwan’s national health insurance database,
we aimed to compare the patient characteristics, medical procedures, prescriptions, and medical costs for patients with pancreatic cancer who received inpatient palliative care or acute hospital care. Using this data, we hoped to identify differences in the care that patients with pancreatic cancer received in palliative care units and acute hospital wards." (page 6, line 17 to page 7, line 3)

Furthermore, because these terminally ill patients received various medical interventions, we have listed all types of aggressive procedures, the ten most commonly prescribed medications, and the various medical costs that were incurred during their final hospitalization.

3. There is a fixed payment per day for hospital care in Taiwan and that should be mentioned. This situation will influenced the impact of comparison between two groups.

Response to the Reviewer:
Thank you for this valuable comment. We have added the following statement to the limitations section in the Discussion.

“Third, there is a fixed daily payment by Taiwan National Health Insurance for inpatient palliative care [27]. This payment may influence the observed differences in the use of medications, aggressive procedures, and incurred costs between the two groups.” (page 18, lines 11–14).

4. The writing is not satisfactory. This paper needs English editing help.

Response to the Reviewer:
We apologize for this lack of clarity in the previous version of our manuscript. We have obtained professional English language editing assistance (from Editage), and have included the Certificate of English Editing for the revised manuscript. Furthermore, we have acknowledged this assistance in the Acknowledgements section.

Reviewers: 2
This manuscript addresses an important area: How different care did terminal pancreatic cancer patients receive between inpatient palliative care units and acute hospital wards?

Although your research methods, using the National Heath Insurance dataset, are of interesting, the proposed presentation does not respect the elementary rules of a scientific writing.

For example
#1. Although you write strengths and limitations of this study in conclusions, you should write these in discussions.

Response to the Reviewer:
Thank you for this kind suggestion. We have moved the strengths and limitations of this study from the conclusion section to the discussion section.
#2. Definitions of terms is unclear. You need to use the terminology which has been unified. What difference would you mean hospice, hospice care, inpatient hospice care, hospice wards, inpatient hospice care unit and hospital hospice unit? Readers may misunderstand hospice as hospice care program.

Response to the Reviewer:
We apologize for this lack of clarity in the previous manuscript. To clearly identify the patients groups and the care that they received, we have used the terms “inpatient palliative care” and “acute hospital care” in the revised manuscript.

#3. In introduction you should write purpose of this study clearly.

Response to the Reviewer:
Thank you for this suggestion. We have clearly stated the research objectives in the revised manuscript:

“Therefore, using information from Taiwan’s national health insurance database, we aimed to compare the patient characteristics, medical procedures, prescriptions, and medical costs for patients with pancreatic cancer who received inpatient palliative care or acute hospital care. Using this data, we hoped to identify differences in the care that patients with pancreatic cancer received in palliative care units and acute hospital wards.” (page 6, line 17 to page 7, line 3)

#4. Title of this paper is inappropriate. For example, I think “How different care did terminal pancreatic cancer patients receive between inpatient palliative care units and acute hospital wards? : nationwide population-based study” is appropriate for title of this.

Response to the Reviewer:
Thank you for your kind suggestion. We have revised the title to:

“How different is the care of terminal pancreatic cancer patients in inpatient palliative care units and acute hospital wards? A nationwide population-based study”