

## Peer Review File

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### Reviewer Comments

#### Reviewer A

##### Abstract

**Comment A.1:** Describe methods for comparison in abstract

**Reply A.1:** We add the following sentence to the abstract: “The model compares the provision of Palliative Care through a home-based program with the Usual Care that patients receive at the end of life”

**Comment A.2:** Capitalise 'palliative' to 'Palliative' at start of Results in abstract line 43

**Reply A.2:** Done

**Comment A.3:** Unclear from abstract how you would differentiate between costs saved from unpaid carers vs those from the palliative home care programme

**Reply A.3:** The full explanation is detailed in methods section. Providing more detail in the abstract section would cause us to go over the established word count limits.

##### Introduction

**Comment A.4:** Lots of abbreviations can make it challenging for non-English readers to read the text.

**Reply A.4:** We eliminated the abbreviation of PCS

**Comment A.5:** Use of 'they' in replacement of palliative care throughout introduction is confusing. Better to say "Palliative care improves the..." (Line 65) or to just remove completely e.g. "Although expressly recognised..."(Line 67)

**Reply A.5:** Recommendation was taken.

**Comment A.6:** Line 83 would be better included in the paragraph above rather than on its own. There are quite a few paragraphs consisting of a single sentence only which disrupt the flow of the introduction and don't seem necessary. Would suggest a revision of this.

**Reply A.6:** Ok. We followed the recommendation.

**Comment A.7:** Paragraphs starting at 118 and 126 are quite repetitive. May be better to have one paragraph related to economic evaluations

**Reply A.7:** They were unified in a single paragraph

**Comment A.8:** Don't think paragraph starting at line 147 is necessary, better placed in methodology.

**Reply A.8:** We pass the paragraph to methodology

**Comment A.9:** Line 160 better placed in methodology

**Reply A.9:** We pass the line to methodology

### **Methodology**

**Comment A.10:** Could do with being more structured e.g. population, setting, comparators, variables considered etc. Perhaps using the headings in the Consolidated Health Economic Evaluation Reporting Standards would be a guide to this. Using subheadings within the methodology would make this easier to follow.

**Reply A.10:** The recommendation was taken into account: subtitles were incorporated and the patient section was better detailed.

**Comment A.11:** Mentioning 'analysis...from the social perspective' early on is confusing as you have not yet described to the reader what this means.

**Reply A.11:** A brief description of social perspective is commented in line 129-132

**Comment A.12:** It's not clear re the funding of palliative care services in this region from the methods section. You mention exclusive public health coverage but does this cover palliative care?

**Reply A.12:** Yes, its only public funding, that includes palliative care. We modify in lines 168 a 175 in document that includes track changes.

**Comment A.13:** What does "a social perspective" mean for the cost analysis? Bearing in mind this is a general palliative medicine journal and not specialist in health economics, more explanation would be beneficial. Your explanation of the "human capital approach" is much better and really helps the reader grasp this really interesting concept.

**Reply A.13:** A short paragraph was included in line 239-241

**Comment A.14:** Why did you chose to use the median of the private sector salaries and not the public sector?

**Reply A.14:** Because it is taken as the opportunity cost of the work that could be done by any person who is dedicated to caring for their family member, who may be

working in any occupation and more likely in the private sector, since it is the one that provides the largest amount of employment.

**Comment A.15:** You present lots of variability (line 241) in hours of informal care reported by others. I'd like to see more justification of why you used the approach you did.

**Reply A.15:** We justified that we use the middle value because it is similar to a Survey conducted in Argentina.

**Comment A.16:** Good description of usual care analysis, I'd like to see some information to show that this is the usual care that people in this region receive. Do you have data on place of death for this population?

**Reply A.16:** We don't have local data on place of death for patients at end of life under usual care. We have the percentage of deaths at home and at the hospital, of patients at end of life under PC in Cipolletti, and the opinion of experts that this is much higher than for patients under usual care. For these reasons we included in the model, data published in other settings

## **Results**

**Comment A.17:** Please describe the population you included. Sample size, demographics etc. This would allow readers to consider generalisability of this work to their own populations

**Reply A.17:** We added a paragraph on methodology, better describing the population. A sample was not used.

**Comment A.18:** Results feel quite disjointed with not much flow. Lots of reference to tables/figures but these also need explained in the text.

**Reply A.18:** We added more explanation of the tables/figures in the text.

**Comment A.19:** Sentence (line 289) "In other words" better placed in discussion. Results section should be more about presenting the data you have analysed.

**Reply A.19:** We moved to the discussion section

**Comment A.20:** Line 292 confusing - is the PC strategy the home based strategy or palliative care service in the hospital?

**Reply A.20:** We added clarification that the PC strategy is home based.

**Comment A.21:** Line 294. This paragraph needs more explanation, unclear what the

model is - did you develop this or is this how the funder considers their cost evaluation.

**Reply A.21:** In addition to making a model from the social perspective, we developed one from the funder's perspective in order to assess the differences between the two.

**Comment A.22:** Line 304-305 - confusing sentence with conflicting language "certain degree of uncertainty" better as "degree of uncertainty"

**Reply A.22:** It was modified.

**Comment A.23:** Need more consistency re the analyses in the results section, unclear what the ICER is and how this fits with the other data presented. It's visually a nice diagram but I'm not sure I can interpret it's meaning with ease.

**Reply A.23:** We added more explanation in this section

### **Discussion**

**Comment A.24:** Good context of where this study fits in Argentinian research and how it contributes to research on effectiveness of palliative care at home. Parts of this are quite disjointed. The findings in this study of informal care (line 342) left me wanting more which then wasn't delivered until two paragraphs later and would have benefited from being put together earlier on

**Reply A.24:** We put those paragraphs together.

**Comment A.25:** Quite a lot of one sentence paragraphs, bringing some of these together could help with contextualising this work

**Reply A.25:** It was corrected.

**Comment A.26:** More critique and insight into the limitations of this work as well as its strengths would be useful

**Reply A.26:** We added some limitations more and an strength.

### **Reviewer B**

#### **Introduction:**

**Comment B.1:** Introduction seems to be too long.

I suggest that authors write introduction clearer.

**Reply B.1:** We shortened the introduction a bit

#### **Methods:**

**Comment B.2:** Why did authors show the monthly costs of the palliative care service compared with the daily cost of usual care?

**Reply B.2:** We modified table 2 so that it expresses daily costs. We included informal care costs in table 2, to make it comparable with table 3.

**Comment B.3:** Why did authors not use QALY as an outcome measure?

**Reply B.3:** In the literature on end-of-life economic assessments, there are strong objections to the use of Quality Adjusted Life Years (QALYs) in the end-of-life context (Coast, 2014; Barbara Gomes et al., 2009; Normand, 2009, 2012; Round et al., 2015; Wichmann et al., 2017). The QALY is a generic measure used in economic evaluations, which captures the quantity and quality of an individual's extra life years. However, end-of-life care services do not seek to extend the life of dying patients, but seek to optimize both the quality and costs of care. Normand (2009) argues that QALY is insensitive to the complex and multidimensional goals of palliative care. In this sense, the work carried out by Kinghorn and Coast (2019) exposes that palliative care at the end of life probably does not improve the patient's health significantly, since the very nature of palliative care implies the death of the patient as a result of the process.

Some of the main drawbacks of using QALY in palliative care are:

1. The QALY uses the metric of time and assumes a degree of linearity (for example, in the value of life), which does not coincide with the context of palliative care, in which preferences and priorities change compared to the imminent death.
2. Based on experiences in the mental health field, QALY may not be sensitive enough to capture the effects of complex interventions, such as palliative care.
3. QALYs are measured at the patient level, but palliative care operates at the family level.

The place of death has been described as an important determinant of quality of life at the end of life and has been associated with the level of satisfaction of caregivers in this period (Jakobsson, 2006). Some studies compare patients' actual place of death with their desired place of death (Gandy, 2010; Noble et al., 2012; Stobbart-Rowlands, 2015; The National Gold Standards Framework, 2015). Other studies directly assume that patients prefer to die at home, in nursing homes or hospice rather than in hospitals (Abel et al., 2009; Chitnis et al., 2012; Wye et al., 2012).

#### **Results:**

**Comment B.4:** There is no result about cost-effectiveness analysis.

Instead of Figure 2, it is better to show the results in a table and clarify the numbers.

**Reply B.4:** We added the table 5, with the cost-effectiveness analysis results.

#### **Figure:**

**Comment B.5:** Figure 3 needs corrected. I suggest that authors show the results of upper and lower range of each variable.

**Reply B.5:** The range of maximum and minimum values of variation of the transition probabilities and costs used for the sensitive analysis are shown in Tables 1 and 4, respectively.

**Comment B.6:** There are no figure legends in this manuscript.

**Reply B.6:** We add the figure 2 legend, that was missing.

#### **Tables:**

**Comment B.7:** Variables in Table 2, 3, and 4 are difficult for me to understand. I suggest grouping the cost variables (Table 2, 3 and 4) into one Table.

**Reply B.7:** We added more explanation to those tables and added the cost-effectiveness table as result.

#### **Reviewer C**

**Comment C.1:** Abstract: Line 28: include the word "for" between allows and assessment

**Reply C.1:** We agree, it was changed.

**Comment C.2:** Abstract: Line 44: annual savings of USD750 is identified; however, it is unclear who is saving that money. The government? The individual? Both?

**Reply C.2:** For society, it was added.

#### **Highlight Box:**

**Comment C.3:** Key Findings: "society's perspective" - it is not entirely clear to the reader how society is defined

**Reply C.3:** We added, "including direct and indirect costs".

**Comment C.4:** Key Findings: "cost of informal care" - it would be helpful to provide language as to where these costs are incurred, globally, nationally, etc.

**Reply C.4:** We added "for the Río Negro society"

**Comment C.5:** What is known, and what is new?: It is not clear here what is known vs. what are new findings

- Second bullet point, there are two points being made here. Could break into two

**Reply C.5:** We incorporate at the beginning of the sentences what is known, and in the last point, what is found. We modified the second bullet to inform only one point.