## **Peer Review File**

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# **Reviewer Comments**

## **Reviewer** A

This paper aims to be a seminal manuscript to be read by not only palliative medicine providers but also by administrators, insurance executives and other financial officers. The authors propose a revision of the 2015 "The Business Case for Palliative Care", noting that since the original publication there have been several critical changes to the field and the delivery/viability of SPC that warrant change/addition.

Their formula "Optimal SPC design and implementation, plus appropriate payment model, equals a cascade of beneficial outcomes" encompasses the need for adaptability (optimal system), effectiveness (implementation) and sustainability (appropriate payment model) to reach to desired shared outcomes. The authors pull together a compelling broad overview of the evidence supporting this approach and incorporate the evolving ecosystem of SPC (hospital based, community based, private groups etc).

Two areas in which I would be interested in the author's expanded thoughts are the incorporation of equity oriented approaches, specifically on a population basis, rather than individual basis and second, the duty to educate and advocate in a community and broader level.

Regarding issues of equity, the authors discuss barrier to receiving SPC services (lines 251-260, 261-267) on an individual level but they do not elaborate on how SPC is uniquely positioned to approach health inequities in populations of communities that are structurally disadvantaged. Leveraging SPCs role in supporting the "care unit" (the patient and the caregivers" allows a unique perspective and opportunity to build ties to community groups and supports while providing opportunities for SPC care teams to learn from them. While the immediate financial implications of such work may not be abundantly clear, I would imagine that such a population approach would solicit favorable input from community members and perhaps in the long term build more trust and confidence.

#### Reply: We appreciate and concur with this recommendation.

We added language addressing this point at the end of principle #3, "SPC services should be tailored to patient needs and preferences, for individuals and specific populations.": To further ensure equitable care delivery, SPC teams and parent organizations should adopt policies and practices aimed at reducing bias and disparities related to pain and symptom management, communication skills, and equitable access to palliative care (1).

We also added text to the discussion section, "Relation to other frameworks regarding healthcare quality and outcomes": The Center to Advance Palliative Care, a palliative care advocacy organization based in the US, has developed an extensive list of policy recommendations that would both ensure delivery of equitable palliative care to individuals and position palliative care to mitigate some structural inequities experienced by some seriously ill populations. Future research on the uptake and impact of such policies and practices would offer additional insight into the role SPC plays in promoting equity for seriously ill individuals, and for marginalized communities (1).

Regarding education and advocacy; the authors do not elaborate on their thoughts on the principles of education and advocacy in SPC. Without an active role in medical training, the workforce for SPC will dwindle compared to the increasing demand. Recent events during the COVID-19 pandemic demonstrated the need to be able to respond to demands of global scale crisis. Does engaging future SPC professionals, and perhaps future referring physicians factor into a long term business plan. The 2015 paper was written in a time when the majority of the literature focused on providing palliative care to patients suffering from cancer. With the expansion of SPC into other disease entities and populations (pediatrics, perinatal medicine), is it the imperative of SPC to provide adequate support in these areas? How does the role of concurrent care in pediatric palliative care change the financial equation?

Reply: We appreciate this comment and concur with the need for our paper to point out the imperative for training and education. We have added the following to the section, "Implications for health policy and healthcare financing" to do so: The requirements outlined in the first principle, "Positive outcomes depend on minimum competencies and capabilities," point to the need for sustained focus on education and advocacy. Without an active role in clinical training, the workforce for SPC will not be sufficient to keep up with increasing demand created by the aging of the US population and the need to ensure access to SPC across care settings and geographic regions, for all types of serious illnesses. Medical trainees must be exposed to palliative care, to identify future palliative care providers, to integrate generalist level palliative care competencies into practice, and to encourage appropriate use of SPC among future referring providers. Efforts directed towards trainees in the other core SPC disciplines (nursing, social work, chaplaincy) are also essential. Further, information describing palliative care contributions to all aspects of the quintuple aim, especially economic outcomes, is needed to secure buy-in from health systems and payers who are expected to sustain and sponsor SPC services.

Regarding the final question about pediatric palliative care: this is beyond the scope of this paper, and in the Limitations section we now acknowledge that this paper is based on adult SPC and does not address pediatric SPC; (see below for comment from Reviewer B about this).

Overall, I'm incredibly grateful to the authors for tackling this much needed update and expanding the principles to reflect a more modern and inclusive field.

#### **Reviewer B**

Thank you for the opportunity to read this interesting paper. I can't help but wonder, though, about the selection of this journal; seems a bit like "preaching to the choir" as the article itself seems aimed at policy makers and administrators. While those people may find this article, if published, through an online search, they aren't likely to go looking for it, and it would benefit from a greater focus towards SPC providers and researchers if it's going to have its home in this journal. That said, there are some revisions that would strengthen the paper, the most important of which is the need to provide citations to support assertions made.

Reply: We believe this journal and its forthcoming series on value is the perfect home for this invited paper. We appreciate the recommendation to give this a greater focus towards SPC providers and researchers. We have reviewed the manuscript and do not believe there is a strong need to alter the focus overall nor in any specific area. We believe this article will indeed be accessed by all stakeholders in part through SPC teams, and this article purposefully covers the variety of perspectives of different stakeholder groups. That broad "frame" for this paper is indeed what we were aiming for, and do not feel a need to change. We appreciate each of these suggested revisions.

Line 118 shared interests framework emerging: please provide citation to support this claim

Reply: We have added this sentence and citation: Per 2022 MedPac report, in 2022 22% of the 58.6M Medicare beneficiaries were in ACOs or ACO-like care models, where providers share savings or risk with CMS, the government payer (2).

Line 110 and following: perhaps this is a journal formatting issue more than a writing issue, but the opening sentence in each of the "reasons for revision" paragraph could be boldfaced or otherwise made to stand out so that it's clearer that they are headings rather than incomplete English sentences.

Reply: We have fixed this with underlining, thank you.

Figure 1's italicized subtitle appears to have 'track changes' engaged

Reply: We have fixed this with underlining, thank you.

Lines 228-230; the discipline should not be capitalized

Reply: We have fixed this with underlining, thank you.

Lines 251 and 322-327, 349-359, 426: there are citations available to support these premises; please add to support your assertions.

Reply: Re: line 251: We have added citations to this sentence as follows: By ensuring that SPC is available across settings, earlier referral to SPC can be occur (3,4), suffering of the person and family can be reduced (5,6), and unnecessary hospitalizations can be avoided (3,4,7).

Re: lines 322-327. We have added citations to the end of this section: The economic implications of reducing inpatient admissions, emergency department visits, number of medications used, and number of nursing home days often accrue to different stakeholders. An inpatient SPC might offer services that help prevent future hospital admissions, but unless the health system is participating in an APM where they share financial risk, they may experience no financial benefit from this work. Entities that have or share risk for total costs of care are best positioned to benefit from cost reduction, regardless of mechanism for reducing costs or setting in which cost reduction was achieved (8,9).

Re: lines 349-359. We have added citations to this section:

SPC has also been shown to improve overall population health, by reducing avoidable admissions and readmissions, and improving care coordination (10–12). These contributions align with the quality outcomes specified in the CMS Quality Payment Program (13), including Medicare Advantage Star Ratings and Medicare Incentive Payments. Across the trajectory of care, SPC includes focus on improved medication reconciliation, reduced falls, care for older adults, and comprehensive assessments to screen for complexity and social determinants of health (14). ..... SPC has been shown to improve outcomes for both the person with serious illness and those who care for them, with demonstrated decreases in anxiety and depression among family caregivers (5).

Re: Line 426: We have added a citation to this sentence:

"Value" in SPC is multifaceted and will be experienced and perceived differently by patients, family caregivers, referring providers, payors, etc.(8,15,16)

Note: We took this reviewer's comment about assertions and citations to heart; we reviewed the full manuscript and added a few additional citations. These are indicated by the track-changes function. We made several minor word-choice edits as well, also indicated by track-changes.

Lines 261-267 Recognizing and naming this is a strength of the paper

Line 297 there is a green highlight remaining from a prior editing of the document

The limitations do not include stating that this largely applies to adult SPC and that there are differences in pediatric SPC (and literature to support it).

References are in diverse fonts, and include hyperlinks