Reviewer’s report

Title: A Research Study Review of Effectiveness of Treatments for Psychiatric Conditions Common to End-stage Cancer Patients: Needs Assessment for Future Research and an Impassioned Plea

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Reviewer: Pallavi Dham

Reviewer's report:

The author has made a dedicated effort to review an interesting area of effectiveness of psychiatric treatments in end stage cancer. This has important implications and surprisingly, there is lack of a systematic review in this area.

However, following areas need serious review:

The sentence construction is complex at times, making it hard to follow. Over all the length of the article can be reduced by avoiding repetition of ideas and simplifying the language. Use of the word "gold standard" (p 4, line 43) is not appropriate in this context and can be easily confused. There is no gold standard treatment. Similarly the word psychiatric-copia (line 9, pg 8) is a non-existent word. Another example is "psycho-chemo-therapeutics", pg 20- it probably means psycho-oncology but this is not defined.

The referencing is not done as per standard format and is variable at times.

It is proposed to be a systematic review and yet the standard PRISMA protocol is not adhered to. The flow chart does not specify the number of papers included and excluded and the final numbers.

Having a table of the all the studies included in the review and brief information on the type of study, numbers enrolled, intervention and outcomes is important even though this is a qualitative review. This would help the readers understand the evidence better and make appropriate judgment of its usefulness. This information is especially important for the studies on alternative treatments.

The figures do not provide any additional information than what is essentially mentioned in the text and hence become redundant.
Page 7, line 38 "one of which is an ongoing internet amalgam solely on depression" - what did the author mean by this?

There are some serious errors in the interpretation of some of the study outcomes. Eg: Page 10, line 43, "have suggested that aripiprazole triggers hypoactive delirium"- this interpretation is inherently wrong. What the study says is that the use of aripiprazole results in 100% resolution of hypoactive delirium. Pg 11, line 6-11 says that atypical antipsychotics can be used IV. Only haloperidol can be used IV.

Pg 12, line 6- paliperidone is wrongly spelled

"However, Winnell and Roth[7] noted ethical questions about the image of electrically shocking terminal cancer patients, especially elderly patients": this is an absolutely wrong representation of the treatment which is life saving for many. It is akin to a surgical procedure. Doctors do not hesitate to use an external shock to the heart (defibrillator) even if it is a patient with cancer.

Page 20, line 39: "Adjustment Disorders are emotional/behavioral symptoms in excess of what would be normal response to a given stressor in excess of a mere diagnosis of depression."[185,185, also see 4]. This is not a standard definition. The author should use standard diagnostic definitions , for example as described in DSM 5 or ICD.

For the studies on the alternative treatments , it is important to specify the study design, numbers enrolled, end points and observations. There are sweeping statements made about the quality of evidence, without providing information about the evidence.

Half-life of interventions should be used only for pharmacotherapy and not for psychological therapies.

Pg 22: The statistical significance of Nabolone use should be mentioned.

Pg 25, line 56: "Two other such studies comparing the effectiveness of psychotherapy and cognitive behavioral therapy (CBT)": What kind of psychotherapy is this , since CBT is also a psychotherapy.

The psychiatric treatment model is akin to the bio-psycho-social model which is common in psychiatric practice and should be the standard of care in any situation. So this is not new.
However the attempt to evaluate the present evidence, especially of non-pharmacological treatments is a useful one.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

No

**Are the conclusions drawn adequately supported by the data shown?**
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Yes

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