Reviewer's report

Title: Pilot study evaluating broccoli sprouts in advanced pancreatic cancer [POUNDER trial]

Version: 1 Date: 8 April 2014

Reviewer: Sarah Damery

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This is a very well written protocol for a clearly defined study which has the potential to show some interesting results. The manuscript is concise yet detailed, and the protocol is nicely put together. I have some comments on the manuscript which, if addressed, may improve the quality of the protocol further. These should all be considered major compulsory revisions unless otherwise stated.

Major compulsory revisions

1. Abstract, discussion: The authors state that ‘although no significant results may be observed in this pilot trial...’ A pilot trial should not be looking to demonstrate significance on any of the trial parameters, so this sentence should be modified accordingly.

2. Methods, para 1: The text says that ‘Due to the nutrition supplemental character of the trial, sufficient oral intake is a prerequisite for inclusion in the study’. I was not clear on what the authors mean here, so some clarification or rewording would be useful.

3. Methods, trial objectives, para 1: The primary objective of the trial is given at the start of the paragraph. However, technically, the remainder of the paragraph describes the outcome measures for which data will be collected. After stating the objective, I would suggest having a new heading of ‘outcome measures’, followed by a bullet pointed list of the outcome measures to be assessed.

4. Following the previous point, the abstract states that feasibility of the study substance will be assessed (I took this to mean in terms of the acceptability to patients of taking 15 capsules a day of the study substance/placebo). However, there is currently no mention of this in the methods section as one of the outcomes that will be assessed.

5. Trial interventions paragraph: the text states that patients will be expected to have 15 capsules a day of the active substance or placebo treatment. However, no more detail beyond this is given about the expected intake protocol. For example, will patients be expected to take one capsule at a time at regular intervals throughout the day (e.g. once per hour over 15 hours), or will patients be able to take multiple capsules at a time at longer intervals (e.g. 5 capsules 3 times a day). As this detail could have a significant impact on patient perceptions
of the acceptability of the trial substance in terms of the effect it has on their daily lives, this is an important detail to clarify.

6. Randomisation and blinding para: The text states that in the case of dropouts, patients will be replaced and new patients assigned. First, can the authors clarify whether partial data for patients who have withdrawn will be used (e.g. if a patient drops out at month 6, will their first 6 months' of data be included in analysis, or will that patient be removed from the trial completely, including any data that they have generated prior to their withdrawal). Second, replacing a dropout patient with a new patient has implications for the length of the trial e.g. if a patient drops out at month 9, replacing them with a new patient at such a late stage may not be possible. Will the research team place a limit on the point in the trial at which it is feasible to replace patients who have withdrawn with new patients (e.g. only those who drop out in the first 3 months), or will such replacements be undertaken right up towards the end of the follow up period?

7. Sample size: Although the authors are correct that a sample size calculation is not necessary for the pilot trial, it would still be good practice to give a reason for the choice of 20 patients per study arm over and above the fact that 20 per group is 'deemed sufficient for the study objectives'. At least a reference supporting this as a reasonable number of participants for a trial of this nature is needed.

8. Discussion, para 5: The sentence that begins 'Since patients suffering' seems to have some words missing as '...other phytotherapies are may be expected' does not make sense.

9. Tables and figures: I'm not sure that Table 2 adds anything to the protocol. This is a simple two-arm, parallel trial with a small number of patients in each group. The number in each group, and the distinction between placebo and active substance as an intervention is already perfectly clear from the existing text without Table 2 being necessary, so I would suggest removing it from the manuscript.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.