Reviewer’s report

**Title:** The second Symptom Management Research Trial in Oncology (SMaRT Oncology-2): a randomised trial to determine the effectiveness and cost-effectiveness of adding a complex intervention for major depressive disorder to usual care for cancer patients

**Version:** 1  **Date:** 17 December 2008

**Reviewer:** Andrew Vickers

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Trials T81102S SMaRT trial for depression

The inclusion criterion concerning diagnosis of major depression is vague. Who exactly is making the diagnosis and how? On page 5 a “depression screening interview” is mentioned, but not further details are given.

It is unclear to me why a binary response endpoint is used as the primary outcome measure. Converting a continuous variable to binary response variable loses statistical power. As an example, take a trial with a 0 – 10 endpoint with a SD of 2. The treatment effect is a reduction of 1.5 point and the placebo effect is a 0.5 point reduction. This is equivalent to a 30% vs. 50% response rate if a 1.5 point reduction in scores is a “response”. Assuming a correlation of around 0.5 between baseline and follow-up measures, a trial with a continuous endpoint would require 64 patients per group for 90% power. A trial testing a difference between a 30% and 50% response rate would require 134 patients, over twice as many. I see this staggering loss of power to be a major flaw of the study.

More details need to be given as to randomization: how exactly will randomization be carried out? Minimization is mentioned, but there is no mention of whether this is randomized minimization or pure minimization and how the various variables are weighted (if at all).

I didn’t understand the phrase in the “statistical analysis” section that “A detailed Statistical Analysis Plan will be developed prior to closure of the trial”. Don’t the authors give us a statistical analysis plan in the protocol?

The section on economic analysis is rather skimpy. It would be nice to have more information as to where the cost data was actually coming from.