Reviewer's report

Title: Screened Selection Design for Randomised Phase II Oncology Trials: An Example in Chronic Lymphocytic Leukaemia

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Reviewer: ken cheung

Reviewer's report:

This is a nicely written article on a common and practical problem in early phase cancer trials. The proposed method (SSD) has the advantage of simplicity and is easy to implement. I have seen several trials that randomize subjects to two or more active treatment arms. This paper provides the necessary rigor to justify the selection stage after a Simon's two-stage design is implemented within each arm.

I have a few comments that I hope are helpful to improve the paper:

1. The modified SSD in the simulation study select the superior arm only if the difference in the activity rate is greater than certain margin. This rule seems counter-intuitive; at least in this particular simulation setting. As a result of this rule, the modified SSD selects no arm much more often than desired, especially when (pA,pB) = (0.2, 0.35). In this scenario, I would argue that selecting an inferior but active arm is better than selecting no arm. I think the real motivation of the modified rule is to have another outcome such as safety as a tiebreaker. Is it possible to incorporate that in the simulation? At least, the authors should clarify this point and the appropriate utility of the modified SSD.

2. An advantage of SSD is the provision for early stopping if one or both arms are inactive. Thus, we can conclude a (negative) trial with fewer patients. This is an important metric to compare methods. The authors should consider including this in Table 1.

3. As a curiosity, how will the methods compare in case of more than 2 arms?

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests