Reviewer’s report

Title: Special considerations in prognostic research involving genetic polymorphisms

Version: 1 Date: 27 December 2012

Reviewer: Tommaso Dragani

Reviewer’s report:

The manuscript of Savas et al., consists in a review on case-only association studies in disease prognosis. In particular, the review regards cancer, whose patients with the same type of disease and similar clinical parameters, i.e., TNM, often experience variable outcome.

The review is well written but it is quite simple in arguments, criticisms, and perspective; it is good for students and for practitioners not actively involved in research.

Taking into consideration the main subject (cancer), the Editor should evaluate if such review would be more suitable for eventual publication in BMC Cancer.

- Major Compulsory Revisions

The authors should quote a few papers and briefly discuss about the possible relevance in studies on cancer prognosis of some of the actual “hot topics” in association studies, i.e., the missing heritability (Manolio et al., Finding the missing heritability of complex diseases. Nature. 2009;461:747-53) and the genetic heterogeneity (Galvan et al., Beyond genome-wide association studies: genetic heterogeneity and individual predisposition to cancer. Trends Genet. 2010;26:132-41).

Figure 1 is absolutely obvious and it should be removed.

- Minor Essential Revisions

Figure 2 should be redrawn by including the triangle LD pattern, with colors showing different values of LD. The authors could download a picture for a chromosomal region of interest from HapMap, using open genotype data (e.g., CEPH).

Figure 3 and Figure 4 show essentially the same concepts; the authors should remove one of them.

- Discretionary Revisions

None.

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.