The paper submitted by Tayo et al. aimed to characterize novel loci in Arthritis Rheumatoid (RA) by using cumulative hazard of RA in nonparametric multipoint linkage analysis. The most significant genome-wide linkage evidence was detected on chromosome 6 in the HLA-DRB1 region and suggestive linkage evidence was found in the 1q32.1 region, these results being consistent with previous studies. Three novel regions also showed suggestive linkage evidence: 9q21.13, 15p11.1, and 20q13.33.

Major Compulsory Revisions:
This is a well written paper although some parts of the article may be more explained.
1) For instance, it is not explained how the correlation between subjects has been taken into account to estimate the cumulative hazard.
2) Moreover, the linkage analysis paragraph should be written with more details since the use of cumulative hazard in linkage analysis is not common.
3) The confidence interval associated to the maximum lod-score as well as the potential candidate genes in the suggestive linkage regions were not cited. The possibility that these regions were false positive was not mentioned.
4) The authors justified the fact that severity of RA, erosion status and RF measures were not included in analyses of the estimation of cumulative hazard since they are measures of post-RA affection symptoms. However, different genetic factors may be implicated according to the severity of RA. Are the results similar when the phenotype of interest is severity of RA?
5) One of the environmental factors of RA seems to be tobacco. Was smoking status available? If it is, its effect on cumulative hazard should be test.

Minor Essential Revisions:
6) Page 4, line 1: please, define RF
7) Page 6: please, add the p-value for the test comparing mean age at onset of RA between males and females.

Discretionary Revisions:
8) Please, give some details about cohort 1 and 2 families

**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