Reviewer's report

Title: Parametric Frailty Models for Clustered Data with Arbitrary Censoring: Application to Effect of Male Circumcision on HPV Clearance

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Reviewer: Xingwei Tong

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This paper consider the parametric proportional model with left, right, interval censored data with cluster. Within the cluster, subjects are correlated and the correlation structure is specified with a frailty. The frailty follows a normal distribution and thus the log-likelihood function is derived. The ideas follow directly from the MLE. The application to th male circumcision on HPV clearance has been applied to use the method. The paper is well written.

Some issues should be addressed.

(1). The model (1) is assumed to have the same baseline hazards function $h_0(t)$ for different genotype infection. It is better to explain the practical reasons fior this setup or say when this assumption is not true. When this assumption is not true, will the proposed estimation work?

(2) To test $\sigma=0$, we can use LR statistics. In this paper, the authors can explain the details because in this case, the model reduces to the common proportional hazards model and the methods in this paper is not neccessary.

(3) The $h_{ij}(t)$ are modeled as Weibull model or log-logistic model. In this way, we can use the parametric frailty model. If we don't assume the specific model, Are there some differences in the application data?