ABSTRACT: The aim is to evaluate the effect of the covariates measured over time for the occurrence of the cardiovascular events recurring in patients under dialysis, consisting of 145 hemodialysis patients from the clinics hospital of the Medicine College, UNESP – Botucatu, SP, starting in 2008. The covariates considered in this study were clinical, nutritional, laboratory and dialysis. As the data treat the recurring events of the same type, the marginal modeling employing, in particular, the model proposed by Anderson and Gil (1982) – AG and Prentice et al. (1981) – PWP. The covariates were considered significant at 10% in the two models, using the selection criteria Collet (1994). It also presented the risk ratio of patients in relation to each covariate in both models and the AKAJKE information criteria (AIC). For the AG model the result of AIC was 509,765 and in the PWP model it was 434,501. All the results obtained in the SAS software. From the results, the PWP model was chosen because it best fit the data as showed by the AIC. This study showed the importance of the marginal modeling as a way to model recurring events of the same type, and the utilization of the models mentioned in data which necessarily follow an order.

KEYWORDS: Marginal modeling; recurring events; AG and PWP models.