

In this thesis, we analyze treatment effect estimate in randomized clinical studies. Treatment effect estimates are constructed on the basis of three models. The first part of this thesis is about the behaviour of these estimates when the treatment effects vary with patients. We find out that all types of estimates are consistent and we derived their asymptotic distribution. The estimates are compared by their asymptotic variances. The theoretical conclusions are confirmed by a simulation study. The second part describes the case where measurements of baseline and final values contain an error. Two estimates are analyzed. We find out that both estimates are consistent. We derive their asymptotic distribution and compare their variances.