

Title: Interval Estimation for Drop-the-losers Designs

Abstract: In the first stage of a two-stage, drop-the-losers design, a candidate for the best treatment is selected. At the second stage, additional observations are collected to decide whether the candidate is actually better than the control. The design also allows the investigator to stop the trial for ethical reasons at the end of the first stage if there is already strong evidence of futility or superiority. Two types of tests have been developed recently, one based on the combined means and the other based on the combined p-values. In this talk, we present confidence intervals for the mean difference between the selected treatment and the control. Some remaining statistical issues will be discussed. (Much of the work presented have been done together with Weizhen Wang and Mark Yang.)

Key words: Adaptive design; clinical trial; drop-the-losers design; p-value combination; two-stage test.