

Discrete Mathematics Seminar

Time: Friday, 29 April 2011, 12:30-1:30 PM
Room: 238 Derrick Hall
Title: Assessing the effect of delayed ARV regimen change after failing on the initial regimen
Speaker: Dr. Brent A. Johnson, Department of Biostatistics, Emory University

Abstract:

In this applied statistics talk, I will discuss an analysis of data from a recent study, the AIDS Clinical Trials Group (ACTG) Protocol A5095. The primary goal of the study was to compare three antiretroviral (ARV) regimens. After 32 weeks of follow-up, it was concluded that one regimen was significantly worse than the other two regimens. The study continued for 120 weeks and patients were followed for the duration of the study. Many patients switched ARV regimens during the course of the study due to virologic failure on the initial regimen. An open scientific question is whether patients should switch soon after virologic failure or delay switching for a period of time. Two complicating features of the analysis are that not all patients fail on their initial regimen and, those patients that fail and switch, switch at a time of their choosing. Using methods from causal inference, we provide a systematic statistical framework to analyze data from these types of clinical trials and apply this framework to the ACTG A5095 study.