

Division of Biostatistics Seminar Series

A Case Study in Precision Medicine: Subgroup Identification in the Ocular Hypertension Treatment Study

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12:30pm - 1:30 pm

**Registration Link
via Zoom:**

<https://wustl.zoom.us/j/7811111111>



A Case Study in Precision Medicine: Subgroup Identification in Ocular Hypertension Treatment Study

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Abstract

One of the major topics in precision medicine is subgroup identification when the treatment effect is effective for some subjects while negligible or even detrimental for others. In this paper, we are interested in identifying patient subgroups responding differently to the topical treatment on the risk of primary open angle glaucoma (POAG) in Phase I of the Ocular Hypertension Treatment Study (OHTS I). Due to a large portion of missing values for some variables, we first conducted multiple imputation resulting in five imputed data sets. Then we applied a survival interaction tree (IT) procedure which uses recursively partitioning methods to identify subgroups with homogeneous treatment effect. Our methods identified four subgroups based on demographic and clinical factors at baseline.