OIS Recruiting Seminar

Alberta School of Business
Department of Accounting, Operations, and Information Systems

Presents:
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Topic:
Driving Precision Health Care through Heterogeneous Outcome Analysis

Friday, March 1, 2019
10:00am – 11:30am
BUS Room 4-04 (CA Conference Room)

ABSTRACT

This study addresses the challenges of generating patient-centric information about hospital quality and analyzes the impact of information on enabling patients to receive better care. Methodologically, we develop a new Instrumental Variable (IV) tree approach by incorporating an IV into a tree-based method to correct for potential endogeneity issues in heterogeneous treatment effect analysis using observational data. Empirically, we designate hospitals as different treatments and apply the IV tree to study the outcome differences between thirty-five New York hospitals for cardiovascular surgeries. We found that the outcome differences between hospitals are heterogeneous across different patients. By comparing scenarios with patient-centric and population-average information, we show that 80% of patients can benefit from using patient-centric information and their complications can be reduced by 67.4%. We also illustrate how patient-centric information can enhance pay-for-performance programs offered by payers and guide hospitals in targeting quality improvement efforts.

(Copies of the paper are available in the AOIS Department offices)