

2015

Statistical Analysis of DASI Questionnaire and Modeling the Prediction of Heart Failure Risk in Patients

Christian Negron
Cleveland State University

Follow this and additional works at: https://engagedscholarship.csuohio.edu/u_poster_2015

How does access to this work benefit you? Let us know!

Recommended Citation

Negron, Christian, "Statistical Analysis of DASI Questionnaire and Modeling the Prediction of Heart Failure Risk in Patients" (2015).
Undergraduate Research Posters 2015. 28.
https://engagedscholarship.csuohio.edu/u_poster_2015/28

This Book is brought to you for free and open access by the Undergraduate Research Posters at EngagedScholarship@CSU. It has been accepted for inclusion in Undergraduate Research Posters 2015 by an authorized administrator of EngagedScholarship@CSU. For more information, please contact library.es@csuohio.edu.



This digital edition was prepared by MSL Academic Endeavors, the imprint of the Michael Schwartz Library at Cleveland State University.

Statistical Analysis of DASI Questionnaire and Modeling the Prediction of Heart Failure Risk in Patients

College of Sciences and Health Professions

Student Researcher: Christian Negron

Faculty Advisor: Yuping Wu

Abstract

9,880 patients were asked to complete the DASI questionnaire along with other questions to assess the predictability of heart failure risk. In this paper we attempt to reduce the amount of questions asked by hierarchical clustering of the question responses to determine if there is a change in the predictability of heart failure risk in patients. The data was modeled using Cox hazards multiple regression and validated through ROC and AUC. Our validation models show there is no difference between the usage of 12 and 6 DASI questions, therefore improving the simplicity of the questionnaire. *Abbreviations: DASI, Duke Activity Status Index.*