INFORMATION TECHNOLOGY USE IN PREDICTION OF RAPID RESPONSE EPISODES, PRESSURE ULCER STATUS, AND 30 DAY READMISSION

Presented by Marilyn M. Shepherd, a candidate for the degree of doctor of philosophy

Associate Professor Deidre D. Wipke-Tevis: Committee Chair person

Professor Gregory Alexander: Committee Co-Chair person

ABSTRACT

This study examined whether the Rothman Index (RI), an early warning system, would be useful for prediction of pressure ulcer (PU) risk, PU presence at discharge, rapid response episode occurrence, and hospital readmission within 30 days in adult medical-surgical patients. This study was a secondary analysis of retrospective data from a limited data set of 7567 unique patient discharges from a rural, Midwestern, not-for-profit community hospital. BRAS and RI risk scores were strongly correlated at discharge ($r_s = 0.771$, $p < .001$). Patients discharged with a PU had significantly lower BRAS and RI risk scores, a longer length of stay, and a greater frequency of rapid response episodes and readmissions within 30 days of discharge than those without a PU ($p < .05$). The RI may be a useful tool for predicting clinical deterioration, extended length of stay, PU risk, and readmission within 30 days of hospital discharge.