EVIDENCE BASED HOSPITAL PERFORMANCE ASSESSMENT
- A COMPREHENSIVE INDICES SCORES EVALUATION SYSTEM -

J. Li, R. Fox, M. Stewart

St. Michael's Hospital, University of Toronto, Toronto, Canada

Email: *lij@smh.toronto.on.ca*

To improve hospitals' services, efficiency and effectiveness, and fund the hospitals with equity need to build a hospital performance assessment system. There are several domains in the hospital performance assessment including financial effectiveness, cost efficiency, service volume, clinical outcome/quality, and organization integration.

To assess hospital performance fairly, the risk adjusted predictive models were employed in estimating the expected measures for each indicators.

Multivariate hierarchical model were employed to reflect the multivariate correlation structure and the different type of hospitals, services as well. The expected measures (target) and standard error (scale) were calculated by this model in order to be applied in the indices scores calculation.

Comprehensive indices score was calculated. Factor analysis was employed to find several major indices in the indices scores calculation. Trend adjustment by time series analysis was applied in the final comprehensive indices scores calculation if necessary.

The comprehensive indices scores evaluation system is a powerful tool for the hospital senior management, regional healthcare management and provincial healthcare management in the assessment of the internal and external performance of the hospitals.