

RISK FACTORS OF READMISSIONS AMONG MULTI-ETHNIC ASIANS WITH DIABETES IN A TERTIARY CARE HOSPITAL

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OBJECTIVES: This study examines the risk factors and cost associated with early (≤ 30 days) and long-term (≤ 180 days) readmissions among multi-ethnic Asians with type 2 diabetes in Singapore.

METHODS: Potential risk factors associated with early and long-term readmission rates among type 2 diabetes patients were investigated from electronic medical records available at a local tertiary acute hospital from 2010-2011. These risk factors included gender; age; ethnicity (Chinese, Malay, Indian or others); length of index stay; proportion of out-of-pocket expenditure vs. total health expenditure; whether primary reason for index admission was related to any of the type 2 diabetes-related ambulatory care sensitive conditions; severity of diabetes complications; burden of comorbidities; intensification of diabetes regimen; diabetes medication adherence; as well as whether glycated hemoglobin (HbA1c) was abnormal based on last result nearest to index discharge date. Logistic regression was used to identify patient and hospitalization characteristics associated with both readmissions. Scenario analysis was used to test the robustness of the estimates.

RESULTS: Early and long-term readmissions among type 2 diabetes patients were common among all genders and ethnicity groups, incurring significant resultant costs. Factors affecting early and long-term readmissions were similar; both burden of comorbidities and severity of diabetes complications measures captured in electronic medical records were strongly associated both types of readmission.

CONCLUSIONS: Existing routinely-captured clinical data can be used to generate simple decision support tools that identify patients at risk of readmission before discharge, potentially helping to reduce preventable hospitalizations and reducing costs. Further studies are needed to study the root causes of other disparities.