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Alternate Level of Care: Clinical Predictors and Barriers to Discharge from Complex Continuing Care

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ALC Patients in CCC Beds

- Complex continuing care (CCC) facilities provide hospital based nursing and rehabilitation services to individuals recovering from acute illness, or who have complex clinical needs requiring specialized medical care over an extended period of time [1]
- For most patients, CCC facilities are a transition point between acute care hospitals and home care or residential long-term care settings
- Patients who occupy a hospital bed where the intensity of resources and services that are provided is no longer required are designated as Alternate Level of Care (ALC) [2]
- ALC patient days are an inefficient use of health system resources and may prevent access to necessary care for other system users
- In March 2015, 19.6% of CCC beds in Ontario were occupied by ALC patients [3]

Study Purpose

- Describe the clinical characteristics of long-stay ALC patients in CCC beds
- Identify predictors of long-stay ALC status using baseline patient characteristics
- Identify barriers to discharge for long-stay ALC patients in CCC beds

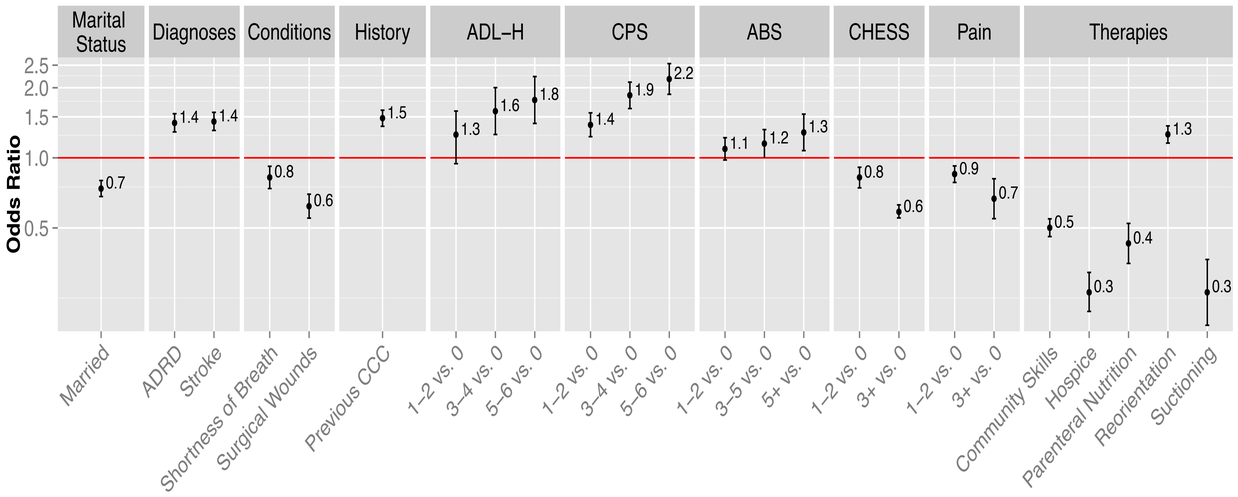
Methods & Sample

- Series of multivariable logistic regression models predicting long-stay ALC patient status (30+ ALC days within episode of care)
- RAI MDS 2.0 admission assessments from the Continuing Care Reporting System (CCRS) linked to Wait Time Information System (WTIS) records
- Assessments from January 1st, 2011 to March 31st, 2013
- Final sample = 33,321 episodes of care in CCC beds; 10% long-stay ALC patients

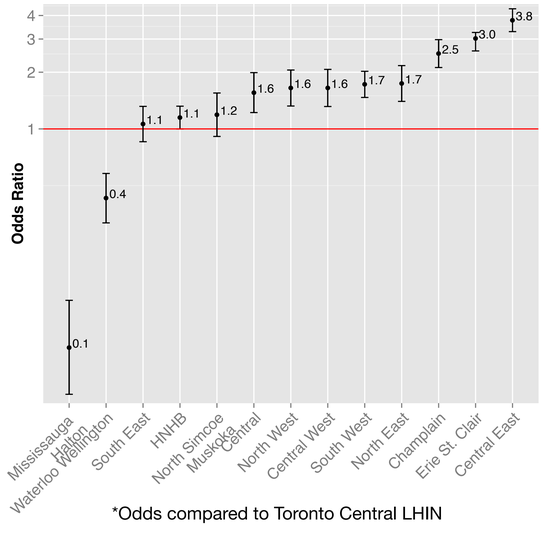
WTIS Needs and Supports

- In additon to recording number of ALC days, the WTIS system tracks needs and supports that are required at the ALC discharge destination to care for the patient, but do not prevent discharge from current care care setting

Multivariable Logistic Regression Model Predicting Long-Stay ALC Status on Admission

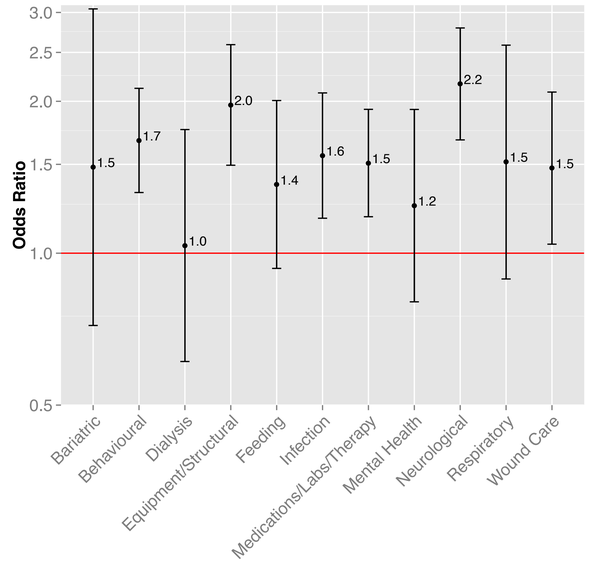


Odds of Long-Stay ALC Status by Region*, Adjusting for Clinical Characteristics



*Odds compared to Toronto Central LHIN

Odds of Long-Stay ALC Status by WTIS Need and Supports, Adjusting for Clinical Characteristics



Implications of Results

- After controlling for all other clinical characteristics, age and gender are not associated with long-stay ALC status; this highlights the need for suitable continuing care settings for individuals of all ages
- Greater capacity to care for patients with functional and cognitive impairment and behavioural needs is needed, including those patients with neurological health conditions such as dementia and stroke
- Provision of therapies such as community skills training and the presence of a spousal caregiver may reduce the odds of delayed discharge
- Large regional differences for the odds of long-stay ALC designation indicate potential service gaps within select jurisdictions

Future Directions

- Development of predictive algorithms that can be used to initiate early discharge planning and prevent delayed discharge from CCC beds
- Development of risk-adjusted quality indicators to evaluate organizational discharge planning efficacy
- Implementation and evaluation of interventions intended to reduce the volume of ALC patients in the health system

Conclusions

- Long-stay ALC patient status is multifactorial and rooted in a large number of clinical and non-clinical domains of health
- RAI MDS 2.0 is a strong source of valuable clinical information related to ALC patient status and should be used in decision making and care planning
- Review of barriers should be undertaken by each jurisdiction to identify opportunities to ameliorate patient flow
- ALC is a system-level problem that requires system solutions

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1. Complex Continuing Care and Rehabilitation Provincial Leadership Council of the Ontario Hospital Association (2006). Optimizing the role of complex continuing care and rehabilitation in the transformation of the health care delivery system. Technical Report 1, Ontario Hospital Association.
2. Cancer Care Ontario (2009). Provincial Alternate Level of Care (ALC) Definiton.
3. Access to Care - Alternate Level of Care Informatics (2015). Provincial Monthly Alternate Level of Care Performance Summary. Technical report, Cancer Care Ontario.