



USING AN AUTOMATED SYSTEM (mHOMR) TO IDENTIFY ONE-YEAR MORTALITY RISK FOR HOSPITALIZED PATIENTS WITH CANCER

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What is HOMR?

Hospital One-year Mortality Risk (HOMR) is an application using data routinely collected on hospital admission to calculate a patient's risk of dying within the next 12 months.

It has been previously validated in general medicine populations, but not cancer populations

HOMR can trigger clinicians to identify inpatients with unmet palliative needs in a timely manner.

There are three different versions of the Hospital One-year Mortality Risk: 'HOMR', 'mHOMR', and 'HOMR Now!'. These differ in their clinical usage due to the administrative data points that each version collects.

mHOMR calculates the 12-month mortality risk for inpatients using the following data points:

- **DEMOGRAPHICS**
- Age
- Sex
- Living Status (Home, Long-Term Care Home, Rehabilitation, Chronic Hospital)
- Death Risk (Life Tables)
- **HEALTH SERVICE USE**
- Admitting Service
- Urgent 30 Day Readmission
- Number of Emergency Department Visits in Past 12 Months
- Admission via Ambulance in the Past 12 Months
- Admission Urgency
- Admission direct to ICU
- Seen in Cancer Clinic in the past 12 months

OBJECTIVES

To apply mHOMR to a retrospective cohort of hospitalized patients with advanced cancer at a tertiary cancer centre in Toronto, Canada

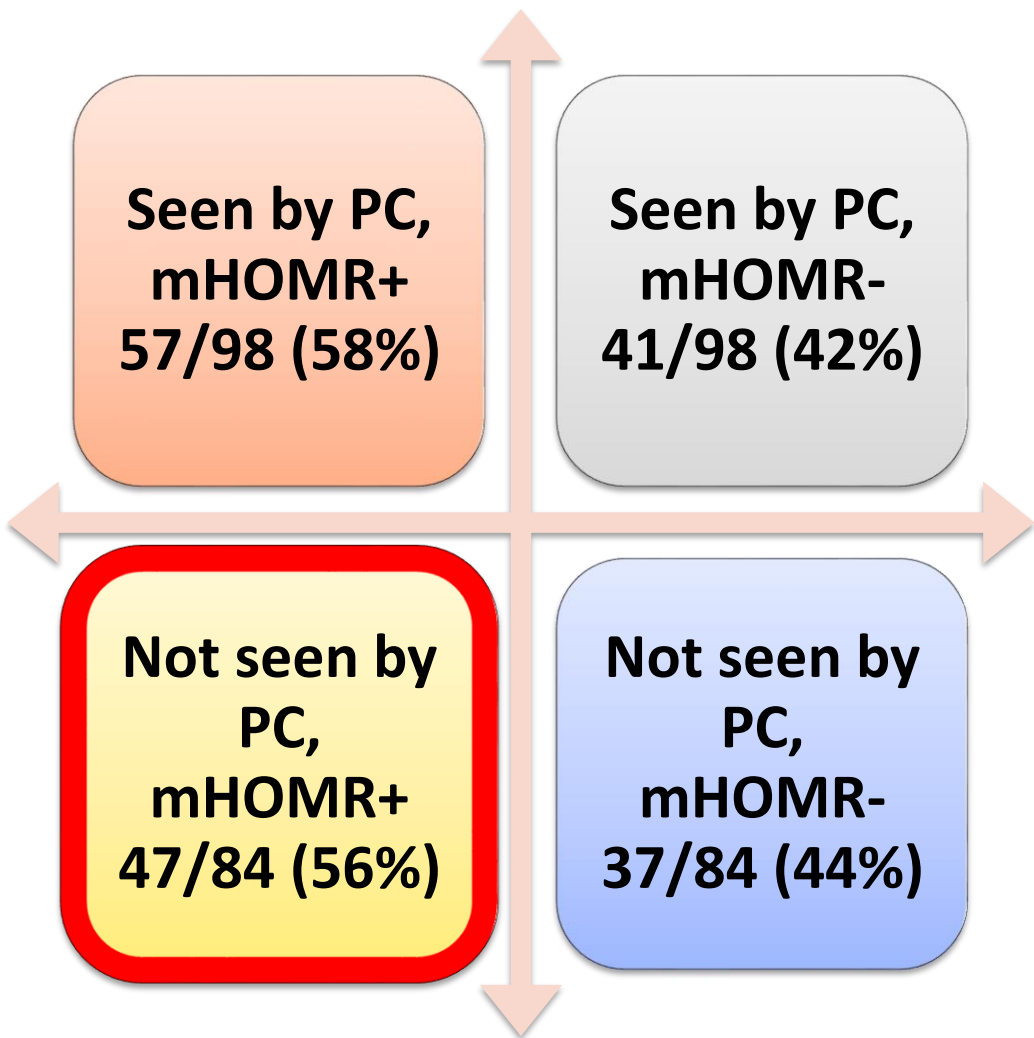
To explore how many patients with a positive mHOMR score were seen by the inpatient palliative care (PC) team during their admission.

METHODS

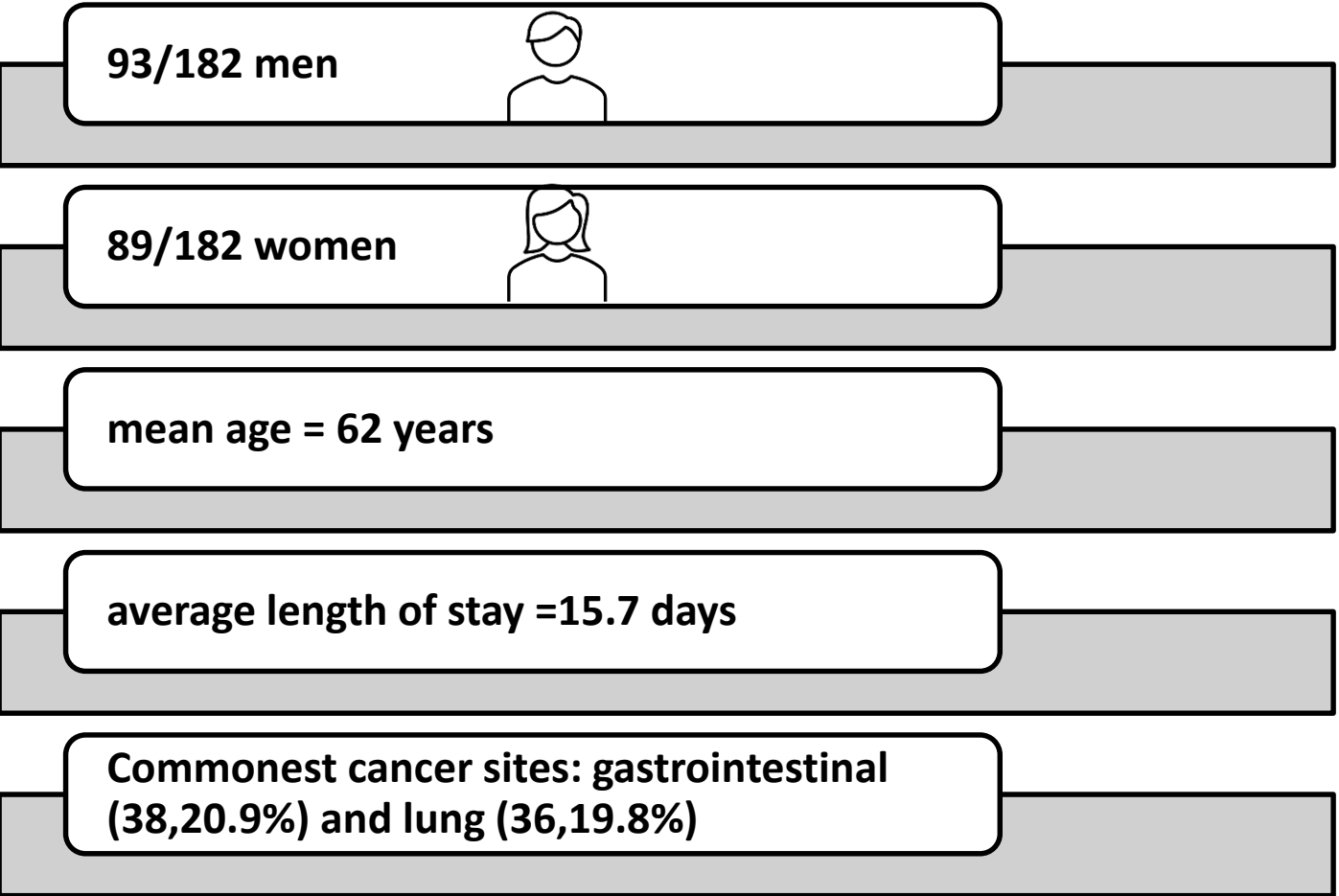
We retrospectively reviewed consecutive non-elective medical and radiation oncology admissions to the Princess Margaret Cancer Centre from March 1-May 31, 2018, prior to the initiation of a goals of care quality improvement project.

We applied the modified Hospital One-year Mortality Risk (mHOMR) score (>0.21 considered positive, with high specificity and negative predictive value).

We collected patient clinical and demographic data, plus death within 12 months of admission and whether patients were seen by PC during the admission or-any time prior to death.



RESULTS



CONCLUSIONS

Physician-directed PC referral alone failed to identify a sizeable number of patients who ultimately died with 12 months.

mHOMR may augment clinical decision-making to identify patients with advanced cancer who may benefit from PC involvement during an acute admission.

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Patients who were seen by PC vs. who were not seen (n=182)				
	Not seen by PC, n=84/182 (46%)		Seen by PC, n=98/182 (54%)	
	mHOMR +, n=47/84 (56%)	mHOMR -, n=37/84 (44%)	mHOMR +, n=57/98 (58%)	mHOMR -, n=41/98 (42%)
Full code	39/47 (83%)	31/37 (84%)	33/57 (58%)	23/41 (56%)
Survived to discharge	43/47 (92%)	35/37 (94%)	44/57 (77%)	37/41 (90%)
Died within 12 months	31/43 (72%)	11/35 (31%)	43/44 (98%)	34/37 (92%)
Lost to further follow-up	10/43 (23%)	05/35 (14%)	12/44 (27%)	5/37 (13%)
Seen by PC prior to death	25/43 (58%)	11/35 (31%)	Not applicable	Not applicable