

Prognostic awareness and healthcare utilization patterns among patients with cancer receiving home hospice care

Yu Ke¹, Yap Hng Kai Gerald², Poh Heng Chong³, Zhi Zheng Yeo³, Qingyuan Zhuang¹

1 Division of Supportive and Palliative Care, National Cancer Centre Singapore, Singapore; 2 Yong Loo Lin School of Medicine, National University of Singapore, Singapore; 3 HCA Hospice, Singapore



National Cancer
Centre Singapore
SingHealth



BACKGROUND

Prognostic awareness (PA) = a patient's understanding of their incurable disease and shortened life expectancy



Problem: Not all patients enrolled into home hospice services are aware of their prognosis

Missed opportunity to align care with values and initiate timely advance care planning (ACP)



Aim: Assess factors influencing PA and its impact on healthcare utilization among patients receiving home hospice care

METHODS

Study design: retrospective cohort study



6 months



Included patients with cancer enrolled into HCA Hospice from 2018-2020

Data collection: Demographic, clinical, healthcare utilization

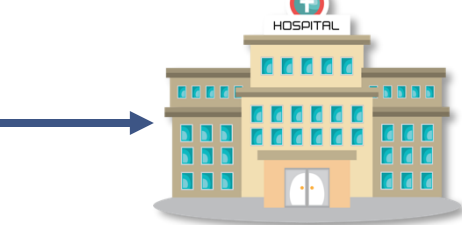
Study outcomes & data analysis

#1: Factors associated with PA

#2: How PA influence downstream care utilization



Prognostic awareness



Unplanned readmission
Emergency department (ED)
Specialist palliative care

RESULTS

1 Patient characteristics (N = 1983)



Age, mean (SD)
70.5 (12.2)



Male
1002 (50.5%)



Married
Married: 1364 (68.8%)
Widowed: 400 (20.2%)



Education
No/ primary qualification: 699 (35.3%)
Secondary qualification: 415 (20.9%)



Cancer type
Gastrointestinal: 821 (41.4%)
Lung: 386 (19.5%)
Breast/ gynecological: 337 (17.0%)



Social support
Living alone: 67 (3.5%)
Caregiver support: 1945 (98.5%)

Cancer stage
Metastatic: 1612 (81.3%)

Housing index
1-4 bedroom apartment: 1554 (78.3%)
Healthcare subsidy levels
51-80%: 1315 (66.3%)

2 Factors associated with prognostic awareness

Factor	Adjusted OR (95% CI)	P
Age	0.97 (0.96, 0.98)	<0.001
Gender		
Female	Reference	
Male	1.32 (1.08, 1.62)	0.007
Marital status		
Married	Reference	
Single	1.81 (1.17, 2.81)	0.008
Widowed	1.16 (0.88, 1.53)	0.294
Separated/divorced	1.74 (1.08, 2.81)	0.023
Highest education level		
No/ primary qualification	Reference	
Secondary qualification	1.34 (1.02, 1.75)	0.037
Post-Secondary/ polytechnic diploma/ professional qualification	1.63 (1.02, 2.61)	0.043
Bachelor's and above	1.48 (0.86, 2.54)	0.157
Others/ unknown	1.00 (0.79, 1.26)	0.982
Living alone		
No	Reference	
Yes	2.52 (1.40, 4.52)	0.002
Family awareness of prognosis		
No	Reference	
Yes	3.49 (2.45, 4.95)	<0.001
Source of referral to hospice		
Specialist outpatient clinics	Reference	
Tertiary hospital	0.48 (0.38, 0.60)	<0.001
Community hospital	0.76 (0.40, 1.44)	0.398

989 (50%) patients were aware of their prognosis

PA was **inversely** associated with:
increased age

PA was **positively** associated with:

- Being male,
- Being single,
- Higher education level,
- Living alone, and
- Having families aware of prognosis

Patients referred from **tertiary hospitals** were less likely to have prognostic awareness than those referred from outpatient clinics

PA was **not** associated with:

- Healthcare subsidy levels
- Comorbidity burden
- Cancer stage

RESULTS (cont'd)

3 Association of PA with healthcare utilization



Patients aware of their prognosis had **1.3 times** higher odds of **ED visits** (95% CI OR = 1.08, 1.55) within 6 months of enrolment compared to patients who were unaware

Prognostic awareness was **not** associated with **unplanned admissions** within 6 months of enrolment



A greater proportion of patients aware of their prognosis were **reviewed by a specialist palliative care team** during follow-up (20.6% vs. 15.2%, P=0.002)

Comparable hospice visits and ACP completion rates

Healthcare utilization	Unaware of prognosis (n = 994)	Aware of prognosis (n = 989)	P
Total number of hospice visits, median (IQR)	7(2-16)	8(2-16)	0.519
Completed advance care planning after enrolment, n (%)	298/884 (33.7%)	298/885 (33.7%)	0.986

CONCLUSION

- PA, shaped by demographic and social factors, influences healthcare-seeking behavior by increasing ED visits but not unplanned hospitalizations
- Integrating proactive palliative care strategies and fostering awareness earlier is crucial for optimizing transitions to home hospice care