Patient Reported Outcome Measures in a Western Australian Pilot Group of Lung Cancer Patients: Implementation of the Continuous Improvement in Care -

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Introduction

The CIC Cancer Project aims to improve the efficiency of cancer care by focusing on outcomes important to patients. The first stage is the collection of Patient Reported Outcome Measures (PROMs) used by the International Consortium for Health Outcomes Measurement (ICHOM) so symptoms experienced by lung cancer patients can be understood and treatments streamlined to provide value-based healthcare.[1] We aimed to describe the QOL measure results from the initial CIC-Cancer patient cohort.

Methods

Newly diagnosed lung cancer patients at two Perth hospitals (Royal Perth Hospital and St John of God Midland Public and Private Hospitals) completed two cancer specific PROM tools; the EORTC QLQ-C30 and QLQ-LC13.[2,3] Participants self-completed hard copies of the questionnaires. Surveys were scored and compared with Australian population reference values.[4] Comparisons between independent means were performed with a T-test (parametric) or Mann-Whitney U test (non-parametric).

Results

- Surveys from 36 patients provided PROMs out of 97 patients enrolled in the CIC-Cancer project (participation rate 37%).
- The mean ±SD age was 70.7±11 years and 58% were male. 22% (8/36) did not have English as their first language and 31% (11/36) lived alone (Table 1). Most were diagnosed with Non-Small Cell Lung Cancer.
- Global health ratings were lower than in the general population (61.0 vs 68.5, p=0.04). CIC-Cancer participants had lower physical, role, cognitive and social functioning than the general Australian population (Table 2). There were also worse QLQ-LC13 symptom domains.
- There were no significant difference in EORTC QLQ-C30 or QLQ-LC13 domains between genders.
- Symptoms of most significant burden were cough, dyspnoea and insomnia with mean scores of 41, 34 and 34 out of 100 respectively.

Conclusion

Lung cancer patients experience a poorer quality of life than other Australians and are particularly burdened by cough, dyspnea and insomnia. Ongoing collection of PROMs will allow targeted interventions to be integrated into cancer service provision but the feasibility and formal utility this needs assessment.

References

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Table 1: Participant Demographics

Demographic	Responses %(n)
Age (Mean±SD)	**70.7±11**
Gender	
Male	58% (21)
Female	42% (15)
Language	
English	78% (28)
Language other than English no interpreter required	22% (8)
Country of Birth	
Australia	33% (12)
Other	25% (9)
Not recorded	42% (15)
Living arrangements	
Alone	31% (11)
With family	58% (21)
Not recorded	11% (4)
Diagnosis	
Non-small cell lung cancer	69% (25)
Small cell lung cancer	6% (2)
Metastatic cancer to the lung	6% (2)
Non malignant	3% (1)
Pending investigations	16% (6)

Table 2: EORTC Domain scores compared to the Australian general population.

EORTC QOL Domains	CIC-Cancer Cohort Mean (SD), n=36	Australian Reference Mercieca-Bebber et al.[4] Mean (SD), n=1821	Univariate T-Test Comparison P value
Global QOL	61 (27)	68.5 (21.5)	**0.04**
Physical Functioning	74 (19)	89.2 (19.0)	**<0.0001**
Role Functioning	68 (33)	88.8 (23.4)	**<0.0001**
Emotional Functioning	76 (21)	80.9 (24.1)	0.2
Cognitive Functioning	80 (17)	88.0 (21.9)	**0.03**
Social Functioning	77 (28)	90.7 (23.9)	**<0.001**
Fatigue	37 (26)	23.9 (22.0)	**<0.001**
Nausea/Vomiting	9 (15)	4.6 (17.0)	0.1
Pain	20 (22)	21.8(26.0)	0.7
Dyspnoea	34 (29)	11.7 (23.0)	**<0.0001**
Insomnia	34 (34)	24.4 (30.0)	0.06
Appetite Loss	25 (30)	8.6 (21.9)	**<0.0001**
Constipation	13 (21)	9.4 (22.6)	0.3
Diarrhoea	12 (24)	5.9 (20.1)	0.07
Financial Difficulties	17 (28)	6.2 (23.9)	**0.008**

EORTC: European Organization for Research and Treatment of Cancer. QOL: Quality of Life