

Variation in Frequency and Timing of Palliative Care Consultation in Patients Receiving Care at a Tertiary Cancer Centre

Sharon Watanabe, Viane Faily, Asifa Mawani, Yoko Tarumi,
Ann Huot, Alexei Potapov, Konrad Fassbender,
Vickie Baracos
University of Alberta, Cross Cancer Institute,
Covenant Health Palliative Institute, Edmonton, Alberta, Canada



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Introduction

- Early integration of palliative care (PC) with oncological care improves outcomes
- Limited information on the proportion of patients under oncological care who receive PC consultation, and predictors and timing of PC consultation

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Cross Cancer Institute (CCI)

- Tertiary cancer centre for northern Alberta
- PC consultation team available for symptom management and liaison with community PC services
- Referrals mostly from oncologists



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Objectives

- To determine the proportion of patients with advanced cancer under oncological care at the CCI that received PC consultation
- To examine predictors and timing of PC consultation

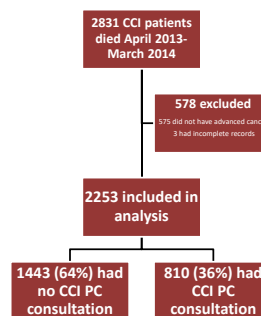
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Methods

- Design: Retrospective
- Inclusion criteria
 - Received oncological care at CCI
 - Died between April 1, 2013 and March 31, 2014
 - Advanced cancer
- Data sources
 - Alberta Cancer Registry: care at CCI, dates of death, cancer types, demographics
 - Edmonton Zone PC Program (EZPCP) database: dates of first PC consultation (CCI and elsewhere)
 - Electronic medical records: dates of diagnosis of advanced (i.e. incurable) cancer

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A minority of patients had CCI PC consultation



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Patients with CCI PC consultation differed in age, residence, marital status, and survival

Characteristic	CCI PC consultation (n = 810)	Non-CCI PC consultation (n = 1443)	p-value
Mean age in years (range)	70.3 (29 - 99)	65.8 (29 - 94)	< 0.001
Residence in Edmonton Zone (%)	834 (57.6)	506 (74.8)	< 0.001
Months from advanced disease diagnosis to death, median (range)	5.5 (0 - 101)	5.5 (0 - 211)	0.02

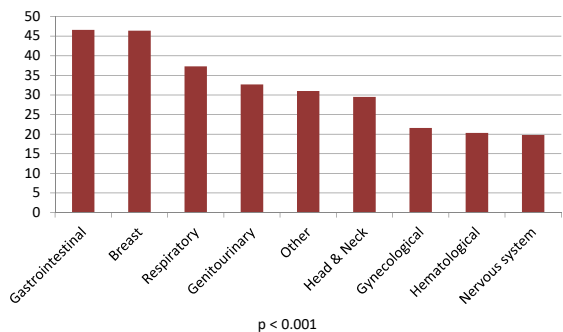
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Multivariate logistic regression analysis: age, residence, cancer type, survival predict CCI PC consultation

Variable	Reference	OR (95% CI)	p-value
Age, relative to 65 years			< 0.001
65	1.00	1.07 - 1.13	
75	1.82	1.68 - 1.95	
Residence in Edmonton Zone	1.74	1.10 - 2.67	< 0.001
Cancer type			
Gastrointestinal	1.87	1.85 - 1.90	0.00
Head & Neck	1.57	1.50 - 1.64	0.00
Haematological	0.40	0.30 - 0.53	< 0.001
Genitourinary	1.59	1.48 - 1.70	< 0.001
Brain/spinal	0.1	0.07 - 0.13	< 0.001
Unknown	1	-	Reference
Advanced cancer diagnosis to death > 3 months	1.68	1.50 - 1.87	< 0.001

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Percentage of patients with CCI PC consultation varies by cancer type

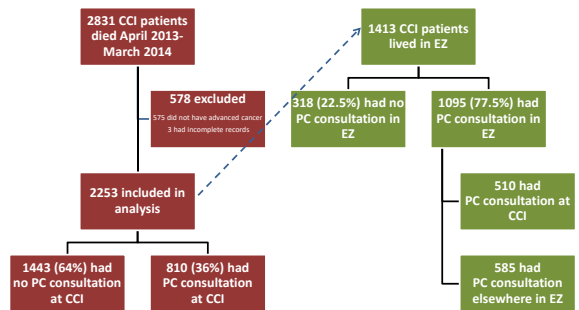


Timing of CCI PC consultation varies by cancer type

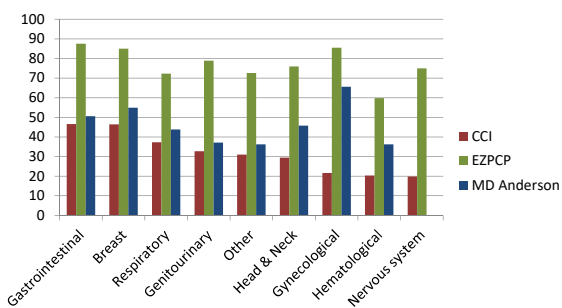
Cancer type	Median (IQR) interval, months		
	Interval between diagnosis to death	Interval between diagnosis to first CCI PC consultation	First CCI PC consultation to death
Head	25.5 (17 - 31)	14.5 (2 - 27)	4 (2 - 5)
Head&Neck	17 (7 - 28)	3 (2 - 6)	3 (2 - 6)
Conitourinary	17 (12 - 23)	12 (8 - 18)	3 (2 - 5)
Epithelial	18.5 (12 - 27)	11 (6 - 16)	2 (2 - 7)
Heart & Neck	10 (7 - 12)	5 (4 - 8)	2 (1 - 6)
Hematological	16.8 (8 - 26)	2.6 (2 - 3)	2 (2 - 6)
Neurovasc system	11 (6 - 47)	10 (4 - 14)	2 (1 - 7)
Other	15.5 (8 - 22)	3 (2 - 5)	2 (2 - 6)
Respiratory	7 (6 - 8)	3 (3 - 4)	2 (2 - 2)

* p < 0.001 for comparison between cancer types by log-rank test.

Frequency of PC consultation increases with comprehensive integrated PC program



Percentage of patients with PC consultation increases for all cancer types



Hui D et al. Oncologist 2012; 17:1574-1580

PC consultation occurs relatively late

Setting	Median (IQR) interval, months		
	Advanced cancer diagnosis to death	Advanced cancer diagnosis to first PC consultation	First PC consultation to death
CCI	10 (4 – 21)	4.5 (1 – 15)	2 (1 – 5)
EZPCP	9 (3.8 – 21)	4.4 (1.1 – 15)	2.1 (0.9 – 4.6)
MD Anderson	15 (7 – 30)	11 (4 – 24)	1.4 (0.5 – 4.2)

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Limitations

- Retrospective
- Does not capture patients referred to but not seen by PC consultation teams
- Does not account for “primary” PC

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Conclusions

- Frequency and timing of PC consultation vary significantly at our tertiary cancer centre, according to a number of factors
- The reasons for this variation require further exploration
- The optimal frequency and timing of PC consultation remain to be determined

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