

Impact of age on Patient-Reported Outcome Measures in patients with Colorectal Cancer

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Background

Patient-Reported Outcome Measurements (PROMs) are increasingly used for cancer patients receiving active treatment, however, little is known about the impact of age on pre-treatment PROMs. This project evaluates the demographics of the first 100 patients registered into the Cabrini/Alfred Colorectal Cancer (CRC) PROMs program and the impact of age on pre-treatment PROMs.

Aim

To define the impact of age (<65 vs 65+) on the first 100 CRC patients registered into a PROMs program at two Tertiary institutions.

Method

This prospective study assessed the first 100 patients registered into the Cabrini and The Alfred PROMs program between July 2021-October 2022. The International Consortium of Health Outcome Measure CRC standard set was utilised¹. A quantile regression (QR) model was employed to look at the impact of age on the various scales and results expressed as a quantile regression coefficient and its 95% Confidence Interval.

Results

Of the 100 patients, 78 responded (78% participation). Responders were significantly younger (median age 68 vs 72 years; $p=0.02$) and had rectal cancer (34.6% vs 9.1%; $p=0.03$). There was no significant difference in gender and overall stage (Table 1).

References

1. Zerillo, J.A. *et al.*, (2017) JAMA Oncol; 1;3(5):686-694.

Table 1. Demographics and clinical characteristics of responders and non-responders.

		Responders	Non-responders	P
Age (years)	Median (P25-P75)	68 (42 – 88)	72 (36 – 93)	0.02*
Gender	Male	37(47.4%)	12(54.6%)	0.63
	Female	41(52.6%)	10 (45.5%)	
Cancer	Colon	51 (65.4%)	20 (90.9%)	0.03*
	Rectal	27(34.6%)	2 (9.1%)	
Overall Stage	I – II	44 (61.9%)	17 (81.0%)	0.65
	III – IV	27 (38.1%)	4 (19.0%)	

When stratified based on age, <65's demonstrated significantly worse symptom scales in five out of twenty-seven domains including pain (16.67: 4.91 to 28.43, $p=0.006$), urinary frequency (16.67: 2.95 to 30.39, $p=0.018$), body image symptom scale (11.11: 3.27 to 18.95, $p=0.006$), bloated feeling (33.33: 16.35-50.32, $p<0.001$) and sexual functioning in females (33.3: 12.65 to 54.02, $p=0.003$) compared to 65+ patients.

Table 2. Quantile Regression model of PROMs outcomes in <65 vs 65+.

Scale	Domain	Age (<65) B(95% CI)
Symptom	Pain	16.67 (4.91 to 28.43)*
	Urinary frequency	16.67 (2.95 to 30.39)*
	Body image	11.11 (3.27 to 18.95)*
	Bloated Feeling	33.33 (16.35-50.32)*
	Sexual Functioning (Female)	33.3 (12.65 to 54.02)*

Conclusion

Pre-treatment PROMs in CRC patients demonstrates that patients <65 reported worse outcomes across five symptomatic domains compared to 65+ patients. This study highlights that the <65 years patient group should be a focus for early recognition, intervention and close monitoring. A long-term follow up study of these preliminary findings is currently underway.

