

# THE INCIDENCE OF PATIENT REPORTED CHRONIC PAIN AFTER DIAGNOSIS AMONG PATIENTS WITH NON-METASTATIC INVASIVE CANCER



UNIVERSITY OF CALGARY

Basmadjian R,<sup>1</sup> Cheung W,<sup>1</sup> Cuthbert C<sup>1,2</sup>

1. Cumming School of Medicine, University of Calgary, Canada. 2 Faculty of Nursing, University of Calgary, Canada

## Background

- Patients with cancer may experience chronic pain (pain lasting > 3 months)<sup>1</sup>
- Chronic pain impacts multiple outcomes including treatment adherence and supportive care needs<sup>1</sup>
- The incidence of chronic pain is not well described in non-metastatic cancer patients
- **Aims:**
  - To describe incidence of chronic pain and associated factors

## Methods

- Retrospective population-based cohort of adult patients aged ≥ 18 in Alberta Canada
- Newly diagnosed between Jan 1, 2016-Jan 31, 2019 with stage I-III non-hematological cancers
- Completed PRO (ESAS-r) within 90 days of diagnosis (baseline) + 2 subsequent surveys
- Incident chronic pain defined as ≥1 point increase in pain score compared to baseline that was sustained or worsened for > 90 days.
- Multivariate logistic regression to evaluate patient characteristics and chronic pain

## Results

**Table 1: Patient Characteristics by Chronic Pain Status**

	No Chronic Pain n=1022	Chronic Pain n=516	Overall n=1538
<b>Age at diagnosis</b>			
Mean (SD)	60.8 (12.7)	59.1 (12.1)	60.2 (12.5)
<b>Sex</b>			
Male	314 (30.7%)	126 (24.4%)	440 (28.6%)
Female	708 (69.3%)	390 (75.6%)	1098 (71.4%)
<b>Residence</b>			
Rural	298 (29.2%)	162 (31.4%)	460 (29.9%)
Urban	713 (69.8%)	349 (67.6%)	1062 (69.1%)
Missing	11 (1.1%)	5 (1.0%)	16 (1.0%)
<b>Tumor site</b>			
Breast	419 (41.0%)	268 (51.9%)	687 (44.7%)
Digestive	263 (25.7%)	104 (20.2%)	367 (23.9%)
Gynecologic	100 (9.8%)	54 (10.5%)	154 (10.0%)
Intrathoracic	69 (6.8%)	36 (7.0%)	105 (6.8%)
Male Genitalia	64 (6.3%)	28 (5.4%)	92 (6.0%)
Other	107 (10.5%)	26 (5.0%)	133 (8.6%)
<b>Stage</b>			
I	392 (38.4%)	181 (35.1%)	573 (37.3%)
II	300 (29.4%)	159 (30.8%)	459 (29.8%)
III	330 (32.3%)	176 (34.1%)	506 (32.9%)

n=516 (33%) had chronic pain  
n= 272 had chronic pain that was moderate to severe  
Median duration of pain was 188 days (IQR 279-491 days)

## Results

**Table 2: Mutually Adjusted Associations between Patient Characteristics and Chronic Pain**

Characteristic	Odds Ratio	95% Confidence Interval	p-value
<b>Age at diagnosis</b>			
Continuous	.99	0.98-0.99	<b>0.03</b>
<b>Sex</b>			
Male	1. (ref)		
Female	0.89	0.62-1.28	0.55
<b>Tumor site</b>			
Breast	1.00 (ref)		
Digestive	0.46	0.31-0.67	<b>&lt;0.001</b>
Gynecologic	0.77	0.52-1.12	0.17
Intrathoracic	0.66	0.40-1.10	0.11
Male Genitalia	0.55	0.30-1.00	0.05
Other	0.33	0.20-0.54	<b>&lt;0.001</b>
<b>Stage</b>			
I	1. (ref)		
II	1.29	0.98-1.69	0.07
III	1.66	1.23-2.26	<b>0.001</b>

## Conclusions

- Chronic pain typically arose within 1 year of diagnosis and was more likely to be moderate-severe
- Specific patient sub-groups may be more at risk of developing chronic pain
- Further investigation is needed to explore how underlying comorbidities and cancer treatments impact pain and subsequent supportive care needs

## References

1. Paice JA, Portenoy R, Lacchetti C et al. Management of chronic pain in survivors of adult cancers: American Society of Clinical Oncology Practice Guidelines. Journal of Clinical Oncology, 2016; epub ahead of print. Doi:10.1200/JCO.2016.68.5206