

Sociodemographic correlates of patient-reported pain among head and neck cancer patients in a community oncology setting.

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Background

There are currently over 500,000 head and neck (H&N) cancer survivors in the general population and the number is expected to continue to grow. Pain is common among survivors and it is associated with adverse quality of life and treatment outcomes. Personalized pain management post-cancer care requires understanding of patients characteristics and effective triage. There is however a lack of data on pain management in the community oncology setting, where a growing number of patients may be receiving long-term care.

Objective

We aimed to describe sociodemographic correlates of patient-reported pain among H&N cancer patients receiving care in the community setting.

Methods

In this retrospective cohort analysis, we used data from Navigating Cancer, a nationwide, community-oncology, patient-reported outcomes database. Navigating Cancer's electronic symptom management and electronic patient-reported outcomes (ePROs) database includes 253 cancer clinics and 1.5M patients. We identified a cohort of patients diagnosed with H&N cancer after January 1, 2017 with at least one record of patient-reported pain through nurse triage. Analyses were conducted to characterize patients by various demographic and clinical factors with a particular focus on how on pain was reported and treated in white (WP) and non-white (NWP) patients.

Results

We had 3,762 patients in our analysis, with an average age of 66.0 years. The cohort was predominantly white (62.8%), married (45.3%) and had Medicare insurance (44.5%). In the study period, 652 patients (17%) reported at least one pain event. A higher proportion of NWP reported pain at least once compared to WP (42.3% vs 34.5%, $p=0.05$). We did not observe a significant difference in the mean number of pain reports per patient when comparing WPs and NWP (1.83 vs 1.78, $p=0.74$). To resolve their pain reports, WP were provided a new prescription for their pain reports more often than NWP (10.6% vs 3.8%, $p=0.05$).

Conclusion

About 1-in-6 H&N cancer patients in the community oncology setting reported pain. Among racial groups, a greater proportion of NWP reported pain than WP, however patients of both racial groups had a similar mean number of pain reports per patient. However, non-white patients were less likely to receive a new prescription for their pain report, suggesting racial disparities in pain management despite a greater proportion of these NWP patients reporting pain. Additional studies are needed to further understand this observation.

Characteristic	All Patients	White (WP)	Non-White (NWP)	p-value
H&N Patients w/ 1 PRO record (%)	2777 (20.6)	2376 (22.0)	401 (14.9)	0.001
Patient-reported pain (%)	1393 (35.4)	1208 (34.5)	185 (42.3)	0.05
Mean # of pain reports per patient	1.82	1.83	1.78	0.74
Time to pain incident resolution (hrs)	5.5	5.6	4.7	0.61
Triage resolutions, n (% pain triage reports*)				
ED visit	23	19 (2.9)	4 (2.5)	0.86
New prescription	54	51 (6.7)	3 (2.2)	0.05
Home care instructions	182	172 (22.5)	10 (7.1)	0.11
Schedule appointment	132	116 (7.6)	16 (5.7)	0.35

*902 total pain reports, 163 Non-White & 763 White. Remainder of pain reports were resolved by "other" or the triage nurse not specifying any resolution.

Baseline Demographics

	All H&N Patients	H&N Patients with Pain Report
Total	3762	652
Age ranges, n (%)		
<65 years	1,744 (46.3)	304 (51.9)
≥65 years	2018 (53.6)	331 (48.1)
Gender, n (%)		
Female	908 (24.2)	168 (25.8)
Male	2,852 (75.8)	484 (74.2)
Race, n (%)		
White	2364 (62.8)	415 (63.6)
American Indian/Alaska Native	62 (1.6)	18 (2.8)
Black/African American	148 (3.9)	27 (4.1)
Asian	53 (1.4)	10 (1.5)
Hawaiian/Pacific Islander	9 (0.2)	3 (0.5)
Multiple races reported	4 (0.1)	0 (0.0)
Missing/Unknown (excluded from demographic analyses)	1058 (28.2)	167 (25.6)
Marital Status, n (%)		
Married/Partnered	1706 (45.3)	304 (46.7)
Non-Married/Partnered	1034 (27.5)	199 (30.5)
Unknown	1022 (27.2)	149 (22.9)
Smoking/Tobacco Use at Diagnosis, n (%)		
History of Smoking/Tobacco	2388 (63.4)	418 (64.1)
No History of Smoking/Tobacco	1102 (29.3)	189 (29.0)
Unknown	272 (7.2)	45 (6.9)
Insurance Status, n (%)		
Any Medicaid	311 (8.2)	74 (11.3)
Any Medicare	1688 (44.5)	287 (44.0)
Non-Medicaid/Medicare	898 (37.6)	158 (24.2)
Uninsured	78 (2.1)	16 (0.2)
Unknown	584 (15.5)	96 (14.7)
Cancer Site, n (%)		
Accessory Sinuses	67 (1.7)	10 (1.5)
Floor of Mouth	61 (1.6)	11 (1.6)
Gum	31 (0.8)	2 (0.8)
Hypopharynx	103 (2.7)	18 (2.7)
Larynx	621 (16.1)	99 (14.8)
Lip	20 (0.5)	3 (0.4)
Nasal Cavity/Middle Ear	29 (0.7)	10 (1.5)
Nasopharynx	148 (3.8)	23 (3.4)
Oropharynx	363 (9.8)	67 (10.0)
Other Head & Neck	205 (5.3)	45 (6.7)
Other Lip, Oral Cavity & Pharynx	50 (1.3)	6 (0.9)
Other Parts of Mouth	141 (3.6)	26 (3.9)
Other Salivary Gland	72 (1.9)	11 (1.6)
Palate	43 (1.1)	6 (0.9)
Parotid Gland	143 (3.7)	22 (3.3)
Pyriform Sinus	57 (1.5)	9 (1.3)
Tongue	965 (24.9)	179 (26.7)
Tonsil	750 (19.4)	124 (18.5)