Referral Patterns of Outpatient Palliative Care among the Head and Neck Cancer Population

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Abstract

Introduction Patients with head and neck cancer (HNC) experience unique physical and psychosocial challenges that impact their health and quality of life. Early implementation of palliative care has been shown to improve various health care outcomes.

Objective The aim of the present study was to evaluate the patterns of referral of patients with HNC to outpatient palliative care as they relate to utilization of resources and end-of-life discussions.

Methods We performed a retrospective review of 245 patients with HNC referred to outpatient palliative care services at two Louisiana tertiary care centers from June 1, 2014, to October 1, 2019. The control group consisted of those that were referred but did not follow-up. Reasons for referral were obtained, and outcome measures such as emergency department (ED) visits, hospital readmissions, and advance care planning (ACP) documentation were assessed according to predictive variables.

Results There were 177 patients in the treatment group and 68 in the control group. Patients were more likely to follow up to outpatient palliative care services if referred for pain management. Hospital system, prior inpatient palliative care, and number of outpatient visits were associated with an increased likelihood for ED visits and hospital readmissions. Those in the palliative care treatment group were also more likely to have ACP discussions.

Conclusion Early implementation of outpatient palliative care among patients with HNC can initiate ACP discussions. However, there are discrepancies in referral reasons to palliative care and continued existing barriers to its effective utilization.

Keywords
- palliative care
- head and neck cancer
- pain management
- symptom management
- resource utilization
- advance care planning

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Introduction

Patients with head and neck cancer (HNC) experience many unique challenges due to the sequelae of their condition and treatment. Among their most disturbing symptoms are pain, xerostomia, and dysphagia.[1–4] Their psychosocial afflictions may include body image issues, poor quality of life, fear of cancer recurrence, depression, anxiety, guilt, self-blame, losing control of daily activities, and feeling like a burden.[1,5–8] As a result, patients and their caregivers often have a difficult time coping with their condition and the complexities of care work.[8–11] Beyond the complex, interdisciplinary approach in managing their cancer, a crucial aspect of their quality care involves mitigating the suffering of these patients while also allocating resources effectively.[12] Patients with a heavy symptom burden due to cancer are more likely to visit emergency rooms[13–15] and have prolonged hospital stays.[16] Furthermore, patients with HNC have increased financial expenditures at the end of life due to hospitalizations and treatment, especially those who underutilize hospice services.[17,18] Early implementation of palliative care services is known to not only improve the value of care by decreasing expenditures among patients with cancer,[19–22] but also improve their quality of life.[3,23] However, lack of investment, awareness, and understanding of palliative care services among patients, caregivers, and health care workers are among the barriers to its early implementation at a population-health level.[24–27] While these services can be provided by various health care workers, the timing and indications for referral to specialty palliative care are still poorly understood.[26,27] The present study aimed to determine the referral patterns of outpatient palliative care services and how they affect various outcomes among patients with HNC in our affiliated hospital systems.

Methods

Review and oversight were provided by the Institutional Review Boards of Louisiana State University Health Sciences Center and Our Lady of the Lake Regional Medical Center (OLOL). We performed a retrospective chart review of patients with HNC referred to the outpatient Palliative and Supportive Care clinics at OLOL in Baton Rouge, (private) and University Medical Center (UMC) in New Orleans, Louisiana (public), from June 1st, 2014, to October 1st, 2019. The inclusion criteria were patients aged $\geq$ 18 years with an HNC diagnosis and referral to an outpatient palliative care clinic. Patients who were referred but not seen in the palliative care clinic were included as a control group. The reasons why patients did not follow up to outpatient palliative care were collected. The reason for referral was obtained, and it was also noted if the patient had received inpatient palliative care services before referral. Demographic variables were collected, such as age at the time of diagnosis, gender, and race. We used race as a variable to account for systemic racism.[28–30] We dichotomized race as black and non-black, as these were the two major groups, with the understanding that race is a social construct and is not a biological or genetic explanation for any outcomes.[31] We collected the amount of substance use, as this is a major public health issue also tied to systemic inequities and is known to worsen health,[32] especially among the HNC population.[33,34] Tobacco status was defined as "never," "former," and "current", according to the National Health Interview Survey.[35] Alcohol status was defined as "none," "light," and "heavy", according to the definition of the National Institute on Alcohol Abuse and Alcoholism (NIAAA).[36] Additional descriptors determined were the Charlson Comorbidity Index (CCI), to account for medical comorbidities,[37,38] and the Eastern Cooperative Oncology Group (ECOG) scores,[39,40] to control for cancer-related performance.

Primary outcome measurements included any emergency department (ED) visits or hospital readmissions after referral to palliative care. The causes of ED visits and hospital readmissions were also assessed. Secondary outcome measurements included the performance of discussions on advance care planning (ACP), referral to hospice services, any time in the intensive care unit (ICU), completion of a do-not-resuscitate (DNR) form, and death in the hospital. Demographic variables were used to stratify the comparison of primary outcomes between the palliative care treatment and control groups, as well as within the treatment group. Analyses based on institution were only performed for primary outcomes, as the number of patients in the public hospital was too small to generate meaningful results for other outcomes. Fisher's exact test was used to calculate odds ratios (OR) with a 95% confidence interval (95%CI). These were calculated with reference to the control group, unless otherwise specified (REF). Values of $p < 0.05$ were considered statistically significant. All statistical analyses were performed using the GraphPad Prism (GraphPad Software, Inc., San Diego, CA, US) software, version 9.1.0.

Results

Patient Characteristics

Between June 2014 and October 2019, 177 adult patients with HNC were referred to and treated in the outpatient palliative care clinic (palliative care treatment group). The control group consisted of 68 adult patients with HNC who were referred but not seen in the palliative care clinic. Reasons for not following up were available in the records of 48 (71%) of the control group patients, and are listed in ►**Table 1**, with the most common reasons being no-show (n = 18; 37%) and treatment refusal (n = 15; 31%). Patient characteristics are included in ►**Table 2**. The median age at the time of diagnosis was nearly identical between the treatment and control groups (56 and 58 years respectively), and males were more common in both groups (n = 125; 71% and n = 46; 68% respectively). There was a higher proportion of black patients in the control group (38%) compared with the treatment group (28%). Among the control group, there was a higher proportion of these patients in the public hospital (n = 8; 62%) compared with the private hospital (n = 15; 29%). Squamous cell carcinoma was the most

Table 1 Reasons for no follow-up in the control group ($N = 48$)

Reason	Number (%)
No-show	18 (37)
Refused treatment	15 (31)
Referral closed	5 (10)
Hospice or death	5 (10)
Good prognosis	2 (4)
Feeling too ill	2 (4)
Schedule conflict	1 (2)

common diagnosis in both groups, with the most common tumor sites being the oropharynx, larynx, and oral cavity. Smoking and alcohol statuses were similarly distributed between the treatment and control groups. The mean CCI and ECOG scores were comparable between the two study groups. Most patients were treated at OLOL, the private hospital. Inpatient palliative care services before referral were provided to 37 (21%) patients in the palliative care treatment group and 18 (26%) in the control group.

The reasons for referral to outpatient palliative care are displayed in ►**Table 3**. Patients in the palliative care treatment group were more likely to have been referred for pain management (OR = 18.0; 95%CI: 8.06–40.4; $p < 0.0001$). Patients in the treatment group were less likely to have been referred for symptom management (OR = 0.346; 95% CI: 0.195–0.616; $p < 0.001$) or ACP (OR = 0.374; 95%CI: 0.328–0.689; $p = 0.002$).

Emergency Department Visits

Univariate predictors of ED visits are displayed in ►**Table 4**. Among patients aged 56 to 61 years at the time of diagnosis, palliative care treatment was associated with a decreased risk for ED use (OR = 0.461; 95%CI: 0.223–0.938; $p = 0.047$). No other age group comparison resulted in a statistically significant outcome (p-values not shown). Referral for pain management was associated with an increased risk for ED use (OR = 9.06; 95%CI: 3.30–24.1; $p < 0.0001$) among the palliative care treatment group. Conversely, referral for symptom management and ACP were associated with a decreased risk for ED visits (OR = 0.405; 95%CI: 0.219–0.762; $p = 0.006$; and OR = 0.301; 95%CI: 0.144–0.665; $p = 0.002$ respectively). Hospital site was not a significant predictor for ED visits. Within the treatment group, having 7 or more outpatient palliative care visits was also associated with an increased risk for ED utilization (OR = 2.74; 95%CI: 1.31–5.75; $p < 0.01$) compared with fewer visits. The most common causes of ED visits in the treatment group were respiratory issues (n = 36; 18%), weakness (n = 27; 14%), and gastrointestinal issues (n = 15; 7.5%). The most common causes for ED visits in the control group were respiratory issues (n = 12; 21%), gastrointestinal issues (n = 7; 12%), and surgical complications (n = 7; 12%). Other causes of ED visits are outlined in ►**Supplemental Table S1** (online only).

Table 2 Patient characteristics

Variable	Number (%)	Number (%)
	Palliative care	Control
Number of patients	177	68
Age at diagnosis (years)		
Minimum	29	27
25% quartile	49	50
Median	56	58
75% quartile	62	64
Maximum	96	77
Tumor site		
Oropharynx	49 (28)	17 (25)
Larynx	45 (26)	26 (38)
Oral cavity	38 (22)	18 (27)
Skin	12 (7)	2 (3)
Salivary	5 (3)	1 (2)
Endocrine	8 (5)	1 (2)
Maxilla	7 (4)	0
Skull base	5 (3)	1 (2)
Unknown primary site	7 (4)	2 (3)
Gender		
Male	125 (71)	46 (68)
Female	52 (29)	22 (32)
Race		
Black	50 (28)	26 (38)
Non-black	127 (72)	42 (62)
Smoking status		
Never	33 (19)	8 (12)
Former	77 (44)	38 (56)
Current	66 (38)	22 (32)
Alcohol status		
None	138 (80)	59 (88)
Light	26 (15)	3 (5)
Heavy	9 (5)	5 (8)
CCI (mean ± SD)	4.31 ± 1.98	4.40 ± 2.11
ECOG score (mean ± SD)	1.87 ± 0.87	2.27 ± 0.65
Hospital system		
OLOL – private	149 (84)	55 (81)
UMC – public	28 (16)	13 (19)
Prereferral IP-PC	37 (21)	18 (26)
Reason for referral		
Pain management	125 (71)	8 (12)
Symptom management	61 (35)	41 (60)
Advance care planning	35 (20)	27 (40)
Goals of care	18 (10)	9 (16)

Abbreviations: CCI, Charlson comorbidity index; ECOG, Eastern Cooperative Oncology Group; IP-PC, inpatient palliative care; OLOL, Our Lady of the Lake Regional Medical Center; SD, standard deviation; UMC, University Medical Center.

Table 3 Reasons for referral to outpatient palliative care services

Reason	Odds ratio (95% confidence interval)	*p*-value
Pain management	18.0 (8.06–40.4)	< 0.0001
Symptom management	0.346 (0.195–0.616)	< 0.001
Advance care planning	0.374 (0.328–0.689)	0.002
Goals of care	0.587 (0.261–1.32)	

Note: Odds ratios calculated with reference to the control group.

Hospital Readmissions

Univariate predictors of hospital readmissions are shown in ►**Table 5**. Referral for pain management was associated with an increased risk for hospital readmissions visits (OR = 9.29; 95%CI: 3.80–24.7; $p < 0.0001$) among the palliative care treatment group. Referral for ACP was associated with a decreased risk with hospital readmissions (OR = 0.351; 95%CI: 0.159–2.86; $p = 0.009$). No association was found with a referral for symptom management or goals of care. Within the treatment group, patients treated at the public hospital (UMC) were more likely to be readmitted to the hospital (OR = 2.90; 95%CI: 1.2–6.99; $p = 0.018$). Patients who received prior inpatient palliative care services were also more likely to be readmitted to the hospital (OR = 2.44; 95%CI: 1.14–5.25; $p = 0.022$). Moreover, having between 3 and 6 outpatient palliative care visits was associated with an increased risk for a hospital readmission (OR = 2.26; 95%CI: 1.09–4.70; $p = 0.029$). Scheduled procedures were the most common causes for readmissions in the treatment group (n = 27; 17%), while gastrointestinal issues were the most common reason in the control group (n = 7; 16%). Other causes for hospital re-admissions are outlined in ►**Supplemental Table S2** (online only).

Secondary Outcomes

Secondary outcomes are outlined in ►**Table 6**. Patients in the palliative care treatment group were more likely to have ACP discussions. This finding was statistically significant (OR = 2.89; 95%CI: 1.59–5.14; $p < 0.001$). There was no statistically significant difference between the groups in terms of any time in the ICU or hospice referral. A greater proportion of those in the palliative care treatment group had a DNR form completed (n = 56; 32% versus n = 18; 26%). A fewer proportion of patients in the palliative care treatment group died in the hospital (n = 17; 8% versus n = 8; 12%). Neither variable met statistical significance between the groups (OR = 1.28; 95%CI: 0.691–2.37; and OR = 0.797; 95%CI: 0. 0.3239–1.87 respectively).

Discussion

Pain Management

Patients with HNC face a multitude of challenges regarding their care and well-being. One of their most debilitating symptoms is pain,[4] which can be nociceptive and neuropathic in quality.[41] The present study shows that patients with HNC are more likely to follow up with an outpatient palliative care referral if they are being treated for their pain (►**Table 3**). However, these patients were also more likely to have an ED visit or be hospitalized (►**Tables 4–5**). This is not surprising, given that pain carries such high morbidity. Previous retrospective studies on HNC patients have also found that the most common reasons for referral to palliative care are pain and symptom management.[2,3,42,43]

The most common cause of pain in this population is oral mucositis, often due to radiation and chemotherapy.[44,45] Mucositis is associated with comorbidities like dysphagia, poor nutritional status, and predisposition to infection—all of which can impact treatment and increase resource utilization.[46] Predictors of pain among these patients have been described in the past,[47,48] with consensus agreements emphasizing the correlation of severity to radiation and concurrent systemic therapies.[49,50] Although pain is difficult to measure objectively,[51] guidelines recommend frequent assessment of baseline, background, breakthrough, and swallow-related pain in each patient.[49] It is well known that high-dose opioids, despite their common side effects, are frequently needed to manage HNC-related pain. However, since neuropathic pain is still poorly controlled,[46,50] considerable research has been dedicated to investigating pain-responsive therapies and treatment with a substantial push to reduce opioid use. Recent retrospective studies and a randomized controlled trial have shown that prophylactic gabapentin may be effective at reducing the need for high-dose opioids among the HNC population.[52–54] Similar randomized controlled trials and subsequent meta-analyses are needed to assess the efficacy of this intervention. Because of this complexity in HNC-related pain, its proper evaluation and management may be well addressed by specialty outpatient palliative care services.

Resource Utilization

The present study shows that patients with HNC treated by outpatient palliative care tend to have reduced resource utilization depending on the reason for referral. Notably, the control group had more complications from prior surgeries and percutaneous endoscopic gastrostomy (PEG) tube issues leading to ED visits and hospital admissions compared with the treatment group. However, patients who had a high number of outpatient palliative care visits were also more likely to visit the ED or be readmitted to the hospital. This is a finding similar to that of a retrospective study on cancer patients in Sweden,[55] which showed that those referred to palliative care were more likely to visit the emergency room at least once compared with those not referred. Additionally, we found that prior inpatient palliative cancer services were associated with an increased risk for hospital readmission.

Table 4 Emergency department visits

Variable	Number (%)	OR (95%CI)	*p*-value	Number (%)	OR (95%CI)	*p*-value
	Palliative care			Control		
Age at diagnosis (years)						
First quartile (29–48)	26 (15)	REF		10 (15)	0.998 (0.446–2.13)	0.047
Second quartile (49–55)	22 (12)	0.604 (0.266–1.45)		5 (7)	1.79 (0.680–4.49)	
Third quartile (56–61)	22 (12)	0.529 (0.230–1.23)		16 (24)	0.461 (0.223–0.938)	
Fourth quartile (62–99)	21 (12)	0.485 (0.214–1.13)		6 (9)	1.32 (0.537–3.32)	
Gender						
Male	59 (33)	REF		26 (38)	0.808 (0.462–1.46)	
Female	33 (19)	1.94 (0.997–3.80)		15 (22)	0.809 (0.405–1.59)	
Race						
Black	30 (17)	REF		25 (24)	0.663 (0.329–1.28)	
Non-black	62 (35)	0.636 (0.328–1.25)		16 (37)	0.927 (0.530–1.69)	
Smoking status						
Never	14 (8)	REF		4 (6)	1.37 (0.452–3.95)	
Former	41 (23)	1.55 (0.708–3.56)		21 (31)	0.675 (0.358–1.28)	
Current	37 (21)	1.73 (0.762–4.17)		16 (24)	0.860 (0.446–1.63)	
Alcohol status						
None	68 (38)	REF		34 (50)	0.624 (0.363–1.12)	
Light	17 (10)	1.94 (0.837–4.61)		2 (3)	3.51 (0.834–15.6)	
Heavy	6 (3)	2.06 (0.544–7.72)		4 (6)	0.561 (0.144–1.82)	
CCI						
2	17 (10)	REF		7 (10)	0.926 (0.375–2.38)	
3	22 (12)	1.08 (0.432–2.68)		8 (12)	1.06 (0.452–2.39)	
4	17 (10)	0.577 (0.230–1.39)		8 (12)	0.797 (0.339–1.87)	
5	8 (5)	0.706 (0.236–2.41)		7 (10)	0.412 (0.141–1.09)	
6+	28 (16)	1.54 (0.631–3.84)		11 (16)	0.974 (0.457–2.17)	
Hospital system						
OLOL – private	74 (42)	REF		33 (49)	0.762 (0.427–1.33)	
UMC – public	18 (10)	1.82 (0.768–4.17)		8 (12)	0.849 (0.468–1.47)	
Prereferral IP-PC						
No	68 (38)	REF		29 (43)	0.839 (0.468–1.47)	
Yes	24 (14)	1.93 (0.892–3.99)		12 (18)	0.732 (0.338–1.56)	
Reason for referral						
Pain management	64 (36)	REF		4 (6)	9.06 (3.30–24.1)	< 0.0001
Symptom management	32 (18)	1.05 (0.581–1.90)		24 (35)	0.405 (0.219–0.762)	0.006
Advance care planning	15 (8)	0.753 (0.358–1.60)		16 (24)	0.301 (0.144–0.665)	0.002
Goals of care	10 (6)	1.19 (0.460–3.25)		5 (7)	0.754 (0.268–2.05)	
Postreferral OP-PC visits						
1–2	27 (15)	REF	0.010	N/A	N/A	
3–6	27 (15)	1.28 (0.605–2.55)				
7+	38 (21)	2.74 (1.28–5.80)				

Abbreviations: 95%CI, 95% confidence interval; CCI, Charlson comorbidity index; IP-PC, inpatient palliative care; N/A, not avilable; OLOL, Our Lady of the Lake Regional Medical Center; OP-PC, outpatient palliative care; OR, odds ratio; REF, odds ratios calculated with reference to treatment group variable; UMC, University Medical Center.

Table 5 Hospital readmissions

Variable	Number (%)	OR (95%CI)	*p*-value	Number (%)	OR (95%CI)	*p*-value
	Palliative care			Control		
Age at diagnosis (years)						
First quartile (29–48)	22 (12)	REF		8 (12)	1.06 (0.452–2.39)	
Second quartile (49–55)	23 (13)	0.993 (0.416–2.36)		6 (9)	1.54 (0.591–3.82)	
Third quartile (56–61)	24 (14)	0.942 (0.405–2.17)		15 (22)	0.554 (0.272–1.15)	
Fourth quartile (62–99)	20 (11)	0.664 (0.281–1.53)		8 (12)	0.955 (0.394–2.18)	
Gender						
Male	60 (34)	REF		23 (34)	1.00 (0.567–1.78)	
Female	29 (16)	1.37 (0.710–2.54)		14 (21)	0.756 (0.383–1.58)	
Race						
Black	26 (15)	REF		13 (19)	0.728 (0.342–1.46)	
Non-black	63 (36)	0.909 (0.483–1.78)		24 (35)	1.01 (0.578–1.78)	
Smoking status						
Never	13 (7)	REF		4 (6)	1.27 (0.404–3.67)	
Former	43 (24)	1.95 (0.872–4.63)		21 (31)	0.718 (0.384–1.36)	
Current	33 (19)	1.54 (0.675–3.49)		12 (18)	1.07 (0.533–2.19)	
Alcohol status						
None	64 (36)	REF		31 (46)	0.676 (0.391–1.18)	
Light	17 (10)	2.18 (0.939–5.16)		3 (4)	2.30 (0.697–7.61)	
Heavy	7 (4)	4.05 (0.841–19.7)		2 (3)	1.36 (0.290–6.60)	
CCI						
2	16 (9)	REF		6 (9)	1.03 (0.383–2.68)	
3	20 (11)	1.00 (0.404–2.47)		9 (13)	0.835 (0.359–2.04)	
4	22 (12)	1.05 (0.436–2.52)		9 (13)	0.930 (0.412–2.23)	
5	5 (3)	0.385 (0.120–1.39)		6 (9)	0.300 (0.100–1.07)	
6+	26 (15)	1.44 (0.603–3.52)		7 (10)	1.50 (0.632–3.89)	
Hospital system						
OLOL – private	69 (39)	REF	0.022	31 (46)	0.762 (0.427–1.32)	
UMC – public	20 (11)	2.90 (1.17–6.69)		6 (9)	1.32 (0.528–3.32)	
Prereferral IP-PC						
No	64 (36)	REF	0.026	24 (35)	1.04 (0.590–1.82)	
Yes	25 (14)	2.44 (1.15–5.28)		8 (12)	1.23 (0.542–2.73)	
Reason for referral						
Pain management	65 (37)	REF		4 (6)	9.29 (3.80–24.7)	< 0.0001
Symptom management	33 (19)	1.09 (0.593–1.98)		21 (31)	0.513 (0.274–0.956)	0.009
Advance care planning	16 (9)	0.777 (0.360–1.62)		15 (22)	0.351 (0.159–0.789)	
Goals of care	10 (6)	1.15 (0.446–3.14)		4 (6)	0.958 (0.309–2.86)	
Post-referral OP-PC visits						
1–2	26 (15)	REF	0.044	N/A	N/A	
3–6	34 (19)	2.26 (1.07–4.65)				
7+	29 (16)	1.51 (0.725–3.00)				

Abbreviations: 95%CI, 95% confidence interval; CCI, Charlson comorbidity index; IP-PC, inpatient palliative care; N/A, not avilable; OLOL, Our Lady of the Lake Regional Medical Center; OP-PC, outpatient palliative care; OR, odds ratio; REF, odds ratios calculated with reference to treatment group variable; UMC, University Medical Center.

Table 6 Secondary outcomes

Outcome	Number (%)		Odds ratio (95% confidence interval)	*p*-value
	Palliative care	Control		
Discussions on advance care planning	123 (66)	30 (41)	2.89 (1.59–5.14)	< 0.001
Time in Intensive Care Unit	30 (17)	12 (18)	0.952 (0.466–1.97)	
Hospice referral	58 (33)	19 (28)	1.26 (0.686–2.27)	
Do-not-resuscitate form completed	56 (32)	18 (26)	1.28 (0.691–2.37)	
Death in hospital	17 (8)	8 (12)	0.797 (0.339–1.87)	

This makes sense, as this patient cohort likely reflects poorer cancer-related performance and overall worse health. Our finding that patients treated in a public hospital (UMC) were more likely to be readmitted compared with those treated in a private one (OLOL) plausibly reflects the former hospital's recency of operations, the population it serves, and the city's systemic inequities worsened by hurricane Katrina in 2005.[56] This is in concordance with a recent retrospective study on HNC patients[15] that examined the frequency of ED visits and unplanned hospital visits, which found a strong correlation of these outcomes to care in a public hospital system.

Together, these findings suggest that outpatient palliative care alone is not sufficient to prevent unnecessary ED visits or hospital readmissions among the HNC population. While side-effect monitoring has been proposed as a solution,[57] we suggest that these disparities could reasonably be diminished by investing in community health workers (CHWs) or patient navigators, health professionals who have a close understanding of the communities they serve.[58] While there is currently no sustainable funding source for CHWs in Louisiana, their work has been shown to reduce ED use, hospitalizations, and overall health care costs across the country.[59–61] This is because CHWs address things like timely access to screening programs, health care, health insurance, health education, housing, food security, transportation, and many other social determinants of health.[58,62,63] Patient-navigator programs for cancer patients have demonstrated their ability to immensely reduce health care costs and lead to better outcomes.[59] These reasons should prompt the state to develop a sustainable CHW program that could collaborate with palliative care services. This would ensure that its benefits can be expanded to all patients with serious illnesses.

Advance Care Planning

Our findings also show that patients with HNC treated in an outpatient palliative care clinic increase their likelihood of planning for end-of-life care (►**Table 6**). This was despite the most common referral reason being pain management rather than ACP. The value of ACP amongst patients with HNC[6,64] and other serious illnesses[65] has previously been described. The present study suggests that early palliative care referral can initiate ACP discussions regardless of the reason for referral. This can potentially assist in mitigating the emotional and mental burden of end-of-life discussions for patients and their caretakers through the completion of advance directives.

It has been suggested that completion of advance directives alone is not adequate for patients and surrogates to make informed in-the-moment decisions.[66] However, randomized controlled trials[67–69] have demonstrated that ACP increases respect for end-of-life wishes, reduces stress and depression among caregivers, and reduces health care utilization at the end of life. A meta-analysis[70] on the impact of ACP has shown that it increases the completion of advance directives, end-of-life discussions, and concordance between wishes and treatment, suggesting that these discussions—especially if held early—are beneficial. Advance care planning is more than just a one-time exercise; it is a continuous dialogue that fosters difficult but honest discussions between the health care team, patients, and caregivers.[65] Moreover, barriers for ACP can be affected by prognostic uncertainty, illness understanding, worry about dying, systemic racism, culture, religion, spirituality, and family values.[65,71–73] Effective implementation and utilization of ACP concerning these factors among patients with HNC require further investigation.

Lastly, while there are benefits when palliative care services are used as a gradual and natural transition in the care of patients with HNC and other serious illnesses, primary providers should not neglect to have meaningful conversations and effective communication with their patients. Primary providers are often better positioned to understand the biopsychosocial challenges their patients face from prior continuity of care. The palliative care specialty workforce cannot yet meet the needs of all patients with HNC,[26,74] which is why primary providers should train in palliative care and effective communication skills[75–77] to offer them as an adjunct to the meaningful services they already provide. As clinicians are often pressed for time, these efforts must be supported with health care system restructuring to allow adequate time for these conversations to take place.

The present study has several limitations. As this is an observational study, it reflects inherent bias in the behavior of the patients from the treatment and control groups. Since patients were not matched, we could only examine the differences between those who followed up or not to outpatient palliative care services. For example, patients who follow up with an outpatient appointment could be more likely to utilize other services such as the ED. Neither did we collect other potentially explanatory variables for our primary outcomes, such as marital status, tumor staging, PEG-tube status, insurance type, or income. While these would have likely provided additional results, our focus was to examine how the reason for referral to outpatient palliative care affects resource utilization and palliative care-related outcomes.

Conclusions

1) Palliative care is known to be beneficial for patients living with serious illnesses, especially HNC, which carries a high symptom burden. The present study demonstrates that outpatient palliative care not only addresses the symptoms of disease, but also leads to earlier, more effective ACP discussions which are crucial for making important end-of-life decisions.

2) However, there are discrepancies in the reasons for referral to outpatient palliative care. This may reflect the high symptom burden related to the pain of the patients who follow up with outpatient palliative care treatment and utilize resources.

3) There remain various barriers to the early utilization of palliative care. Healthcare teams should continue striving to educate themselves, both on their patients' narratives as well as on the benefits of palliative care treatment. Health care systems should invest in palliative medicine as well as CHWs to provide equitable access to appropriate care. This way, the benefits of palliative care can be maximally achieved at a population level.

Conflict of Interests

The authors have no conflict of interests to declare.

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