



National Trends and Utilization of Palliative Therapy in Stage IV Non-Small Cell Lung Cancer Patients

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Introduction

- Most patients with non-small cell lung cancer (NSCLC) have metastatic disease at diagnosis (1).
- shown that integrating palliative care early improves quality of life, however, palliative therapy remains underutilized (2, 3).
- This study aims to analyze factors associated with utilization of palliative therapies in NSCLC patients.

Methods

- The National Cancer Database(NCDB) was queried for patients with stage IV NSCLC who were deceased within 6 months of diagnosis
- Cochran-Armitage test was used to examine the time trend in the uptake of palliative therapies.
- Univariate and multivariate analysis were used to examine differences by receipt of palliative therapies.

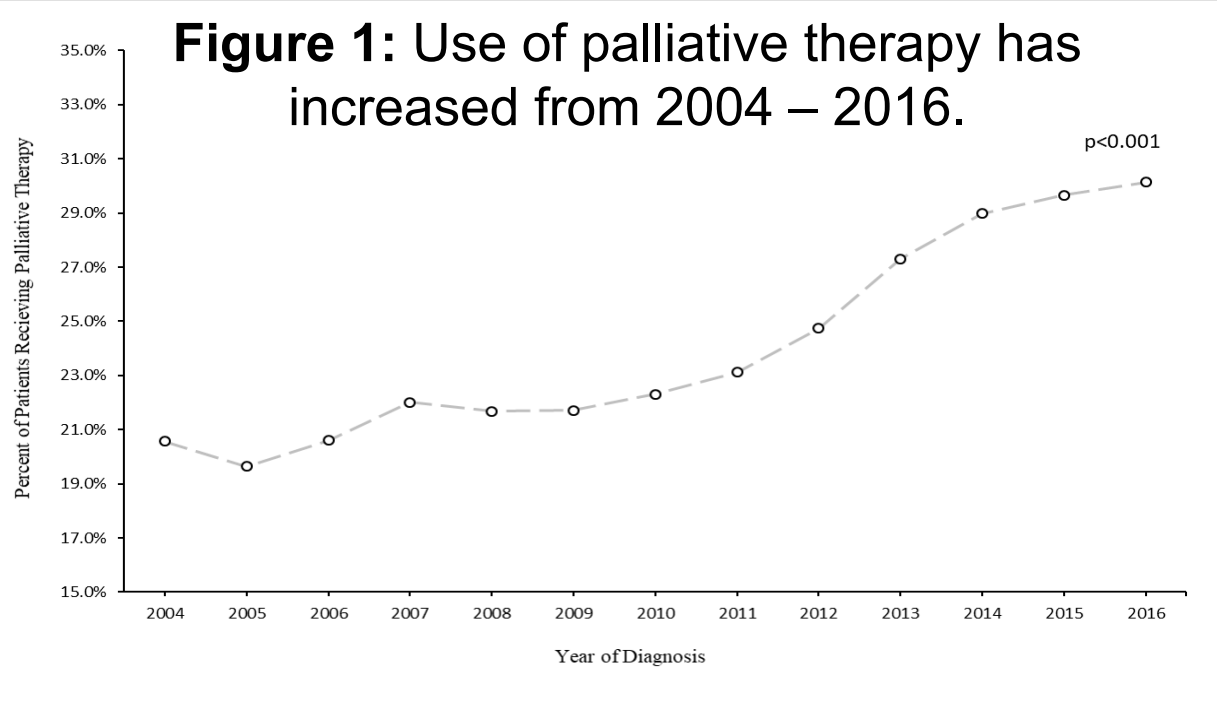


Table 1. Logistic regression model for factors predictive of receipt of palliative treatment.		
	OR	P-Value
Age at Diagnosis		
≤50	reference	
51-65	0.874	<0.001
66-74	0.753	<0.001
>75	0.630	<0.001
Sex		
Male	reference	
Female	0.989	0.212
Race		
White	reference	
Black	0.898	0.123
Hispanic	0.732	<0.001
Asian/Pacific Islander	0.903	0.24
Charlson-Deyo Score		
0	reference	
1	1.061	<0.001
≥2	1.021	0.49
Primary Payer		
Medicare	reference	
Not Insured	0.928	0.029
Private	0.967	0.614
Medicaid/Other/ unknown	0.957	0.614

(cont.) Table 1. Logistic regression model for factors predictive of receipt of palliative treatment.		
	OR	P-Value
Home Zip Code Median Income Quartiles		
<\$40,227	reference	
\$40,227-\$50,353	0.971	<0.001
\$50,354-\$63,332	0.844	0.029
>\$63,333	0.774	0.001
Percent No High School Degree Quartiles		
≥17.6%	reference	
0.9-17.5%	1.191	0.021
6.3-10.8%	1.402	<0.001
<6.3%	1.483	<0.001
Distance from home Zip Code to Facility		
1-49 Miles	reference	
50+ Miles	0.783	<0.001
Rural/Urban		
Metropolitan	reference	
Urban	1.207	0.028
Rural	1.333	<0.001
Facility Type		
Community Cancer Program	reference	
Comprehensive Community Cancer Program	1.065	<0.001
Academic/Research Cancer Program	1.195	<0.001
Integrated Network Cancer Program	1.262	<0.001
Facility Case Volume Quartile		
0-25th	reference	
26th-49th	0.985	0.021
50th-74th	0.903	<0.001
75th-100	1.162	<0.001
OR: odds ratio		

Results

- The use of palliative therapy has increased from 20.6% in 2004 to 30.1% in 2016 (p<0.001)
- 238,901 patients were identified, 28.6% (68,367/238,901) received palliative therapy.
- Factors associated with a lower likelihood of receiving palliative therapy include:
 - Age ≥75 years (compared to age ≤50 years, OR 0.630, p<0.001)
 - Hispanic ethnicity (compared to white patients, OR 0.732, p<0.001),
 - Uninsured status (compared to Medicare, OR 0.928, p=0.029)
 - Traveling more than 50 miles for treatment (OR 0.783, p<0.001)
- Factors associated with a higher likelihood of receiving palliative therapy include:
 - Residing in a rural (OR 1.333) or urban area (OR 1.207) compared to a metropolitan area (both p<0.001)
 - Treatment at an Academic (OR 1.195) or Integrated Network Cancer Center (OR 1.262) compared to a Community Cancer Center (both p<0.001)
 - Treatment at a high volume facility (OR 1.162, p<0.001)

Conclusions

- Palliative therapy remains underutilized in patients with Stage IV NSCLC
- Disparities in the receipt of palliative therapies exist, specially among older patients, Hispanic ethnicities, uninsured, patients traveling longer distances, and those receiving care at low volume facilities and community programs.
- Qualitive improvement projects are needed with the aim of improving these disparities.

References

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2. Stein JN, Rivera MP, Weiner A. et. al. Sociodemographic disparities in the management of lung cancer: a narrative review. Journal of Thoracic Disease. 13(6):3772-3800. December 2020.
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