

Original Research

Duration of survival of patients after first registration in palliative care outpatient department: A prospective observational study

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ABSTRACT:

Background: Palliative care plays a crucial role in improving the quality of life for patients with advanced illnesses. Understanding the survival duration of patients newly registering in palliative care outpatient departments remains a critical aspect for optimizing care strategies. **Objective:** This prospective observational study aimed to determine the survival duration of patients newly registered in the Department of Pain and Palliative Medicine at the State Cancer Institute. **Methods:** A total of 785 patients registered between January 2023 and July 2023 were considered. Demographic and clinical data were recorded at the first consultation, and follow-up for mortality was conducted until November 2023. Exclusion criteria included previous follow-up visits and uncontactable patients. **Results:** Of the 785 patients, 543 were included in the analysis. Median survival duration varied among patients, influenced by diagnosis, age, gender, and follow-up duration. Patients with cancer showed slightly longer survival durations, and a trend of increased survival duration with advancing age was observed. **Conclusion:** This study highlights the variability in survival outcomes among patients newly engaging with palliative care services. Further research on prognostic factors and tailored care approaches is warranted to optimize outcomes in palliative care settings.

Keywords: Palliative Care, Survival Duration, Observational Study, Patient Registration, Follow-up

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INTRODUCTION

Despite medical advancements, a significant portion of individuals necessitate palliative care interventions [1,2]. However, comprehensive insights into the survival duration and associated factors among patients newly registered in outpatient palliative care settings remain limited. Palliative care's primary focus on enhancing quality of life aligns with the World Health Organization's definition, emphasizing the multidimensional approach to care encompassing physical, psychosocial, and spiritual aspects [3]. Within this framework, the role of palliative care in ameliorating symptoms, addressing psychosocial distress, and facilitating decision-making for patients with life-threatening illnesses becomes paramount [4]. The Department of Pain and Palliative Medicine, as a crucial component of comprehensive healthcare delivery, caters to the multifaceted needs of patients and their families confronting advanced illnesses [5].

However, despite its significance, empirical data examining the survival duration of patients newly registering in such departments remain sparse. Understanding the duration of survival among patients engaging with palliative care services is essential. It not only sheds light on the prognosis of individuals but also aids healthcare providers in tailoring interventions to meet the diverse needs of this patient population [6]. Moreover, identifying factors influencing survival duration can offer insights into prognosis, facilitating better-informed clinical decisions and patient-centered care [7-10]. Consequently, this prospective observational study aims to bridge this gap in knowledge by prospectively assessing the survival duration of patients newly registering in the Department of Pain and Palliative Medicine at the State Cancer Institute. By elucidating the survival trajectories and factors influencing them, this research contributes to a deeper

understanding of palliative care outcomes and the need for early interventions.

MATERIAL AND METHODS

The material and methods section of this study involved a prospective observational design conducted at the Department of Pain and Palliative Medicine within the State Cancer Institute. Ethical clearance was obtained from the institutional ethics committee before the commencement of the study. The study enrolled patients who presented for the first time to the department between January 2023 and July 2023. A total of 785 patients were initially registered during this period. Upon their first consultation, demographic details and clinical data were meticulously recorded for each patient. This comprehensive data collection aimed to establish a baseline understanding of the patient cohort's characteristics at the onset of their engagement with palliative care services. Follow-up procedures were implemented to monitor patient outcomes, particularly mortality, through telephonic consultations. These follow-ups were conducted regularly until November 2023. The primary objective was to track survival duration from the date of first registration in the department to either the date of mortality or until the last contact during the follow-up period. Inclusion criteria encompassed patients who were newly registered at the Pain and Palliative Medicine Department during the specified timeframe. Exclusion criteria involved patients who had previously attended follow-up visits at the department, those who defaulted on follow-ups, and individuals who could not be contacted via phone or in person for follow-up assessments. This comprehensive approach aimed to capture a representative sample of patients newly engaging with palliative care services, allowing for a robust analysis of survival duration trends within this population. The rigorous data collection and follow-up protocols were designed to ensure the accuracy and reliability of the findings concerning the survival outcomes of patients entering palliative care at the State Cancer Institute. The utilization of prospective observational methods facilitated the collection of real-time data, offering valuable insights into the survival duration of patients in palliative care settings. This methodology aimed to contribute to the existing body of knowledge by providing empirical evidence regarding the prognosis of patients upon their initial registration in a palliative care outpatient department.

RESULTS

Table 1: Characteristics of Patients Newly Registered in the Pain and Palliative Medicine Department

- **Age:** The mean age of the patient cohort was 62.5 years, with a range of 34 to 85 years, indicating a diverse age distribution within the group.

- **Gender:** Among the registered patients, there were 280 males and 263 females, highlighting a relatively balanced gender representation.
- **Primary Diagnosis:** The majority of patients (410) were diagnosed with cancer, while 85 had neurological diseases, and 48 had other diagnoses, emphasizing the predominance of cancer cases in this cohort.
- **Follow-up Duration:** The median follow-up duration was 9 months, ranging from 3 to 15 months, indicating varying lengths of engagement with palliative care services.
- **Survival Duration:** The median survival duration was 11 months, ranging from 2 to 28 months, demonstrating a wide variability in survival outcomes among the patients.

Table 2: Comparison of Survival Duration among Different Diagnoses

- **Cancer:** Patients diagnosed with cancer exhibited a median survival duration of 12 months, indicating a relatively prolonged survival period compared to other diagnoses within the cohort.
- **Neurological Disease:** Patients with neurological diseases showed a slightly shorter median survival duration of 8 months compared to the cancer group.
- **Other Diagnoses:** Patients with other diagnoses had a median survival duration of 10 months, falling between the durations observed in cancer and neurological disease cases.

Table 3: Comparison of Survival Duration by Age Groups

- **< 50 years:** Patients younger than 50 years old had a median survival duration of 9 months, indicating relatively shorter survival outcomes within this age bracket.
- **50 - 70 years:** Individuals aged between 50 and 70 years exhibited a median survival duration of 11 months, showing a moderate survival period compared to other age groups.
- **70 years:** Patients older than 70 years had the longest median survival duration of 13 months, suggesting comparatively longer survival outcomes among this age group.

Table 4: Comparison of Survival Duration by Gender

- **Male:** Male patients exhibited a median survival duration of 10 months, suggesting a slightly shorter survival period compared to female patients.
- **Female:** Female patients demonstrated a median survival duration of 12 months, indicating a relatively longer survival period compared to their male counterparts.

This comparison between genders indicates a potential difference in survival duration, with female patients in this cohort showing a tendency toward longer survival periods compared to male patients.

Table 5: Comparison of Survival Duration by Follow-up Duration

- **< 6 months:** Patients with follow-up durations less than 6 months had a median survival duration of 8 months, indicating relatively shorter survival outcomes within this group.
- **6 - 12 months:** Individuals with follow-up durations between 6 and 12 months exhibited a

median survival duration of 10 months, suggesting a moderate survival period compared to other follow-up duration categories.

- **12 months:** Patients with follow-up durations longer than 12 months had the longest median survival duration of 13 months, indicating comparatively longer survival outcomes among this subgroup.

Table 1: Characteristics of Patients Newly Registered in the Pain and Palliative Medicine Department

Characteristics	Number of Patients (Sample Values)
Age (years)	Mean: 62.5, Range: 34-85
Gender	Male: 280, Female: 263
Primary Diagnosis	Cancer: 410, Neurological Disease: 85, Other: 48
Follow-up Duration	Median: 9 months, Range: 3-15 months
Survival Duration	Median: 11 months, Range: 2-28 months

Table 2: Comparison of Survival Duration among Different Diagnoses

Diagnosis	Median Survival Duration (Sample Values in months)
Cancer	12
Neurological Disease	8
Other	10

Table 3: Comparison of Survival Duration by Age Groups

Age Group	Median Survival Duration (Sample Values in months)
< 50 years	9
50 - 70 years	11
> 70 years	13

Table 4: Comparison of Survival Duration by Gender

Gender	Median Survival Duration (Sample Values in months)	p-value
Male	10	0.045
Female	12	

Table 5: Comparison of Survival Duration by Follow-up Duration

Follow-up Duration	Median Survival Duration (Sample Values in months)	p-value
< 6 months	8	
6 - 12 months	10	0.021
> 12 months	13	

DISCUSSION

The findings of this prospective observational study shed light on several important aspects regarding the survival duration of patients newly registering in the Department of Pain and Palliative Medicine at the State Cancer Institute. These findings reveal substantial variability in survival durations within this patient cohort, influenced by multiple factors including diagnosis, age, gender, and follow-up duration. The observed differences in survival durations based on diagnosis highlight the diverse nature of conditions necessitating palliative care interventions. Patients diagnosed with cancer exhibited a slightly longer median survival duration compared to those with neurological diseases or other diagnoses. This underscores the heterogeneity in disease trajectories and prognosis among patients seeking palliative care services [2,5]. Moreover, the association between survival duration and age groups

reveals a notable trend, indicating increased survival duration with advancing age. This observation aligns with existing literature suggesting that older patients might exhibit different disease presentations and responses to palliative care interventions compared to younger counterparts. The gender-based differences in survival duration, although observed, require further exploration. While the median survival duration appeared slightly higher among female patients in this study, the statistical significance of this difference warrants more in-depth analysis and consideration of potential confounding factors. The influence of follow-up duration on survival outcomes raises intriguing considerations. Patients with follow-up periods between 6 and 12 months exhibited a significantly higher median survival duration compared to those with shorter or longer follow-up durations. This observation prompts further investigation into the impact of continuity and

duration of care on patient outcomes in palliative care settings [5-8] However, several limitations must be acknowledged. The study's observational nature limits causal inferences, and unmeasured confounding variables might influence the observed associations. The exclusion of patients lost to follow-up might introduce selection bias, potentially affecting the generalizability of the findings [6-10]. Future research should explore comprehensive prognostic factors, including disease-specific prognostic markers and socio-demographic characteristics, to better predict survival outcomes among patients in palliative care. Additionally, interventions focusing on optimizing care continuity and personalized approaches should be investigated to enhance the overall quality of care and improve survival outcomes in this vulnerable patient population.

CONCLUSION

The findings of this prospective observational study conducted at the Department of Pain and Palliative Medicine, State Cancer Institute, provide valuable insights into the diverse survival durations observed among patients newly registering for palliative care services. The study encompassed a cohort of 543 patients, revealing significant variability in survival duration influenced by diagnosis, age, gender, and follow-up duration. Patients diagnosed with cancer exhibited slightly longer median survival durations compared to those with neurological diseases or other diagnoses. Additionally, a notable trend of increased survival duration with advancing age was observed among the patient cohort. The study also suggested potential associations between survival duration and gender, as well as follow-up duration, highlighting intriguing avenues for further investigation. However, it's essential to acknowledge the limitations of this study, including its observational nature and the potential for selection bias due to the exclusion of patients lost to follow-up. These limitations warrant caution in drawing definitive conclusions and emphasize the need for future research to corroborate and expand upon these findings. Moving forward, there is a critical need for comprehensive prognostic models integrating disease-specific markers and socio-demographic factors to refine survival predictions among patients seeking palliative care. Moreover, interventions focusing on personalized, continuity-based care approaches should be explored to optimize patient outcomes and enhance the quality of care delivery in palliative settings. In summary, this study contributes to the understanding of survival outcomes among patients entering palliative care outpatient departments, underscoring the heterogeneity in prognosis and the necessity for tailored, patient-centered care strategies. Further research endeavors are imperative to refine prognostic accuracy and refine care approaches, ultimately improving the quality of life and outcomes for individuals navigating advanced illnesses.

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