

IMPLEMENTATION OF PALLIATIVE CARE IN REDUCING HOSPITAL READMISSION AMONG CANCER PATIENTS: A SYSTEMATIC REVIEW

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ABSTRACT

Cancer patients are a population at high risk of hospital readmissions due to complex symptoms. Palliative care is a multidisciplinary approach that has the potential to reduce these readmissions by providing comprehensive support. This systematic review aimed to systematically assess palliative care interventions in reducing hospital readmission among cancer patients. A systematic literature search was conducted across six major databases (PubMed, Scopus, ScienceDirect, ClinicalKey Nursing, JSTOR, and SAGE Journals) using keywords including “cancer patients”, “palliative care”, and “hospital readmission”. Inclusion criteria encompassed quantitative studies that assessed the impact of palliative care interventions on hospital readmission rates. The methodological quality of each study was appraised using the appropriate JBI Critical Appraisal Tools. Out of 10,565 original records, 8 studies were included. The study looked into both inpatient and home care-based interventions. Results consistently showed that between 7 and 30 days after discharge, palliative care significantly decreased the readmission rate. Palliative care is effective in reducing hospital readmission among cancer patients.

Keywords: Hospital Readmission, Palliative Care, Cancer Patients.

INTRODUCTION

Cancer patients are populations at high risk of hospital readmission due to the complexity of symptoms arising from disease progression and treatment effects. Hospital readmissions not only negatively impact the quality of life of patients and their families but also burden the healthcare system in terms of cost and efficiency (Yang et al., 2024). One approach proven to reduce readmission rates is palliative care. This care is multidisciplinary and focuses on improving patients' quality of life by comprehensively managing physical, psychological, social, and spiritual

symptoms (Wilson et al., 2018). The early implementation of palliative care has been shown to improve symptom control, reduce anxiety levels, and increase satisfaction with healthcare services (Bulger, 2024). Several intervention models, such as home-based palliative care and interdisciplinary collaboration teams, show positive results in reducing hospital readmission rates, particularly in the 7 to 30-day period post-discharge (Buma et al., 2023).

This reduction in readmission rates can be attributed to the proactive nature of early palliative interventions, which prioritize

comprehensive discharge planning and continuous symptom monitoring.

By addressing potential complications and clarifying goals of care before the patient leaves the hospital, these models bridge the vulnerable gap between acute care and community settings. Nonetheless, while numerous studies have investigated the correlation between palliative care and diminished readmission rates, no comprehensive review has specifically synthesized and assessed its efficacy within the cancer patient demographic.

Therefore, the authors conducted this systematic review to assess the extent to which palliative interventions can reduce hospital readmissions among cancer patients and to identify the most effective and relevant forms of intervention for application in clinical oncology nursing practice.

LITERATURE REVIEW

The dominant three palliative care delivery models in the United States are hospital palliative care, community palliative care, and hospice. Hospital palliative care teams either provide consultation to the attending physician or assume primary oversight of care, depending on the preferences of the referring physician. Consultations occur in the inpatient setting, the intensive care unit (ICU), and emergency department (ED). Community palliative care includes a range of delivery models designed to meet the needs of seriously ill individuals and their families, outside the inpatient or hospital setting. Palliative care may be provided in the patient's home, a nursing home, an assisted living facility, or an outpatient clinic such as a physician's office, dialysis unit, or cancer center. These care models

are developing rapidly in an effort to meet the needs of the sickest and costliest patients—who may otherwise resort to 911 calls, ED visits, and hospitalizations for problems that could have been addressed safely and effectively in the community (Kristanoka, 2021).

RESEARCH METHODS

This study was conducted as a systematic review by the preferred reporting items for systematic reviews (PRISMA) 2020 guidelines. The study is to evaluate the implementation of palliative care intervention to reduce hospital readmission. The search strategy was developed using Medical Subject Headings (MeSH) terms and keywords related to the PICO (Patient, Intervention, Comparison, Outcome) components. The search string combined terms using Boolean operators: "cancer patient" OR "patient" AND "Palliative Care" OR "Supportive care" OR "Palliative supportive care" AND "Reduction in hospital readmission" OR "Readmission Rate" OR "Unplanned Hospital Readmission". Four major databases available to our institutions were searched: ScienceDirect, Clinical Key Nursing, JSTOR, and SAGE Journals with the inclusion criteria that articles were required to be quantitative studies, and only publications available in full-text format were considered. Conversely, non-research articles, such as reviews, book chapters, and conference abstracts, were explicitly excluded. The literature search was conducted from March to May 2025, and no publication year restrictions were applied to ensure a comprehensive scope. The review specifies language restrictions in English.

The literature search and selection process is documented in a

PRISMA flow diagram (figure 1). The initial search across four databases yielded 10,565 records. After applying automated tools using Zotero and removing 353 duplicates, 1,256 articles remained for screening. Following title and abstract screening, 835 reports were sought for full-text retrieval, of which 631 could not be accessed. These results left 204 reports to be assessed for eligibility. From this group, 194 articles were excluded (182 for being incomplete texts and 14 for having an analysis that did not align with the review's focus). 8 studies met all inclusion criteria and were included in the final analysis. A detailed summary of these 8 included studies is provided in Table 1.

A formal quality appraisal was an essential component of this systematic review. The methodological quality of each of the 8 included studies was assessed using the Joanna Briggs Institute (JBI) Critical Appraisal Tool. This appraisal was conducted independently by two reviewers. In cases of different opinion, a discussion was held between the reviewers to reach a consensus. Articles with low methodological quality or irrelevant to the review's focus were excluded from the final analysis. The data extraction process was conducted independently by two researchers using a standardised table format to ensure consistency and completeness of information. This structured format (Table 1) was used to systematically extract and summarise key data from the 8 included articles, specifically to identify and compare the effectiveness of palliative care interventions on reducing hospital readmission rates.

The collected data were analysed using a narrative synthesis. This process involved analysing the

findings from the included studies to identify and compare similarities and differences. This narrative approach allowed for a broad understanding of how palliative care interventions are effective in reducing hospital readmissions. It also helped to identify common patterns, such as the finding that early and interdisciplinary palliative care involvement contributes significantly to reducing readmissions.

RESEARCH RESULTS

General Study Characteristics

This review included ten articles that discussed the effectiveness of palliative care in reducing hospital readmissions among cancer patients. All articles were quantitative studies with diverse designs, cohort studies (prospective and retrospective), and case-control studies. These studies were published between 2003 and 2024 and conducted in various countries, including the United States, Italy, the United States of America, and Australia, representing a diversity of healthcare systems and palliative practice approaches globally. The study populations generally consisted of patients with advanced-stage cancer. The interventions evaluated included palliative home care services, inpatient consultations, and interprofessional collaboration. Sample sizes in each study varied, ranging from 122 to over 3,000 patients. Most studies evaluated the outcomes of readmission rates within 7-90 days post-hospital discharge, along with additional outcomes such as length of stay, healthcare costs, and patient quality of life.

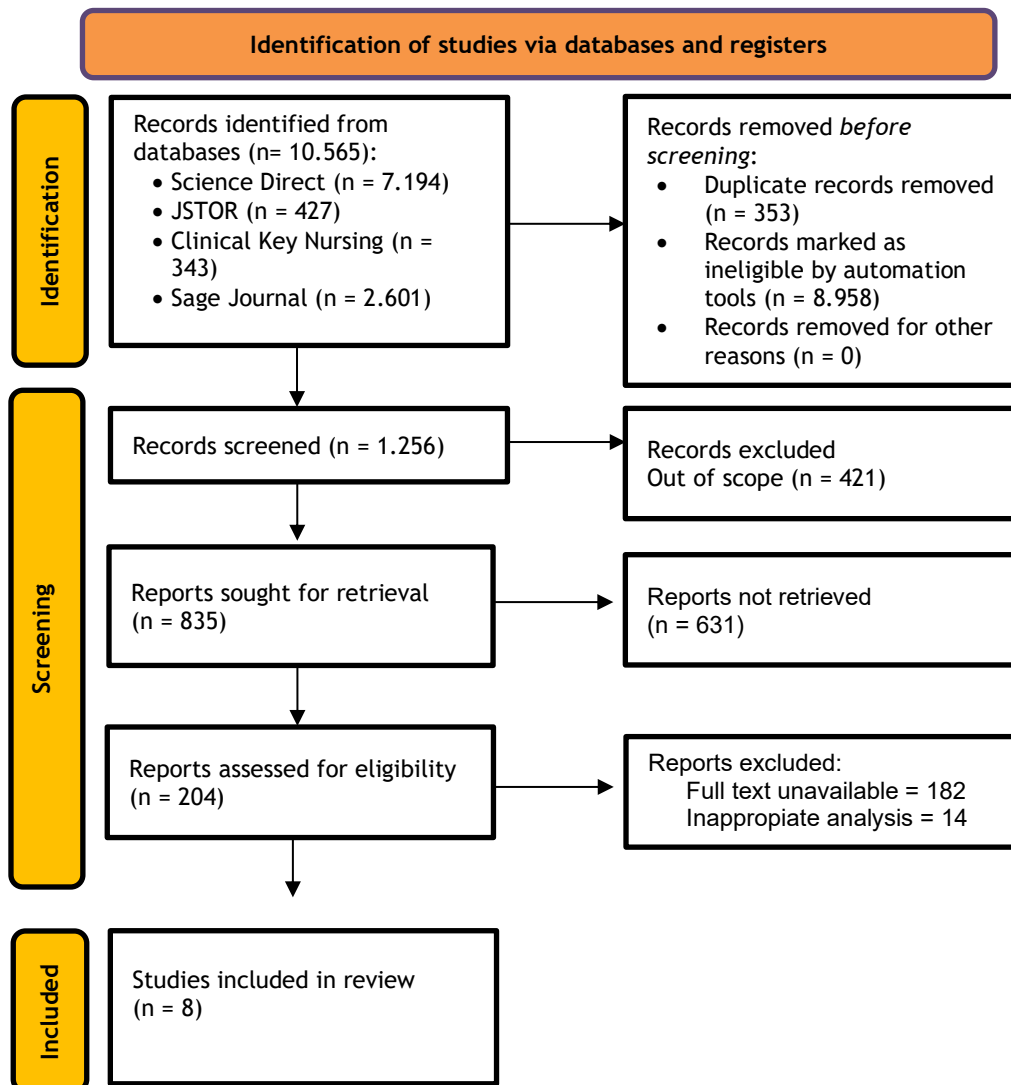


Figure 1. PRISMA flowcart for this systematic review

Effectiveness of Palliative Care in Reducing Hospital Readmissions

All of 8 studies demonstrate sufficient methodological quality to evaluating the effectiveness of palliative care in reducing hospital readmission and healthcare utilization in cancer patients. These studies consistently met all or most criteria of the JBI Critical Appraisal Checklist. This indicates strong methodology with similar groups, reliable exposure and outcome measurements, identification and control of confounding factors (often through multivariate analysis or

propensity score matching) and complete follow-up.

This systematic review indicates that palliative care is effective in reducing hospital readmission rates among cancer patients. The studies analyzed consistently reported that palliative interventions whether through inpatient services, home care, interprofessional collaborative teams contributed to a reduction in readmissions, hospital resource use and an improvement in patient quality of life. This finding confirms that palliative care is not just provided for the terminal phase, but

is an integral part of quality-based oncology service.

Table 1. Summary of studies

No	Title	Authors	Year	Country	Palliative intervention	Result
1	Standardized Criteria for palliative care Consultation on A Solid Tumor Oncology Service Reduces Downstream Health Care Use	Adelson et al	2017	New York	a standardized approach based on the National Comprehensive Cancer Network guidelines and core elements of PC	30-day Readmission Rates: Declined from 17 of 48 (35%) to 13 of 65 (18%), with a P-value of = 0.04.
2	Palliative Home Care Reduce Time Spent in Hospital Wards: a Population Based Study in Tuscany Region Italy	Miccinesi et al	2003	Italy	Specialist home-based palliative care	• In-patient Admissions: A 39% reduction of relative risk (CI: 0.36-0.42). • Days Spent in Hospital: A 61% reduction of relative risk (CI: 0.36-0.42).
3	Risk Factor Assesment of Hospice Patients Readmitted within 7 Days of Acute Care Hospital Discharge	Wilson et al	2018	USA	Hospice Care	Significant risk factors for readmission within 7 days: Age (p=0,0041), race (p=0,0008), language (0,0007), insurance (p<0,0001)
4	A Hospice-Hospital Partnership: Reducing Hospitalization Costs and 30-Day Readmissions Among Seriously Ill Adults	Tangeman et al	2014	New York	Inpatient palliative care consultation (PCC) services	The likelihood of readmission did not differ between PCC patients and comparison patients (6.7% versus 6.6%, p = 0.92).
5	Suboptimal Use of Inpatient Palliative Care Consultation May Lead to Higer Readmissions and Costs	Adejumo et al	2019	USA	Inpatient palliative care consultation (PCC)	PCC was associated with a lower risk for 30-day readmissions, relative risk with non PCC relative risk: 0,045 (0,41-0,50)
6	Risk Factors Associated with Unplanned Hospital	Granda-Cameron et al	2015	USA	Palliative care consultation	Most relevant predictors for

Readmissions in Adults with Cancer						hospital readmission: • Moderate to high risk for falls (OR 1.79 (95% CI (1.07, 3.04), p=0.03) • Advanced stage cancer (OR 1.71 (95% CI (1.02,2.88), p=0.0
7	Association of Palliative Care with Readmission and Resource Utilization in Patients with Ovarian Cancer: A National Perspective	Francoeur et al	2025	US	Inpatient palliative care consultation	PCC was associated with lower risk-adjusted rates of 30-day non elective readmission (11.63%, 95% CI 11.0-12.3 for PCC patients vs. 20.25%, 95% CI 20.0-20.6 for non PCC patients; P < 0.001)
8	Evaluation of Palliative Care-Related Hospital Admissions in a Regional Centre	Yang et al	2024	Australia	Palliative care services in the community	Common causes for ambulance callout to hospital readmission: fever: 24%, falls: 21%, pain: 18%, breathing difficulties: 15%, medical device problems: 15%, other: 7%

DISCUSSION

This study evaluated the effectiveness of palliative care in reducing hospital readmissions among cancer patients. Based on the review, all articles had a primary focus on evaluating the influence of palliative services on recurrent hospitalisations. The study population was patients with advanced-stage cancer. Moreover, a multidisciplinary approach was a key aspect in the implementation of interventions in all studies. This indicates that the success of palliative care is inseparable from good coordination among professions, from nurses and doctors

to social workers and the utilisation of technology like artificial intelligence.

The research findings consistently demonstrate the benefits of palliative care in reducing hospital readmissions in the short-term (7 days), medium-term (30 days), and long-term (90 days) after patient discharge. Diversity was found across the articles in terms of research design, geographical setting, type of intervention, and outcomes measured. The research designs used included retrospective and prospective cohort and case-control

studies. The studies were conducted with various palliative interventions. The outcomes evaluated were also not limited to readmission rates but also included costs of care, length of stay, and patient quality of life, with varying levels of significance. This is also influenced, in part, by the research settings in various countries with different healthcare systems, such as the United States, Italy, Thailand, and Australia

Thus, all studies discussed clearly state that palliative care is effective in reducing readmission rates among cancer patients. This finding strengthens the scientific basis and palliative nursing practice, showing that palliative care is not just an approach undertaken at the end-of-life phase but also an integral part of an oncology service strategy oriented towards safety, quality and supporting successful care transitions.

CONCLUSIONS

Palliative care is proven to be significantly effective in reducing hospital readmissions among cancer patients. All studies analysed show that palliative intervention contributes to reducing the frequency of hospital readmissions and increasing the efficiency of healthcare resource use. This finding indicates that the integration of palliative care into clinical practice is relevant to efforts to improve service quality and support evidence-based nursing practice. Nurses play a vital role in implementing palliative services, including in needs identification, patient and family education, and interdisciplinary coordination to support successful care transitions. The heterogeneity of contexts and service approaches indicates the need to adapt palliative care implementation strategies according

to the needs and healthcare systems in effect in each region. Therefore, policy development is still needed to support the systemic and sustainable integration of palliative services, as well as training to strengthen nurses' competencies in palliative management. This approach can be an effort to improve the quality of nursing care for cancer patients that is comprehensive, humanistic, and efficient.

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