

Reducing Unnecessary Emergency Department Visits among Cancer Patients

Aref Zribi

Medical Oncology Department, Sultan Qaboos
Comprehensive Cancer Care and Research Centre,
University Medical City, Muscat, Oman.

Omar Ayaad

Medical Oncology Department, Sultan Qaboos
Comprehensive Cancer Care and Research Centre,
University Medical City, Muscat, Oman.

Recent studies showed that cancer patients' visits to emergency departments are rising globally. This can be explained by the growing incidence of cancer and improved survival rates. Cancer patients' visits to the ED can have detrimental effects that impact both the patients and the overall capability of the healthcare system. Cancer patients constantly need complex care, leading to longer ED stays and higher rates of admission in the hospital, which can strain ED resources and personnel. A significant number of ED visits by cancer patients are considered potentially avoidable. Establishing dedicated oncology outpatient clinics and applying early symptom detection and management pathways can reduce ED visits. Elaborating standardized pathways for controlling frequent symptoms (fever, pain, vomiting) and involving interdisciplinary teams can help manage symptoms in an outpatient clinic, reducing the need for ED visits. This brief communication emphasizes the importance of understanding this phenomenon to improve patient care and resource allocation in healthcare systems.

Introduction

Recent publications showed that visits to emergency departments (EDs) by cancer patients are rising globally. This can be explained by both the growing incidence of cancer and the long-term response to the treatments used. The proportion and absolute number of ED visits by cancer patients have continuously increased over recent years. For example, in the United States, between 2006 and 2012, cancer-related ED visits accounted for 4.2% of all ED visits, with lung cancers, breast, and prostate being the most frequent diagnoses [1]. In Korea, the incidence rate of ED visits by cancer patients rose from 521.8 per 100,000 population in 2015 to 642.2 in 2019, reflecting a clear ascending trend [2]. The number of potentially avoidable ED visits among cancer patients in the US almost doubled from 1.8 million to 3.2 million between 2012 and 2019 [3]. The visits of the ED by cancer patients can have harmful consequences, impacting both the patients and the overall capability of the healthcare system.

Negative Effects on Cancer Patients

Repeated ED visits are often interrelated with unmanaged pain, emotional distress, and complications from cancer or its treatment, all of which can impact quality of life for patients [4-6]. Cancer patients encountering emotional discomfort, such as anxiety or depression, have inferior clinical outcomes, comprising shorter survival and lower treatment response rates. ED visits can increase this distress, further affecting quality of life [4].

Many cancer patients receive opioids for pain control during ED visits. An important proportion (34%) is at high risk for opioid misuse, particularly those with depression or lowest coping skills,

increasing concerns about addiction and related damage [5, 7]. EDs may not always be supplied to deliver specific cancer care, leading to poor management of complications and symptoms [5, 6].

Negative Effects on the ED System

Cancer patients constantly need complex care, leading to longer ED stays and higher rates of admission in the hospital, which can strain ED resources and the personnel [5, 6]. A significant part of ED visits by cancer patients are considered potentially avoidable, most of the time related to pain or treatment side effects that could be managed in outpatient settings. This contributes to unnecessary ED overruns and increased healthcare costs [6]. The regular use of emergency departments by cancer patients, particularly for pain management and complications, increases overall healthcare costs and can shift resources away from other urgent cases [5, 6]. Enhancing the quality of cancer care can be achieved by minimizing avoidable emergency department visits for cancer patients.

Practical Strategies to Reduce Unnecessary ED Visits

Establishing dedicated oncology outpatient clinics and applying early symptom detection and management pathways can reduce ED visits. Multiple studies showed that such clinics and specific follow-up care reduce the proportion of patients visiting the ED, especially when care is harmonized and symptoms are handled proactively. [8-10] instructing patients to contact their oncology staff before visiting the ED, giving contact information, and periodic reminders during clinic visits have been proven to minimize preventable ED visits [10-12].

Coordination, involving anticipated phone calls, helps distinguish and address symptoms early. Elaborating standardized pathways for controlling frequent symptoms (fever, pain, vomiting) and involving interdisciplinary teams (including palliative care) can help manage symptoms in outpatient clinic, reducing the need for ED visits [9, 10, 12].

Predictive models and risk stratification, like machine learning tools, can help distinguish high-risk patients for potentially avoidable ED visits. These patients, frequently those with early-stage cancer, on systemic treatment, or with specific cancer types, may benefit most from proactive approach [13, 14].

Some ED visits are required due to acute or significant complications. However, studies rate that about 30% of ED visits among cancer patients may be likely avoidable with better outpatient care and symptom control [12, 15]. Clinical specialist nurses (CNS) perform an important role in patient education, symptom management, and follow-up, all imperative for reducing unnecessary ED visits [16].

CNS with the triage phone plays a crucial role in managing symptoms, reducing unnecessary ED visits, and improving quality of life [17]. This role is also vital in cancer patient education, proactive symptom management, and follow-up, all of which are essential for reducing unnecessary ED utilization [10, 11, 18-20].

Increased contact with the CNS is linked to fewer ED visits and hospital admissions. Nurses dedicated to home care significantly decrease the probability of unnecessary interventions in the end of life [21, 22].

Impact and Outcomes

Implementation of CNS and triage has led to better patient outcomes. This intervention also improves overall care quality and results in significant healthcare cost savings by preventing avoidable acute care use [10, 11, 16, 18-20, 22, 23].

Transition to patient-centered cancer care models, resulted in a 40% reduction in ED visits, hospital stays and other acute care services [24]. Establishing urgent care units specifically for cancer patients led to important decrease in ED visits. The median charge for an urgent care visit is \$2,221 compared to \$10,261 for an ED visit, showing significant per-visit cost savings [25]. Delivering supportive health education to cancer patients and health staff lowered urgent care and ED visits, resulting in cost savings varying from \$800 to \$17,000 per 100 survivors, basing on the type of service prevented [26].

Hospital-at-home care for cancer patients lowered unexpected admissions by 55% and ED visits by 45%, reducing overall healthcare costs by 47% [27]. Low-cost care coordination interventions, such as proactive symptom control and after-hours call systems, led to a 30% decline in ED visits without necessitating further staff or technology, further sustaining cost-effective care [11]. Avoiding aggressive treatments and unnecessary ED visits at the end of life can cleave the cost of care episodes, with patients having fewer ED visits incurring much lower average costs (\$21,000 vs. \$49,000 per episode) [28].

In conclusion, the rising trend of emergency department visits among cancer patients emphasizes a pressing need for ameliorated outpatient care and proactive symptom management. To improve healthcare resources and patients' quality of life, we need to handle the emotional and physical issues faced by these patients. early intervention and coordinated care can enhance manage symptoms, reduce healthcare costs, and improve patient outcomes.

Declarations

Ethics approval and consent to participate

Not applicable

Consent for publication

Not applicable

Availability of data and materials

Not applicable Competing interests

The authors declare that they have no competing interests.

Funding

Not applicable

Acknowledgements

Not applicable

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