The Role of Primary Healthcare Physicians in Early Detection and Continuity of Care for Cancer Patients: A Review

Abstract

Primary care plays a vital role in cancer patients' early detection, referral, and ongoing management. This systematic review explores how primary care providers (PCPs) facilitate early diagnosis, ensure continuity of care, and support patients throughout their cancer journey and beyond. Early detection of cancer by PCPs can significantly improve patient outcomes. However, obstacles such as diagnostic delays, limited access to advanced diagnostic tools, and inconsistent guidelines present considerable challenges. This review synthesizes evidence from recent studies to elucidate the contributions of primary care to cancer detection and continuity of care, evaluating both the successes and challenges PCPs face in managing cancer. The findings underscore the necessity for enhanced support and targeted training in primary care to optimize cancer outcomes. Additionally, they suggest that establishing consistent guidelines and integrated healthcare systems could strengthen the role of primary care in oncology. Future directions highlight the importance of interdisciplinary collaboration and resource allocation to bolster PCPs in their essential role.

Key words: Primary Healthcare, Physicians, Patients, Cancer

Introduction

Cancer continues to be a leading cause of morbidity and mortality globally, with early detection playing a crucial role in improving survival rates and enhancing the quality of life for patients. Primary care providers (PCPs), serving as the initial point of contact within the healthcare system, are uniquely positioned to recognize early signs of cancer, facilitate timely referrals, and ensure continuity of care. However, despite this vital role, PCPs encounter challenges such as diagnostic delays, limited resources, and a lack of standardized guidelines, which can impede optimal cancer care. As the focus on value-based care intensifies, it is essential to understand how primary care can more effectively enhance cancer detection and maintain continuity of care to improve patient outcomes [1-4]. This review evaluates current evidence on the role of primary care in the early diagnosis of cancer and the continuity of care for cancer survivors, highlighting successes, identifying barriers, and suggesting areas for improvement in the primary care setting.

Objectives:

1. To assess the role of primary care in early cancer diagnosis, examining common barriers and facilitators in identifying high-risk patients.
2. To evaluate how primary care contributes to continuity of care during and after cancer treatment, including monitoring for recurrence, managing comorbidities, and providing psychosocial support.

Review

Early Detection in Primary Care

According to Deo, Sharma, and Kumar, at present, cancer and other non-communicable diseases are global epidemics [Deo SV, Sharma J, Kumar S].Further, the World Health Organization (WHO) has estimated that 60% of individuals developing cancer for the initial time live are foundin Africa, Central America, South America, and Asia, and that nearly 30% of the cancers are preventable [World Health Organization]. In South Africa, the age-standardized cancer incidence rate is approximated to be 254/100,000 males and 170/100,000 females [World Health Organization]. Despite the varying incidence rates of cancer across the globe alongside cancer incidence being reported to be higher in developed nations, the incidence rate of cancer has been reported to be rising faster in developing nations in Africa, Asia, and South America [Sung H,], and that the proportion of individuals developing cancer for the initial time in the low and middle-income countries will rise to nearly 70% by the year 2030 [Sung H]. Such fast increasing cancer burden is a challenge to primary care physicians (PCPs) to assume active roles in cancer care along with the mobilization of essential and adequate resources so as to minimize the effects of cancer burden on the patients, families, and communities.

Early detection is fundamental to effective cancer management, and primary care physicians (PCPs) play a crucial role in identifying symptoms that may signal early-stage cancer. Research indicates that PCPs are frequently the first to assess symptoms such as persistent coughs, unexplained weight loss, persistent headaches, altered bowel habits, or unusual bleeding, which may be potential indicators of cancer. Thus, PCPs are directly involved in the initial diagnosis of over 85% of the cases globally [Bahkali S et al.], and have also been tasked with the vital role of creating public awareness with regard to significance of cancer screening, particularly in high-risk populations [Omotoso O et al.]. According to Emery et al., the ability of PCPs to recognize these warning signs is essential for initiating early diagnostic processes, often resulting in prompt referrals to specialists [1]. However, limited access to diagnostic tools, inadequate training in recognizing oncological symptoms, and inconsistent cancer screening guidelines can complicate this critical role [2].

As primary care providers, physicians play a crucial role in early cancer detection and preventing its progression. Screening for prevalent cancers—such as breast, cervical, colorectal, and prostate cancer—is a vital component of routine outpatient care. Ascertaining early cancer diagnosis and effective palliative care is amongst the most practicable approaches utilized by PCPs in increasing early and timely detection of cancer, enhancing the survival rates, and responding to the advanced stage cancer patients' needs [Garpenhag L et al.]. The U.S. Preventive Services Task Force (USPSTF) offers evidence-based guidelines that inform these screening practices in the United States. For instance, breast cancer screening generally involves mammography every two years for women aged 50 to 74. Cervical cancer screening comprises Pap smears every three years for women aged 21 to 29 and Pap smears combined with HPV testing every five years for those aged 30 to 65. Recommendations for colorectal cancer screening begin at age 45, with options that include a colonoscopy every 10 years, annual fecal immunochemical tests (FIT), or stool DNA tests every three years. In the case of prostate cancer, shared decision-making is emphasized, with PSA screening recommended for men aged 55 to 69. By following these guidelines, primary care physicians are instrumental in identifying cancers at an early, treatable stage and fostering shared decision-making for tailored patient care strategies [3].

Primary care physicians in Canada adhere to the guidelines established by the Canadian Task Force on Preventive Health Care (CTFPHC), which closely align with those in the United States, though there are some notable differences. For example, the CTFPHC advises against routine

mammography for breast cancer screening in women aged 40 to 49, instead recommending screenings every two to three years for women aged 50 to 74. In terms of cervical cancer screening, their recommendations are in line with those in the U.S., suggesting Pap smears every three years for women aged 25 to 69. Colorectal cancer screening in Canada begins at age 50, utilizing FIT or guaiac fecal occult blood tests (gFOBT) every two years, while colonoscopy may be considered based on individual risk factors. The approach to prostate cancer screening in Canada is more conservative, generally advising against PSA testing for most asymptomatic men. These screening initiatives are bolstered by integrated healthcare systems, enabling primary care physicians to coordinate follow-ups, referrals, and interventions, thus ensuring a comprehensive cancer prevention and early detection strategy. By implementing these guidelines, primary care physicians in Canada and the United States significantly aid in reducing cancer-related morbidity and mortality [4].

A significant challenge in identifying cancer symptoms is distinguishing them from benign conditions, as many cancers exhibit non-specific symptoms. A study by Rubin et al. underscored that delays in cancer diagnosis in primary care often stem from diagnostic uncertainty, particularly with rare cancers or those presenting with vague symptoms [11]. Additionally, health systems that do not provide rapid access to diagnostics hinder primary care physicians' (PCPs) ability to make timely referrals to specialists [12]. Improving access to diagnostic facilities and implementing evidence-based guidelines in primary care settings could enhance the rates of early cancer detection by PCPs.

Continuity of Care for Cancer Patients

In the United States, primary care is crucial in ensuring continuity of care, particularly during and following cancer treatment. After a cancer diagnosis, patients frequently move between various healthcare providers, which can lead to potential lapses in care; however, primary care physicians (PCPs) can alleviate these issues by coordinating the management of ongoing health requirements. Research by Kang, Park, and Lee has indicated that maintaining continuity in primary care enhances outcomes for cancer patients by tracking recurrence, managing comorbidities, and offering psychosocial support, which is vital for the patient's quality of life [13]. This ongoing engagement guarantees that patients receive comprehensive care that addresses not only cancer-related matters but also general health issues that may arise due to the cancer or its treatments.

A study conducted by Oeffinger et al. revealed that primary care providers (PCPs) are vital in managing the long-term side effects associated with cancer treatment, such as pain, fatigue, and emotional distress [14]. The ongoing support from PCPs aids cancer survivors in adjusting to life after treatment; however, they often encounter challenges like inadequate cancer-specific education and a lack of resources. Additionally, patients may undergo fragmented care if PCPs are not completely incorporated into oncology care plans, highlighting the importance of collaborative care models that connect primary care with specialist care [15].In Canada, several challenges impede this continuity within the primary care setting; continuity of care is essential for cancer patients, ensuring seamless transitions between different healthcare providers and settings. Among the key challenges includefragmented communication and coordination. Thus, the healthcare system in Canada frequently faces challenges due to inadequate integration between cancer treatment and primary or community healthcare services. This lack of cohesion can create difficulties for patients and primary care professionals, especially during the pre-diagnosis and post-treatment stages. For example, primary care providers might struggle to obtain timely patient information from oncologists, complicating effective follow-up care [16].

Unclear definitions of roles and responsibilities between oncologists and primary care physicians can create gaps in patient care. Patients might require guidance on whom to approach for particular issues, which can lead to delays in managing health concerns. This uncertainty can also result in overlapping services or, on the other hand, the oversight of certain areas of care [17].

Limited Access to Palliative Care Services: Socioeconomic inequalities and geographical location disparities significantly impact the accessibility and availability of palliative care in Canada. Those dealing with socioeconomic and geographical location disadvantages frequently face obstacles to receiving timely palliative care, leading to increased instances of late diagnoses and reduced survival rates. Initiatives based in communities have been created to tackle these disparities, but difficulties remain in guaranteeing fair access for various populations [18].

Systemic Fragmentation and Siloization: The Canadian healthcare system's fragmentation, often called "siloization," leads to a lack of information flow between different care sectors. This isolation results in each sector operating independently, causing delays in care, duplication of services, and increased costs. Such fragmentation negatively impacts patients' quality of care, access to services, and overall quality of life [19].

Tackling these issues necessitates comprehensive initiatives to strengthen communication pathways, precisely outline healthcare responsibilities, boost access to palliative care, and unify services throughout the healthcare spectrum. Adopting coordinated care frameworks and utilizing digital health solutions can promote enhanced information exchange and collaboration among healthcare professionals, thereby ultimately improving the continuity of care for cancer patients in Canada.

Challenges in Primary Care for Cancer Patients

While the critical contributions of primary care providers (PCPs) to cancer care are undeniable, substantial challenges impede their effectiveness. PCPs consistently express the struggle to stay abreast of cancer screening guidelines, which not only vary by region but also evolve rapidly with new research. Addressing these challenges is essential to enhance the quality of care and ensure that patients receive timely and appropriate screenings. A systematic review by Hiom indicates that PCPs often lack the support needed to make informed decisions regarding cancer referrals, particularly for cancers that are less common or present atypically [20]. Furthermore, limited access to timely diagnostic testing in primary care settings poses another obstacle, as PCPs may need to rely on external referrals that prolong the diagnostic timeline [21].

Moreover, limitations in resources within primary care settings, like insufficient time allocated for patient appointments, further impede cancer care. Primary care physicians frequently have a restricted timeframe to perform thorough evaluations that might detect early indicators of cancer, particularly in high-pressure environments. Research indicates that cohesive electronic health systems and enhanced referral processes can mitigate some of these challenges by lessening the administrative workload on primary care physicians and improving communication among care teams [22].

Limitations

This review is limited by the variability of primary care practices across different healthcare systems and regions, which may affect the generalizability of the findings. Furthermore, the existing literature on primary care's role in cancer management mainly emphasizes high-resource settings, leaving a lack of understanding regarding the challenges faced in low-resource environments. The review also identifies a gap in empirical studies assessing the effectiveness of

integrated care models, highlighting the need for more robust research on collaborative care approaches between primary care and oncology.

Conclusion

Primary care plays a crucial role in the fight against cancer, acting as the first line of defense in early detection, ongoing care, and support for survivors. Patient Care Providers (PCPs) are often the first to notice subtle signs of cancer, becoming vital navigators in a patient's healthcare journey. Their unique position allows them to enhance cancer outcomes significantly, but they face several hurdles, including diagnostic delays, varying guidelines, and limited resources. We must tackle these challenges head-on to empower PCPs and improve cancer care. Implementing standardized screening guidelines, fostering teamwork among healthcare professionals, and increasing access to diagnostic tools can significantly enhance their effectiveness. Moreover, there's a pressing need for further research to develop innovative models that seamlessly integrate primary care with oncology. This approach would create a cohesive continuum of care that addresses cancer-specific concerns and overall health needs, ensuring that patients receive comprehensive support at every step.

Disclaimers: This article has not been submitted to other publications and presented at conferences or meetings.

Data Availability: The data used in this study was from publicly available published research papers.

Author contribution

All authors played several overlapping contributory roles such as: Conceptualization, design, cross-referencing, and fact-checking; Formal Analysis and interpretation of data; project administration, curation, visualization, writing – original draft, writing – review & editing; supervision, oversight, and leadership, correspondence, data curation, quality control, internal review, communications, data collection and archiving, software, literature search, validation, and approval.

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