

Roles of Community Pharmacists in Cancer Management

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Abstract

Community pharmacists are among the most easily accessible healthcare practitioners and are usually the first point of contact with the public or community. This is often due to their accessibility, credibility, and widespread within the public sector making them essential members of the healthcare team with significant contributions to the delivery of public health care. Community pharmacists, in addition to their known educational and awareness-raising roles, may play an essential role in risk assessment and screening of patients, detection of symptoms of probable malignancy, and cancer treatments. The pharmacy profession has been evolving from dispensing roles into more patient-oriented outcomes and pharmacists are now participating in more clinical interventions. This places community pharmacists in the best position to provide the necessary knowledge and healthcare to benefit populations at risk of cancer. Active involvement of community pharmacists in the care and management of cancer will significantly contribute to screening and risk assessment, early detection, treatment and eradication of breast, cervical, lung, ovarian and other forms of cancer. As a result, the community pharmacy setting must be developed to maximize its full potential in cancer care.

Keywords: Cancer, cancer management, community pharmacists, pharmacists

Introduction

Cancer is a leading cause of death worldwide. In 2020, cancer was reported to account for almost 10 million deaths¹, and unfavourably, the risk factors for cancer are on the rise, suggesting that the death tolls of cancer would continue to rise if not properly treated. However, despite the increasing risk factors, many cancers can be cured if detected early and treated effectively and appropriately¹. As a result, more innovative ways to encourage patients to participate in screenings, and also manage cancer patients must be explored².

Community pharmacists can be described as front liners in the healthcare sector³. They provide basic health services and are usually the first point of contact with the public or community. They are an essential member of the healthcare team and make significant contributions to the delivery of public health care⁴. Since the roles of pharmacists have developed into a more patient-centred approach in recent years, pharmacists are in the right position to incorporate cancer management initiatives into their practice. Community pharmacists contribute significantly to the general well-being and knowledge of the community about certain health conditions through their constant health education and disease awareness to the general public³.

Moreover, pharmacists have embraced the opportunity to participate in the prevention and screening of several other chronic conditions and they appear eager to be more involved in cancer screening^{2, 5}. Also, community pharmacists are increasingly providing consultations and advice to patients³, therefore, they are in favourable positions to participate in educational interventions for patients, by being involved in the communication and distribution of health information about cancer which can make a significant impact on cancer management³, as well as assuming more active roles in cancer surveillance².

Community pharmacists can play a significant role in educational programmes, risk assessment and screening, early detection, and treatment. Nevertheless, the participation of community pharmacists in these crucial roles is still comparatively low, despite the results that show they can positively improve cancer management through their active involvement². Therefore, in this commentary, we examine the roles that community pharmacists can play in cancer management and provide an insightful view of how community pharmacists can be well represented in cancer management.

Educational Interventions

Patients frequently visit pharmacies for health information and have long sought advice from pharmacists regarding signs and symptoms of diseases, and cancer is not an exception. Pharmacists can help educate and enlighten people on the symptoms of cancers, the importance of screening, and provide all other relevant information⁶. Education via community pharmacists alters the attitude of patients and caregivers toward cancer. Such informative sessions have been shown to

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improve cancer patients' adherence to medication and reduce pain⁷ and thus lead to patients' control over the pain and improved functional status due to immediate action⁸. Educational intervention can include any advice and behavioural counsel delivered to cancer patients by primary healthcare providers. By making more promotional materials (such as pamphlets, posters, and educational videos) available, pharmacists can raise awareness among the general public about cancer screening and prevention². Pharmacists can also promote general risk reduction by providing education on cancer prevention for vulnerable populations, providing education when dispensing high-risk medications, and providing education during medication assessments to individuals with low health literacy, little education or lower socioeconomic status².

Pharmacists have been participating in malignancy prevention efforts by educating patients on strategies that decrease the incidence of specific cancers², and community pharmacists can also organise an outreach with both governmental and non-governmental organizations to educate people, most importantly the elderly ones⁷. Poor awareness of the disease is strongly linked to late diagnosis and in cancer, translates to a deadly stage⁶. Optimized consultations and objective patient counselling session is an inclusive way that community pharmacists have been able to manage several diseased condition⁸ and this is a major option to be considered in cancer awareness and treatment. Consultations with dosage adjustments, supportive counselling, face-to-face counselling⁹,¹⁰ and pain assessment control¹¹ can all be employed by pharmacists to help cancer patients manage pain.

The involvement of community pharmacists proves as a starting point for better improvements in cancer management. The pharmacist-delivered educational intervention seems to reduce adverse events and improve satisfaction. However, a deeper understanding and analysis of these interventions is needed for better implementation and pain-related outcomes¹².

Cancer Screening and Risk Assessment

A community pharmacy is the most accessible healthcare facility and the need for standardized diagnostic tools is essential for involvement in cancer management in society¹³. For concrete cancer detection and diagnosis, there is a need for proper diagnostic tools which essentially combines technology, biochemical, and biomedical innovations^{2, 14}, all of which are not accessible to a larger percentage of the community pharmacists.

Although pharmacists have over the years contributed to cancer screening¹⁵ through physical tests and by laboratory referrals for prostate-specific antigen tests used for prostate cancer detection, human papillomavirus (HPV) used in the cervical cancer detection and risk assessments¹⁵, following the current trends of pharmacy practice and pharmaceutical care interventions, there is need for functional diagnostic tools^{2, 15}.

However, limitations of provision of this service include a lack of essential tools in the community pharmacy setting; the imaging test, computerized tomography (CT) scan, low dose computerized tomography scan for lung cancer detections, mammograms for breast cancer, magnetic resonance imaging, and positron emission tomography^{2, 5, 15}.

Pharmacy care intervention shown by pharmacists – including community pharmacists – during the COVID-19 pandemic¹⁶ as well as their inclusiveness in other diseases like osteoporosis, HIV/AIDS, and hepatitis, has proven the evolving innovation in the profession¹⁷. Risk assessment tools and prompt patient history records are included to estimate the vulnerability of patients to cancer¹⁸. Genetic and environmental factors contribute to cancer and a focus on a healthy lifestyle, regular diet, and physical activities¹⁸ improves patient outcomes. According to several studies conducted across various countries, 70% of community pharmacists who are easily accessible to the community do not have full knowledge of the risk factors for cancer^{5, 13, 17}. Therefore, there is a need to equip community pharmacists with the necessary skills, financial aid and access to tools by the government and regulatory bodies¹⁸. Focus on tobacco cessation should be a key assessment by the community pharmacy as this is one of the leading causes of cancer¹⁷. Among other innovations, community pharmacists can also provide questionnaires and provide therapies to determine a patient's cancer risk.

Early Detection

Community pharmacists have developed their care models to provide a wide range of clinical services, such as the management of chronic diseases, the prevention of diseases, the coordination of care transitions, and other necessary disease-monitoring and management interventions¹⁹. Screening in both healthy and high-risk populations allows for the detection of cancer early, before symptoms appear and, ideally, before spread. Early identification of cancer may result in reduced morbidity and improved survival, and in some cases, if detected early enough, therapy may involve only surgery²⁰. For instance, 2.1 million women are diagnosed with breast cancer yearly and about 3.3% die from complications^{2, 5}. Early detection is a way to reduce malignancy as in the case of breast cancer, lung cancer, prostate case and cervical cancer has indicated proven outcomes⁵.

The odds of survival for a cancer patient are significantly improved if the disease is discovered and treated at an early clinical stage. This validates the promise of early identification in improving prognosis. Longer survival time may imply later death, but it may also reflect earlier diagnosis or higher detection of indolent tumours with no shift in death time²¹.

Primary care services are facing high demands due to increased morbidity for certain diseases like cancer. As a result, the community pharmacy setting must be developed to maximize its full potential for early detection and prevention of diseases

by utilizing the full professional knowledge and potential of pharmacists²². Community pharmacists, in addition to their known educational and awareness-raising roles, may play an essential future role in detecting symptoms of probable malignancy. Community pharmacists also appear to be able to advise patients with cancer-related symptoms properly²³. In addition, due to their convenience and simplicity of access, community pharmacists are in a good position to address public health issues and have an impact on how acute and chronic illnesses and disorders are controlled locally as well as refer patients directly to other healthcare practitioners^{23, 24}.

Cancer Treatment

The growing burden of cancer presently has made it one of the biggest healthcare concerns worldwide²⁵. The community pharmacy sector is also recognizing this burden and has begun to use its advantage as being the closest healthcare professional to the public to address this burden, with examples like the delivery of oral chemotherapy from community pharmacists^{26, 27}. The pharmacotherapy of cancer is rapidly changing; systemic therapy now involves the use of high-risk intravenous (IV) drugs joined by an increasing number of new agents, many of which are administered orally and dispensed by community pharmacists²⁸. The ordering and dispensing of these oral systemic therapies highly involve patient care risk practice and solutions are being designed for the necessary additional resources required in addressing these patient care risks. Following the implementation of these processes needed in addressing the patient care risk, the community pharmacist has the critical role to assist in providing the level of care appropriate for these hazardous drugs²⁸. Many of the new treatments are designed to target very specific steps in the intracellular pathways used by cancer cells to ensure their continued propagation²⁸. The indications for use of these new treatments are often very specific to patients with particular cancers, expression of certain biomarkers or designated genetic mutations²⁸. The community pharmacist is in the best position to provide the necessary knowledge needed when dispensing these medications to this subset of patients, as they are usually the last point of contact before commencing treatment²⁹.

Traditionally, cancer patients have been managed almost exclusively within secondary care; inclusion of primary care in cancer management will better support patients, their caretakers and families. Community pharmacists are needed to assume more effective roles as a member of the oncology team as the clinical care provided by the community pharmacist is crucial to achieving optimal patient care²⁸. For the effective participation of the community pharmacist in cancer management, there should be the incorporation of an official system of communication through which adequate information on patients' diagnoses will be passed across to the community pharmacists.

Recommendations and Conclusion

The health sector and the entire pharmaceutical care chain cannot survive without functional and structural community pharmacy establishments. In regards to essential medicines, medical supplies and pharmaceutical products, the input of community pharmacists can never be overemphasized¹⁵. The government and the various pharmacy administrative and regulatory bodies must begin to empower community pharmacists and make accessible to them necessary skills to allow them to contribute effectively and efficiently towards the prevention, treatment and elimination of cancer. Following the recent authorization of fully licensed pharmacists – community pharmacists included – to access patients and administer the COVID-19 vaccines by the Food and Drug Administration (FDA)³⁰, lessons can be inferred that in recent times, the training scope and skills of pharmacists have gone beyond dispensing roles to include their active involvement in essential care management.

There are various ways to improve the delivery of care in terms of work system design, processes of care and reimbursement of the services community pharmacists provide. The evaluation of healthcare quality is a key component of healthcare reform. Quality metrics of health systems can be evaluated by payers, while quality measures of health plans can be evaluated by employers and consumers. These quality indicators – which may determine or influence reimbursement – include treatment appropriateness, timeliness, and communication with patients regarding their drugs. The involvement of community pharmacists in patient care will increase quality and safety metrics, which are increasingly linked to reimbursement³¹.

Furthermore, following the experiences and contributions of pharmacists in combating infectious diseases and their significance in the healthcare system during the COVID-19 pandemic, it cannot be overemphasized that the proximity of community pharmacies is an added advantage in cancer care. Community pharmacists can be further educated and trained on more innovative approaches and actions to take toward cancer care. This will enable them to improve their relationship with patients and better improve the quality of health services. To effectively and efficiently involve community pharmacists in cancer care, there is a need for an established and organized collaboration with other healthcare professionals. There is also a need for increased collaboration between community pharmacists, industrial pharmacists, and pharmaceutical industries to further establish and aid an oncology research-based institute. However, tax incentives should be provided by the national government to fund and aid the inclusiveness of the collaboration between industrial and community pharmacies.

Conclusively, the active involvement of community pharmacists in the care and management of cancer will significantly contribute to the early detection of breast, cervical, lung, ovarian and other forms of cancer as patients can easily communicate their symptoms with the healthcare personnel within their locality. Major tertiary hospitals and oncology care centres can as well collaborate with community pharmacists in organizing educational programmes or cancer-screening sessions that will further bring the detection tools closer to the community.

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Abbreviations:

COVID-19 - Coronavirus disease 2019

CT - Computerized Tomography

FDA - Food and Drug Administration

HIV/AIDS - Human Immunodeficiency Virus/ Acquired

Immunodeficiency Syndrome

HPV - Human Papilloma Virus

IV- Intravenous

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