# Pharmacy-based Point-of-Care Testing: Improving Healthcare Accessibility

# Hamoud Abdullah Alsamhan<sup>1</sup>, Mansoor Abdulrahman Alghazi<sup>2</sup>, Abdullah Mohammed Alobaysi<sup>3</sup>, Aozouf Farj Alosaimi<sup>4</sup>, Nouf Faisal Al Harthi<sup>5</sup>

<sup>1, 2, 3, 4</sup>Pharmacist, <sup>5</sup>Clinical Pharmacist - Critical Care

Department of pharmacy, King Abdulaziz Medical City, Ministry of National Guard-Health Affairs, Riyadh, Saudi Arabia

<sup>5</sup>Pharmaceutical Care Services.

King Abdulaziz Medical City - Central Region (KAMC -CR), Ministry of National Guard- Health Affairs (MNGHA)

Corresponding Author: Hamoud Abdullah Alsamhan

Paper Publication Date: 3rd March 2024

#### **Abstract**

Pharmacy-based point-of-care testing (POCT) has emerged as a critical component in improving healthcare accessibility by providing convenient and efficient diagnostic services. This essay explores the role of pharmacy-based POCT in healthcare delivery, its impact on accessibility, and the challenges and opportunities it presents. By examining the current landscape and projecting into 2024, this study aims to shed light on how pharmacy-based POCT can contribute to enhancing healthcare accessibility and quality.

Keywords: Pharmacy, Point-Of-Care Testing, Healthcare, Accessibility, Diagnostics

#### Introduction

Access to healthcare services is a fundamental right that every individual should have. However, various barriers, such as geographical, financial, and structural issues, can limit or prevent individuals from receiving timely and effective healthcare. In recent years, pharmacy-based point-of-care testing (POCT) has gained momentum as a solution to improve healthcare accessibility by offering rapid diagnostic services in a convenient setting.

Pharmacy-based point-of-care testing (POCT) has emerged as a transformative approach to healthcare delivery, providing rapid diagnostic services within the community pharmacy setting. This essay explores the significance of pharmacy-based POCT in enhancing healthcare accessibility, its benefits, challenges, implementation considerations, and the impact of pharmacists in expanding healthcare services through point-of-care testing.

## Significance of Pharmacy-based Point-of-Care Testing:

Pharmacy-based POCT serves as a crucial avenue for improving healthcare accessibility by offering convenient and timely diagnostic services to patients. It enables pharmacists to play a proactive role in early detection, monitoring of health conditions, and facilitating prompt interventions, ultimately contributing to better patient outcomes and increased healthcare efficiency.

IJIRMPS2402231610 Website: <a href="www.ijirmps.org">www.ijirmps.org</a> Email: editor@ijirmps.org 1

#### Benefits of Pharmacy-based Point-of-Care Testing:

Convenience and Timeliness: POCT services in pharmacies reduce wait times, eliminate the need for additional appointments, and provide immediate results, enhancing patient convenience and access to essential healthcare services.

Early Detection and Intervention: Rapid diagnostic testing allows for early identification of health issues, leading to timely interventions, treatment initiation, and improved management of acute and chronic conditions.

Patient Engagement and Education: Pharmacists, as accessible healthcare providers, engage patients in discussions about their test results, educate them on health conditions, medication management, and lifestyle modifications, empowering individuals to take control of their health.

Integration with Pharmacy Services: POCT seamlessly integrates with existing pharmacy services, such as medication management and counseling, enabling a holistic approach to patient care and treatment optimization based on diagnostic results.

#### Challenges and Implementation Considerations:

Regulatory Compliance: Pharmacists offering POCT must adhere to regulatory requirements, competency standards, quality assurance protocols, and documentation practices to ensure the accuracy and reliability of test results.

Training and Proficiency: Comprehensive training, ongoing education, and proficiency assessments are essential for pharmacists to effectively perform and interpret diagnostic tests, maintain testing proficiency, and ensure quality control.

Interprofessional Collaboration: Collaborating with healthcare providers, laboratories, and specialists is vital for seamless care coordination, appropriate referrals, and patient follow-up based on POCT results.

#### Role of Pharmacists in Expanding Healthcare Accessibility:

Pharmacists serve as accessible healthcare providers who are well-positioned to expand healthcare accessibility through POCT. By offering diagnostic testing services in community pharmacies, pharmacists enhance patient access to essential healthcare services, promote preventive care, support chronic disease management, and contribute to improved health outcomes for individuals and communities.

In conclusion, pharmacy-based point-of-care testing plays a pivotal role in enhancing healthcare accessibility, promoting early detection, and empowering patients to actively engage in their health management. By leveraging POCT services, pharmacists contribute to a more patient-centered approach to healthcare delivery, fostering better health outcomes, and ensuring that essential diagnostic services are readily available to individuals in need.

# Methodology

This study utilized a comprehensive literature review to analyze the role of pharmacy-based POCT in enhancing healthcare accessibility. Articles, research papers, and reports from reputable journals and organizations were reviewed to gain insights into the current status and future prospects of pharmacy-based POCT.

#### **Findings**

IJIRMPS2402231610 Website: www.ijirmps.org Email: editor@ijirmps.org 2

Pharmacy-based POCT has the potential to revolutionize healthcare delivery by providing quick and accurate diagnostic services at the point of care. Pharmacists are well-positioned to perform POCT due to their accessibility, expertise, and trustworthiness in the community. By leveraging their unique skills and resources, pharmacists can play a pivotal role in expanding access to essential diagnostic services and improving patient outcomes.

#### Discussion

The integration of pharmacy-based POCT into routine healthcare services can lead to several benefits, including increased convenience for patients, reduced healthcare costs, and improved health outcomes. By offering a wide range of tests, such as blood glucose monitoring, cholesterol screening, and infectious disease testing, pharmacies can address the diagnostic needs of diverse patient populations. Furthermore, pharmacy-based POCT can facilitate early detection of diseases, prompt treatment initiation, and better disease management.

Despite its potential benefits, the widespread adoption of pharmacy-based POCT faces certain challenges, such as regulatory hurdles, reimbursement issues, and technological limitations. To realize the full potential of pharmacy-based POCT, policymakers, healthcare providers, and industry stakeholders must collaborate to address these barriers and create an enabling environment for its implementation. Additionally, ongoing training and education programs for pharmacists are essential to ensure the safe and effective delivery of POCT services.

#### **Limitations and Recommendations**

While pharmacy-based POCT holds promise for improving healthcare accessibility, certain limitations need to be addressed to maximize its impact. For instance, the quality and accuracy of POCT results may vary depending on the testing device used and the training of the pharmacist. To overcome this challenge, standardized protocols, quality assurance measures, and continuous monitoring of POCT services are recommended. Moreover, efforts should be made to integrate pharmacy-based POCT into the larger healthcare system to facilitate seamless coordination of care and information sharing.

#### Conclusion

In conclusion, pharmacy-based point-of-care testing is a valuable tool for enhancing healthcare accessibility and quality. By leveraging the expertise and accessibility of pharmacists, POCT services can reach underserved populations, improve diagnostic accuracy, and streamline care delivery. As we look ahead to 2024, the integration of pharmacy-based POCT into routine healthcare services is poised to transform the landscape of healthcare provision and ensure that all individuals have access to timely and effective diagnostic services.

# References

- 1. Schindler, B.A., Novak, P., Zaiken, K., et al. (2017). Pharmacy-based point-of-care testing: Considerations and challenges. Journal of the American Pharmacists Association.
- 2. Smith, A.E., Lyon, M.E., Johnston, J.E., et al. (2020). The role of pharmacies in expanding access to point-of-care testing. Pharmacotherapy.
- 3. Mehralian, G., Rangchian, M., &Jannatifar, R. (2019). The impact of pharmacist-provided point-of-care testing on patient outcomes. International Journal of Clinical Pharmacy.
- 4. Wozniak, J., Nelson, R., Johnson, K., et al. (2018). Quality assurance and quality control in pharmacy-based point-of-care testing. Clinical Biochemistry.

IJIRMPS2402231610 Website: <a href="www.ijirmps.org">www.ijirmps.org</a> Email: editor@ijirmps.org 3

- 5. Wilson, J., Haber, S., & Bednarczyk, E. (2016). Pharmacist perceptions of point-of-care testing in community pharmacy settings. Pharmacy Practice.
- 6. Korbage, S., Honig, J., & Belletti, D. (2015). Improving access to care through pharmacy-based testing. Chronic Disease Management.
- 7. Truong, K. (2019). Opportunities and challenges in pharmacy-based point-of-care testing. Journal of Pharmacy Practice.
- 8. Miller, S., Truong, L., & Ng, C. (2020). Pharmacy-based point-of-care testing: A roadmap for success. Pharmacological Research.
- 9. Brown, L., Power, M., Hume, A., et al. (2017). The role of pharmacists in improving healthcare accessibility through point-of-care testing. Journal of Pharmacy Education.
- 10. Patel, M., et al. (2021). Implementing point-of-care testing in community pharmacies. Journal of Pharmaceutical Sciences.

IJIRMPS2402231610 Website: <a href="www.ijirmps.org">www.ijirmps.org</a> Email: editor@ijirmps.org 4