International Journal of Innovative Research in Medical Science (IJIRMS)
Volume 10, Issue 03, March 2025,
https://doi.org/10.23958/ijirms/vol10-i03/2040

Review Article

Enhancing Primary Health Care with Urgent Care and Minor Procedures: Narrative Review

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Received 20 January 2025; Accepted 28 February 2025; Published 05 March 2025

Abstract

The modern healthcare landscape demands easily accessible, timely, and patient-focused healthcare services. Though the primary health-care serves as the important pillar of healthcare delivery, increasing patient needs demands innovative and technology-based models. Integrating urgent care services and minor procedures within primary care settings presents a promising approach to further enhance healthcare access, improve care coordination, and optimize resource utilization. This narrative review aimed to critically examine the current literature on the integration of urgent care and minor procedures within the primary care settings, focusing on patient access, quality of care, healthcare costs, and implementation challenges. The review revealed that integrating urgent care and minor procedures within primary care settings can enhance patient access by reducing wait times and expanding service availability. It can also improve care coordination by streamlining communication and facilitating better chronic disease management. Furthermore, this integration can optimize resource utilization by reducing emergency department visits and improving operational efficiency. However, challenges include resource investment, defining clear service boundaries, and maintaining high-quality care across all services. Integrating urgent care and minor procedures within primary care settings promises a significant potential in improvising patient access, enhance care coordination, and optimize resource utilization. However, careful planning, adequate resource allocation, and robust quality assurance mechanisms are further needed for successful implementation. Further research is needed to evaluate the long-term impact of these integrated models on patient outcomes, healthcare costs, and health equity.

Keywords: ***Primary care, Urgent care, Minor procedures, Integrated care, Healthcare access, Care coordination, Resource utilization, Patient outcomes.***

Introduction

The modern healthcare landscape is considerably marked by an increasing demand for easily accessible, timely, and patient-centered healthcare services. Though, primary care fulfils the cornerstone of healthcare delivery, evolving patient needs and the complexities of modern medicine demands a re-evaluation of traditional healthcare models [1].

The paradigm shift in primary care has necessitated the integration of urgent care and minor procedures to provide comprehensive and accessible healthcare services. The distinction between emergency care and urgent care is pivotal, as the former is typically hospital-based, focusing on life-threatening conditions that require immediate attention, like acute myocardial infarction, stroke, or severe trauma [2]. In contrast, urgent care is primary healthcare center-based, serving to non-life-threatening, yet acute, conditions that require prompt attention, such as minor injuries, illnesses, or exacerbations of chronic conditions [3].

The increasing demand for urgent care services is attributed to the escalating healthcare needs of an aging population, coupled with the increasing prevalence of chronic diseases, such as diabetes, hypertension, and arthritis [4]. Furthermore, the rising costs of emergency department visits and hospitalizations have underscored the importance of urgent care as a cost-effective alternative, providing high-quality, patient-centered care in a convenient and accessible setting [5].

A study by Allen et al. found that nearby availability of an open urgent care center reduced the total number of ED visits by 17.2%, due largely to decreases in visits for less emergent conditions, they also concluded that the effect was concentrated among visits to EDs with the longest wait times, urgent care centers reduced the total number of uninsured and Medicaid visits to the ED by 21% and 29.1%, respectively [6]. Moreover, urgent care centers have been shown to provide high-quality care, with patient satisfaction rates comparable to those of emergency departments [7].

The incorporation of minor surgical procedures into primary care settings has also gained traction, as it enhances patient convenience, reduces referral times, and improves healthcare outcomes [8]. Procedures like wound care, fracture management, and skin lesion removal can be safely and effectively conducted in primary care centers, provided that adequate training and infrastructure are available [9].

A recent Irish study by Riain et al. concluded that Irish GPs with experience in minor surgery were able to provide a range of surgical services in the community safely. Minor surgical procedures, such as skin biopsies and excisions, can be safely performed in general practice settings, with high patient satisfaction rates and low complication rates [10]. Similarly, a book chapter by

Blanco et al. also supported that family physicians can safely perform minor surgical procedures, such as wound care and fracture management, in office-based settings [11].

This paper aims to provide an overview of the role of urgent care and minor procedures in enhancing primary care services. By examining the current literature and evidence-based practices, this review seeks to inform healthcare policymakers, practitioners, and researchers about the benefits and challenges of integrating urgent care and minor procedures into primary care settings.

This narrative review aims to critically examine the current landscape of primary care delivery, highlighting the evolving needs of patients and the challenges faced by primary care providers. Specifically, we will explore the potential benefits of integrating urgent care services and minor procedures within the primary care setting. Our objectives are to: 1) evaluate the evidence supporting the integration of these services, 2) analyze the potential impact on patient access, quality of care, and healthcare costs, 3) identify the challenges and barriers to implementation, and 4) discuss strategies for successful integration and future directions for research in this area.

Review

Enhancing Primary Health Care with Urgent Care

The integration of urgent care services and minor procedures within the primary care setting demonstrated multifaceted benefits across key dimensions. Table 1 describes various benefits of integrating urgent care and minor procedures within primary care.

Enhanced Access to Care

Reduced Wait Times: Several studies have consistently demonstrated a significant reduction in patient wait times for non-emergent but urgent conditions when integrated urgent care services are incorporated within primary care settings. This expedited access to care is of paramount importance in the management of acute conditions such as acute respiratory infections, urinary tract infections, and minor musculoskeletal injuries. Prompt evaluation and treatment of these conditions are crucial in preventing potential complications, facilitating timely interventions, and ultimately improving overall patient outcomes. This timely access is particularly beneficial for elderly patients, as exemplified by research conducted by Ionescu-Ittu et al. (2007), which highlighted the positive association between continuity of primary care and reduced emergency department utilization among the elderly population [12].

Table 1: Benefits of Integrating Urgent Care and Minor Procedures within Primary Care

Benefit	Description
Enhanced Access [6]	Reduced wait times for non-emergent conditions
	Expanded availability (evening/weekend hours)
Improved Care Coordination [13]	Seamless communication between providers
	Minimized diagnostic delays
	Reduced medication errors
	Enhanced chronic disease management
Optimized Resource Utilization [14]	Reduced emergency department visits

Expanded Availability: Urgent care centers often operate with extended hours, including evenings and weekends, effectively bridging the gap in healthcare accessibility that frequently arises during traditional clinic hours. This extended availability significantly enhances access for patient populations who face challenges in obtaining timely appointments during regular business hours. Such patient groups include shift workers, individuals with limited mobility, and those with unpredictable or irregular schedules. By offering convenient and accessible care outside of standard clinic hours, urgent care centers play a crucial role in improving overall healthcare access and addressing the unmet needs of a diverse patient population. This is supported by research conducted by Carlson et al. (2020), which demonstrated the positive impact of urgent care center openings on reducing emergency department visits within an integrated health care system [15].

Improved Care Coordination

Streamlined Communication: The integration of urgent care services within a primary care network fosters streamlined communication between various healthcare providers, including primary care physicians, urgent care clinicians, and specialists. This enhanced communication network facilitates the effective sharing of patient information, potentially expediting diagnoses, minimizing medication errors, and ensuring appropriate referrals when necessary. Streamlined communication is a cornerstone of patient safety and quality care, as it reduces the risk of critical information being overlooked or misinterpreted during care transitions. O'Daniel and Rosenstein (2008) emphasize the importance of professional communication and team collaboration in their work, highlighting their contribution to patient safety and quality care. By fostering a collaborative environment that promotes information exchange, integrated urgent care models can significantly improve patient outcomes [16].

Improved Chronic Disease Management: The integration of urgent care services within a healthcare system can significantly enhance the management of chronic diseases by providing timely interventions for acute exacerbations. Conditions such as asthma, diabetes, and heart failure often require prompt medical attention to prevent complications and hospitalizations. By offering readily accessible care for acute episodes, integrated urgent care services empower patients to receive timely interventions, potentially mitigating the severity of exacerbations and preventing progression to more critical health states. This proactive approach aligns with the principles of disease management, which emphasizes early identification and intervention to optimize patient outcomes. Research by Poot et al. (2021) and Samal et al. (2021) supports the effectiveness of integrated disease management interventions and the role of health information technology in improving care for patients with multiple chronic conditions [17,18].

Optimized Resource Utilization

Reduced Emergency Department Visits: Multiple studies have consistently demonstrated a significant reduction in emergency department (ED) utilization following the implementation of integrated urgent care models. This phenomenon, often referred to as "ED diversion," occurs as patients with non-life-threatening conditions are effectively directed towards more appropriate care settings, such as integrated urgent care centers. This diversion alleviates the strain on emergency departments, which are often overburdened with non-urgent cases, thereby improving resource

utilization and potentially leading to a reduction in healthcare costs. Research by Morgan et al. (2013) and Allen et al. (2021) has extensively investigated this phenomenon, providing strong evidence for the effectiveness of integrated urgent care models in reducing ED utilization and optimizing healthcare resource allocation [6,14].

Improved Operational Efficiency: The integration of minor procedures within the primary care setting has the potential to significantly streamline patient care pathways. By offering these procedures in-house, the need for referrals to specialized outpatient clinics or hospitals is reduced, thereby eliminating unnecessary care transitions and associated delays. This not only enhances patient convenience by minimizing travel time and reducing the overall burden of care, but also significantly improves the efficiency of the healthcare system. Streamlining care pathways reduces administrative burden associated with referrals and subsequent appointments, optimizes the allocation of resources within the healthcare system, and contributes to a more efficient and cost-effective model of care delivery. This concept is supported by research conducted by Al Harbi et al. (2024), which highlights the positive impact of case management implementation on streamlining patient flow and enhancing operational efficiency within healthcare settings [19].

Minor procedures in an integrated primary care setting

Table 2: Common Minor Procedures Performed in Integrated Primary Care Settings

Procedure	Description	Potential Benefits
Laceration Repair [20]	Suturing of minor cuts and wounds	Reduced need for emergency department visits or specialist referrals, improved cosmetic outcomes
Incision and Drainage of Abscesses [21]	Treatment of localized infections	Faster resolution of infections, reduced risk of complications (e.g., spread of infection)
Foreign Body Removal [22]	Removal of embedded objects (e.g., splinters, thorns)	Reduced discomfort, decreased risk of infection
I&D of Minor Cysts [23]	Removal of small, non-cancerous cysts	Improved cosmetic appearance, reduced risk of infection
Removal of Simple Skin Lesions [24]	Removal of benign skin lesions (e.g., moles, warts)	Improved cosmetic appearance, early detection of potential skin cancers

Table 2 outlines several minor medical procedures commonly performed within an integrated primary care setting, along with their descriptions and potential benefits. These include laceration repair (suturing of minor cuts and wounds), which can reduce the need for emergency department visits or specialist referrals and improve cosmetic outcomes. Incision and drainage of abscesses treat localized infections, leading to faster resolution and a reduced risk of complications like the possible spread of infection. Foreign body removal addresses embedded objects like splinters or thorns, reducing discomfort and the risk of infection. I&D of minor cysts removes small, non-cancerous cysts, improving cosmetic appearance and reducing the risk of infection. Finally, removal of simple skin lesions, such as moles or warts, improves cosmetic appearance and allows for the early detection of potential skin cancers.

Table 3: Potential Impact on Healthcare Costs

Factor	Impact on Healthcare Costs
Reduced Emergency Department Visits	Lower overall healthcare costs due to reduced utilization of more expensive emergency services [25]
Improved Efficiency	Reduced need for referrals to specialists, potentially leading to lower overall healthcare costs [26]
Early Intervention and Prevention	Potential for early identification and treatment of conditions, potentially reducing the need for more costly interventions later [27]

Table 3 outlines several factors that can potentially impact healthcare costs, along with their potential impact and supporting references. These factors include a reduction in emergency department visits, leading to lower overall healthcare costs due to reduced utilization of more expensive emergency services. Additionally, improved efficiency, such as a reduced need for referrals to specialists, can also contribute to lower overall healthcare costs. Furthermore, early intervention and prevention strategies have the potential to identify and treat conditions early on, thus reducing the need for more costly interventions later. Overall, the table highlights the potential for various factors to significantly impact healthcare costs. By implementing strategies that reduce emergency department visits, improve efficiency, and promote early intervention and prevention, healthcare systems can potentially lower overall costs while simultaneously improving patient outcomes.

Challenges and Barriers

Resource Investment: The successful integration of urgent care and minor procedures requires significant upfront investment in infrastructure, equipment, and staff training This includes the acquisition of necessary medical equipment, the development of appropriate protocols and guidelines, and the provision of ongoing training for primary care providers in the management of urgent conditions and the performance of minor procedures [28,29].

Scope Creep and Referral Pathways: Defining clear service boundaries and establishing appropriate referral pathways between primary care, urgent care, and specialist services is crucial to prevent "scope creep" and ensure that patients receive the most appropriate level of care. This requires careful planning, ongoing communication, and a shared understanding of service roles and responsibilities among all stakeholders [30].

Maintaining Quality Standards: Ensuring high-quality care across all integrated services requires robust quality assurance mechanisms, including regular audits, performance monitoring, and adherence to clinical guidelines. This necessitates ongoing efforts to maintain staff competency, monitor patient outcomes, and identify areas for quality improvement [31,32].

Future Research Directions

Comparative Effectiveness Research: Future research should focus on conducting rigorous comparative effectiveness research to evaluate the impact of different integrated models on patient outcomes, healthcare utilization, and costs. This research should include randomized controlled trials and observational studies to generate robust evidence to inform policy and practice decisions.

Patient-Centered Outcomes Research: Research should prioritize patient-centered outcomes, such as patient satisfaction, quality of life, and functional status, to assess the true impact of integrated models on the patient experience.

Health Equity Considerations: Future research should investigate the impact of integrated models on health equity, ensuring that all populations, including underserved and vulnerable populations, have equitable access to these services.

The integration of urgent care services and minor procedures within the primary care setting emerges as a powerful and innovative strategy for optimizing healthcare delivery in the 21st century. Our research findings provide compelling evidence that this integrated model has the potential to significantly improve patient access to care, streamline care coordination processes, and optimize the utilization of healthcare resources. These findings are firmly aligned with the results of previous research efforts, which have extensively documented the potential benefits of integrated care models across diverse healthcare settings. For example, a comprehensive analysis conducted by the National Academies of Sciences, Engineering, and Medicine (2021) highlighted the positive impact of integrated care models on patient outcomes, healthcare cost reduction, and enhanced patient satisfaction. Specifically, the committee emphasized the role of integrated primary care delivery in achieving these improvements [33].

Our analysis revealed a notable reduction in wait times for patients with non-emergent conditions, along with an expansion of service availability through extended hours. These observations are consistent with the findings of numerous studies that have investigated the impact of integrated urgent care centers on patient access to healthcare. These improvements in access are particularly critical for specific patient populations, including individuals with limited mobility, those who work outside of traditional business hours, and residents of underserved communities. By offering convenient and timely care for urgent medical conditions, integrated models have the potential to intercept minor illnesses before they escalate into more serious complications. This proactive approach can significantly reduce the need for hospitalization, a more expensive and resource-intensive intervention. A study conducted by the Office of the Assistant Secretary for Planning and Evaluation (2023) exemplifies this concept, highlighting factors contributing to reduced wait times in healthcare settings [34].

Our findings regarding improved care coordination, facilitated by streamlined communication and enhanced chronic disease management, align with the substantial body of existing literature that emphasizes the critical role of integrated care in optimizing patient outcomes. Effective communication and information sharing are paramount for ensuring seamless transitions of care between primary care providers, urgent care clinicians, and specialists. This interprofessional collaboration is crucial for minimizing diagnostic delays, preventing medication errors, and ensuring the appropriate and timely delivery of care. The significance of this is particularly pronounced for patients with complex medical conditions who require coordinated care from multiple providers. As highlighted by Khatri et al. (2023) in their scoping review, continuity and care coordination in primary healthcare are essential for achieving optimal patient outcomes [35].

The observed reduction in emergency department (ED) visits, a key finding of our analysis, aligns with the growing body of evidence demonstrating the effectiveness of integrated urgent care centers in diverting patients with non-life-threatening conditions from the more expensive and resource-intensive ED setting. This diversion of patients to a more appropriate level of care not only alleviates the strain on emergency departments, often overburdened with non-urgent cases, but also significantly improves the overall efficiency of the healthcare system. By optimizing resource allocation and minimizing the utilization of expensive emergency services, integrated urgent care models have the potential to contribute to a more sustainable and cost-effective healthcare delivery system. This concept is supported by research conducted by Allen et al. (2021), which demonstrated a significant impact of urgent care centers on reducing non-emergent ED visits [6].

However, it is crucial to acknowledge the challenges associated with implementing integrated care models. As our analysis highlights, significant upfront investment is required for infrastructure, equipment, and staff training. Moreover, careful planning is necessary to define clear service boundaries, establish appropriate referral pathways, and prevent "scope creep" that can lead to service duplication and inefficiencies. Maintaining high-quality care across all integrated services necessitates robust quality assurance mechanisms, including regular audits, performance monitoring, and ongoing staff training [36].

The findings from the Al Madinah Al Munawara study on the impact of UCCs (Urgent Care Center) on ED utilization resonate with several key themes emerging from our review. Both studies highlight the potential of UCCs to improve efficiency for certain patient categories, although the extent of this improvement can vary. While our review emphasized the potential for UCCs to reduce wait times for non-emergent conditions, the Al Madinah Al Munawara study observed a more nuanced picture. While the average door-to-doctor time decreased, this reduction was not statistically significant, and in some cases, wait times even increased. This finding underscores the importance of considering the specific context and implementation strategies when evaluating the impact of UCCs. Furthermore, both our review and the Al Madinah Al Munawara study emphasize the critical role of public awareness and education in optimizing UCC utilization. Our review highlighted the need to educate patients about the appropriate use of UCCs and to ensure seamless communication between primary care providers, urgent care clinicians, and specialists. The Al Madinah Al Munawara study similarly emphasized the need for enhanced public awareness campaigns to guide patients towards appropriate care settings and maximize the utilization of UCCs [37].

Moving forward, future research should focus on several key areas. Rigorous comparative effectiveness research is needed to evaluate the impact of different integrated models on patient outcomes, healthcare utilization, and costs across diverse populations. This research should include well-designed randomized controlled trials and observational studies to generate robust evidence to inform policy and practice decisions. Furthermore, research should prioritize patient-centered outcomes, such as patient satisfaction, quality of life, and functional status, to assess the true impact of integrated models on the patient experience [38].

Finally, it is crucial to address health equity considerations in the design and implementation of integrated care models. Efforts should be made to ensure that all populations, including underserved and vulnerable populations, have equitable access to these services. This may involve addressing social determinants of health, such as

poverty, transportation barriers, and language barriers, to ensure that all patients have the opportunity to benefit from integrated care.

Conclusion

The integration of urgent care services and minor procedures within the primary care setting presents a promising approach to enhancing healthcare delivery. While challenges remain, the potential benefits in terms of improved access, enhanced care coordination, and optimized resource utilization are substantial. By addressing the identified challenges and conducting further research to refine and optimize these models, we can strive to create a more accessible, efficient, and equitable healthcare system for all.

List of Abbreviations

ED: Emergency Department
I&D: Incision and Drainage
UCC: Urgent Care Center
PHC: Primary Health Care

Declarations

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

Funding Statement

None

Consent to participate

Not required

Ethical approval

Not required

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