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ECONOMIC BURDEN OF DIABETIC FOOT ULCERS ACROSS NATIONS: A SCOPING REVIEW

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ABSTRACT
Diabetic foot ulcers (DFUs) are among the most severe complications of diabetes mellitus, leading to significant morbidity, hospitalizations, and healthcare costs. The economic burden of DFU treatment is primarily driven by hospitalization expenses, surgical interventions, and complications such as nephropathy, retinopathy, gangrene, and osteomyelitis. Objective: This study examines the direct medical costs associated with DFU inpatient care, identifying key cost drivers and variations across different healthcare systems. Method: A scoping review was conducted using PubMed, PubMed Central, and ScienceDirect to analyze peer-reviewed studies published between 2014 and 2024. The review focused on DFU-related hospitalization costs, surgical expenditures, and the impact of comorbidities on financial burden. Results: Hospitalization constituted the largest cost component, with expenses escalating due to surgical procedures, particularly amputations. Economic disparities between high-, middle-, and low-income countries influenced DFU-related expenditures, highlighting differences in treatment accessibility and cost structures. Conclusions: Standardized management strategies and cost-effective interventions are essential to optimize resource allocation and improve patient outcomes. This study provides insights into the financial challenges of DFU treatment, emphasizing the need for healthcare policy reforms to mitigate economic burden and enhance care efficiency.

Keywords: diabetic foot ulcers; direct medical cost; economic burden; health expenditure; healthcare cost

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INTRODUCTION

Diabetes mellitus (DM) is a chronic condition that remains a significant global health challenge due to its high prevalence, associated complications, and financial burden. In 2021, an estimated 537 million adults worldwide were living with diabetes, a figure projected to increase to 783 million by 2045 (Seshadri et al., 2024). Diabetes is linked to various complications, including cardiovascular diseases, nephropathy, and neuropathy. Among these, diabetic foot ulcers (DFUs) represent one of the most severe complications, leading to substantial morbidity, hospitalizations, and amputations (Hashempour et al., 2024; Hopkins et al., 2015).DFUs arise from a combination of peripheral neuropathy, ischemia, and secondary infections, making them the leading cause of non-traumatic lower limb amputations globally (Hicks et al., 2016; Toscano et al., 2018). The lifetime risk of developing DFUs among individuals with diabetes is estimated to range from 15% to 25%, with some populations experiencing rates as high as 34% (Lo et al., 2021; Muhammad et al., 2018). Without timely and effective treatment, DFUs can progress to severe infections, gangrene, and eventually, limb loss. It is estimated that 85% of diabetes-related amputations stem from non-healing ulcers (Hopkins et al., 2015). Additionally, the mortality rate following amputation remains alarmingly high, with up to 50% of patients dying within five years post-amputation (Oksuz et al., 2016).

The economic impact of DFUs is substantial, encompassing both direct medical expenses, such as hospital stays, medications, and surgical interventions, and indirect costs, including

transportation, accommodation, and productivity loss (Hashempour et al., 2024; Jiang et al., 2020). Inpatient care alone constitutes a major portion of diabetes-related healthcare expenditures, with DFU treatment costs accounting for approximately 33% of total diabetes-related healthcare expenses in the United States (Hicks et al., 2016). The financial burden varies significantly between countries, with the average cost per patient estimated at $2,183 in Canada (Hopkins et al., 2015) and IDR 43.5 million per case in Indonesia (Fitrianingsih et al., 2025). These expenses are further exacerbated by extended hospital stays and frequent re-hospitalizations due to complications such as wound infections, osteomyelitis, and the need for surgical interventions or amputations (Lo et al., 2021; Toscano et al., 2018).

Despite the recognition of the economic burden of DFUs, there remains a lack of comparative research analyzing direct medical inpatient costs across different healthcare systems. The overall expenses and treatment outcomes are influenced by factors such as healthcare infrastructure, accessibility to specialized care, and socioeconomic conditions (Hashempour et al., 2024; Khaing Oo et al., 2022). In high-income countries, DFU management typically involves a multidisciplinary approach, advanced wound care technologies, and structured outpatient follow-ups aimed at preventing hospital admissions. In contrast, in low- and middle-income countries, late presentation, limited access to specialized healthcare, and financial constraints contribute to a higher incidence of severe complications and amputations (Cárdenas et al., 2015; Muhammad et al., 2018).Understanding the financial implications of DFU-related inpatient care is crucial for developing cost-effective management strategies and reducing the overall economic burden on patients and healthcare systems (Graves et al., 2023). Globally, the cost of DFU inpatient treatment constitutes a significant portion of total diabetes healthcare expenditures. Direct medical expenses include wound care, infection management, and surgical procedures (Lo et al., 2021; Toscano et al., 2018). The variability in these costs underscores the need for a comprehensive analysis of the contributing factors.

This study aimed to analyze the direct medical costs associated with diabetic foot ulcer (DFU) inpatient care across different healthcare systems by identifying key cost drivers and variations. Additionally, this research seeks to assess the economic impact of hospitalization, surgical interventions, and wound management strategies on total healthcare expenditures. It also examines the influence of comorbidities and complications on the financial burden of DFU treatment. Furthermore, this study evaluates the role of standardized treatment protocols and educational modules in improving cost efficiency and clinical outcomes. By synthesizing evidence from diverse healthcare settings, this research provides valuable insights into the economic burden of DFUs, ultimately informing future policies and interventions aimed at optimizing resource allocation, improving patient outcomes, and reducing the financial strain on healthcare systems worldwide.

METHOD

This study adopts a scoping review methodology based on the framework proposed by Arksey and O'Malley (Arksey & O'Malley, 2005), enabling a systematic exploration and mapping of global demographic trends related to Diabetic Foot Ulcers (DFUs). The primary objective of this review is to synthesize existing evidence regarding the incidence, prevalence, number of cases, and length of hospital stays associated with DFUs. By identifying gaps in the literature, this study aims to inform future research directions and policy development.Data collection was conducted using three major databases: PubMed, PubMed Central, and ScienceDirect. The search process incorporated the keywords "cost of illness" AND "diabetic ulcer" AND "hospital", yielding a total of 87 articles from PubMed, 4037 from ScienceDirect, and 2598 from PubMed Central, resulting in 6722 records.The screening process followed multiple stages. Initially, duplicate articles were removed, leaving 6717

unique records. Next, filtering by publication date (2014–2024) reduced the dataset to 3302 articles. Additional exclusions were applied based on specific criteria: non-English language articles (n=3), lack of open-access availability (n=1486), non-original research articles (n=1297), studies irrelevant to the search terms (n=165), and studies unrelated to the results and discussion (n=339). After applying these exclusion criteria, 12 articles were selected for inclusion in the scoping review.The inclusion criteria for this study required that articles be peer-reviewed original research, available as open access, published between 2014 and 2024, and focused on the cost of illness, diabetic ulcers, and hospitalization. Excluded articles included those that were not in English, were non-research articles (e.g., reviews or commentaries), lacked open-access availability, or fell outside the study's scope. The final 12 articles underwent thematic synthesis to provide a comprehensive analysis of the economic impact of diabetic ulcers in hospital settings.

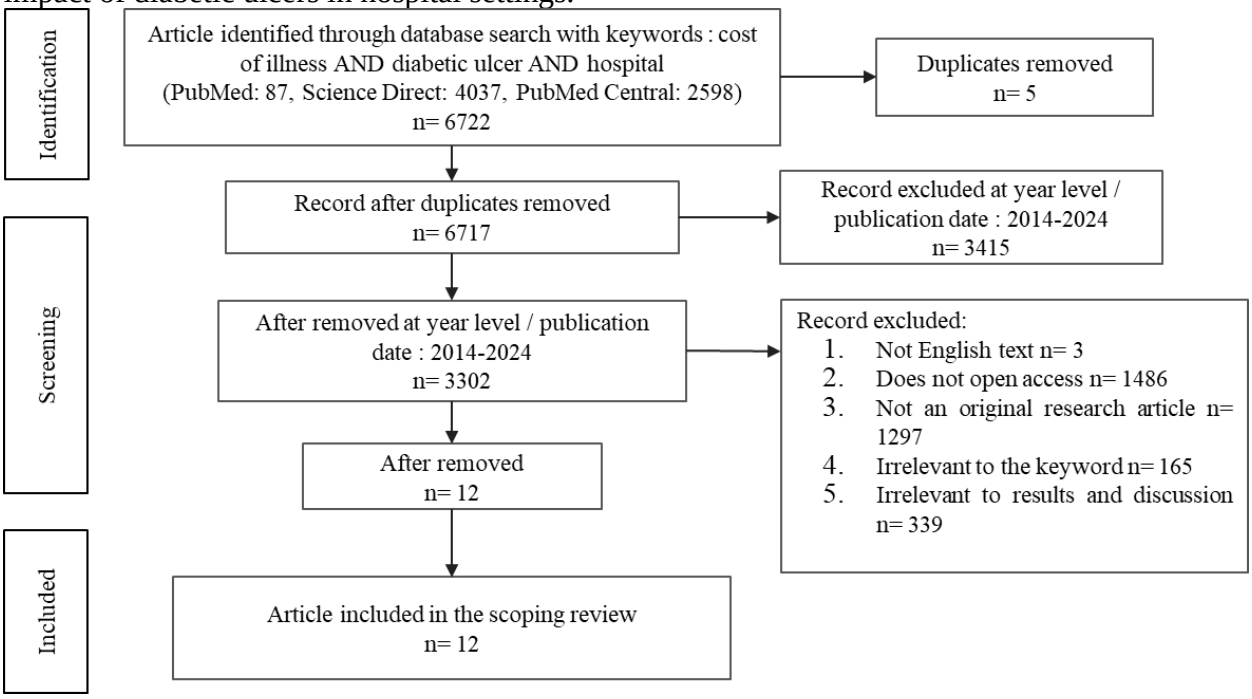

Figure 1. PRISMA Diagram

RESULT

Table 1.
Article Result Table

Author (year)	Method	Country	Result
Hopkins et al. (2015)	5 years of retrospective analysis	Canada	In 2011, diabetic foot ulcers (DFU) led to 16,863 hospital admissions, with a total cost of $358.6 million for acute care, including $320.5 million (89%) for admissions, $19.1 million (5%) for ER and clinic visits, and $19 million (5%) for interventions. A total of 26,493 interventions were performed, including 6,036 amputations (24%), 5,796 surgical debridements (24%), 6,663 antibiotic treatments (26%), 1,550 angioplasties (6%), and 1,033 femoropopliteal bypasses (4%), costing $19 million. Emergency and clinic visits totaled 72,462 cases, with an associated cost of $19.1 million.
Cárdenas et al. (2015)	A year cost of illness (COI) and cost-effectiveness analysis using a decision tree	Peru	The costs of key interventions for diabetic foot ulcers (DFU) vary significantly: debridement averages USD 1,022 per procedure, covering emergency consultation, 6 days of hospitalization, anesthesia, and post-procedure wound care. Minor amputations cost an average of USD 5,153, including emergency consultation, 10 days of hospitalization, the procedure, and 40 rehabilitation sessions. Major amputations average USD 7,360, encompassing emergency consultation,

	model and prevalence-based approach		19 days of hospitalization, the procedure, blood transfusions, and 50 rehabilitation sessions.
Caitlin W. Hicks et al. (2016)	A 5-year period of retrospective analysis	USA	More than half (58.6%; n = 517,709) of diabetic foot ulcer (DFU) admissions were due to simple neuropathic ulcers without infection, PVD, or gangrene, while infections accounted for 30.8% (n = 272,107), with neuropathy and infection comprising 89.4% of all DFU admissions. Average hospitalization costs were USD 9,397 overall, USD 11,290 for infected cases, and USD 8,145 for non-infected cases. Minor amputations occurred in 11.6% of DFU patients (n = 106,592), costing USD 14,270 on average, while major amputations occurred in 2% (n = 17,669), averaging USD 18,877. From 2005–2010, DFU care cost USD 8.3 billion (USD 1.38 billion annually) for diabetic patients, compared to USD 0.77 billion for non-diabetics.
Ergun Oksuz et al. (2016)	A year period cost-of-illness methodology	Turkey	The average annual cost per DFU patient is USD 7,357.4 for inpatient care, constituting 51.5% of total treatment costs, while the total annual cost, including interventions, medications, and rehabilitation, is USD 14,287.7, with a sensitivity range of USD 13,988.6 to USD 14,304.9. Key intervention costs include osteomyelitis treatment (66% of patients, USD 605), debridement (10.1%, USD 813.7), graft/flap procedures (24%, USD 602.1), amputations (53.9%, USD 961.7), angioplasty (6%, USD 6,250.9), bypass surgery (6%, USD 6,512.4), hyperbaric oxygen therapy (8%, USD 70.01 per session), and rehabilitation (16.6%, USD 31.3). Complications include post-amputation infections (12.8%), re-amputation (11.5%), barotraumatic otitis (10.26%), and hypoglycemia (0.85%), with an average cost of USD 210.3 per patient. DFU treatment costs are 14 times Turkey's per capita health expenditure (USD 1,045) and account for 3% of the nation's annual healthcare spending (USD 80.3 billion).
Fakhraddeen Yahya Muhammad et al. (2018)	A year hospital-based cross-sectional study	Nigeria	The total treatment cost for DFU was USD 140,735.56, with a median cost of USD 1,381.55 (IQR: USD 1,002.42–USD 1,885.69). Direct costs accounted for 76.6% (USD 107,797.06), including USD 72,801.53 for medical costs (median: USD 694.12; IQR: USD 549.73–USD 906.02) and USD 34,995.46 for non-medical costs (median: USD 241.98; IQR: USD 192.51–USD 419.92). Direct medical costs were distributed as 28.6% for medications, 12% for hospitalizations, 15.4% for surgeries, and only 0.8% for rehabilitation due to regional limitations.
Toscano et al. (2018)	A year cost-of-illness study using a prevalence-based approach	Brazil	The annual economic burden of diabetic foot disease (DFD) amounts to Int$ 361 million, comprising Int$ 333.5 million in outpatient costs and Int$ 27.7 million in inpatient costs for 22,244 hospitalized patients (average cost: Int$ 444.7 per patient). Diabetic foot treatment accounted for Int$ 3.98 million, with 12,994 patients treated at an average cost of Int$ 306.1. Amputation costs included Int$ 3.64 million for 3,318 lower extremity amputations (average: Int$ 1,097.5 per patient), Int$ 644,869 for 1,820 foot or tarsal amputations (average: Int$ 354.3), and Int$ 141,688 for 3,817 toe disarticulations (average: Int$ 400.3). Complications included gangrene (15,419 patients, Int$ 10.3 million total, Int$ 668.9 per patient) and osteomyelitis (5,849 patients, Int$ 3.24 million total, Int$ 554.1 per patient).
Qingling Jiang et al. (2020)	4 months of observational study	China	The median cost for patients with complex wounds was ¥6,500.18 (IQR: ¥2,965.92–¥12,975.23), nearly double that of patients without complex wounds (¥3,337.16; IQR:

			¥1,759.02–¥6,703.08, p<0.001). Among wound types, diabetic ulcers had the highest median cost at ¥8,399.13 (IQR: ¥3,435.24–¥16,267.55), followed by pressure ulcers at ¥8,039.12 (IQR: ¥3,693.78–¥17,022.96).
Zhiwen Joseph Lo et al. (2020)	5-year longitudinal cohort study with observational analysis of inpatient and outpatient data.	Singapore	From 2013 to 2017, total healthcare costs for outpatient and inpatient diabetic foot care reached USD 33.1 million (SGD 46.9 million), with an annual mean of USD 6,615,437 (SGD 9,381,748). The mean annual cost per patient was USD 3,368 (SGD 4,776) for ulcers without amputation, USD 10,468 (SGD 14,845) for minor amputation, and USD 30,131 (SGD 42,730) for major amputation. Interventions included surgical debridement (1,803 patients) and revascularization (667 patients). Amputation types included toe amputation (36.4%), transmetatarsal amputation (16.9%), and major amputation above the ankle (6.5%). Cost differences were USD 7,100 between non-amputation and minor amputation and USD 19,663 between minor and major amputation.
Wah Wah Khaing Oo et al. (2022)	A year period of retrospective incidence-based cost analysis	Myanmar	The average cost per patient was USD 718.7, with basic inpatient services accounting for the majority (USD 581.7; 80.9%), followed by medications (USD 91.2; 12.7%), medical investigations (USD 32.9; 4.6%), surgery (USD 3.8; 0.5%), emergency services (USD 0.4; 0.1%), and blood bank services (USD 0.7; 0.1%). Treatment costs without complications averaged USD 404.2 but increased significantly with complications: diabetic foot ulcers added 68% (USD 276.5), nephropathy 76% (USD 307.3), and retinopathy 79% (USD 319.5). Comorbidities, such as respiratory diseases, raised costs by 115%, while severe complications and comorbidities drove increases up to 1,043%.
Graves et al. (2023)	A year period cost of illness study using incidence-based analysis	Singapore	Total inpatient costs for chronic wounds amounted to USD 139 million (SGD 190 million), representing 40% of total annual costs. Among a population of 16,752 individuals, pressure ulcers incurred the highest total cost at USD 132.3 million, followed by diabetic ulcers (USD 120.1 million), arterial ulcers (USD 77.2 million), and venous ulcers (USD 20.8 million). Per-person costs varied: USD 35,364 for arterial ulcers, USD 35,023 for venous ulcers, USD 18,095 for diabetic ulcers, and USD 18,161 for pressure ulcers. The total cost reached USD 350.5 million, averaging USD 21,002 per individual, with diabetic ulcers showing the greatest cost variability, including negative values.
Hashempour et al. (2024)	A year period of descriptive cross-sectional study	Iran	The average cost per patient was USD 2,582 (median: USD 1,575), with female patients incurring slightly higher costs (USD 2,695 ± SD 3,405.74) compared to males (USD 2,529 ± SD 3,738.12). Among 541 patients analyzed, the total aggregate cost was USD 1,396,886. Population-wide in Iran, direct costs were estimated at USD 1.8 billion. Medications and medical equipment were the largest cost component, accounting for 30.41% (USD 785.2 per patient), followed by hospital room charges (29.54%; USD 762.7) and diagnostics (16.95%; USD 437.7). Operating room and surgical procedures made up 9.02% (USD 233.1), physician consultations 8.6% (USD 221.8), and basic inpatient services just 1.66% (USD 42.79).
Fitrianingsih et al. (2024)	A 4-year of retrospective cross-sectional study	Indonesia	The total cost of care was IDR 13.833 billion, with an average cost per patient of IDR 64,947,307 (± IDR 50,893,954) and an average daily cost of IDR 3,281,825. Medical procedures, including amputations, NPWT, and endovascular procedures, were the largest expense (IDR 5.176 billion; IDR 24,300,987 per patient), followed by medications and medical supplies (IDR 3.794 billion; IDR 17,814,311 per patient), diagnostic

	examinations (IDR 2.422 billion; IDR 11,375,236 per patient), inpatient room charges (IDR 1.592 billion; IDR 7,478,131 per patient), healthcare consultations (IDR 562 million; IDR 2,641,418 per patient), and administrative costs (IDR 5.892 million; IDR 27,662 per patient). For the amputation group, total costs reached IDR 6.991 billion (average: IDR 69,911,817 per patient). The breakdown includes medical procedures (IDR 2.852 billion; IDR 28,524,517 per patient), medications and medical supplies (IDR 1.827 billion; IDR 18,276,226 per patient), diagnostics (IDR 1.207 billion; IDR 12,078,997 per patient), inpatient room charges (IDR 792 million; IDR 7,922,030 per patient), consultations (IDR 275 million; IDR 2,751,490 per patient), and administrative costs (IDR 2.754 million; IDR 27,540 per patient). In comparison, the non-amputation group incurred total costs of IDR 6.842 billion (average: IDR 60,553,937 per patient). Medical procedures were IDR 2.324 billion (IDR 20,563,350 per patient), medications and supplies IDR 1.967 billion (IDR 17,405,537 per patient), diagnostics IDR 1.215 billion (IDR 10,752,438 per patient), room charges IDR 801 million (IDR 7,085,301 per patient), consultations IDR 287 million (IDR 2,544,009 per patient), and administrative costs IDR 3.138 million (IDR 27,770 per patient).

DISCUSSION

The cost of treating diabetic foot ulcers (DFU) is influenced by a complex interplay of medical, economic, and systemic factors that contribute to its high financial burden worldwide. The financial burden of treating diabetic foot ulcers (DFUs) is substantial and influenced by various medical, economic, and systemic factors. Treatment costs can range significantly, with estimates from $3,000 to $108,000 per ulcer depending on severity and management strategies (Lu et al., 2020). Study by (Çiçek, 2023) reported that the treatment of diabetic foot ulcers is more costly than that of diabetic hand ulcers and carries a higher risk of amputation. Similarly, (Gorden et al., 2022) highlighted that timely amputations in Singapore could lead to annual savings of 264,791 hospital bed days and $211 million in healthcare costs. Various studies have highlighted multiple cost drivers, including hospitalization expenses, surgical interventions, wound management, comorbidities, complications, and healthcare infrastructure inefficiencies.

A significant contributor to the high costs is hospitalization, which accounts for the majority of DFU treatment expenses across multiple countries. (Hopkins et al., 2015) reported that in Canada, acute care admissions for DFU cost CAD 320.5 million (89% of total DFU-related expenses), highlighting the significant resource allocation toward inpatient services. Similarly, (Hicks et al., 2016) found that hospital costs in the U.S. averaged USD 9,397 per DFU admission, increasing to USD 11,290 for infected cases and the average hospital cost per DFU admission was USD 9,397, escalating to USD 11,290 for infected cases. In Turkey, inpatient care alone constituted 51.5% of total DFU treatment costs (Oksuz et al., 2016), while in Myanmar, basic inpatient services accounted for 80.9% of the total average cost per patient (Khaing Oo et al., 2022). These findings indicate that prolonged hospitalization due to severe infections, delayed healing, and the need for intensive care contribute significantly to overall DFU expenses.Surgical interventions also play a crucial role in cost escalation. Amputation rates vary widely across countries, with minor and major amputations being among the most expensive DFU-related procedures. (Cárdenas et al., 2015) reported that in Peru, minor amputations cost an average of USD 5,153, while major amputations averaged

USD 7,360. In the U.S., minor amputations cost USD 14,270 on average, and major amputations were even more expensive at USD 18,877 (Hicks et al., 2016).

The financial burden of amputations is compounded by the necessity for post-operative care, rehabilitation, and prosthetic devices, which further inflate long-term expenses (Jia et al., 2023). Similarly, in Singapore, (Lo et al., 2021) found that the cost difference between non-amputation DFU cases and minor amputations was USD 7,100, while the cost difference between minor and major amputations was USD 19,663, illustrating the exponential financial impact of surgical interventions. (Fitrianingsih et al., 2025) observed similar trends in Indonesia, where the amputation group had significantly higher treatment costs than non-amputation cases.Wound management strategies, including debridement, revascularization, and antibiotic treatments, also contribute significantly to DFU treatment costs. In Canada, 26,493 interventions were performed for DFU patients, including 6,036 amputations, 5,796 debridements, and 6,663 antibiotic treatments, collectively costing CAD 19 million (Hopkins et al., 2015). The appropriate use of antibiotics, as outlined in the Diabcare protocol, includes plaque regression agents (Statins), antiplatelet medications (such as Aspirin), novel oral anticoagulants (Rivaroxaban), and vasoactive agents, including PDE3 inhibitors (Cilostazol) and PDE5 inhibitors (Tadalafil) has been shown to promote progressive wound healing and contraction (Sureshkumar & Kumar, 2023). Oksuz et al., (2016) found that osteomyelitis treatment was required in 66% of DFU cases in Turkey, adding substantial costs. Similarly, in Singapore, surgical debridement and revascularization were common interventions (Lo et al., 2021). These procedures, though essential for preventing further complications, add to the financial burden due to the need for specialized care, prolonged wound healing, and recurrent hospital visits. The combination of Chinese and Western medical techniques in treating severe diabetic foot ulcers with necrotizing fasciitis effectively saved lives, accelerated wound healing, and reduced high amputation and disability rates (Chen et al., 2023).

The variability in cost estimates across studies underscores the need for standardized DFU treatment protocols and cost-effective management strategies. Research by (Prabhath et al., 2024) highlights the importance of educational modules as a means to standardize diabetic foot ulcer (DFU) treatment protocols and optimize cost management, ensuring a more consistent and effective approach to patient care. (Jiang et al., 2020) emphasized that DFU treatment costs in China nearly doubled for patients with complex wounds compared to those without. Similarly, (Graves et al., 2023) in Singapore reported significant cost variability among different types of chronic wounds, with diabetic ulcers showing the highest cost fluctuations. These discrepancies can be attributed to differing treatment approaches, healthcare policies, and patient access to preventive care, which collectively contribute to the wide range of DFU-related expenses (Edmonds et al., 2021; Woods et al., 2020). Furthermore, the economic burden of DFUs is exacerbated by the necessity for advanced care in cases of severe complications and glycated hemoglobin (HbA1c) level and which can lead to increased hospitalization costs and prolonged treatment durations (Sima et al., 2021). Study (Cecilia-Matilla et al., 2022) found that a smartphone application for healthcare professionals improved wound management by enabling timely referrals. Patients with severe infections were swiftly transferred to a referral hospital for immediate antibiotic treatment and surgery.

Comorbidities and complications significantly drive up treatment costs. In Myanmar, comorbidities such as respiratory diseases have been shown to increase costs by 115% (Khaing Oo et al., 2022). Diabetic patients with complications such as nephropathy, retinopathy, osteomyelitis, and gangrene face substantially higher medical expenses. In Brazil, the presence of gangrene added Int$ 10.3 million in treatment costs across 15,419 patients, while osteomyelitis contributed an additional Int$ 3.24 million (Muhammad et al.,

2018; Stancu et al., 2022). Similarly, in Myanmar, complications like nephropathy and retinopathy increased the cost of diabetic foot ulcer (DFU) treatment by 76% and 79%, respectively. In cases of severe complications and comorbidities, the cost increase can reach as high as 1,043% (Khaing Oo et al., 2022). These findings underscore the critical need for integrated management strategies that address both diabetes and its associated complications to mitigate financial burdens on healthcare systems (Edmonds et al., 2021; Nawaz et al., 2024).In Iran, medications and medical equipment were the largest cost component, accounting for 30.41% of total costs, further emphasizing how chronic conditions necessitate extensive pharmacological management (Hashempour et al., 2024). A study conducted in Iran by et al. (2023) highlights the critical role of ongoing patient education in foot care, the selection of appropriate footwear, and routine screening for foot ulcers. Other findings suggest that inadequate glycemic control, late-stage diagnoses of DFUs, and insufficient preventive care contribute to poorer health outcomes and increased healthcare costs (Acelya et al., 2021; Yazdanpanah et al., 2024).

Healthcare infrastructure and economic disparities also influence DFU treatment costs across nations. In high-income countries like Canada, the U.S., and Singapore, the absolute costs are higher due to advanced medical technologies, higher labor costs, and expensive hospitalization fees (Graves et al., 2023; Hicks et al., 2016; Hopkins et al., 2015). Conversely, in middle- and low-income countries like Indonesia, Myanmar, and Peru, while the financial burden may appear lower in absolute terms, it is disproportionately high relative to national healthcare expenditures (Fitrianingsih et al., 2025; Khaing Oo et al., 2022). (Oksuz et al., 2016) noted that DFU treatment costs in Turkey were 14 times the per capita health expenditure, and in Iran, direct costs reached USD 1.8 billion. These findings underscore the economic strain that DFUs impose on national healthcare systems, particularly in countries with limited financial resources, highlighting the need for effective management strategies tailored to varying economic contexts (Li et al., 2022; Swaminathan et al., 2024).

CONCLUSION

A multidisciplinary approach to diabetic foot ulcer (DFU) management can significantly reduce healthcare costs by emphasizing early detection, prevention, and efficient treatment strategies. The financial impact of treating diabetic foot ulcers (DFUs) is largely influenced by the costs associated with length of stay, surgical procedures especially amputations, and the management of accompanying comorbidities and complications. Prolonged hospital stays and the need for advanced medical care further escalate costs, placing a strain on healthcare systems, especially in regions with disparities in infrastructure and resources. Complex wounds require intensive care and comprehensive treatment, amplifying financial challenges across different economic settings. Addressing DFU early through preventive measures and standardized care procedures can mitigate these expenditures, improve patient outcomes, and enhance resource allocation efficiency. This study underscores the necessity of cost-effective, multidisciplinary strategies to optimize DFU management, reduce hospital stays, prevent severe complications, and alleviate the financial burden on healthcare systems globally.

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