



Negative Pressure Wound Therapy

Revolutionizing Wound Care Sector in Africa

TechSci Research Analysts in Conversation with:

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Could you briefly share your background and expertise in wound care, with a focus on NPWT?

As a South African podiatrist specializing in diabetic foot management, I have over a decade of experience in wound care, with a particular focus on advanced treatment modalities such as NPWT. I have contributed to numerous research publications and advisory boards and actively participate in global wound care discussions. My work extends to both public health and private practice, where I address the challenges of wound management in resource-limited settings.

How has your clinical experience shaped your perspective on the evolution of wound management globally and within Africa?

My experience has highlighted the stark disparities between wound care accessibility in high-income versus low- and middle-income countries. While NPWT is widely adopted in developed regions, cost, infrastructure, and training gaps limit its use in Africa. However, with increasing awareness and technological innovations, more healthcare professionals are advocating for its integration into standard wound care protocols.

How has NPWT evolved in terms of technology and clinical applications over the years?

NPWT has progressed from bulky hospital-based units to portable, battery-operated systems, allowing for outpatient and home-based care. Technological advancements, such as smart pressure regulation and integrated antimicrobial properties, have improved treatment efficacy. Additionally, single-use NPWT devices are making the therapy more accessible in LMICs by reducing costs and complexity.

What are the key benefits of NPWT compared to traditional wound care methods, and what challenges exist in its implementation?

Benefits include enhanced wound healing through increased perfusion, reduced oedema, and effective exudate management. NPWT also minimizes infection risks and decreases hospital stays. However, challenges such as high device costs, maintenance requirements, and limited healthcare provider training hinder widespread adoption, particularly in Africa.

Which wound types have demonstrated the most successful outcomes with NPWT on a global scale?

NPWT has shown the most success in treating diabetic foot ulcers, pressure ulcers, traumatic wounds, post-surgical incisions, and burns. Studies indicate faster healing times, reduced infection rates, and improved patient outcomes when compared to conventional dressings.

What are the primary challenges limiting NPWT adoption in low- and middle-income countries (LMICs), including Africa?

The high cost of NPWT devices and consumables, inadequate distribution networks, lack of trained professionals, and insufficient health insurances coverage are major obstacles. Additionally, resource-limited hospitals often prioritize basic wound care over advanced therapies.

How accessible is NPWT technology across African healthcare systems, and what are the key barriers to its wider implementation?

NPWT is largely confined to private healthcare facilities in urban centres, with limited availability in public hospitals. Procurement costs, a lack of policy support, and inadequate clinician training contribute to its restricted accessibility.

Are there specific wound conditions in Africa where NPWT has shown significant impact, such as diabetic foot ulcers or burns?

Yes, diabetic foot ulcers (DFUs) are a major concern due to the high prevalence of diabetes in Africa. NPWT has demonstrated improved healing rates and reduced amputation risks in DFU patients. Additionally, burns and post-surgical infections benefit from NPWT due to its ability to manage exudate and promote granulation tissue formation.





How do infrastructure and resource limitations affect the integration of NPWT in African healthcare settings?

Limited electricity supply, high device costs, and logistical challenges in rural areas restrict NPWT use. In many hospitals, traditional wound care methods are still the norm due to financial and structural constraints.

Are there locally developed or adapted NPWT solutions available in African health-care markets?

Some locally modified NPWT devices have been developed to reduce costs, but large-scale production and distribution remain limited. Innovations such as simplified NPWT dressings and manually operated suction devices are emerging to improve accessibility.

What role do governments, NGOs, and private sector stakeholders play in promoting NPWT adoption in Africa?

Governments can facilitate NPWT adoption by incorporating it into national wound care guidelines and subsidizing costs. NGOs play a crucial role in training healthcare providers and improving awareness, while private sector investment can drive innovation and affordability.

How do cost factors and reimbursement policies influence NPWT accessibility and affordability in Africa?

Limited insurance coverage and high out-of-pocket expenses restrict NPWT access. Unlike in high-income countries where insurance reimburses NPWT costs, many African patients must pay upfront, making it unaffordable for most.

Are there gaps in training and education on NPWT for healthcare professionals in Africa, and how can they be addressed?

Yes, many healthcare providers lack formal training in NPWT application and management. Addressing this requires integrating NPWT education into medical and nursing curricula, along with hands-on workshops and continued professional development programs.

What innovations in NPWT technology could enhance accessibility and affordability in Africa?

Cost-effective, reusable NPWT devices and single-use disposable systems are key in-



novations. Additionally, solar-powered and manually operated NPWT solutions could increase accessibility in rural and off-grid areas.

How can global health organizations and medical companies support greater NPWT adoption in Africa?

Partnerships with local healthcare institutions, funding for NPWT research, donation programs, and subsidized pricing models can significantly enhance accessibility. Training collaborations and knowledge-sharing initiatives are also critical.

What policy or systemic changes would most effectively improve wound care management in African healthcare systems?

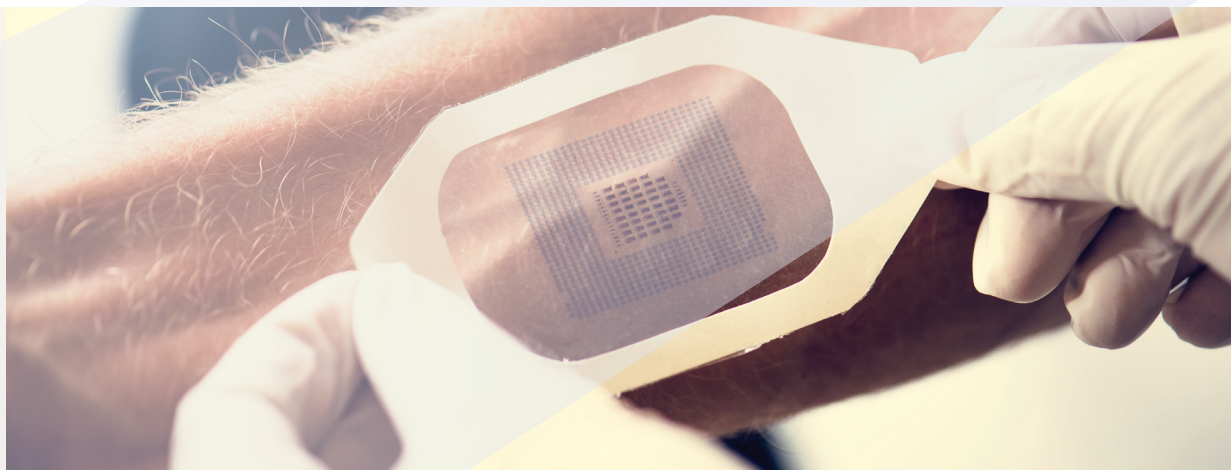
Policy changes should include increased NPWT funding, standardized wound care protocols, and integration of NPWT into public health initiatives. Strengthening supply chain logistics and expanding health insurance coverage for advanced wound care can further improve access.

Where do you see the future of NPWT in Africa over the next 5-10 years?

With growing awareness and technological advancements, NPWT adoption is expected to increase, particularly in urban healthcare centres. Improved local manufacturing and more cost-effective solutions will likely drive accessibility in LMICs.

Do you have any final recommendations for improving wound care and NPWT implementation in African healthcare settings?

Governments, healthcare professionals, and industry stakeholders must collaborate to enhance education, reduce costs, and improve accessibility. Strengthening wound care policies, investing in local NPWT solutions, and promoting research will be key drivers of progress.



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