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Care of Sweden drives in-house research projects to improve pressure ulcer/injury treatment

Care of Sweden, a med-tech company with 25 years of industry experience, leads its own research projects to enhance pressure ulcer/injury treatment and address healthcare challenges. By integrating clinical evidence into its product development, the company aims to reduce patient suffering and lower healthcare costs. Care of Sweden seeks to continue leading the fight against pressure ulcers/injuries and has a strong vision for the future, aiming to contribute to more effective and patient-friendly methods.

Background

Pressure ulcers/injuries are not only extremely painful for those affected but also impose economic and organizational burdens on the healthcare system. In Sweden, the cost of treating pressure ulcers is approximately 450 million SEK annually, solely within inpatient care. To tackle these challenges, Care of Sweden has heavily invested in research and product development. Angelica Mänd, Chief Market Officer at Care of Sweden, explains the company's commitment:

“Our ambition has always been to deliver a comprehensive solution that not only addresses patient safety but also alleviates the high burden on healthcare staff and reduces the financial impact of pressure ulcers/injuries. We continuously work to ensure that our products adhere to researchers' guidelines and contribute to improved practices within healthcare.”

A long tradition of research investments

Over its 25 years on the market, Care of Sweden has been strongly committed to research. The company has not only conducted its own research projects but has also collaborated with international experts to deepen the understanding of pressure ulcer/injury treatment. Angelica Mänd emphasizes:



“We view it as our societal responsibility not just to deliver a product but to offer a comprehensive solution with the goal of improving both patient safety and healthcare efficiency. Our research aims to reduce suffering and strengthen health economics.”

Innovative solutions through research

A concrete example of Care of Sweden's research-driven innovation is the development of the 'Pulsating Mode'. Early research showed that ischemia, or lack of oxygen in tissue, was a primary cause of pressure ulcers. However, early pressure-relieving mattresses developed to address this had shortcomings in comfort and produced disruptive noise.

“Around 2011, we began developing a more comfortable and effective solution. At the same time, new research showed that cell deformation, not just ischemia, was a primary cause of pressure ulcers/injuries. Cell deformation can occur within just a few minutes, while ischemia develops over a few hours,” says Angelica Mänd.

This discovery led to a new perspective on pressure ulcer/injury prevention aids at Care of Sweden. The company integrated the new research into the development of its new system, resulting in their most prominent innovation, 'the Pulsating Mode'. This solution is designed to address both cell deformation and ischemia, the two primary causes of pressure ulcers.

“There is no research specifically showing whether an individual is at risk for ischemia or cell deformation. Through our self-developed Pulsating Mode, we aim to offer a solution that addresses both of these conditions,” says Angelica Mänd.

To validate the effectiveness of this solution, Care of Sweden has conducted several clinical studies. One study showed that almost all existing pressure ulcers/injuries had improved or healed completely after 30 days¹. This contrasts with the expected healing time for a Stage III pressure ulcer/injury, which is 127 days, and a Stage IV pressure ulcer/injury, which has an expected healing time of 155 days².

“A pressure ulcer costs around 8,700 kronor per day³, so comparing the cost for 30 days versus 127 days makes the savings evident,” says Angelica.

The Importance of clinical evidence

With the European MDR (Medical Device Regulation), requirements for clinical evidence have become stricter. Angelica Mänd explains:

“To ensure product functionality and safety, clinical claims must be based on robust evidence. This means the product must be tested on actual users in the intended environment. Clinical studies are crucial for verifying a product's performance and safety, and thus, at Care of Sweden, we continually conduct studies to confirm the effectiveness of our products.”

Evidence-based marketing

In today's med-tech landscape, it is crucial that marketing is based on solid scientific evidence. Angelica Mänd emphasizes the importance of avoiding unfounded claims:

“Basing marketing on verified results is more important than ever. For us, this means that our products must offer real value and benefit to healthcare and contribute to lower costs and better patient care.”

Through its 25 years in the industry, Care of Sweden has demonstrated that research and innovation are key to addressing healthcare challenges. The company's focus on evidence-based solutions and continuous product development not only helps reduce suffering for individuals with pressure ulcers/injuries but also lowers healthcare costs and increases efficiency in care. By prioritizing scientific evidence and innovation, Care of Sweden aims to set the standard for how med-tech companies can create sustainable and effective solutions for some of the most pressing problems in healthcare.

1. Raepsaet, C., Zwaenepoel, E., Manderlier, B., Van Damme, N., Verhaeghe, S., Van Hecke, A., & Beeckman, D. (2021). A Fully Automated Pulsating Support System for Pressure Injury Prevention and Treatment in 10 Belgium Nursing Homes: An Observational Study. *Journal of wound, ostomy, and continence nursing* : official publication of The Wound, Ostomy and Continence Nurses Society, 48(2), 115–123. <https://doi.org/10.1097/WON.0000000000000746>

2. Dealey, C., Posnett, J., & Walker, A. (2012). The cost of pressure ulcers in the United Kingdom. *Journal of wound care*, 21(6), 261–266. <https://doi.org/10.12968/jowc.2012.21.6.261>

3 Socialstyrelsen, 2018. Appendix 2: Healthcare Costs for Preventable Pressure Ulcers – An Example Calculation. Retrieved from Socialstyrelsen 2023.