Serene Air

Improving pressure injury prevention and nursing workflow for post-acute care delivery

Over 60% of post-acute patients with pressure injuries do not receive proper wound care, leading to persistent high pressure injury risk and incident rate.6 Research focusing on US long-term care facilities found 8% of skilled nursing facilities (SNF) patients are high-risk long-stay residents with pressure injuries, with 41% not discharged home, 30% requiring rehospitalization, and 39% deceased during stay.¹⁻³

More than 1 in 10 nursing facility residents develop pressure injuries. Improper care results in late-stage pressure injuries, multiple readmissions, and hospitalization by up to 12 days. The broad range of special needs, impairments, complications, and age-related health risks significantly increase pressure injury risks, length of stay, and nursing complications.⁴⁻⁶

Serene Air improves caregiving workload and pressure injury prevention for post-acute care patients by delivering a gentler, softer pressure redistribution to improve blood circulation. High airflow ventilates and prevents heat and moisture buildup between the skin and the surface, ensuring proper skin microclimate and reducing pressure injury risk.



Hypersensitive patients may fear the discomfort from repositioning and alternating pressure. Clinical guideline suggests a slow, gentle, yet firm pressing to prevent tissue damage while improving blood circulation and comfort during patient recovery and sleep.

Air cells + foam padding improve safety and comfort

Clinical Guideline advocates for bottoming out prevention to improve recovery and comfort. Serene Air combines air cells with foam padding and seat inflation fine-tuning to optimize cushioning, pressure relief, comfort, and safety during sitting.

True low air loss reduces skin damage and pressure injury risks Clinical guideline recommends active airflow

Be well, Live well

management to dissipate moisture and heat buildup on the skin. Serene Air's blower (>1,300 lpm) provides reliable true low air loss to prevent the development of new and worsening of existing pressure injuries.

Fully inflates under 2 minutes, accelerating care delivery

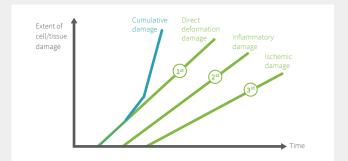
Blower system fully inflates the air mattress in under 2 minutes, minimizing prep time and optimizing treatment and patient care efficiency. Firm air cells paired with foam pad provide a stable surface for daily activities like rehabilitation, recreation, and more.

Clinical Application

Lower trunk and heel pressure injuries are common for immobile patients and extend the length of stay. The superficial wounds on the bony prominences quickly expand into subcutaneous tissues to cause irreversible damage to the muscle, tendons, and bones.^{4,6}

Immobility, poor tissue perfusion and oxygenation, hemodynamic instability, and hypersensitivity in severely diseased or ill patients (such as postoperative or burn patients) add additional risk factors and workflow complications. The clinical practice guideline recommends a slow, gentle, yet firm pressing (similar to massage) to improve blood circulation, prevent potential tissue damage, and reduce pressure injury risks.^{7,8}





Each damage event contributes to the cumulative cell and tissue damage, which develops in an escalated manner as a result of the added contributions of the events.^{7,8}

- CMS. (n.d.). PQDC. Data.cms.gov. Retrieved December 6, 2022, from https://data.cms.gov/provider-data/topics/nursing-homes
 Kerr, Kirk & Brunton, Cory & Arensberg, Mary. (2021). Outcomes and Treatment Costs of Skilled Nursing Facility Patients with Pressure Injuries and Malnutrition. Innovation in Aging. 5. 1021-1021. 10.1093/geroni/igab046.3624.
- Park-Le, E., Kak Bolins, G. yur et al. (2009). Pressure ulcers among nursing home residents: United States, 2004. NCHS data brief. (14), 1–8.
 Hahnel, E., Lichterfeld, A., Blume-Peytavi, U., & Kottner, J. (2017). The epidemiology of skin conditions in the aged: A systematic review. Journal of tissue viability, 26(1), 20–28. https://doi.org/10.1016/j.jtv.2016.04.001
 Walsh, E. G., Wiener, J. M., Haber, S., Bragg, A., Freiman, M., & Ouslander, J. G. (2012). Potentially avoidable hospitalizations of dually eligible Medicare and Medicaid beneficiaries from nursing facility and Home- and Community-Based Services waiver programs. Journal of the American Geriatrics Society, 60(5), 821–829. https://doi.org/10.1111/j.1532-5415.2012.03920.x
- 6. Lee, Y. N., Kwon, D. Y., & Chang, S. O. (2022). Bridging the Knowledge Gap for Pressure Injury Management in Nursing Homes. International journal of environmental research and public health, 19(3), 1400. https://doi.org/10.3390/ijerph19031400
- 7. European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel, & Pan Pacific Pressure Injury Alliance. (2019). Prevention and treatment of pressure ulcers/injuries : clinical practice guideline : the international guideline 2019. National Pressure Injury Advisory Panel. (Original work published 2022)
- 8. Falloon, S. S., Abbas, S., Stridfeldt, C., & Cottenden, A. (2018). The Impact of Microclimate on Skin Health With Absorbent Incontinence Product Use. Journal of Wound, Ostomy and Continence Nursing, 45(4), 341–348. doi:10.1097/won.0000000000000449

| Specifications | Serene Air | |
|----------------|---------------------------|--|
| Pump | Dimension | 31.2 x 26 x 16 cm / 12.3 x 10.2 x 6.3 in |
| | Weight | 5 kg / 11 lbs |
| Wellell | Case material | Fire Retardant ABS |
| | Supply voltage | 110 – 120 V 60 Hz, 4.5 A |
| | Operating cycle | 5/10/15/20 minutes |
| Mattress | Mattress type | 20 cm / 8 in replacement + 5 cm / 2 in foam |
| | Dimension | 200 x 90 / 107 / 122 x 20 cm (mattress) + 5 cm (foam) |
| | | 78.7 x 36 / 42 / 48 x 8 in (mattress) + 2 in foam (foam) |
| | Cell height | 20 cm / 8 in cells |
| | Weight | 7.5 / 8.5 / 9.5 kg ; 16.5 / 18.8 / 21 lbs |
| | Top cover material | 4-way stretch PU |
| | Cell material | Nylon / PU |
| | Maximum patient weight | 180 / 300 / 420 kg ; 397 / 661 / 926 lbs |
| | Flame retardant standards | EN597-1; EN597-2 |

Pump: water resistant standards (IP21); Mattress: flame retardant standards (EN597-1, EN597-2), RoHS, WEEE; HCPCS code: E0277

