

# Process optimisation in nursing with VENDLET V5 in Germany, Great Britain and Denmark

Reduction of cost and strain when moving and handling patients

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# Management Summary

This study examines the benefits of using the VENDLET V5 for the German, Danish and English nursing and healthcare market. VENDLET V5 is an automatic patient turning system for moving and handling the bedridden patient with limited resources.

The manufacturer Vendlet ApS in Aabenraa, Denmark, states the following advantages that have are verified:

1. Physical relief of caregivers,
2. improved comfort for patients and caregivers and
3. increased economic employment of caregivers.

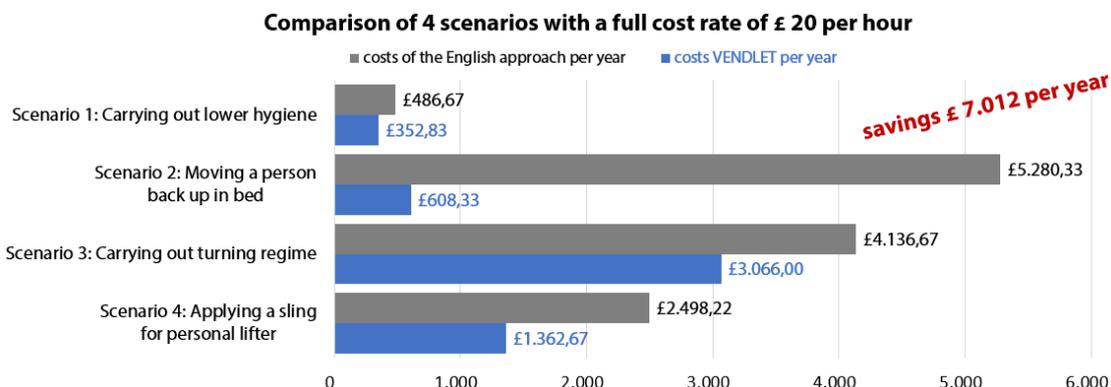
For testing the hypotheses and evaluating VENDLET V5 four selected moving and handling processes were recorded and analyzed. These are

1. Positioning for lower hygiene procedures
2. Turning a patient in bed
3. Repositioning the patient up in bed
4. Applying and removing a sling

The first set of experiments examined the moving and handling method with VENDLET V5 and German caregivers, observed in July 2016. The second set of experiments shows typical moving and handling in a Danish nursing context. In June 2016, we added English scenarios. All the collected data were used for modeling and simulation, for repeatable observations, and process analysis. Measurements and metrics are visible during the simulation in direct comparison.

The results of the analysis and the simulations confirm all hypotheses. VENDLET V5 not only helps to move and handle the patient in a more economical and physically gentler way, it also creates frees up time that can be used to concentrate on the patients more intensively.

The estimated savings amount to GBP 7.012 per patient per year at a full cost rate of GBP 20 per hour for a caregiver. Thus, VENDLET V5 already amortizes in about half a year with these 4 scenarios.



The economic benefit is increased significantly if spinal injuries, e.g. by disc prolapses, can be reduced using VENDLET V5. This reduces sick leave as well as the likelihood that caregivers move to other professions because of multiple herniated discs.