



# WTE of GDV Careturner

Conducted at Elder Center Broparken  
Rødovre Municipality 2017



## BACKGROUND AND PURPOSE

Elder Center Broparken is a nursing home with 78 residents spread between 8 departments, of which between 8 and 12 residents suffer from various types of age-related changes and illnesses, including various dementia diagnoses.

The target group for the GDV project consisted of residents who, for various reasons, were getting their sleep interrupted, e.g. because staff regularly came in to check if they were lying in a comfortable position. Other residents were disturbed at night because of needing position changes or turning during the night to prevent decubitus ulcers.

### Purpose

The purpose of the project was to demonstrate whether using a GDV Careturner could provide the resident with a calmer night without disturbances, resulting in more energy and greater quality of life in their day-to-day lives.

Furthermore, the purpose was to show whether a GDV Careturner could assist the care staff in connection with personal care and transfers.

### Choice of technology

An Careturner from GDV Technology was selected for installation on a regular hospital bed of the brand Invacare.

The Careturner from GDV can be set to turn the resident automatically, relieving the care staff of the need to do this manually and perhaps disturb with light and talking. The GDV Careturner can be operated by remote control, so in certain cases, the care staff can handle the resident alone, because the bed supports the resident in turning to the side in care situations or during transfers.

### Data collection

In an attempt to select the best candidates to try a GDV Careturner, both the care staff in the departments and the charts of the residents were consulted.

The company behind the GDV Careturner performed a demonstration of the bed for key technical and care staff, providing them with thorough basic knowledge and the opportunity to try out the GDV on themselves.

## TEST PARTICIPANTS

The Welfare Technology Pool purchased a GDV Careturner, and the company behind the Careturner also lent the municipality a complete solution, so two beds with GDV Careturners were tested.

**Participant #1:** A gentleman with consequential symptoms of a brain hemorrhage. He is paralyzed on his left side, and he uses a wheelchair.

The staff describes him as previously very unsettled at night. He would call the overnight staff a lot, and it took two staff to help him get turned. He would lack energy most of the day, could not stand or bear weight on his legs, and he could not stay awake for activities or meals.

The resident agreed to participate in the test. His GDV Careturner was set to change position every hour, so he no longer needed to be disturbed by the overnight staff. He is now sleeping better. He still has occasional nights, where he sleeps poorly, but not to the same extent as earlier. His quality of life has improved, both when he is sleeping and when he is awake. He participates in activities and meals, he can stand, and he has sufficient self-care skills to participate in ADL activities. He still sleeps with a GDV in the bed, and he is happy with it.



**Participant #2:** An older woman with parkinsonism. Her body is very rigid, and she uses a rollator to walk. She went through a period where she slept poorly because of back pain, and she accepted an offer to participate in the test.

The GDV Careturner was set to change positions every hour and fifteen minutes. After the first night, she felt better, but because new things are difficult for her and she was unhappy with the bed, she was switched back to the previous solution, although she no longer had back pain.

**Participant #3.** An older woman with last-stage dementia. The woman would lie in the fetal position and had decubitus ulcers on her posterior. It was hoped that the bed could relieve the ulcer and prevent it from getting larger.

The bed was set to change position every half hour, but it turned out that her ulcer was not relived sufficiently due to her body position.

**Participant #4:** An older man with consequential symptoms of a brain hemorrhage. The man is wheelchair-bound, his body would get very tired in bed, among other things getting backpains from lying in bed.

The man was offered the opportunity to test the borrowed bed, which was set to change position every hour throughout the night. Already after the first night, he reported having slept well, and he no longer has backpains. Subsequently, a GDV Careturner was purchased as a permanent solution.

## WELFARE TECHNOLOGY EVALUATION

### TECHNOLOGY

#### **User-friendliness**

Good user-friendliness. Can be operated by remote control and is easy to use.

#### **Functionality**

Good and reliable functionality that works as intended and does so every time.

### ECONOMY/RESOURCES

#### **Investment**

The technology can be used without modifications or purchasing other products. It must be used in a hospital bed of the brand Invacare.

A GDV Careturner and bedrail covers were purchased for the bed. The company lent a GDV Careturner for the testing, which has been returned. After the project was finished, another (used) GDV Careturner was purchased.

#### **Operation**

The product enables delivery of better care with fewer resources, as it can prevent decubitus ulcers, which are very expensive to treat, and the overnight staff can avoid spending time on turnings.

### RESIDENT

**Value** The GDV Careturner gave the residents more peaceful sleep at night with no disruption. Three out of four residents observed that the Careturner gave them fewer back problems.

**Usability** The residents slept better at night without disruption, which enabled them to participate fully rested in the tasks of their day.



## ORGANIZATION

### Management

The management were supportive during the entire project, and the intent is to continue the use of Careturners in the regular operations.

### Staff:

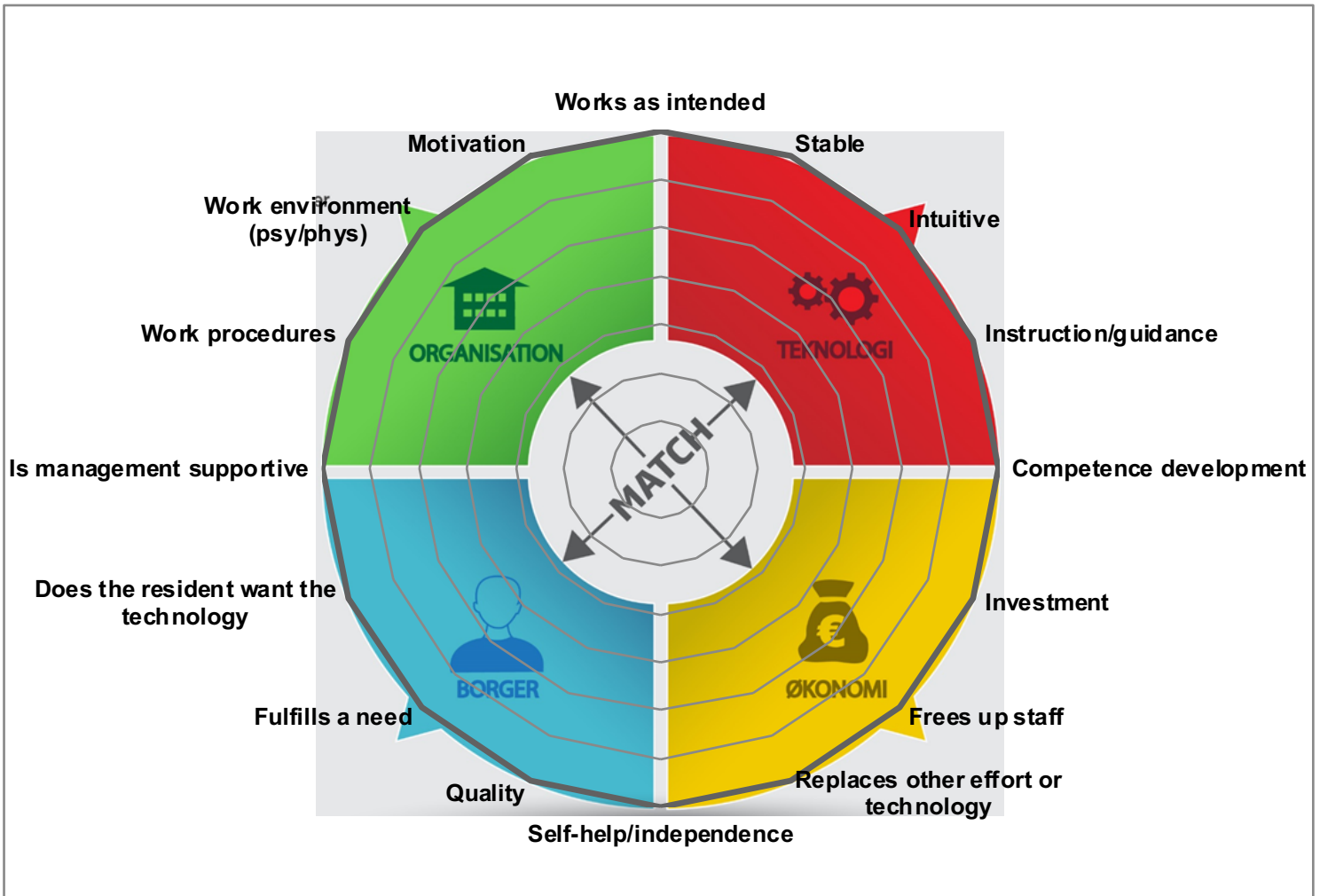
The staff was motivated about using the solution, once they learned that it helps with heavy lifting and supports personal care in the bed.

## WTE TABLE

Area:	Category:	Question: Yes=2, In part=1, Answer No=0) (2,1,0)	Explanation:
<b>Technology</b>	<i>Functionality:</i>	Can the technology do what it is expected to do?	<b>2</b> Yes: The position of the resident changes according to the settings of the GDV Careturner.
		Does the technology work every time it is used?	<b>2</b> Yes: It works every time. (Staff needs to remember to turn it on)
	<i>User-friendliness:</i>	Is the technology easy and intuitive to use?	<b>2</b> Yes: It is easy to use.
		Are the manuals good / was the instruction good?	<b>2</b> Yes: There are both instructions in print and on video.
<b>Economy</b>	<i>Investment:</i>	Can the technology be used without resource intensive competence development?	<b>2</b> Yes: There is a need for internal in-servicing. GDV has been in charge of training all shifts.
		Can the technology be used with modifications / purchasing other products?	<b>2</b> Yes: The GDV Careturner must be used in a hospital bed of the brand Invacare.
	<i>Operation:</i>	Does the technology make the care more effective? (Can more be delivered with the same resources or the same with fewer resources)	<b>2</b> Yes: Decubitus ulcers, which are very expensive to treat, can be prevented, and the night staff does not have to spend time on turnings.
		Does the technology replace other services or other technology?	<b>2</b> Yes: It replaces staffing resources.
<b>Resident</b>	<i>Value:</i>	Are the residents more independent with use of the technology and/or does it give the	<b>2</b> Yes: The GDV Careturner gives the resident a better night's sleep without disruption. Three out of four residents observed that the



		residents more options?		Careturmer gave them fewer back problems.
		Is the technology cause for an improvement in the quality of the service? (E.g. quality of life, increased dignity, integrity, inclusion, communication, etc.)	2	Yes: The residents have been sleeping better without interruptions, making the able to participate in their daily tasks well-rested.
	<i>Usability:</i>	Does the technology fulfill a need for the residents?	2	Yes
		Do the residents want to use the technology / receive a service via the technology?	2	Yes: One Careturner was borrowed from the company, and when they wanted it back, the resident became very sad/upset, which lead to a used Careturner being purchased from the company.
<b>Organization</b>	<i>Management:</i>	Does the management support use of the technology?	2	Yes
		Does the technology support good work procedures?	2	Yes
	<i>Staff:</i>	Is the technology cause for an improved work environment?	2	Yes: It minimizes heavy lifting and supports personal care in bed.
		Is there motivation for using the technology?	2	Yes: For the residents that currently have a GDV Careturner, there is no desire to change it.



## CONCLUSION

Based on the test, it can be concluded that the GDV Careturner gives the residents a less disrupted sleep, since they must not be disturbed by overnight staff to change position in an effort to prevent decubitus ulcers. The motor on the GDV Careturner is very quiet, which is an advantage compared to other mattresses preventing decubitus ulcers, which are generally quite noisy.

The GDV Careturner is easy and safe to use, and the staff are satisfied with this equipment, which supports and helps them with care tasks, saving the staff from back strain and heavy lifting.

### Recommendations for continued use

Based from the above-listed good experiences, it is recommended that the GDV Careturner become a permanent option for older and handicapped residents in Rødovre Municipality.