# AND PREVENTION OF WANDERING A BEHAVIOR AT NIGHT

### PEOPLE WITH DEMENTIA WANDER AT NIGHT, WHICH IS A BIG PROBLEM

People with dementia are known to wander behaviour. Patients can frequently climb out of bed and start wandering in search of dynamic stimuli are confused and think they should do something or are searching for an unknown need.

Although wandering might seem innocent, it can be a burden that increases the care burden of both professional and family caretakers. Research illustrates that a patient can leave the bed as much as 31 times per night. Sleep disturbances lower patient's quality of life and increase the burden of care.

With a chance of 32 per cent of elder people falling once a year, from which 24 per cent had severe injuries and even 6 per cent fractures, falling is a significant danger while walking. Patients with dementia are considered twice as vulnerable to falls compared to those without dementia, making falling an even higher probable danger for people with dementia.

#### A STUDY ON WANDERING BEHAVIOR OF PEOPLE WITH DEMENTIA

**Participants** 

Avg. times patients Avg. number of wake up during times patients the night

Max. number of times patient left leave bed per night bed

Avg. sleeping time in hours

McCurry, S. M., Pike, K. C., Vitiello, M. V., Logsdon, R. G., & Teri, L. (2008). Factors associated with concordance and variability of sleep quality in persons with Alzheimer's disease and their caregivers. Sleep, 31(5), 741-748.

Colenda, C. C., Cohen, W., McCall, W. V., & Rosenquist, P. B. (1997). Phototherapy for patients with Alzheimer disease with disturbed sleep patterns: results of a community-based pilot study. Alzheimer disease and associated disorders, 11(3), 175-178.

## CLOUDCUDDLE SENIOR IS A MOBILE, INFLATABLE BED TENT THAT PREVENTS PEOPLE WITH DEMENTIA FROM WANDERING























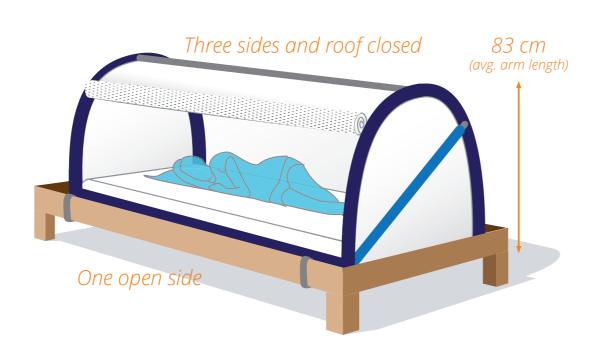
CloudCuddle Senior is a mobile inflatable bed tent that keeps patients up to 120kg in bed safely. In order to ensure nurses are not hindered in their nursing activities, the side can be zipped open past the roof and the top bar can be removed. This enables nurses to hoist patients into bed if necessary.

Due to the small diameter of the inflatable tubes (8cm) the structure of CloudCuddle Senior can be put between the bed and frame and fixated with velcro. The size of the inflatable tubes is no obstruction for patients to climb into bed.

The combination of three closed and one open side of CloudCuddle Senior is optimised for a sense of safety, and the mesh make sure patients stay in bed.

### A SENSE OF SAFETY

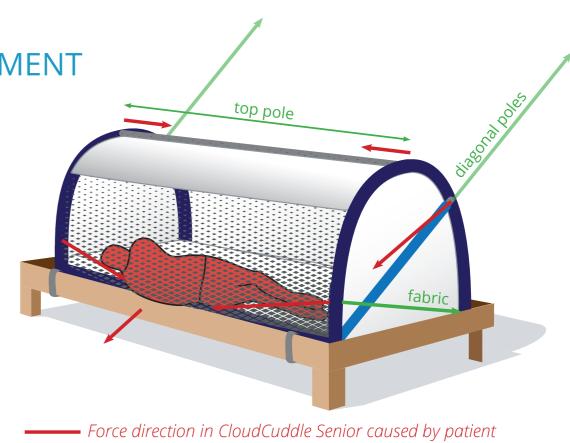
By opening the mesh on the side, CloudCudde Senior can be used to offer a sense of safety while not restricting the patient's freedom. In this way, the bed tent is used in a less compulsorily way and easier employable accordance the new law of coercion, which will be deployed in 2020. In this setup, it is not required to consult a doctor and family because it does not restrict the patient's freedom.



### A SAFE SLEEPING ENVIRONMENT

Offer more privacy and personal cocoon by closing the mesh. If the patient is over-aroused, it will reduce stimuli in an attempt to calm the senses.

It also prevents patients from stepping out of their bed. Two diagonal placed poles on the side and a top pole counter the forces that are applied by the patient (who can be up to 120kg) when he or she pushes against the side. Doing so, caregivers are given more freedom to do other activities.



——— Counter force direction caused by CloudCuddle Senior

Tommie Perenboom CloudCuddle Senior, the design of a bed tent 11-10-2019 **Integrated Product Design** 

Committee

Company

ir. I.A. Ruiter ir. C.P.J.M. Kroon CloudCuddle B.V.

