

Prevention of dehydration of independently living elderly people at risk by education and technological support

No registrations found.

Ethical review	Positive opinion
Status	Recruitment stopped
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON22652

Source

Nationaal Trial Register

Brief title

RPHS=Regional Public Health Service

Health condition

Dehydration of elderly people. Insufficient fluid intake.
Uitdroging bij ouderen. Onvoldoende vochtinname.

Sponsors and support

Primary sponsor: The primary performer is Regional Public Health Service West-Brabant. The study is performed in association with Tilburg University and General practice de Keen in Etten-Leur.

Source(s) of monetary or material Support: The study is funded by the CZ-fonds (a fund from a health insurance provider).

Intervention

Outcome measures

Primary outcome

The main parameter on individual and group level is the daily fluid intake (the quantity of daily used cups/glasses). The fluid intake is measured by open-end questions regarding the quantity of intake of different kinds of fluid (water, coffee, tea, milk, soda, excluding alcoholic drinks) the day before completing the questionnaire. The answers on the questionnaire regarding the quantity of different fluids they drink are summed to one overall score of cups/glasses a day and a total quantity of cc a day.

Secondary outcome

The other parameters are level of knowledge and awareness (of risks of dehydration), quality of life and experiences with the interventions.

The knowledge about the risks of dehydration is measured by 4 items, with which the elderly can agree or disagree on a 3-point scale (e.g. 'this is correct', 'this is not correct' and 'I don't know'). The items are: 'When your fluid intake is too low, you always get thirsty', 'When it is hot your fluid intake should be higher than on normal days in order to prevent dehydration', 'When you drink alcohol you lose more fluid than you consume' and 'When you are dehydrated you will urinate more than normal'.

To measure the awareness of risk of dehydration the following 3 questions are used: "Do you think you drink sufficiently?", "Do you think you are at risk of getting dehydrated? And if so, what is the reason you think you are at risk?". The possible answers on the first 2 questions are: 'yes', 'no' and 'I don't know'. For the last question the elderly can choose from 2 reasons ('because of my age' or 'because of my illness') or/and add another reason.

The score of correct answers on the items knowledge and awareness in the questionnaire are converted in a overall score representing knowledge and awareness.

To measure the quality of life the EuroQol questionnaire [14] is used. This validated questionnaire provides an index value for health status (a measure for quality of life) and is also suitable for elderly people. It contains 5 questions with answers on a 3-point scale. These questions include mobility, self-sufficiency, daily activities, pain and mood. The questionnaire also contains a general question about the participants's self-rated health state on a vertical, visual analogue scale where the endpoints are labelled 'Best imaginable health state' and 'Worst imaginable health state'. The participants are asked to give a score from 0 to 100.

To measure the experiences of the elderly with the interventions we conduct a semi-structured interview at the first measurement 6 weeks after the start of the interventions. Proces evaluation of the project will be conducted by interviewing the practice nurses, general practitioners and the Regional Public Health Service-workers.

Study description

Background summary

Dehydration of elderly people is a very important public health issue. It increases the risk of diseases and fatality and is an important cause of hospitalisation.

This study compares two interventions to prevent dehydration of elderly people at risk: an educational intervention and an educational intervention in combination with a drink reminder device. The educational intervention is given by practice nurses of the general practice de Keen in Etten-Leur. The Dutch Regional Public Health Service West-Brabant develops and provides information materials, coordinates the interventions and together with Tilburg University and will conduct the study on effects of the interventions.

People of 80 years and older and people of 65 years and older who have a heart disease receive a letter from the general practice in which they are asked if they want to participate in the study and if so to return the form. People who want to participate and whose daily fluid intake is insufficient are randomised to receive either the educational intervention or the educational intervention in combination with a drink reminder device (called the Obli).

The participants are asked to fill in a questionnaire before the intervention, 6 weeks after the start of the intervention and at 6 months follow-up. The two groups will be compared with regard to fluid intake, knowledge, awareness (of the risks of dehydration) and quality of life by means of multivariate analysis. MANOVA repeated measures will be used to compare the changes in mean total scores on fluid intake within and between the two groups.

Countries of recruitment: the Netherlands,

Study objective

There are no effective interventions to prevent dehydration of elderly people available. Therefore the RPHS West-Brabant, together with the General Practice de Keen, decided to develop and analyse the effect of an education strategy. Besides that we decide to assess the effectiveness of a recently developed drink reminder device.

Study design

All participating elderly people are asked to answer questions on a questionnaire. We measure the fluid intake, the knowledge and awareness (of risks of dehydration) and the quality of life at the following moments:

- at baseline, during a home visit or consultation with the practice nurse, before the intervention starts
- 6 weeks after the start of the interventions during a home visit by the health promoter of the Regional Public health Service West-Brabant
- and at 6 months follow-up during a home visit by the health promoter

Since, to our best knowledge, no validated questionnaires to measure the fluid intake, knowledge and awareness of the risks of dehydration are available, we designed one for measuring these parameters in our study.

Intervention

Intervention 1. Education

The elderly people in this group receive information from a practice nurse during a home visit or consultation. Information is given on the recommended daily fluid intake and the risks of insufficient fluid intake. The elderly also receive materials on the subject and are shown how to incorporate sufficient fluid intake into their daily routines.

Intervention 2. Education in combination with a drink reminder device.

The elderly in this group receive the same information as mentioned in intervention 1 as well as a demonstration of the drink reminder device which they are asked to use during 6 weeks. A caregiver or family member can be present at the demonstration. The drink reminder device (called Obli) measures the fluid intake and gives a visual (red) and auditive signal if the daily fluid intake is insufficient, so the elderly can adjust their drink behavior. The intensity of the signal can be adjusted to the preference of the elderly. The device registers the quantity of fluid taken from the decanter placed on the device-base. If the elderly drinks coffee/tea (not from the decanter or not at home) a button on the device can be pushed so this quantity of fluid intake is also measured.

The device registers the fluid intake and sends the data to a remote computer from which the practice nurse can monitor the fluid intake. If the amount of fluid intake is reason for concern the practice nurse contacts the elderly to offer some advice if needed. With the consent of the elderly also caregivers or careworkers who frequently visit the elderly will be informed about the project.

Contacts

Public

GGD West-Brabant

P.O. Box 30241, 5003 DA Tilburg

Francis Konings
Doornboslaan 225, Breda
Breda
The Netherlands
076-5282891/06-41291254

Scientific

GGD West-Brabant

P.O. Box 30241, 5003 DA Tilburg

Francis Konings
Doornboslaan 225, Breda
Breda
The Netherlands
076-5282891/06-41291254

Eligibility criteria

Inclusion criteria

Patients of 80 years and older.
Patients of 65 years and older with a heart disease.

Exclusion criteria

Patients who are not able to correspond in Dutch.
Patients with cognitive impairments.
Patients with kidney-/bladder diseases.

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)
Control:	Active

Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	01-09-2013
Enrollment:	50
Type:	Actual

Ethics review

Positive opinion	
Date:	01-05-2014

Application type:

First submission

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL4431
NTR-old	NTR4553
Other	METC en CZ-fonds : M521, NL45169.028.013/CZnr 201300043

Study results