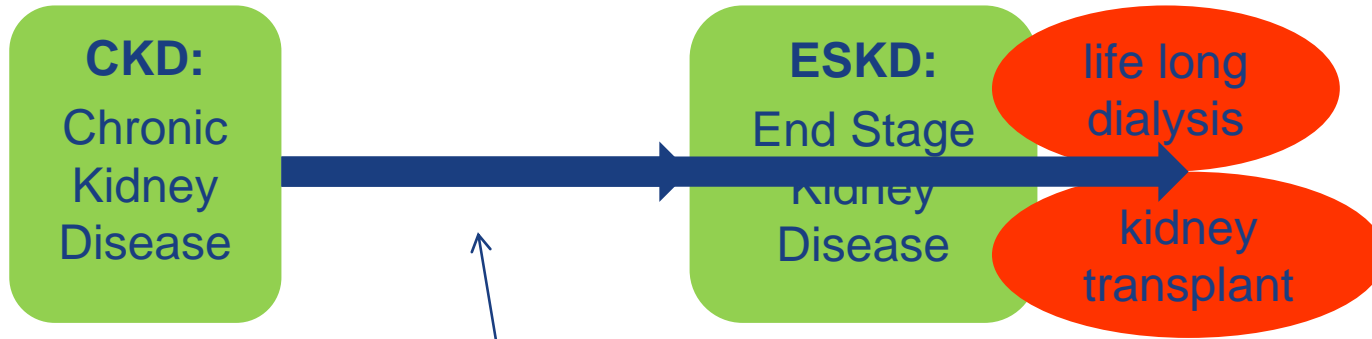


Webbased Lifestyle Self-Management for Chronic Kidney Disease Patients

Marika Hettinga, Jacqueline Slegten, Jan Nauta, Lammie van den Bosch, Gertie Smeets, Hannie Piels

m.hettinga@windesheim.nl Windesheim University of Applied Sciences

Med-e-Tel, Luxembourg, April 19th, 2012



Lifestyle !



Prior project results:

Lifestyle coaching by a nurse practitioner slows down the progression from CKD to ESKD by 8 weeks

This means for the patient:

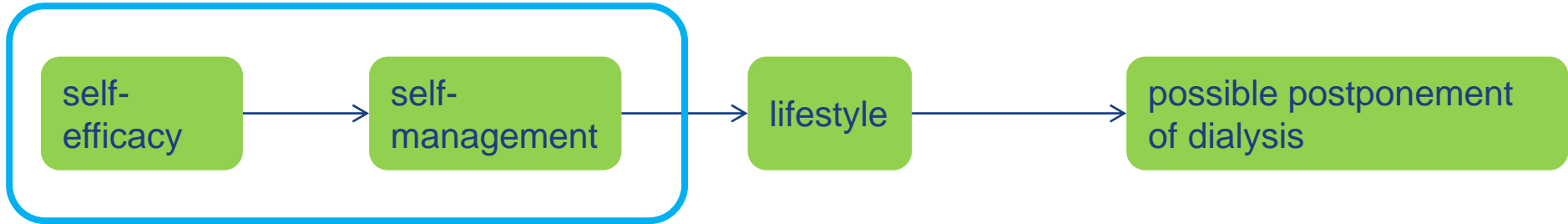
8 weeks without dialysis – a highly increased quality of life for patient

This means for the healthcare system:

a saving 1200€ per week

If we add webbased lifestyle coaching would that further postpone the need for dialysis?





Main Research Question:

What are the effects of the addition of a webbased application for Chronic Kidney Disease (CKD) patients on their lifestyle self-management?



What did we do?

Gather functional requirements based on prior collected user requirements

Inventory and selection of technology

Small scale qualitative study with selected technology

Pilot with new version of website

pre-pilot

pilot

Business case analysis to support upscaling (to go beyond 'pilotitis')




Small scale qualitative study with selected technology

- Questions:
 - Is the target group able to use the selected website?
 - How is the usability of the website for the target group?
 - How does the patient experience the lifestyle support of the website?
- Approach:
 - inclusion of 6 patients
 - training
 - using technology during one week
 - questionnaire
 - focus group



Small scale qualitative study with selected technology

← → ↻ <https://chronische-nierinsufficiënte.deetinzicht.nl/index.php?page=dayview>



Deetinzicht.nl

- home
- chronische nierinsufficiënte en dieet
- tabel voedingswaarden
- mijn kalender
- mijn onderzoek
- mijn basisgegevens
- mijn dagboek**
- mijn rapport
- recept
- dagmenu
- mijn instellingen
- links
- veelgestelde vragen
- ondersteuning
- www.deetinzicht.nl
- ingelogd als isalanier
- uitloggen
- Opmerking plaatsen
- doneer nu

Invullen dagboek - woensdag 24 November

selecteer datum

voeding diabetes medicatie metingen vervangen sportlog

	ochtend	middag	avond
bloeddruk	<input type="text"/> / <input type="text"/> mmHg	<input type="text"/> / <input type="text"/> mmHg	<input type="text"/> / <input type="text"/> mmHg
pols	<input type="text"/> per min		
temperatuur	<input type="text"/> °C		
gewicht	<input type="text"/> kg / lengte 172 cm / BMI <input type="text"/> kg/m ²		

bloedonderzoek	waarde	opmerking
Hemoglobine	<input type="text"/> mmol/l	<input type="text"/>
Witte bloedcellen	<input type="text"/> 10E9/l	<input type="text"/>
Bloedplaatjes	<input type="text"/> 10E9/l	<input type="text"/>
Bezinking	<input type="text"/> mm	<input type="text"/>
Bicarbonaat	<input type="text"/> mmol/l	<input type="text"/>
Natrium	<input type="text"/> mmol/l	<input type="text"/>
Kalium	<input type="text"/> mmol/l	<input type="text"/>
Ureum	<input type="text"/> mmol/l	<input type="text"/>
Kreatinine	<input type="text"/> µmol/l	<input type="text"/>
Urinazuur	<input type="text"/> mmol/l	<input type="text"/>

javascript:show_tab('4');

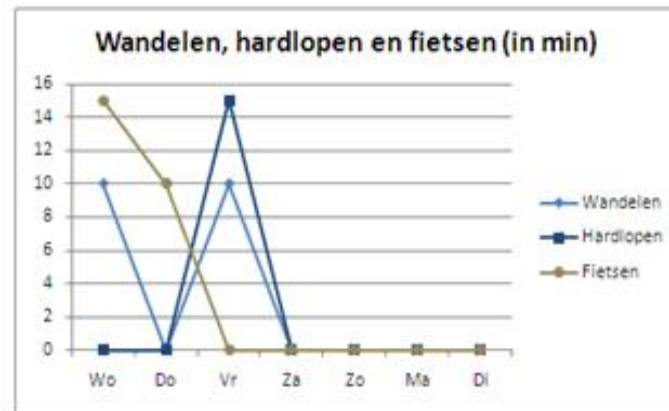
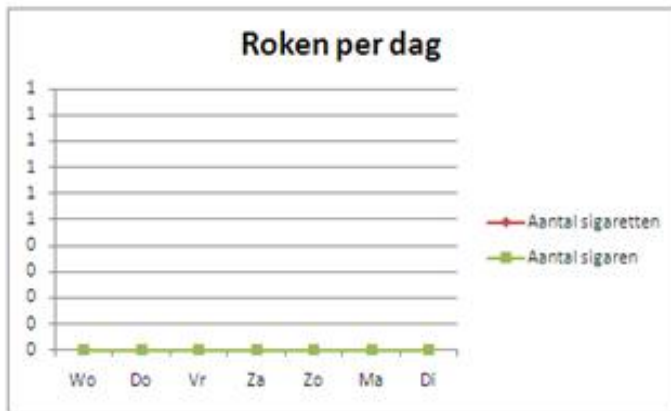
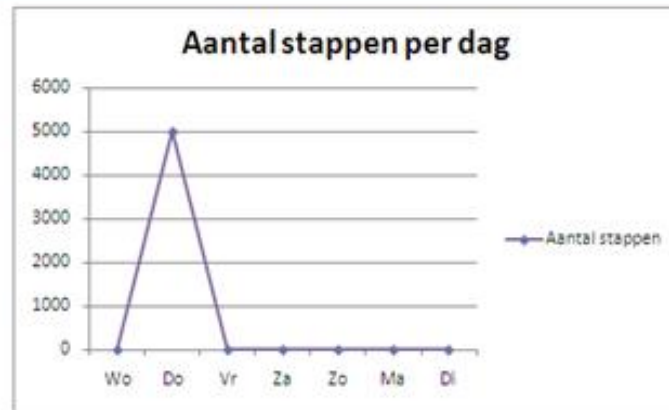
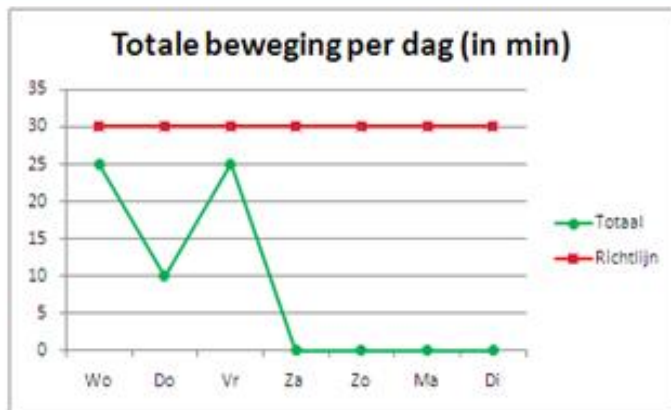




Mijn Rapport

Invullen dagboek voor:

- [Wo 4 Nov](#)
- [Do 5 Nov](#)
- [Vr 6 Nov](#)
- [Za 7 Nov](#)
- [Zo 8 Nov](#)
- [Ma 9 Nov](#)
- [Di 10 Nov](#)



Small scale qualitative study with selected technology

■ Results:

- Website is perceived useful for lifestyle management
 - especially feedback on the diet
- Target group is able to use the selected website and technology, but:
 - limited computer skills - instruction is needed!
 - using the website requires discipline
 - detailed usability feedback for developer
- Required additional functionality:
 - integrated communication with lifestyle coaching nurse (in addition to face to face contact)

■ Actions:

- feedback on website integrated by developer in new version
- focus in pilot on diet, exercising, and smoking without blood pressure and pedometer



Dagboek invullen



Voeding

Activiteit

Roken

Ontbijt



Volkorenbrood - 4 snee (140 gr.)



Tussendoor



Margarine - 4 beleg (dik) (32 gr.)



Middag



Extra jam - 2 broodbeleg (30 gr.)



Tussendoor



Pindakaas m stukjes noot - 2 broodbeleg (30 gr.)



Avond

Tussendoor



Cappuccino koffie bereid onbek - 2 standaard (300 gr.)



Nacht

Toon rapportage Opnemen in rapportage



Voedingrapport (Overzicht)

Vanaf: 1 augustus 2011

t/m: 7 augustus 2011

Dagboek

persoonlijk

energie (g)

energie (kcal)

vitamines

mineralen

Overig

energie

eiwit

vet tot

fat

sodium

potassium

P

water

Totaal tov richtlijn

		energie	eiwit	vet tot	fat	sodium	potassium	P	water
01-08-2011		2.507	81	127	41*	2.484*	3.194*	1.474*	1.789*
02-08-2011		2.313	81	112	38*	2.190*	3.810*	1.415*	2.014*
03-08-2011		2.378	85	116	43*	3.077*	3.481*	1.489*	1.918*
04-08-2011		1.844	72	82	29*	1.779*	3.131*	1.197*	1.684*
05-08-2011		2.416	88	111	36*	3.204*	4.014*	1.631*	1.985*
06-08-2011		2.586	88	122	40*	2.462*	4.788*	1.605*	1.960*
07-08-2011		2.332	84	118	47*	3.263*	4.437*	1.729*	2.275*
Gemiddeld		2.339	83	113	39*	2.637*	3.837*	1.506*	1.946*
Richtlijn		2.586	57 - 159	59 - 117	< 29	< 2.400	3.500	700 - 1.150	> 1.500



pre-pilot

- Testing:
 - Adjusted website
 - Training and user guide
 - Questionnaires:
 - adjusted from standard questionnaire on self-efficacy
- Approach:
 - seven patients
 - used website for two weeks
 - filled in all pre en post questionnaires
 - interview on training, user guide, and possible additional technical support



pre-pilot

- Results:
 - Adjusted website:
 - patients were able to use the website
 - patients found website valuable, and confronting and time consuming
 - Training and user guide
 - sufficient
 - few detailed requests for further clarification
 - Questionnaires:
 - clear and effective
- Conclusion:
 - pilot can start



pilot

- Approach:
 - 40 patients use website for 4 months
 - inclusion criteria: CKD, computer and internet at home
 - pre and post questionnaires and follow-up interview
- Status:
 - inclusion started in December
 - so far 19 patients included
- Preliminary results:
 - from logging results: website is not often used
 - time consuming although valuable



To conclude:

- Results from small scale experiments and preliminary results from pilot:
 - perceived value of website
 - using website appears time consuming and difficult for this target group
 - can we measure an impact on self-efficacy if website is not frequently used?
 - upscaling does not seem likely - business case analysis is down scaled
- What will be next?
 - conclude pilot and disseminate results
 - hospital management decides on upscaling based on pilot and business case results
- New research?
 - using simplified version of website for general and automated lifestyle feedback



Thank you!

For more information:

Marieke Hettinga, m.hettinga@windesheim.nl,
+31651506235

