UMC Utrecht in Beweging

Hulpmiddelen voor meer bewegen tijdens opname

UMC Utrecht in Beweging
Afdeling Revalidatie, Fysiotherapiewetenschap & Sport
beweging@umcutrecht.nl
www.umcutrecht.nl/beweging

Juli 2021

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UMC Utrecht in Beweging

De afgelopen jaren hebben we met het project UMC Utrecht in Beweging meerdere tools en interventies ontwikkeld om bewegen toegankelijker te maken tijdens ziekenhuisopname.

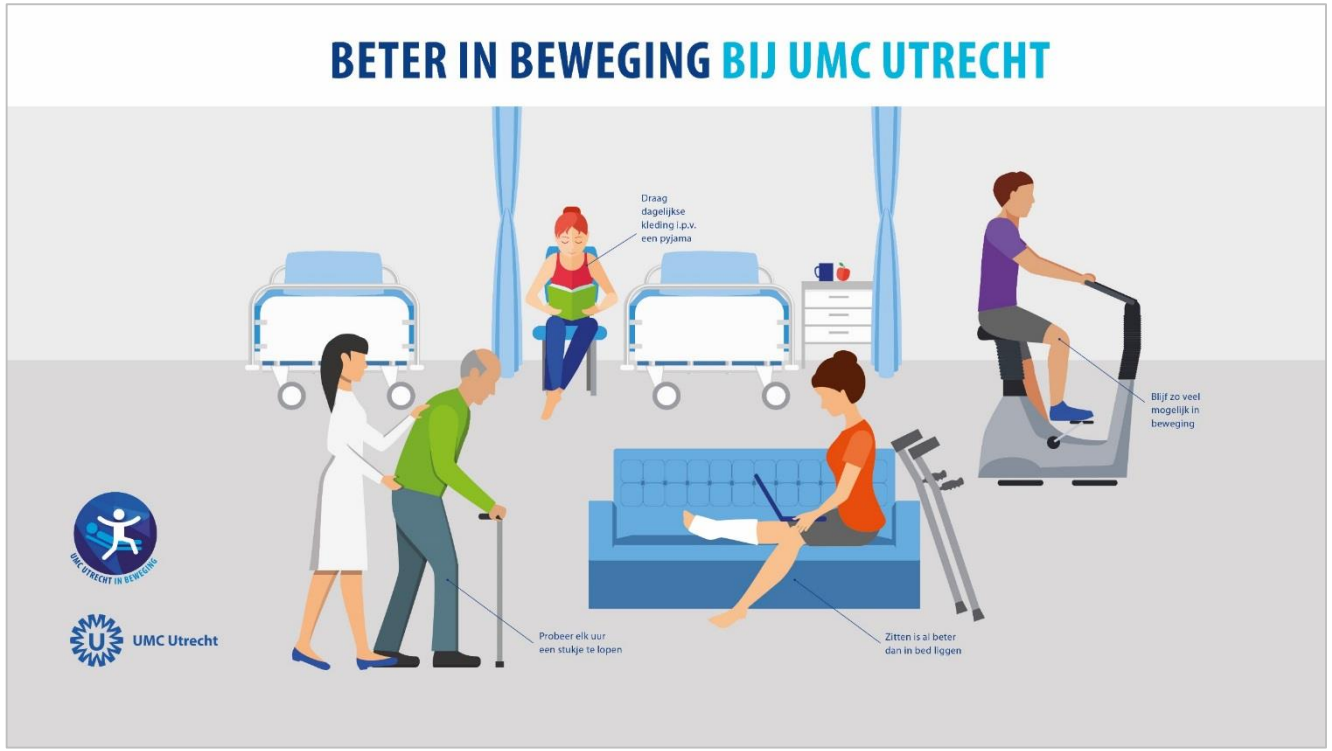
Op de volgende sheets staan deze weergegeven.

Daarnaast geven we ook tips hoe je meteen aan de slag kan met implementatie.

Laat je inspireren!

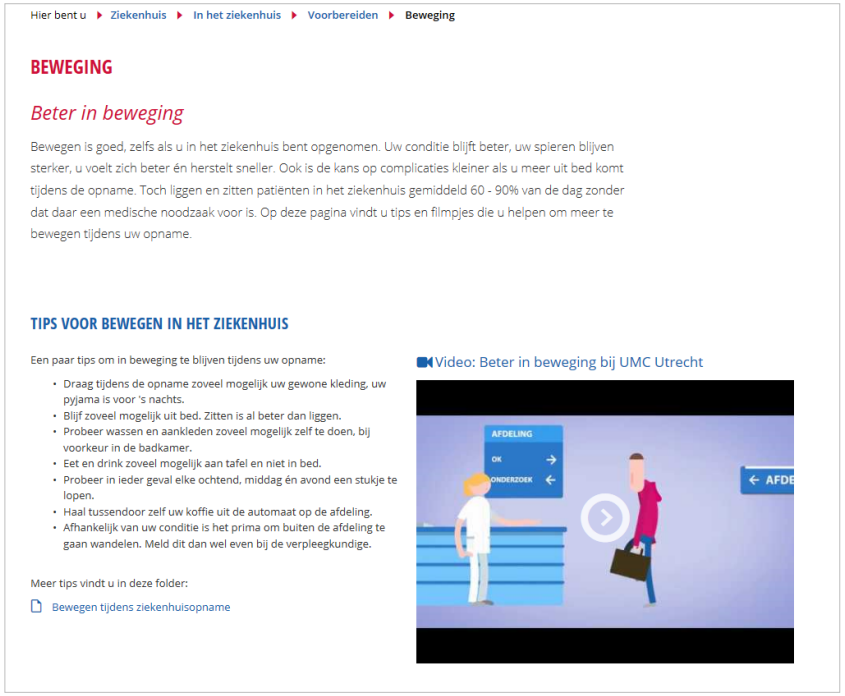
Wist je dat:

- 55% van de tijd overdag liggend in bed wordt doorgebracht, 35% zittend en 10% actief
- 67% van de patiënten zelfstandig kan bewegen tijdens opname
- 37% van de patiënt in bed luncht
- Patiënten meer in bed liggen als ze bezoek hebben



Voorlichtingsmaterialen

Website met tips en oefeningen



Hier bent u ▸ Ziekenhuis ▸ In het ziekenhuis ▸ Voorbereiden ▸ Beweging

BEWEGING

Beter in beweging

Bewegen is goed, zelfs als u in het ziekenhuis bent opgenomen. Uw conditie blijft beter, uw spieren blijven sterker, u voelt zich beter én herstelt sneller. Ook is de kans op complicaties kleiner als u meer uit bed komt tijdens de opname. Toch liggen en zitten patiënten in het ziekenhuis gemiddeld 60 - 90% van de dag zonder dat daar een medische noodzaak voor is. Op deze pagina vindt u tips en filmpjes die u helpen om meer te bewegen tijdens uw opname.

TIPS VOOR BEWEGEN IN HET ZIEKENHUIS

Een paar tips om in beweging te blijven tijdens uw opname:

- Draag tijdens de opname zoveel mogelijk uw gewone kleding, uw pyjama is voor 's nachts.
- Blijf zoveel mogelijk uit bed. Zitten is al beter dan liggen.
- Probeer wassen en aankleden zoveel mogelijk zelf te doen, bij voorkeur in de badkamer.
- Eet en drink zoveel mogelijk aan tafel en niet in bed.
- Probeer in ieder geval elke ochtend, middag én avond een stukje te lopen.
- Haal tussendoor zelf uw koffie uit de automaat op de afdeling.
- Afhankelijk van uw conditie is het prima om buiten de afdeling te gaan wandelen. Meld dit dan wel even bij de verpleegkundige.

Meer tips vindt u in deze folder:

Bewegen tijdens ziekenhuisopname

Video: Beter in beweging bij UMC Utrecht

www.umcutrecht.nl/beweging

UMC Utrecht

Bewegen voor, tijdens en na uw ziekenhuisopname

Tips, adviezen en oefeningen

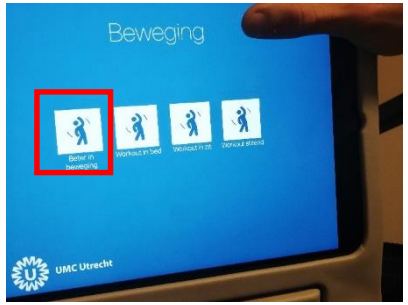
Universitair Medisch Centrum Utrecht

HERS.02.023 = Folder bewegen tijdens ziekenhuisopname

2018120701 = Folder met plekken om naar toe te bewegen binnen het UMCU

Connect > Service > Vormgeving en Repro > Web to Print > Patiëntbrochures UMC

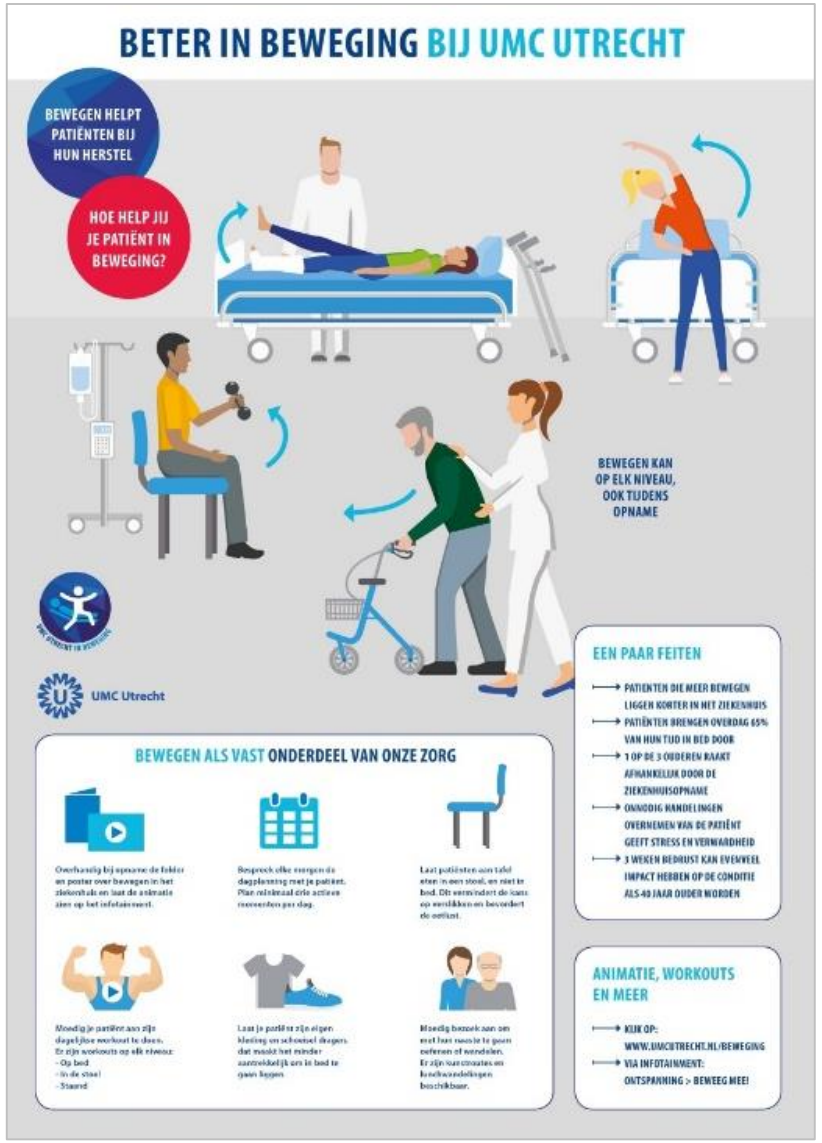
Video animatie over bewegen in het ziekenhuis

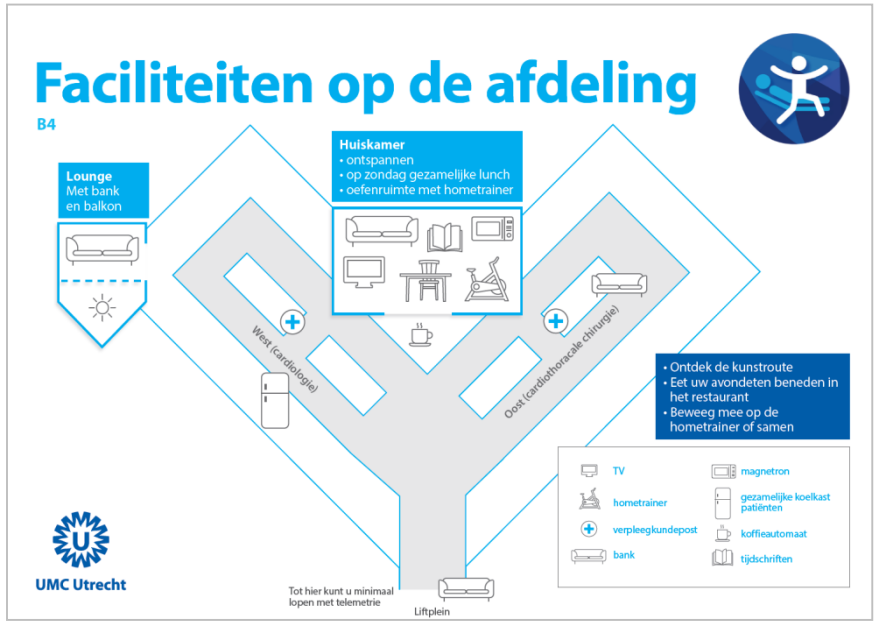


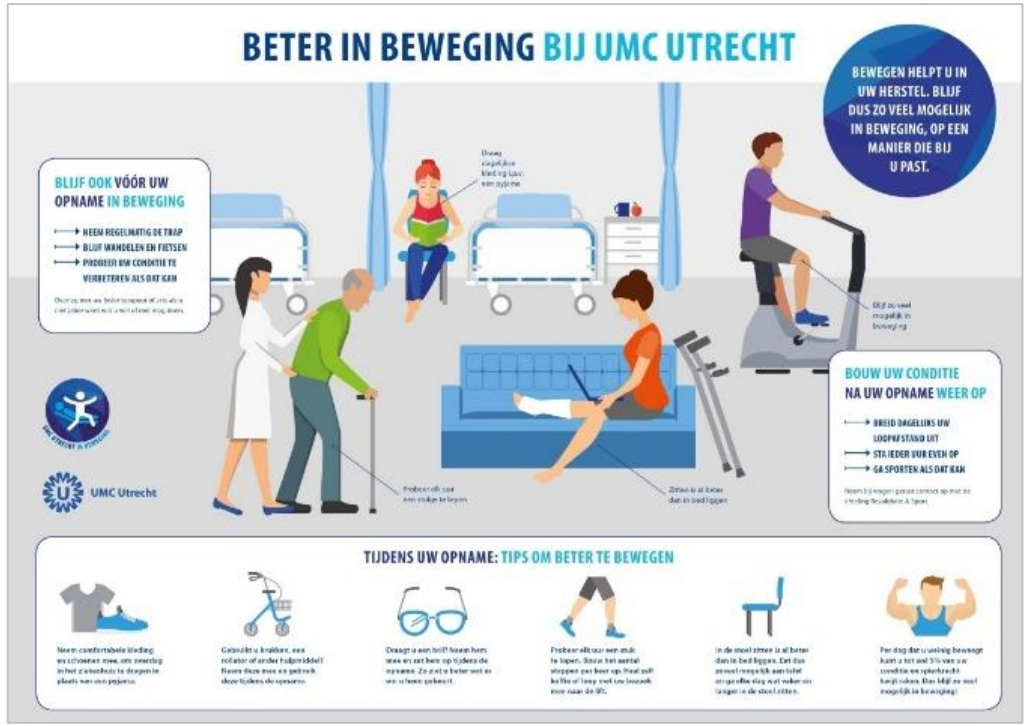
https://youtu.be/tjsftDRYwko

Posters

Geef aan waar de hometrainer staat, en waar de patiënt zélf koffie kan halen







Oefengidsen

3 gidsen met oefeningen voor elke patiënt

HERS.02.029 = Oefengids op bed
HERS.02.030 = Oefengids staand
HERS.02.031 = Oefengids zittend

Connect > Service > Vormgeving en Repro > Web to Print > Patiëntbrochures UMC > HERS brochures

UMC Utrecht oefengids

Blijf in beweging tijdens uw opname

Iedereen weet wel dat bewegen gezond is. Je wordt er sterker van en je voelt je er beter door. Ook als je ziek bent kan bewegen goed voor je zijn. Door liggen in bed kan de conditie onnodig afnemen. Het duurt lang voordat dit weer hersteld is.

In beweging blijven tijdens uw opname in het ziekenhuis draagt daarom bij aan een sneller herstel. Denk bij bewegen aan vaker in de stoel zitten in plaats van liggen op bed, aan het doen van oefeningen, of aan een stukje lopen over de afdeling en door het ziekenhuis.

Oefeningen terwijl u staat

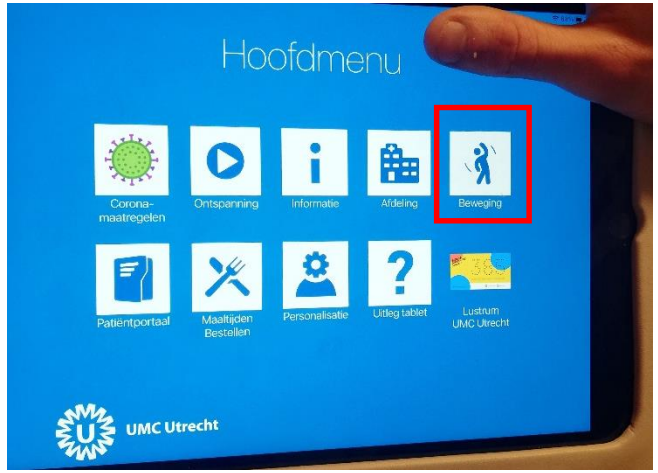
Er zijn 3 verschillende oefengidsen: één met oefeningen terwijl u ligt, één met oefeningen terwijl u zit en één met oefeningen terwijl u staat. In deze oefengids staan oefeningen die u staand kunt doen. Deze oefeningen zijn voor u geschikt als de oefeningen in de stoel u gemakkelijk afgaan. Doe deze staande oefeningen alleen als u stevig kunt staan met losse handen.

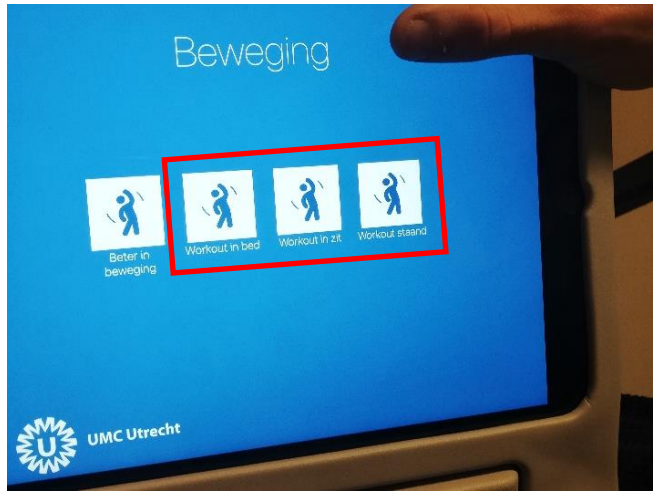
7 minuten workouts

Er zijn 3 workouts samengesteld met oefeningen
- in lig
- in zit
- in stand

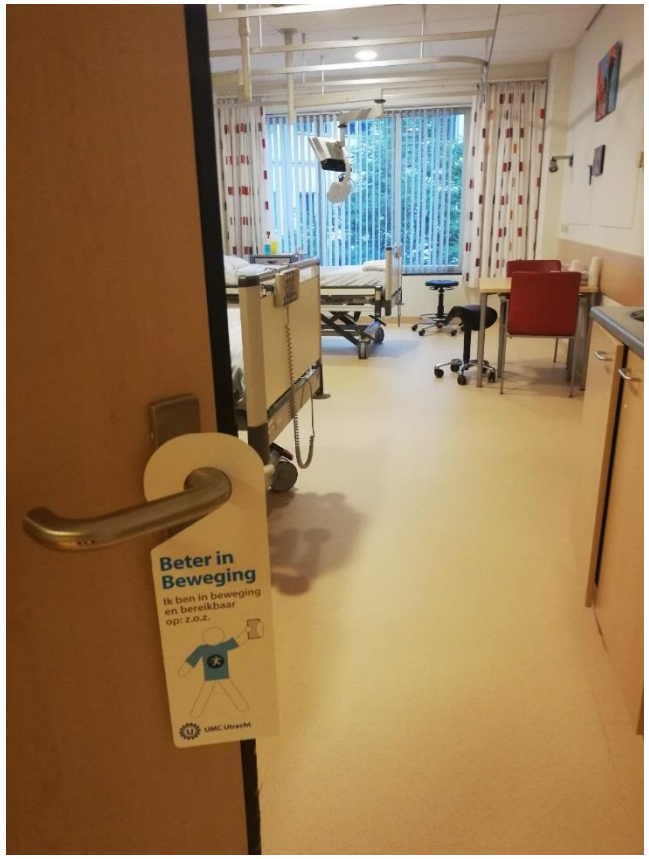
Deze zijn toegankelijk via de iPads op elke kamer

én via www.umcutrecht.nl/beweging





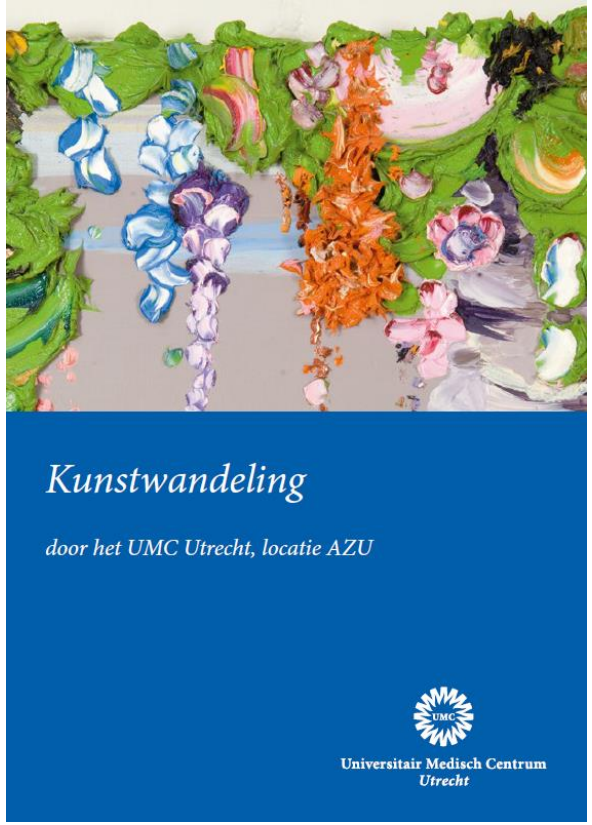
Wil de patiënt even weg?
Laat hun telefoonnummer achter!



Fietsen door Parijs, Utrecht of ….

Looproutes

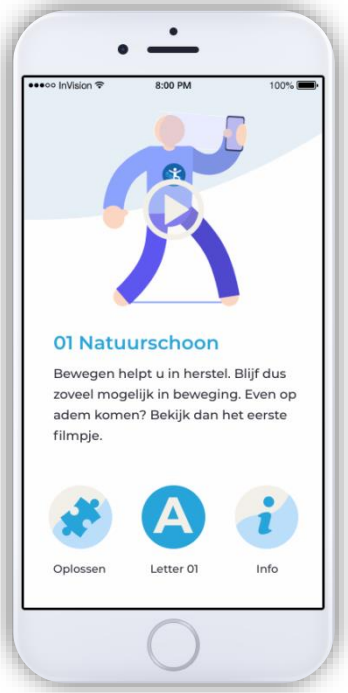
Kunstwandelingen in AZU en WKZ

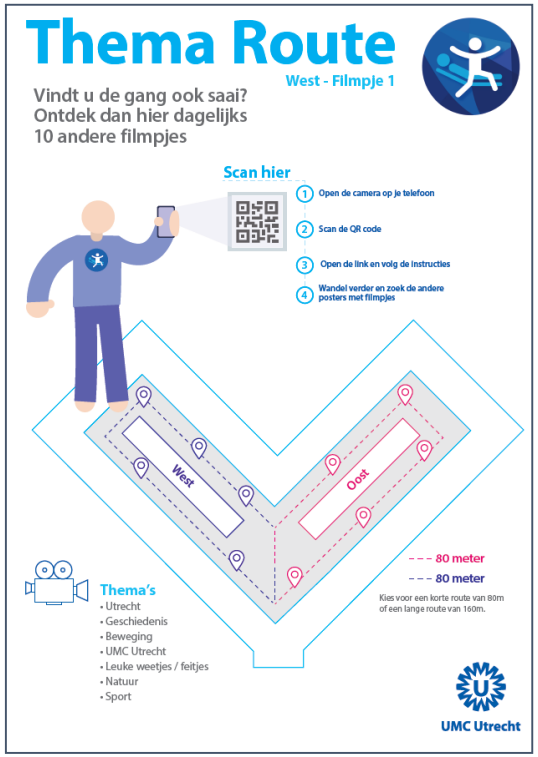


NIEUW DESIGN!

Interactieve routes met

elke dag nieuwe video's





Beweeggroepen

Op verschillende afdelingen worden beweeggroepen georganiseerd tijdens klinische opname

Gezamenlijk lunchen

Op verschillende afdelingen worden gezamenlijke lunches georganiseerd.

Gezellig, patiënten eten beter én zijn in beweging.

Patiënten B4 west en B4 oost lunchen gezamenlijk op zondag

Na een succesvol uitgevoerd project, UMC Utrecht in Beweging, heeft de gezamenlijke lunch nu een definitieve plek gekregen.

Schakel familie of vrijwilligers in

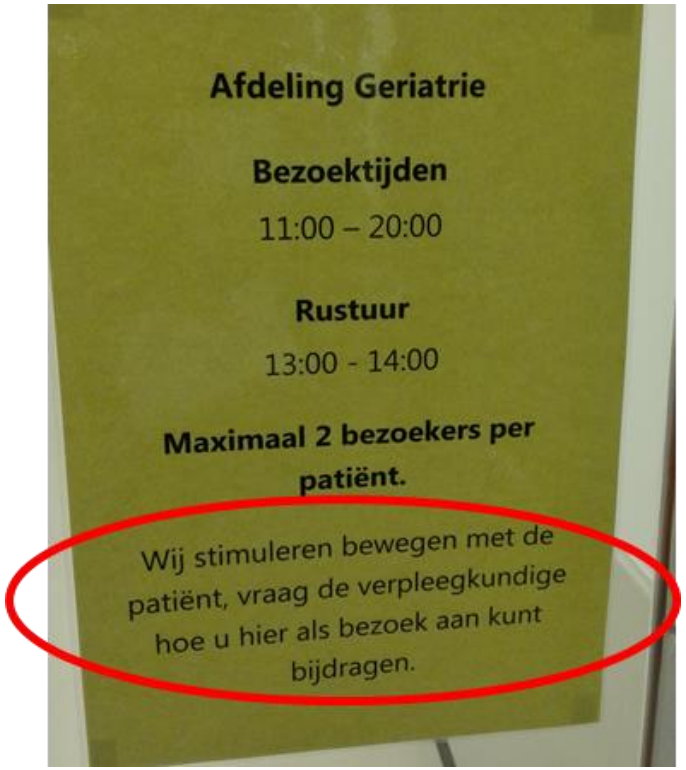
WIJ STIMULEREN

BEWEGEN

MET DE PATIENT.

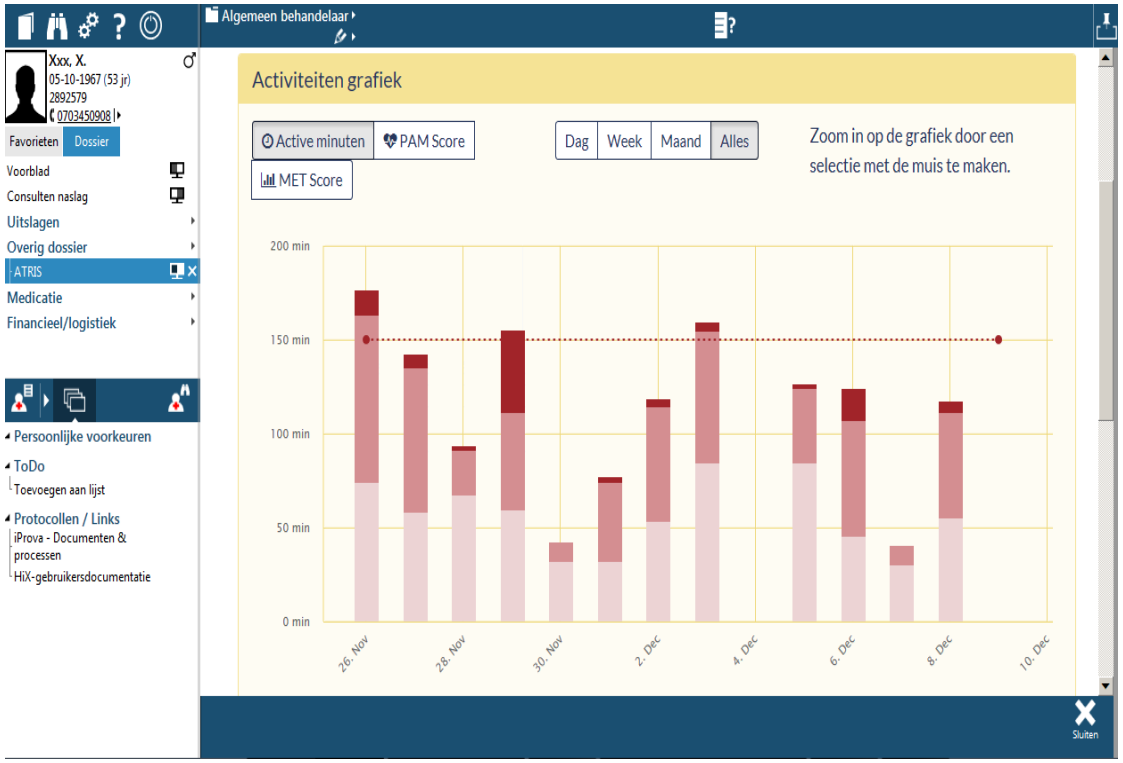
VRAAG OP DE AFDELING HOE U HIER ALS

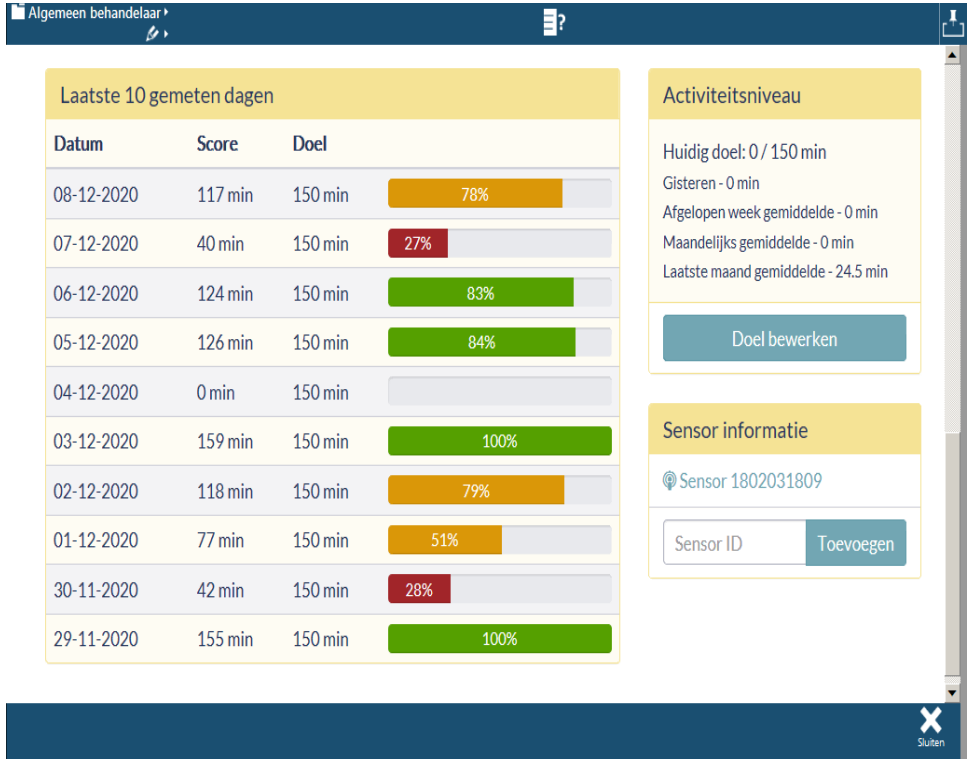
BEZOEK AAN KUNT BIJDRAGEN.



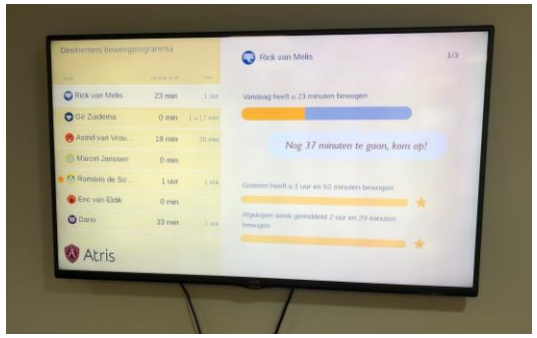
NIEUW: Beweegsensor in de kliniek

Overig dossier > ATRIS





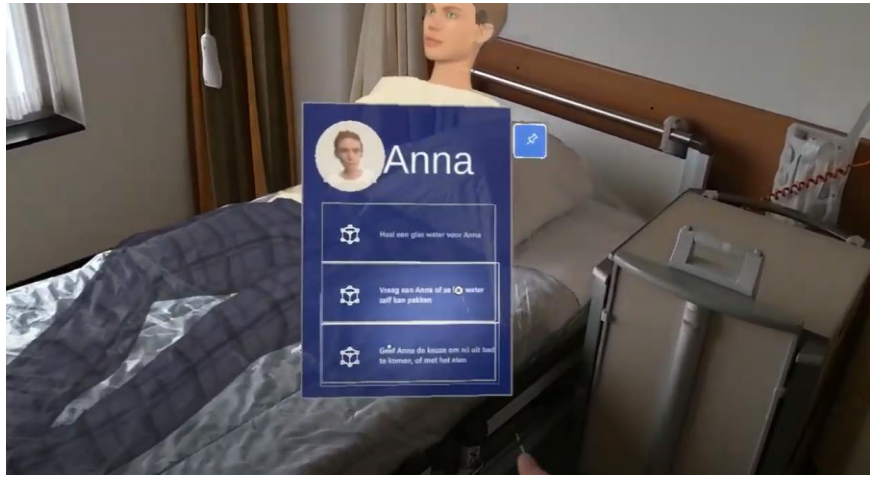
Beweegsensor voor om de enkel



Weergeven beweeggedrag (anoniem) op een scherm op de afdeling is mogelijk.

NIEUW: HoloLearn

- Interactieve scenario based e-learning over ‘activerend werken’ en ‘verplegen met de handen op de rug’
- 2 zorgverleners gaan samen aan de slag
- Mixed Reality (HoloLens)
- Scenario’s uit de praktijk oefenen met *virtuele patiënten in een échte patiëntenkamer*

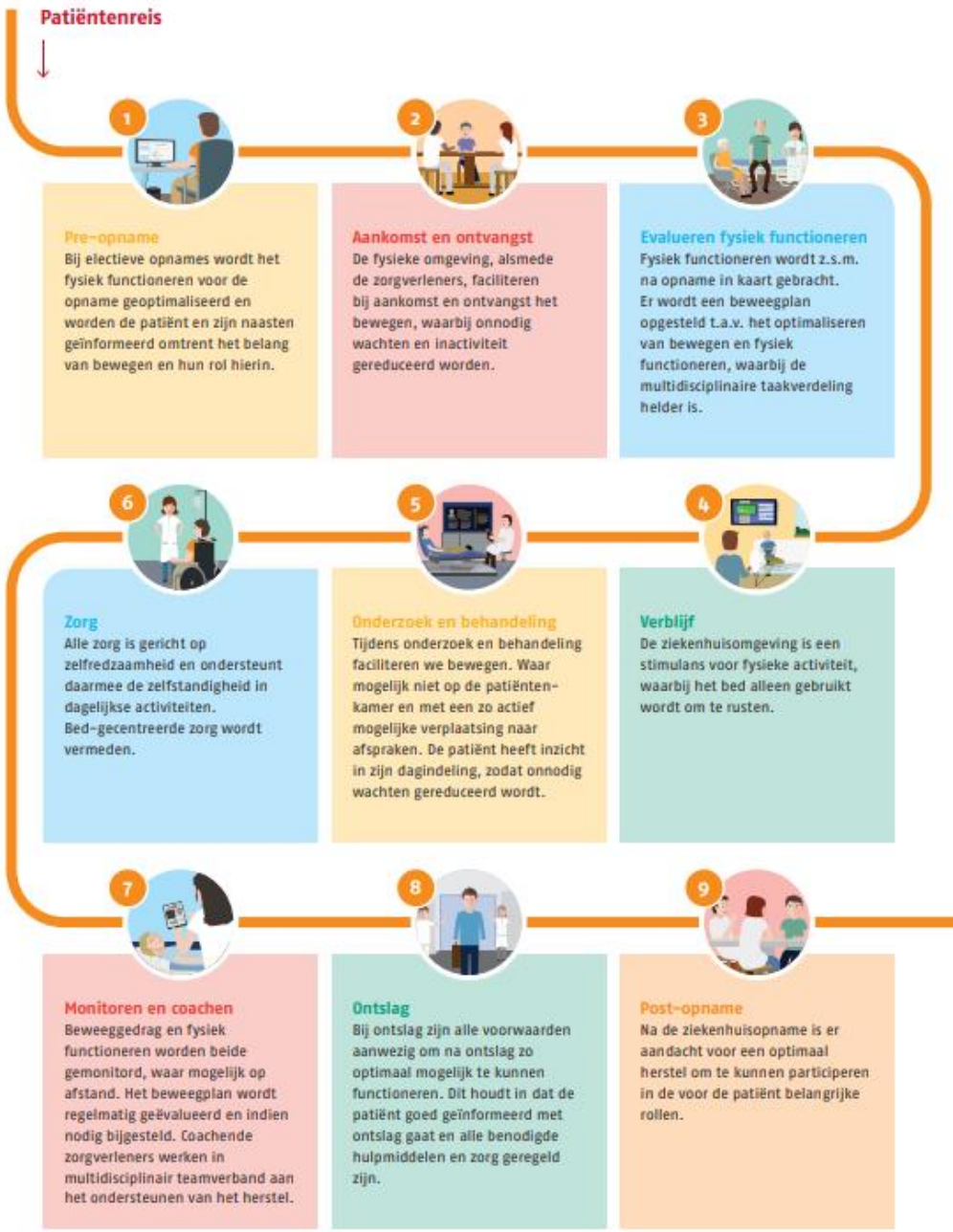


Aan de slag!

Om bewegen in te bedden in de dagelijkse zorg, adviseren we de volgende stappen per klinische afdeling:

- Stel een multidisciplinaire werkgroep samen (bijv. verpleegkundigen, fysiotherapeut, arts, unitmanager)
- Breng samen de patiëntenreis in kaart en bepaal waar bewegen aan de orde gesteld kan worden
- Bepaal per fase hoe en met welke middelen je dat gaat doen
- Stel samen doelen en acties op die passen bij jullie afdelingen en patiëntengroep(en)
- Leg bovenstaande vast in een actieplan

- NB: Evalueer tussendoor en pas aan wanneer nodig

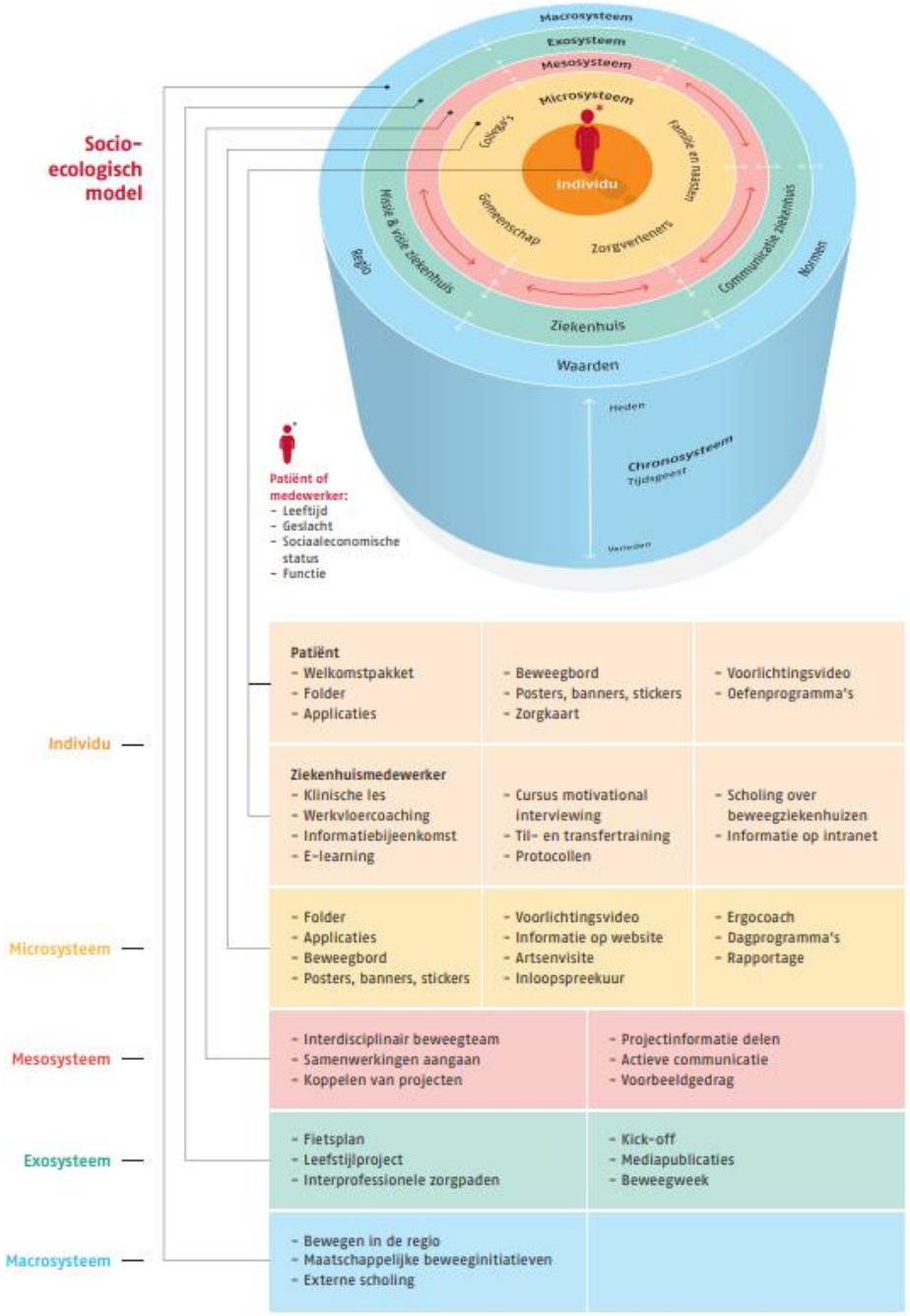


Tips

- Zorg dat de acties die je uitzet meerdere ‘dimensies’ bereiken (zie plaatje hiernaast). Hierdoor zorg je voor een breed bereik.

- Breng alles wat je doet regelmatig onder de aandacht middels verschillende kanalen (klinische lessen, nieuwsbrieven, werkafspraken, teambijeenkomsten, etc.)

- Doe níet teveel tegelijkertijd. Kies een duidelijk thema (bijv. ‘voorlichting’ of ‘eten aan tafel’.



Resultaten

Artikel

UMC Utrecht in Beweging: de implementatie van een multidisciplinair beweegplan in de dagelijkse zorg op de verpleegafdeling Geriatrie

Auteurs: Susan Bakker, Karin Valkenet, Mariëlle Emmelot, Clara Drenth, Johanna het Lam, Tim Mandersloot en Cindy Veenhof

Het is bekend dat fysieke inactiviteit tijdens ee
negatieve uitkomsten zoals complicaties en r
onnodige fysieke inactiviteit tegen te gaan is
beweegplan samengesteld door een multidisciplina
van het implementatieproces te delen, anderzijds o
implementatie van het beweegplan te presenteren.

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PHYSIOTHERAPY THEORY AND PRACTICE
https://doi.org/10.1080/09593985.2019.1626517

Perspectives of patients and health-care professionals on hospitalized patients

Kirsten De Klein, MSc[a], Karin Valkenet, PT, PhD[b], and Cindy Veenhof, PT, PhD[b]

[a]Department of Social Sciences, Wageningen University and Research, Wageningen, The Netherlands; [b]Physiotherapy Science and Sport, University Medical Center Utrecht, Utrecht University, Utrecht, Netherlands; [c]Expertise Center Innovation of Care, Research Group Innovation of Mobility Care, University of Applied Sciences Utrecht, Utrecht, N

ABSTRACT

Background: A lack of physical activity during hospitalization can lead to adverse outcomes like complications and loss of physical function. More insight into factors that influence physical activity during a hospital stay is needed to develop strategies to change the mobility culture in hospitals.

Objective: To give an overview of factors that influence physical activity of patients by exploring the perspectives of both patients and health-care professionals regarding physical activity during hospital stay.

Method: Semi-structured interviews with patients and health-care professionals were conducted at a university hospital in the Netherlands. Patients were interviewed about their daily activities during their hospital stay and the factors that were of influence. Health-care professionals were asked about their perceptions regarding their responsibilities in promoting physical activity during hospitalization.

Results: In total eight patients and nine health-care professionals participated. Patients and health-care professionals stated that low physical activity levels were mostly caused by a poor physical status, patients' expectations to lie in bed during hospitalization, and the lack of knowledge on the importance of physical activity. Lack of time was the main barrier for health-care professionals to promote physical activity.

Conclusion: Physical activity is not yet seen as a structural part of hospital care by both patients and health-care professionals, and does not have priority within current daily routines. To increase physical activity levels of hospitalized patients, more knowledge and tools should be available for both patients and health-care professionals.

ARTICLE HISTORY
Received 19 October 2017
Revised 17 February 2019
Accepted 28 April 2019

KEYWORDS
Hospitalization; physical activity; behavior; health care professionals; inpatients; activities of daily living

Introduction

Yearly around 1,700,000 people are admitted to a hospital in the Netherlands (Central Bureau of Statistics, 2014). Although hospitalization is primarily aimed at improving a patient's health status, it is often associated with adverse outcomes due to functional decline (Brown et al, 2007; Cattanach, Sheedy, Gill, and Hughes, 2014; Pierluissi, Francis, and Covinsky, 2014). This functional decline may occur as a result of frequent and often preventable bed rest episodes which are associated with adverse effects on the cardiovascular, respiratory and musculoskeletal systems (Bernhardt, Dewey, Thrift, and Donnan, 2004; Cattanach, Sheedy, Gill, and Hughes, 2014).

Functional decline due to hospitalization is called Hospitalization Associated Disability (HAD). HAD is an addition to the illness that caused the individual to be admitted to the hospital and it serves as an inhibiting factor for recovery for many patients (Pierluissi, Francis, and Covinsky, 2014). Patients are less able to individually perform basic activities of daily living like self-care and eating or walking small distances (Brown, Friedkin, and Inouye, 2004; Covinsky, Pierluissi, and Johnston, 2011). An HAD can result in prolonged length of stay and increased health-care costs (Brown, Friedkin, and Inouye, 2004).

Increasing the amount of physical activity during a hospital admission can prevent HADs (Sourdet et al, 2015). Nevertheless, patients spent between 50% and 83% of their time in bed, and less than 6% of their time on performing physical activities (Bodilsen et al, 2013; Brown, Redden, Flood, and Allman, 2009; Pedersen et al, 2013; van de Port, Valkenet, Schuurmans, and Visser-Meily, 2012). Health-care professionals (HCPs) are able and willing to encourage patients to be more physically active, but do not see it as a priority (Brown et al, 2007; Doherty-King et al, 2014).

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Original Article

CLINICAL REHABILITATION

Clinical Rehabilitation
1–8
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SAGE

Measuring physical activity levels in hospitalized patients: a comparison between behavioural mapping and data from an accelerometer

Karin Valkenet[1], Petra Bor[1], Lotte van Delft[1] and Cindy Veenhof[1,2]

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Abstract

Objective: To investigate the level of agreement of the behavioural mapping method with an accelerometer to measure physical activity of hospitalized patients.
Design: A prospective single-centre observational study.
Setting: A university medical centre in the Netherlands.
Subjects: Patients admitted to the hospital.
Main measures: Physical activity of participants was measured for one day from 9 AM to 4 PM with the behavioural mapping method and an accelerometer simultaneously. The level of agreement between the percentages spent lying, sitting and moving from both measures was evaluated using the Bland–Altman method and by calculating Intraclass Correlation Coefficients.
Results: In total, 30 patients were included. Mean (±SD) age was 63.0 (16.8) years and the majority of patients were men ($n = 18$). The mean percentage of time (SD) spent lying was 47.2 (23.3) and 49.7 (29.8); sitting 42.6 (20.5) and 40.0 (26.2); and active 10.2 (6.1) and 10.3 (8.3) according to the accelerometer and observations, respectively. The Intraclass Correlation Coefficient and mean difference (SD) between the two measures were 0.852 and –2.56 (19.33) for lying; 0.836 and 2.60 (17.72) for sitting; and 0.782 and –0.065 (6.23) for moving. The mean difference between the two measures is small (≤2.6%) for all three physical activity levels. On patient level, the variation between both measures is large with differences above and below the mean of ≥20% being common.
Conclusion: The overall level of agreement between the behavioural mapping method and an accelerometer to identify the physical activity levels 'lying', 'sitting' and 'moving' of hospitalized patients is reasonable.

Keywords
Behavioural mapping, accelerometer, agreement, physical activity, hospital

Received: 18 October 2018; accepted: 18 February 2019

Original Research

The Effectiveness of Hospital in Motion, a Multidimensional Implementation Project to Improve Patients' Movement Behavior During Hospitalization

Lotte M.M. van Delft, Petra Bor, Karin Valkenet, Arjen J.C. Slooter, Cindy Veenhof

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K. Valkenet, PhD, Department of Rehabilitation, Physiotherapy Science and Sport, University Medical Centre Utrecht, Utrecht University.

A.J.C. Slooter, PhD, Department of Intensive Care Medicine, University Medical Centre Utrecht, Utrecht University; and UMC Utrecht Brain Center, Utrecht University.

C. Veenhof, PhD, Department of Rehabilitation, Physiotherapy Science and Sport, University Medical Centre Utrecht, Utrecht University; and Research Group Innovation of Human Movement Care, HU University of Applied Sciences Utrecht, Utrecht, The Netherlands.

[van Delft LMM, Bor P, Valkenet K, Slooter AJC, Veenhof C. The effectiveness of Hospital in Motion, a multidimensional implementation project to improve patients' movement behavior during hospitalization. *Phys Ther* 2020;100:2096–2098.]

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Submitted: November 13, 2019

Post a comment for this article at: https://academic.oup.com/ptj

Objective. Hospital in Motion is a multidimensional implementation project aiming to improve movement behavior during hospitalization. The purpose of this study was to investigate the effectiveness of Hospital in Motion on movement behavior.

Methods. This prospective study used a pre-implementation and post-implementation design. Hospital in Motion was conducted at 4 wards of an academic hospital in the Netherlands. In each ward, multidisciplinary teams followed a 10-month step-by-step approach, including the development and implementation of a ward-specific action plan with multiple interventions to improve movement behavior. Inpatient movement behavior was assessed before the start of the project and 1 year later using a behavioral mapping method in which patients were observed between 9:00 am and 4:00 pm. The primary outcome was the percentage of time spent lying down. In addition, sitting and moving, immobility-related complications, length of stay, discharge destination home, discharge destination rehabilitation setting, mortality, and 30-day readmissions were investigated. Differences between pre-implementation and post-implementation conditions were analyzed using the chi-square test for dichotomized variables, the Mann Whitney test for non-normal distributed data, or independent samples *t* test for normally distributed data.

Results. Patient observations demonstrated that the primary outcome, the time spent lying down, changed from 60.1% to 52.2%. For secondary outcomes, the time spent sitting increased from 31.6% to 38.5%, and discharges to a rehabilitation setting reduced from 6 (4.4%) to 1 (0.7%). No statistical differences were found in the other secondary outcome measures.

Conclusion. The implementation of the multidimensional project Hospital in Motion was associated with patients who were hospitalized spending less time lying in bed and with a reduced number of discharges to a rehabilitation setting.

Impact. Inpatient movement behavior can be influenced by multidimensional interventions. Programs implementing interventions that specifically focus on improving time spent moving, in addition to decreasing time spent lying, are recommended.

PLOS ONE

RESEARCH ARTICLE

Validity of three accelerometers to investigate lying, sitting, standing and walking

Karin Valkenet[1]*, Cindy Veenhof[1,2]

1 University Medical Center Utrecht, Utrecht University, Department of Rehabilitation, Physical Therapy Science & Sports, The Netherlands, 2 University of Applied Sciences Utrecht, Expertise Center Innovation of Care, Research Group Innovation of Mobility Care, The Netherlands

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Abstract

Background

Hospital stays are associated with high levels of sedentary behavior and physical inactivity. To objectively investigate physical behavior of hospitalized patients, there is a need for valid measurement instruments. The aim of this study was to assess the criterion validity of three accelerometers to measure lying, sitting, standing and walking.

Methods

This cross-sectional study was performed in a university hospital. Participants carried out several mobility tasks according to a structured protocol while wearing three accelerometers (ActiGraph GT9X Link, Activ8 Professional and Dynaport MoveMonitor). The participants were guided through the protocol by a test leader and were recorded on video to serve as reference. Sensitivity, specificity, positive predictive values (PPV) and negative predictive values (NPV) were determined for the categories lying, sitting, standing and walking.

Results

In total 12 subjects were included with a mean ag
mass index of 23.8 kg/m^2 (SD 2.4). The ActiGrap
ity (90%) and PPV (98%) for walking, but a poor s
53%), and a poor PPV (43%) for sitting. The Activ
tivity for sitting and walking (95% and 93%), excel
tivity (0%) and PPV (0%) for lying. The Dynaport
sensitivity for sitting (94%), excellent PPV for lyin
sensitivity (13%) and PPV (19%) for standing.

Conclusions

The validity outcomes for the categories lying, sitt
the investigated accelerometers. All three accele
lying walking. None of the accelerometers were a

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JMIR RESEARCH PROTOCOLS van Delft et al

Protocol

Hospital in Motion, a Multidimensional Implementation Project to Improve Patients' Physical Behavior During Hospitalization: Protocol for a Mixed-Methods Study

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Abstract

Background: Despite the evidence of the adverse consequences of immobility during hospitalization, patients spend most of the time in bed. Although physical activity is a modifiable factor that can prevent in-hospital functional decline, bed rest is deeply rooted in the hospital culture. To attack this, a multidimensional approach is needed. Therefore, Hospital in Motion, a multidimensional implementation project, was designed to improve physical behavior during hospitalization.

Objective: The primary objective of this study is to investigate the effectiveness of Hospital in Motion on inpatient physical behavior. Secondary objectives are to investigate the effectiveness on length of hospital stay and immobility-related complications of patients during hospitalization and to monitor the implementation process.

Methods: For this study, Hospital in Motion will be implemented within 4 wards (cardiology, cardiothoracic surgery, medical oncology, and hematology) in a Dutch University Medical Center. Per ward, multidisciplinary teams will be composed who follow a step-by-step multidimensional implementation approach including the development and implementation of tailored action plans with multiple interventions to stimulate physical activity in daily care. A prepost observational study design will be used to evaluate the difference in physical behavior before and 1 year after the start of the project, including 40 patients per time point per ward (160 patients in total). The primary outcome measure is the percentage of time spent lying, measured with the behavioral mapping method. In addition, a process evaluation will be performed per ward using caregivers' and patient surveys and semistructured interviews with patients and caregivers.

Results: This study is ongoing. The first participant was enrolled in October 2017 for the premeasurement. The postmeasurements are planned for the end of 2018. The first results are expected to be submitted for publication in autumn 2019.

Conclusions: This study will provide information about the effectiveness of the Hospital in Motion project on physical behavior and about the procedures of the followed implementation process aimed to incorporate physical activity in usual care. These insights will be useful for others interested in changing physical behavior during hospitalization.

Trial Registration: Netherlands Trial Register NTR7109; https://www.trialregister.nl/trial/6914 (Archived by WebCite at http://www.webcitation.org/76dyhdjdd)

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