



**DISTRESS
nella malattia renale
cronica**

Sabato 10 novembre 2018
Aula Magna Nuovo Arcispedale S. Anna
Cons. Ferrara



**Università
degli Studi
di Ferrara**

***Qualità della Vita:
l'esercizio fisico è terapia del
distress?***

**Fabio Manfredini
Nicola Lamberti**

**UO Medicina Riabilitativa AOIFE
Dip. Scienze Biomediche Chirurgiche Specialistiche UNIFE**

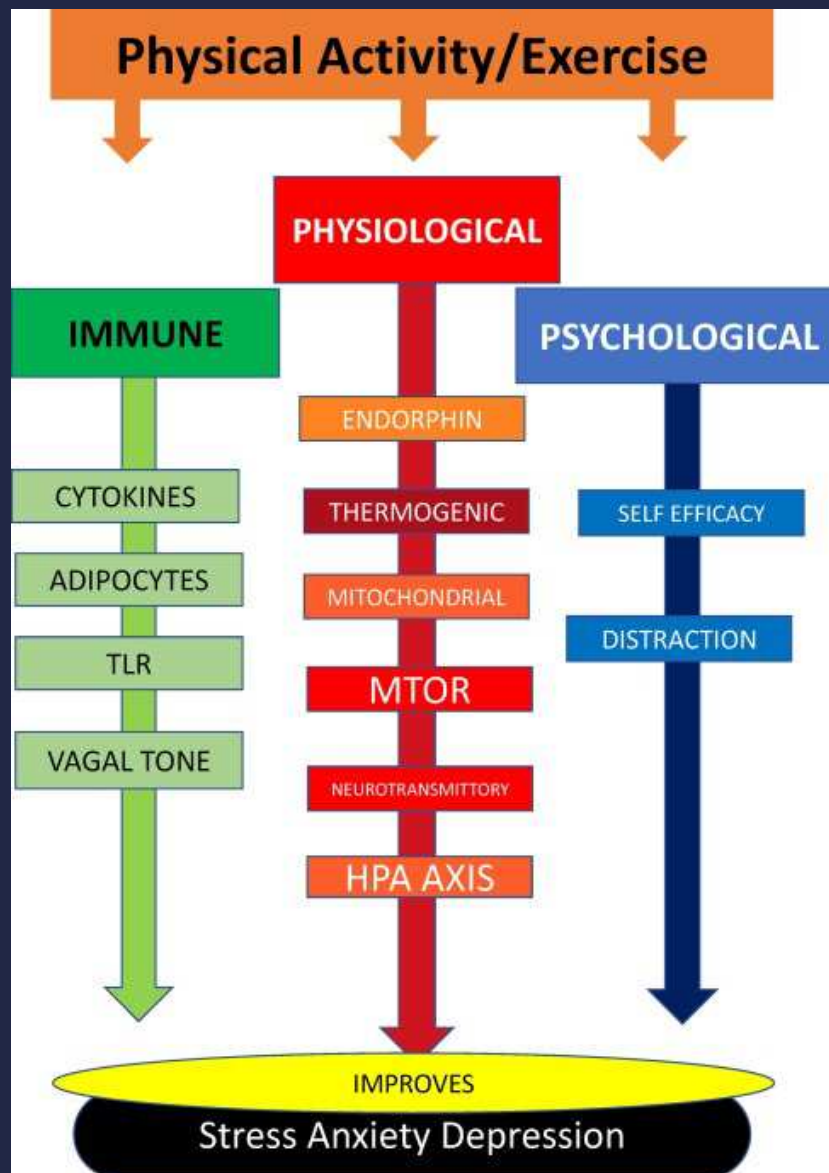
In generale:

l'attività fisica regolare può migliorare la salute mentale e ridurre i sintomi di depressione ansia e stress

- *Improved sleep*
- *Reduced tiredness that can increase mental alertness*
- *Stress relief*
- *Improvement in mood*
- *Increased energy and stamina*
- *Better endurance*
- *Improved cardiovascular fitness*
- *Weight reduction*
- *Reduced cholesterol*
- *Increased interest in sex*

[Ashish Sharma](#), [Vishal Madaan](#), [Frederick D. Petty](#), **Exercise for Mental Health** [Prim Care Companion J Clin Psychiatry](#).
2006; 8(2): 106.

Varie teorie



Mark B. Powers¹, Gordon J. G. Asmundson² and Jasper A. J. Smits¹
Exercise for mood and anxiety disorders: The state-of-the science
Cogn Behav Ther. 2015; 44(4): 237–239.

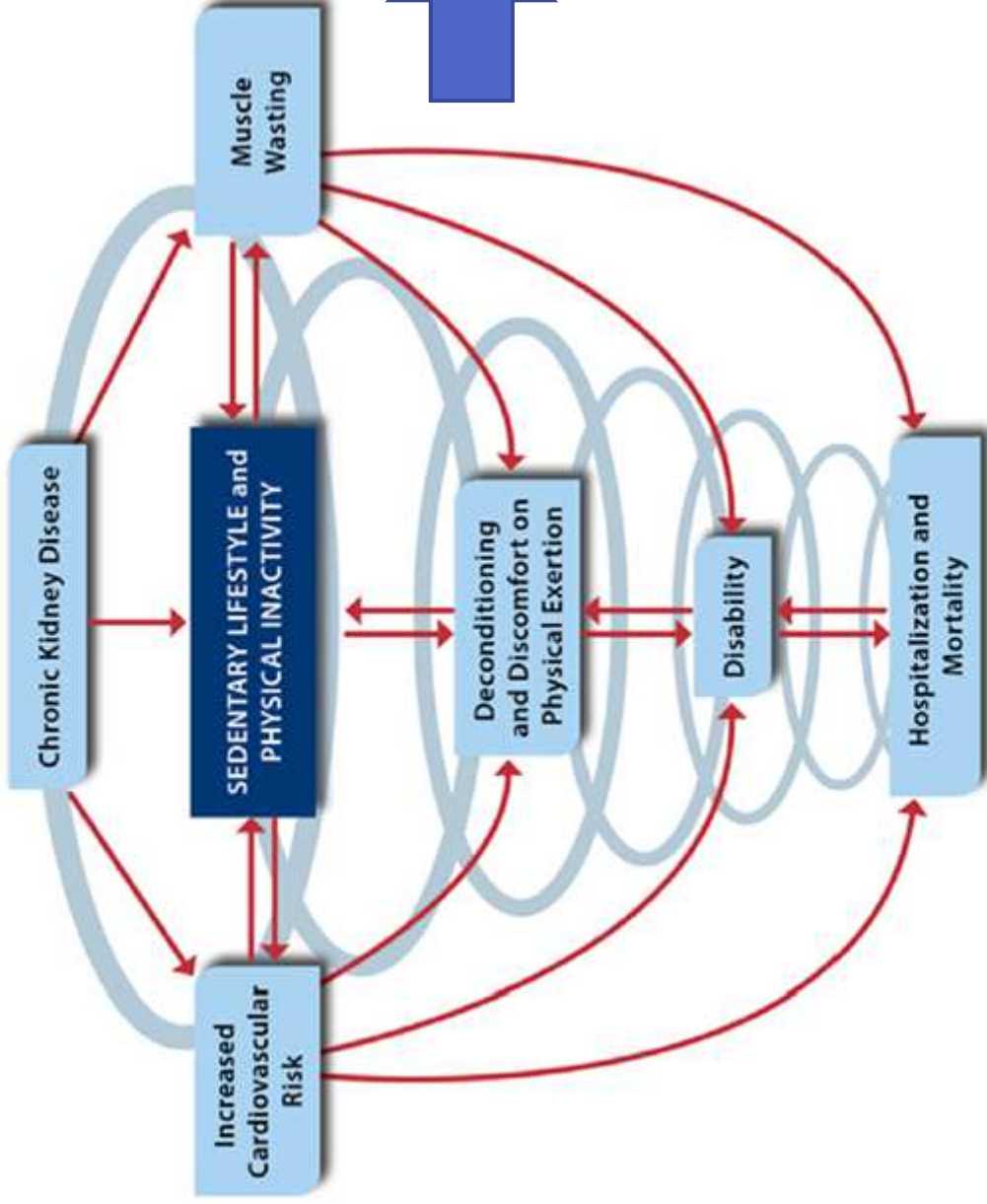


Figure 1. The deleterious cycle of a sedentary lifestyle and inactivity in chronic kidney disease.

QOL

Health is “not only the absence of disease and infirmity, but also the presence of physical, mental, social [and spiritual] well-being”
World Health Organization

Depression in ESRD Patients

- Losses
- Renal Function
- Physical Function
- Role
- Cognitive Abilities
- Sexual Function
- Symptoms of Medical Illness

Published in *Journal of Renal Nutrition*, 2014, 33(4): 1-8.

Exercise as an Adjunct Therapy In Chronic Kidney Disease

Danielle L. Kirkman¹, David G. Edwards², and Shannon Lennon-Edwards^{1,2}

¹Department of Behavioral Health and Nutrition, University of Delaware

²Department of Kinesiology and Applied Physiology, University of Delaware

Comorbidità +

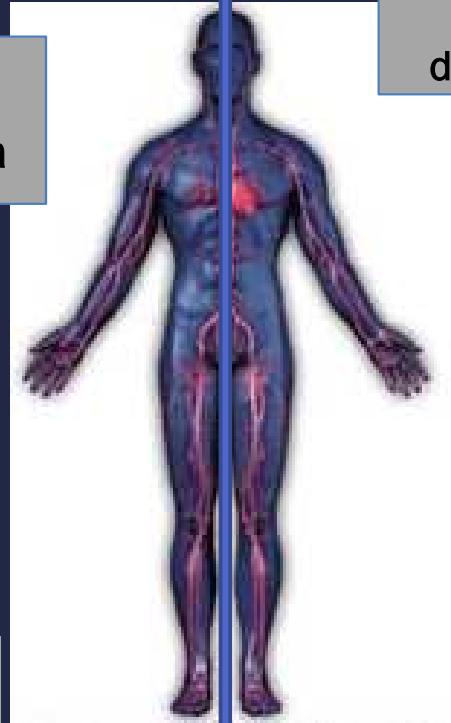
**FATICA
multifattoriale**



QOL
Health is "not only the absence of disease and infirmity, but also the presence of physical, mental, social [and spiritual] well-being"
World Health Organization

Fatica
psicologica

Fatica metabolica
da deficit energetico



Dolenzia muscolare
continua

Crampi
Notturmi
GSR

scarsa qualità
riposo notturno



Fatica
post
dialisi

Depression in ESRD Patients

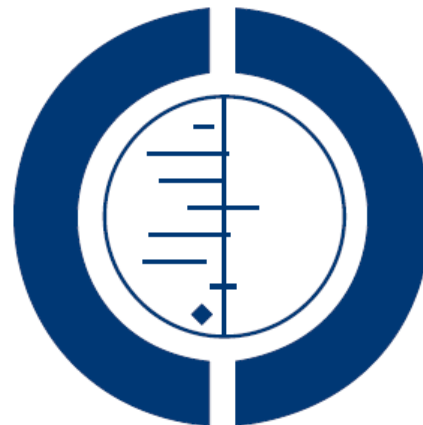
- Losses
- Renal Function
- Physical Function
- Role
- Cognitive Abilities
- Sexual Function
- Symptoms of Medical Illness

Inibizione dell'attività fisica spontanea



**Exercise training for adults with chronic kidney disease
(Review)**

Heiwe S, Jacobson SH



**THE COCHRANE
COLLABORATION®**

2011

Evidenze:

Livello attività fisica

Capacità aerobica

Capacità di cammino

Forza muscolare

Depressione

QOL

ANY EXERCISE vs CONTROL



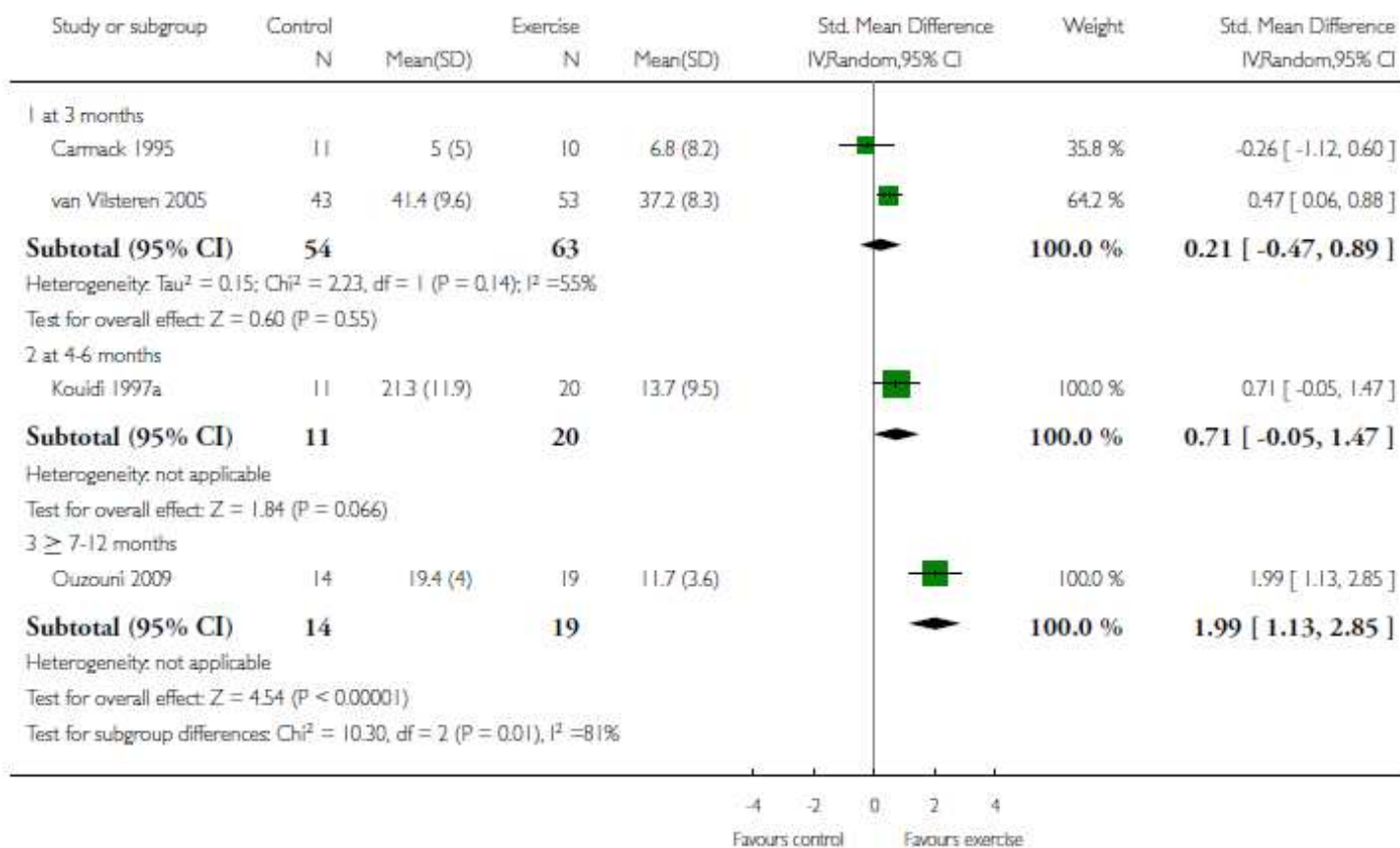
DEPRESSION

Analysis 1.27. Comparison 1 Any exercise versus control (no exercise/placebo exercise), Outcome 27 Depression.

Review: Exercise training for adults with chronic kidney disease

Comparison: 1 Any exercise versus control (no exercise/placebo exercise)

Outcome: 27 Depression

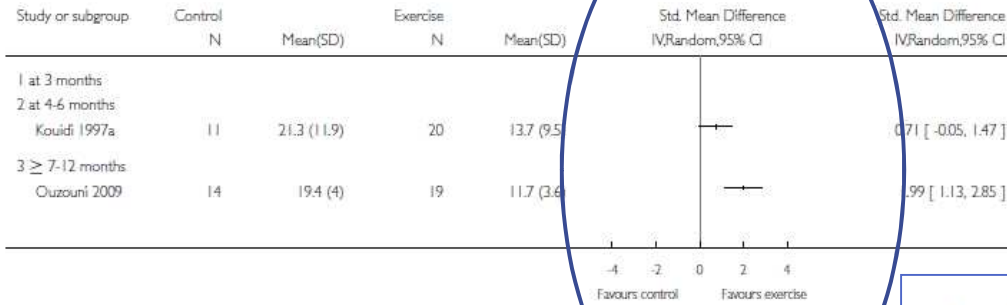


Analysis 2.27. Comparison 2 High intensity ($\geq 60\%$) exercise versus control (no exercise/placebo exercise), Outcome 27 Depression.

Review: Exercise training for adults with chronic kidney disease

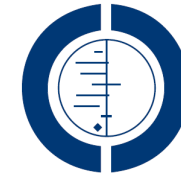
Comparison: 2 High intensity ($\geq 60\%$) exercise versus control (no exercise/placebo exercise)

Outcome: 27 Depression



Exercise training for adults with chronic kidney disease (Review)

Heiwe S, Jacobson SH



THE COCHRANE COLLABORATION®

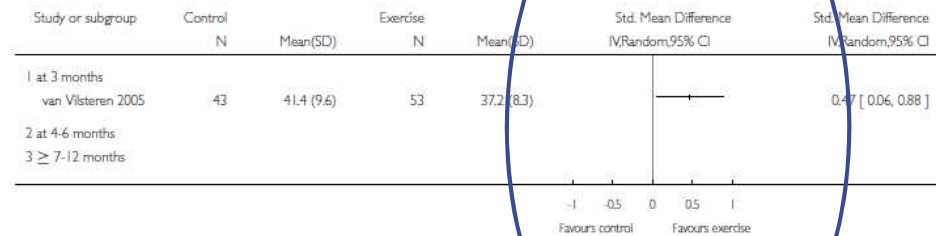
High intensity
Low intensity
Unsupervised -

Analysis 3.8. Comparison 3 Low intensity ($< 60\%$) exercise versus control (no exercise/placebo exercise), Outcome 8 Depression.

Review: Exercise training for adults with chronic kidney disease

Comparison: 3 Low intensity ($< 60\%$) exercise versus control (no exercise/placebo exercise)

Outcome: 8 Depression

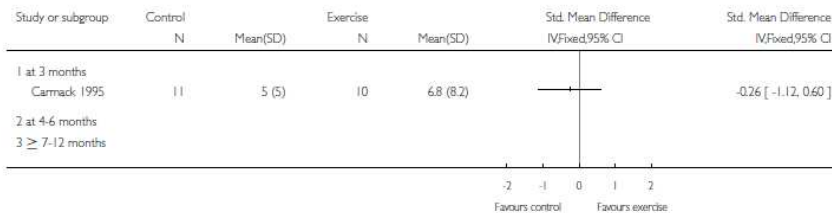


Analysis 8.13. Comparison 8 Unsupervised exercise versus control (no exercise/placebo exercise), Outcome 13 Depression.

Review: Exercise training for adults with chronic kidney disease

Comparison: 8 Unsupervised exercise versus control (no exercise/placebo exercise)

Outcome: 13 Depression



Exercise training for adults with chronic kidney disease (Review)

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DEPRESSIONE

health-related quality of life

Authors' conclusions

in adults with CKD ..

... There is evidence for significant beneficial effects of regular exercise on physical fitness, walking capacity, cardiovascular dimensions,

health-related quality of life

In summary, 14/18 studies showed improved total scores and/or sub-scores following regular exercise training

Limitations:

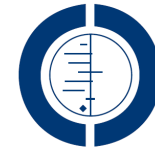
Different instruments had been used.

Most studies had used a generic instrument and not a disease-specific instrument.

In some cases only a total score had been used.

Exercise training for adults with chronic kidney disease
(Review)

Heiwe S, Jacobson SH



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Non solo cochrane



Altre esperienze

L' esperienza delle nostre UUOO

Paziente trapiantato

supervisione vs non supervisione home based

Table 4 Mean \pm SD of 36-Item Short Form Health Survey questionnaire scales

| | Group A (n = 44) | | | Group B (n = 41) | | |
|-------------------|------------------|--------------------------|--------------------------|------------------|----------------|-----------------|
| | T ₀ | T ₆ | T ₁₂ | T ₀ | T ₆ | T ₁₂ |
| Physical function | 84 \pm 20 | 91 \pm 11 ^a | 92 \pm 12 ^c | 89 \pm 10 | 86 \pm 20 | 86 \pm 23 |
| Role physical | 83 \pm 25 | 88 \pm 21 | 96 \pm 15 ^c | 91 \pm 19 | 91 \pm 19 | 86 \pm 24 |
| Bodily pain | 80 \pm 24 | 80 \pm 22 | 89 \pm 20 | 86 \pm 19 | 84 \pm 22 | 84 \pm 22 |
| General health | 63 \pm 20 | 67 \pm 21 | 68 \pm 20 | 64 \pm 21 | 67 \pm 19 | 66 \pm 17 |
| Vitality | 67 \pm 16 | 70 \pm 15 | 69 \pm 19 | 67 \pm 18 | 69 \pm 14 | 68 \pm 14 |
| Social function | 75 \pm 19 | 80 \pm 20 | 83 \pm 17 ^c | 82 \pm 19 | 78 \pm 21 | 78 \pm 21 |
| Role emotional | 85 \pm 24 | 91 \pm 20 | 90 \pm 22 | 93 \pm 16 | 96 \pm 15 | 93 \pm 17 |
| Mental health | 75 \pm 16 | 75 \pm 16 | 74 \pm 19 | 74 \pm 18 | 77 \pm 16 | 74 \pm 16 |

^aP < 0.05 between T₀ and T₆; ^cP < 0.05 between T₀ and T₁₂.

WJT World Journal of
Transplantation

Submit a Manuscript: <http://www.fapublishing.com>

World J Transplant 2018 February 24; 8(1): 13-22

DOI: 10.5500/wjt.v8.i1.13

ISSN 2220-3230 (online)

ORIGINAL ARTICLE

Clinical Trials Study

Renal function and physical fitness after 12-mo supervised training in kidney transplant recipients

Giulio Sergio Roi, Giovanni Mosconi, Valentina Totti, Maria Laura Angelini, Erica Brugin, Patrizio Sarto, Laura Merlo, Sergio Sgarzi, Michele Stancari, Paola Todeschini, Gaetano La Manna, Andrea Ermolao, Ferdinando Tripi, Lucia Andreoli, Gianluigi Sella, Alberto Anedda, Laura Stefani, Giorgio Galanti, Rocco Di Michele, Franco Merni, Manuela Trerotola, Daniela Storani, Alessandro Nanni Costa



Regione Emilia-Romagna

Programma Operativo Emilia-Romagna

TRAPIANTO, ATTIVITA' FISICA & SPORT

Paziente dializzato: Un case report nel dializzato con buona performance

Soggetto 1:
Allenato

Età: 53 anni -
Sesso: maschile
Trattamento con
emodialisi

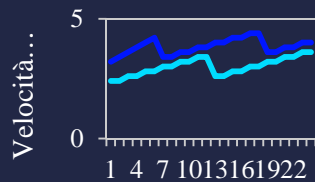
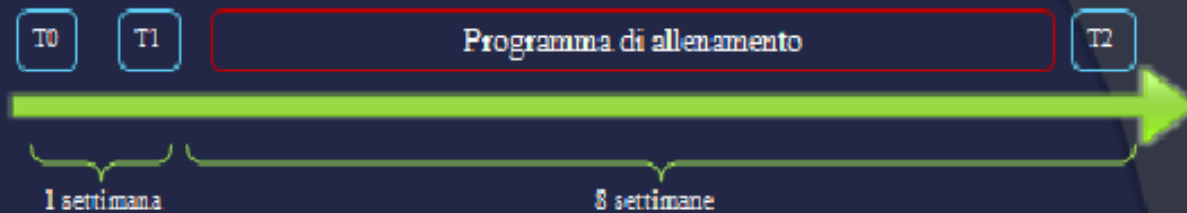
Attività guidata

Attività libera

Soggetto 2:
Controllo attivo

Età: 50 anni -
Sesso: maschile
Trattamento con
emodialisi

Metodi: il programma di allenamento



Sedute di allenamento della durata di 60 minuti.
Lavoro aerobico in maniera intervallata su tappeto rotante
Esercizi di potenziamento dei muscoli addominali e degli arti inferiori.
3vv/ settimana

Vs attività libera

Paziente dializzato: Un case report nel dializzato con buona performance

Qualità del sonno

Tono dell'umore

Appetito



Test dei 6 minuti di cammino

Indicatore scelto:
distanza percorsa (m)



5-time Sit-to-stand-to-sit test

Indicatore scelto:
Tempo impiegato (s)



Energia per hobby

Fatica post-dialisi

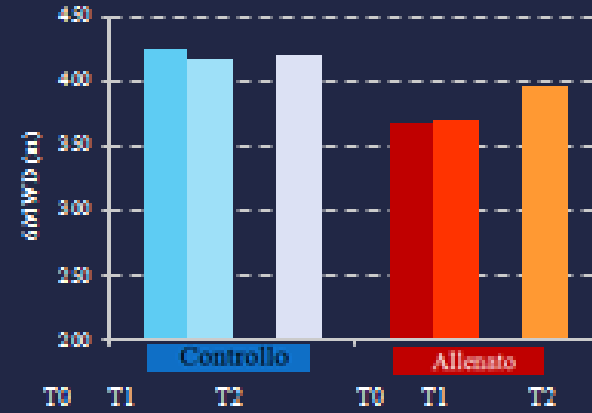
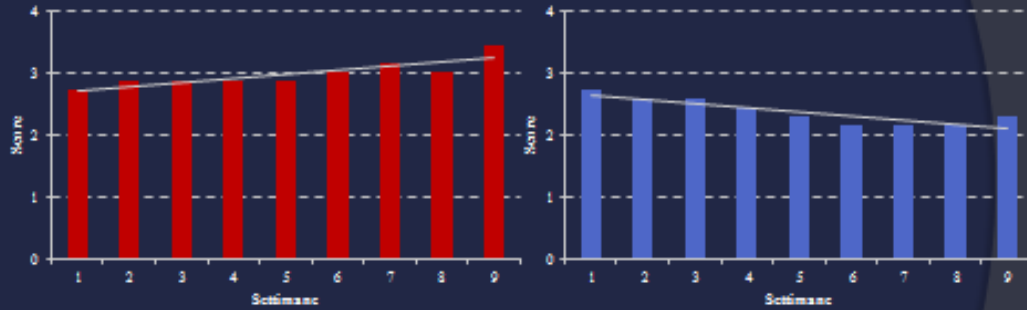
Fatica Fisica

| Data: | 0 punti | 1 punto | 2 punti | 3 punti | 4 punti |
|----------------------|---------------|----------|-------------|---------|---------------|
| Dialisi: | SI | NO | | | |
| Qualità del sonno: | Pessima | Scadente | Accettabile | Buona | Ottima |
| Crampi notturni: | | SI | | NO | |
| Tono dell'umore: | Pessimo | Scadente | Accettabile | Buono | Ottimo |
| Appetito: | Nessuno | Scarso | Medio | Elevato | Molto elevato |
| Energia per Hobby: | Nessuna | Scarsa | Media | Elevata | Molto elevata |
| Fatica post-dialisi: | Molto elevata | Elevata | Media | Bassa | Nessuna |
| Fatica Fisica: | Molto elevata | Elevata | Media | Bassa | Nessuna |

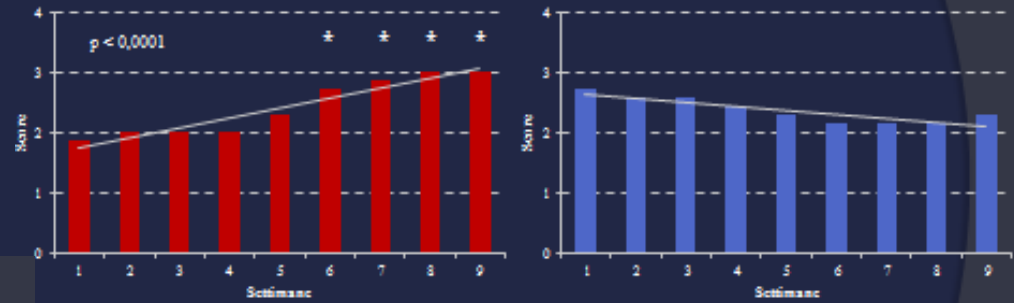
| 1 - 10 Borg Rating of Perceived Exertion Scale | |
|--|------------------------------------|
| 0 | Rest |
| 1 | Really Easy |
| 2 | Easy |
| 3 | Moderate |
| 4 | Sort of Hard |
| 5 | Hard |
| 6 | |
| 7 | Really Hard |
| 8 | |
| 9 | Really, Really, Hard |
| 10 | Maximal, Just like my hardest race |

Metodi: il diario di monitoraggio giornaliero

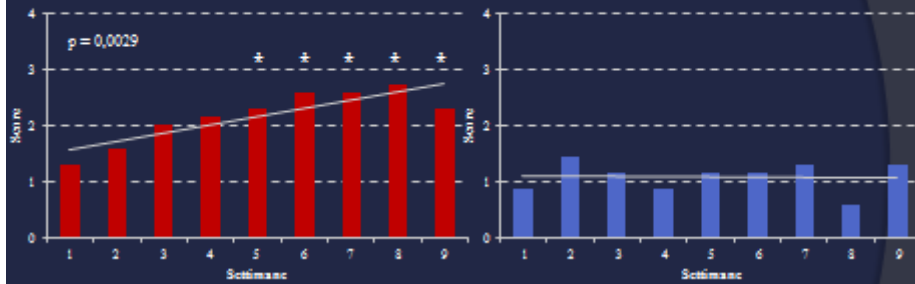
Tono dell'umore



Appetito

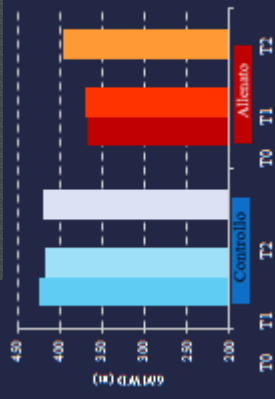
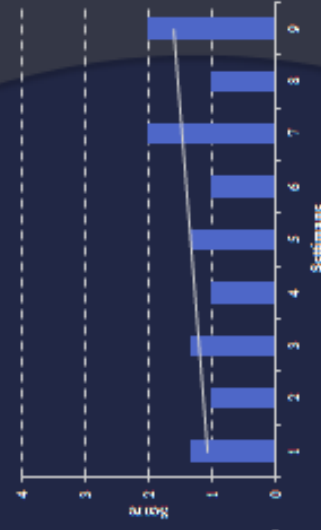
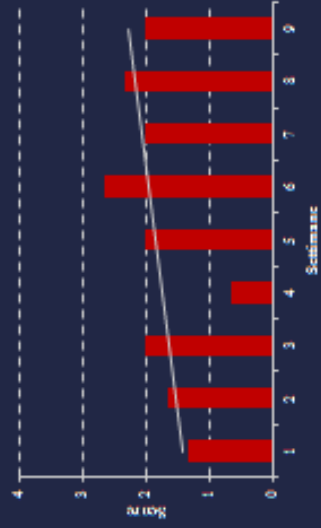


Energia per hobbies

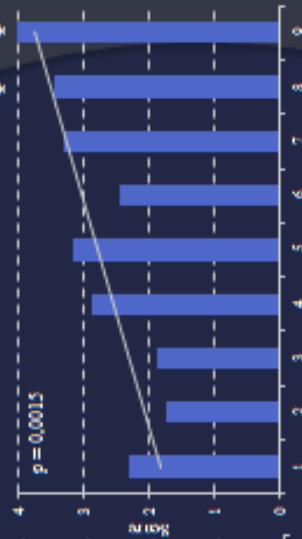
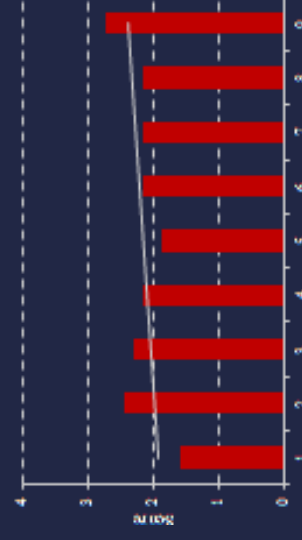


Per l'analisi intragruppo sono state calcolate le medie settimanali dei punteggi ottenuti giornalmente per ogni parametro. La comparazione fra gli score settimanali è stata effettuata con un'ANOVA

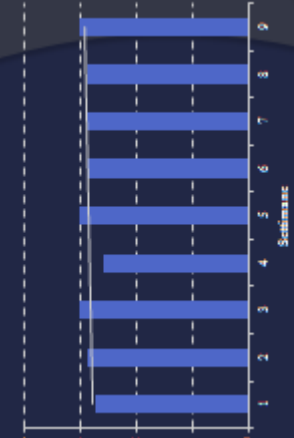
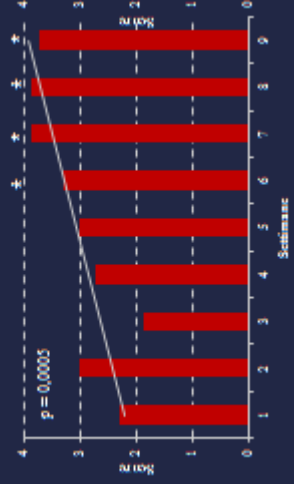
Energia post-dialisi

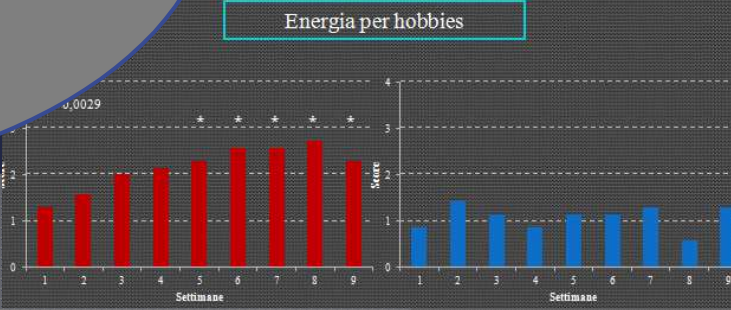
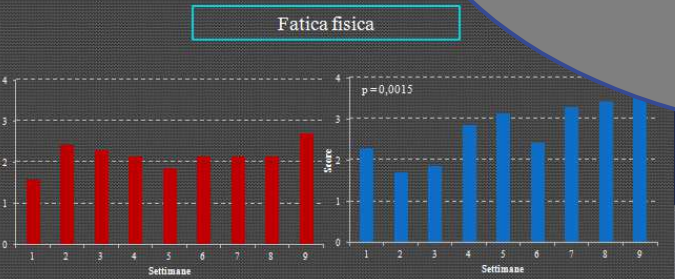
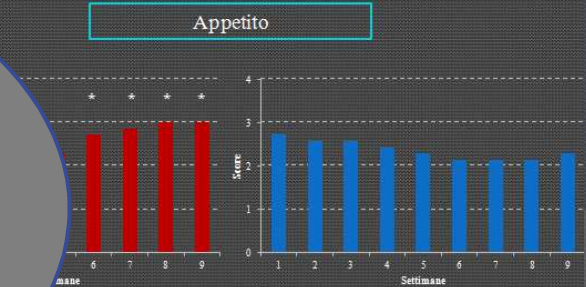
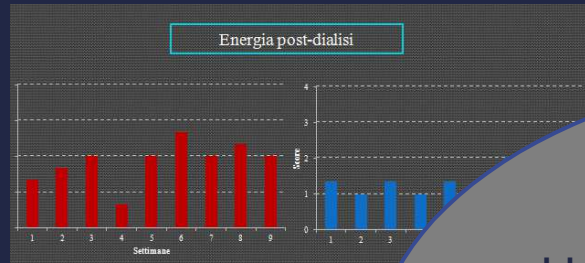
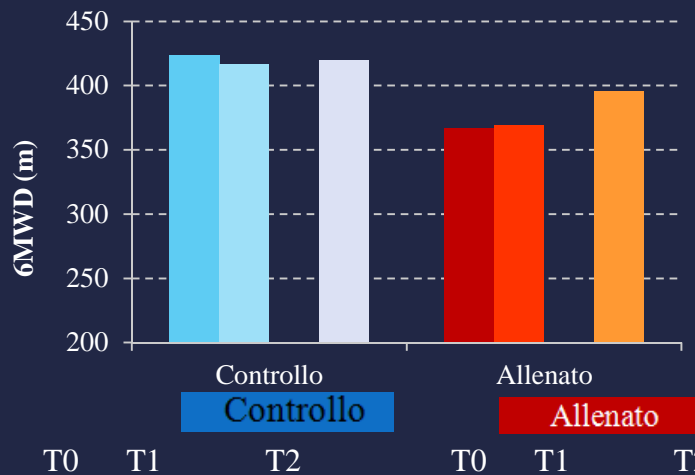


Fatica fisica



Qualità del sonno





L'esercizio fisico può migliorare uno stato di relativo benessere e prevenire il decadimento fisico legato alla malattia

Paziente dializzato a bassa performance

DISEASE



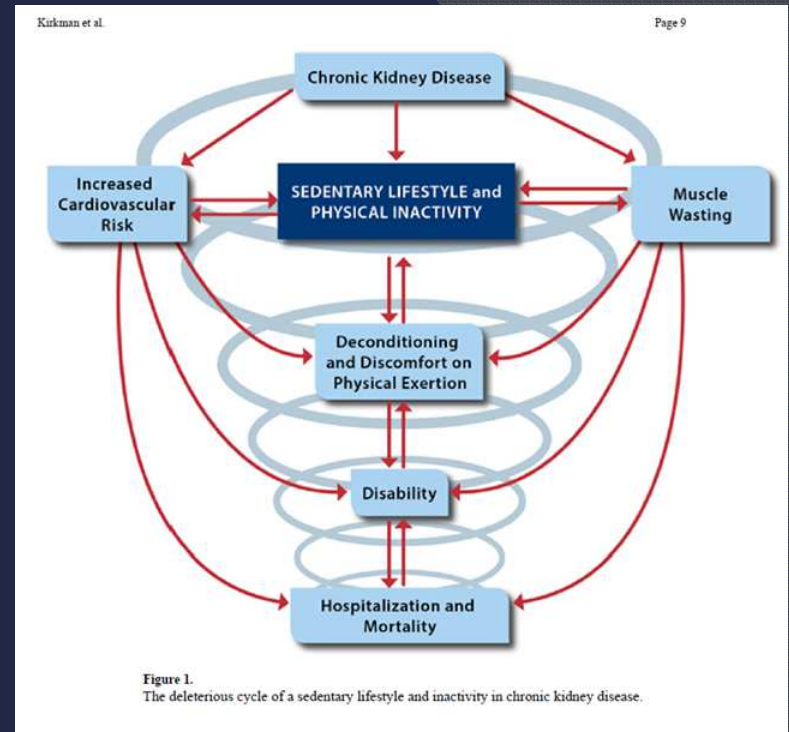
DISABILITY



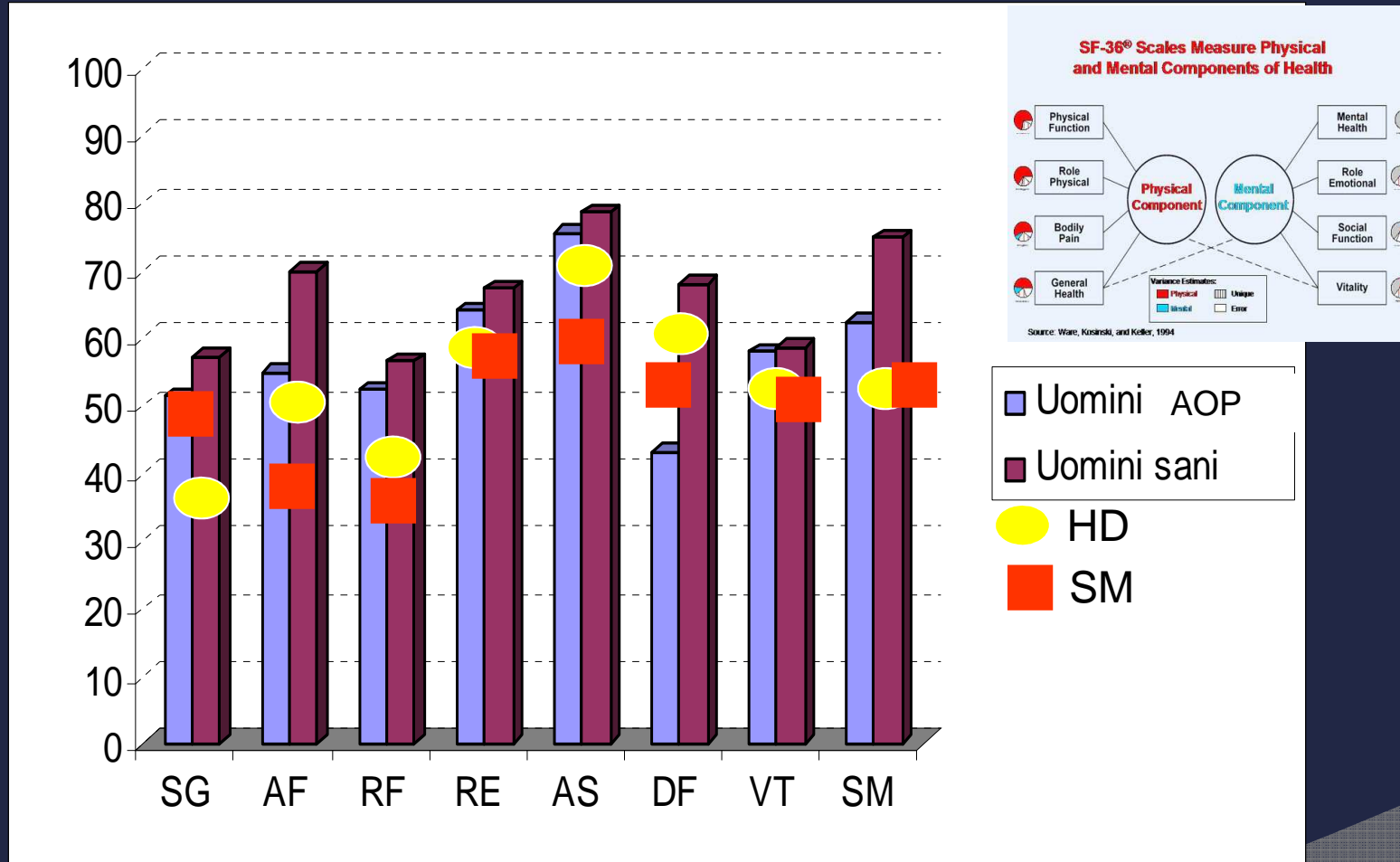
INACTIVITY



DECONDITIONING



la percezione di QOL on diverse malattie croniche



Fatica-(dolore) a seconda del gruppo

fatica: salute mentale

DISEASE



DISABILITY



INACTIVITY



DECONDITIONING

IL NOSTRO MODELLO LADOSE MINIMA

Unità Esercizio : 1 minuto

modelli di intervento nel dializzato

PROGRAMMI
IN SUPERVISIONE
IN STRUTTURA

PROGRAMMI
NON IN SUPERVISIONE
A DOMICILIO

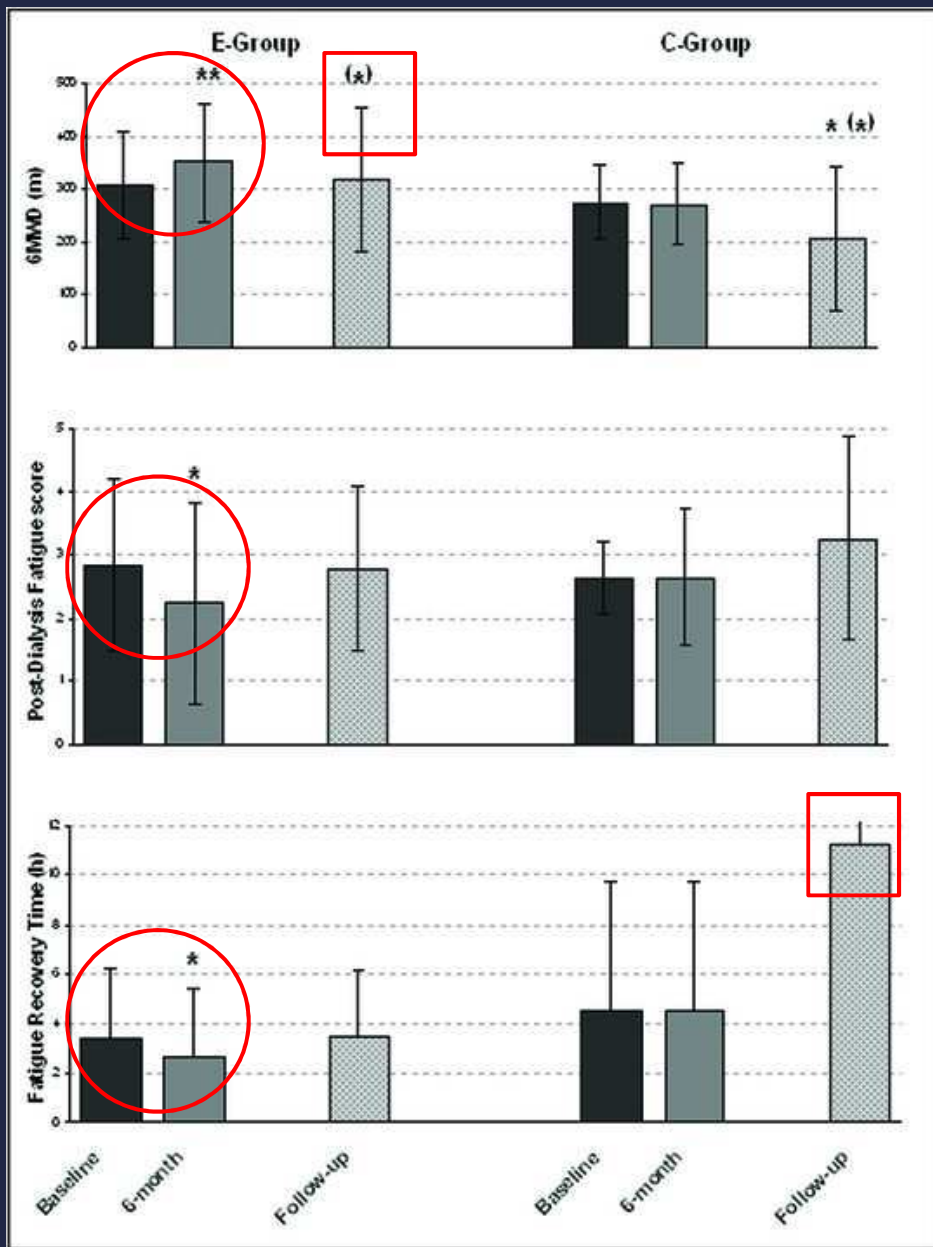
Inter-dialisi



Intra-dialisi



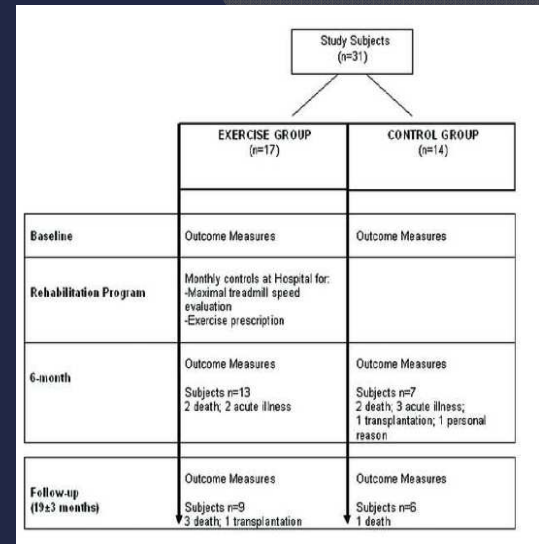
PROGRAMMI
STRUTTURATI
SEMICONTROLLATI
A DOMICILIO



6MWD (m)

Post-dialysis fatigue (a.u.)

Fatigue-Recovery time (h)



ORIGINAL ARTICLE

JNephrol. 2008; 21: 871-878

www.sfn-italy.org/online - www.jnephrol.com

Acute and long-term effects of an exercise program for dialysis patients prescribed in hospital and performed at home

Anna Maria Malagoni¹, Luigi Catizone², Simona Mandini³, Silvia Sofritti³, Roberto Manfredini², Benedetta Boini⁴, Giorgia Russo⁵, Nino Basaglia⁶, Paolo Zamboni¹, Fabio Manfredini^{1,6}

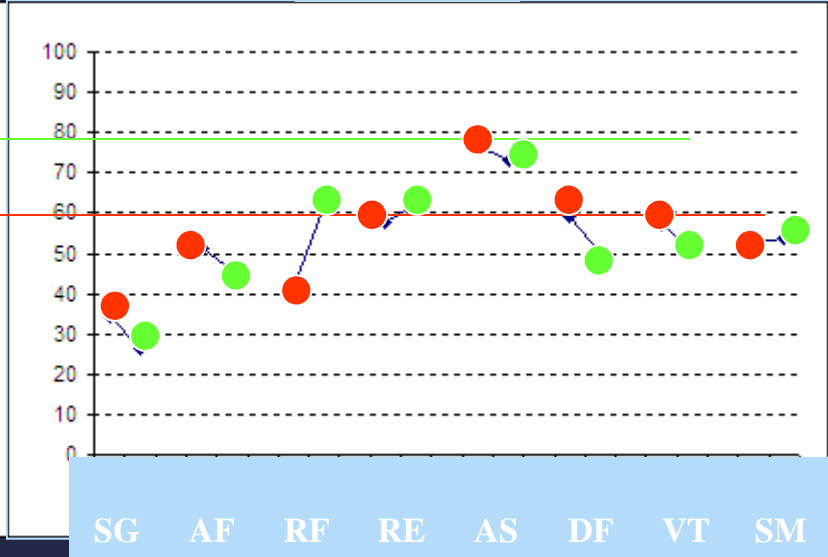
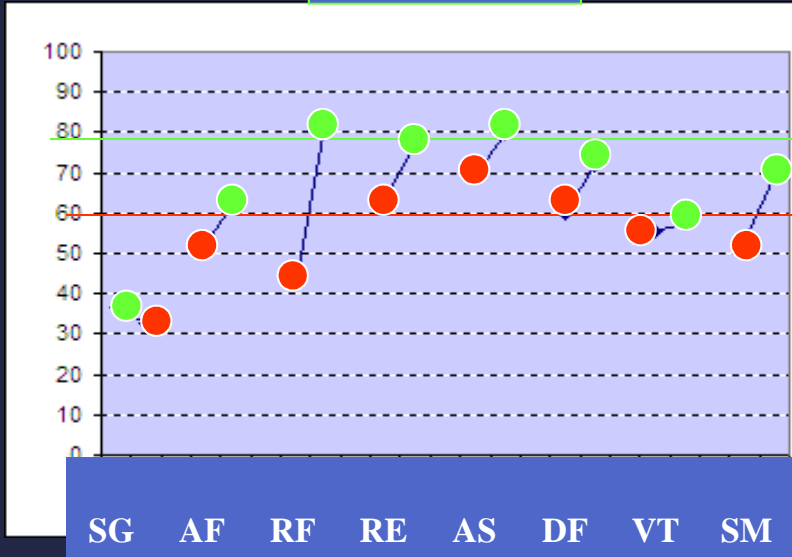
¹ Vascular Diseases Center, University of Ferrara, Ferrara - Italy
² Renal Unit, S. Anna Hospital, Ferrara - Italy
³ Department of Clinical and Experimental Medicine, Vascular Diseases Center, University of Ferrara, Ferrara - Italy
⁴ Department of Internal Medicine, S. Anna Hospital, Ferrara - Italy
⁵ Department of Rehabilitation Medicine, S. Anna Hospital, Ferrara - Italy
⁶ Center for Biomedical Studies Applied to Sport, University of Ferrara, Ferrara - Italy

QOL: MOS SF36



E

C



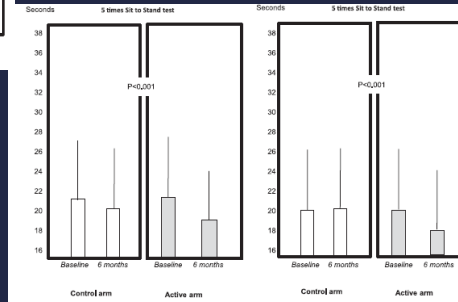
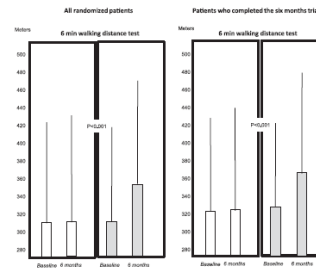
● PRE
● POST

Malagoni AM, Catizone L, Zamboni P, Soffritti S, Mandini S, Manfredini R, Boari B, Basaglia N, Russo G, Manfredini F. Physical capacity and quality of life perception in dialysis patients: acute and long-term effects of an exercise program prescribed at hospital-carried out at home. J Nephrol,21: 871-878, 2008.

Exercise in Patients on Dialysis: A Multicenter, Randomized Clinical Trial

Fabio Manfredini,^{*,†} Francesca Mallamaci,^{‡§} Graziella D'Arrigo,[†] Rossella I. Davide Bolignano,[†] Claudia Torino,[†] Nicola Lamberti,^{*} Silvio Bertoli,^{||} Dan Lisa Rocca-Rey,^{||} Antonio Barilà,^{||} Yuri Battaglia,^{||} Renato Mario Rapanà,^{**} Alessandro Zuccalà,^{**} Graziella Bonanno,^{††} Pasquale Fatuzzo,^{‡‡} Francesco Stefania Rastelli,^{‡‡} Fabrizio Fabrizi,^{§§} Piergiorgio Messa,^{§§} Luciano De Paoli,^{||} Luigi Lombardi,^{||} Adamasco Cupisti,^{|||} Giorgio Fuiano,^{***} Gaetano Lucisano,^{***} Chiara Summaria,^{***} Michele Felisatti,[†] Enrico Pozzato,[†] Anna Maria Malatino,^{†††} Pietro Castellino,^{‡‡} Filippo Aucella,^{†††} Samar Abd ElHafeez,^{‡‡‡} Pasquale Fabio Provenzano,[†] Giovanni Tripepi,[†] Luigi Catizone,^{||} and Carmine

Due to the number of contributing authors, the affiliations are listed at the end of this article.



8 minuti/die
Cammino lento intervallato in casa

KDQOL-SF

Score globale migliore in esercizio che controllo (p=0.17)

Variazioni significative in favore di esercizio per cognitive function (p=0.04)

e quality of social interaction (p=0.01)

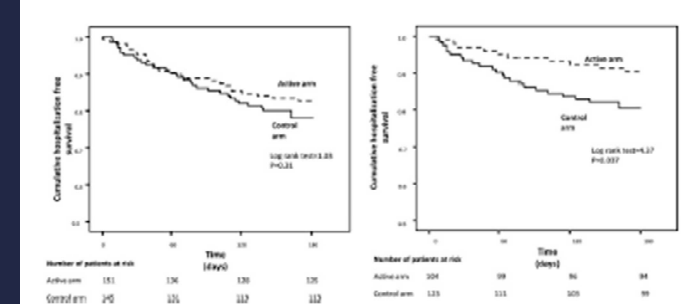


Figure 4. Kaplan-Meier survival curves of hospitalizations in the active and control arms of the trial. The left panel shows analysis of all randomized patients. The right panel shows analysis of patients who completed the 6-month trial.

Exercise in Patients on Dialysis: A Multicenter, Randomized Clinical Trial

Overview of attention for article published in Journal of the American Society of Nephrology, December 2016



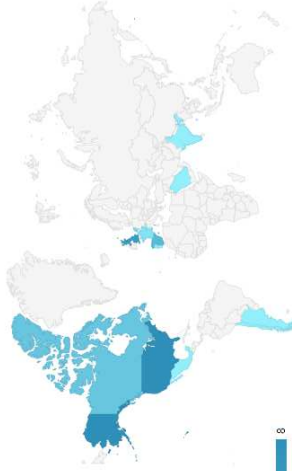
SUMMARY
 Title: Exercise in Patients on Dialysis: A Multicenter, Randomized Clinical Trial
 Published in: Journal of the American Society of Nephrology, December 2016
 DOI: 10.1681/asn.2016030328
 PubMed ID: 27398427
 Authors: Fabio Manfredini, Francesco Mallamaci, Gerardo Crivello, Rosalba Sargentini, Claudio Soligo, ... (show)
 Abstract: Previous studies have highlighted the benefits of physical exercise for patients on dialysis. We ... (show)

TWITTER DEMOGRAPHICS

About this Attention Score
 In the top 5% of all research outputs scored by Altmetric
 Among the highest scoring outputs from this source (#15 of 3,311)
 High Attention Score compared to outputs of the same age (96th percentile)
 High Attention Score compared to outputs of the same age and source (97th percentile)
 Mentioned by
 37 news outlets
 1 blog
 49 tweeters
 3 Facebook pages

MENDELEY READERS

The data shown below were collected from the profiles of 49 tweeters who shared this research output. [Click here to find out more about how the information was compiled.](#)



Demographic breakdown

Pochi passi per essere più in forma anche in dialisi

Dica 33, 05 Jan 2017

Venti minuti di esercizio di intensità leggera-moderata a giorni alterni sono sufficienti per migliorare la forma fisica e...

December 2016 Briefing – Nephrology

Physician's Weekly, 01 Jan 2017

Advertisement Here are what the editors at HealthDay consider to be the most important developments in Nephrology for December...

Walking program improves quality of life and physical performance in dialysis patients

Nephrology News and Issues, 07 Dec 2016

In a recent study, a simple exercise program carried out at home improved dialysis patients' walking performance and quality of...

Nigeria: 'Dialysis Patients May Walk Their Way to Better Health'

AllAfrica, 06 Dec 2016

Even people with advanced kidney trouble can feel better with 'low-intensity' regimen, says study A new study has found that...

Simple walking program provides physical and mental benefits to dialysis patients

Today Topics, 05 Dec 2016

In a recent study, a simple exercise program carried out at home improved dialysis patients' walking performance and quality of...

Walking Improves The Quality Life Of Dialysis Patients

Medindia, 03 Dec 2016

Exercises for patients who are undergoing dialysis have been recognised, that are simple and can be easily performed at home (lik...

Dialysis Patients May Walk Their Way to Better Health

MedicineNet.com, 03 Dec 2016

Latest Digestion News THURSDAY, Dec. 1, 2016 (HealthDay News) -- Improved mental and physical health may

Simple walking program provides physical and mental benefits to dialysis patients

Medical News Today, 05 Dec 2016

In a recent study, a simple exercise program carried out at home improved dialysis patients' walking performance and quality of...

Regular walking brings physical and mental benefits to dialysis patients

Deccan Chronicle, 03 Dec 2016

Washington D.C.: In a recent study, a simple exercise program carried out at home improved dialysis patients' walking...

Walking regularly benefits physical, mental health of dialysis patients

The Hindustan Times, 03 Dec 2016

Even walking for 20 minutes every day can significantly boost the quality of life of dialysis patients, say researchers.

Walking Provides Physical, Mental Benefits to Dialysis Patients

Doctors Lounge, 03 Dec 2016

FRIDAY, Dec. 2, 2016 (HealthDay News) -- A simple program that includes a few minutes of walking a day appears to benefit...

KDQOL-SF

Nel paziente dializzato anziano dello studio EXCITE

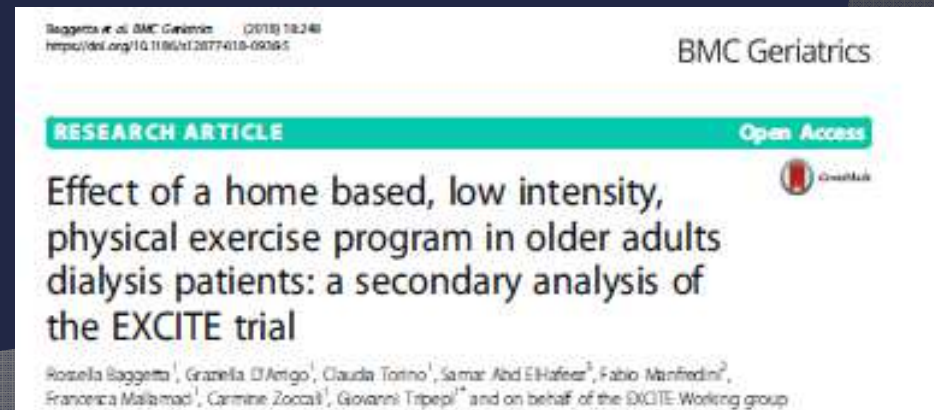
Previene il declino della «Cognitive function»

Peggiora a 6 mesi nel gruppo controllo (P=0.04)

Resta immutato nel braccio esercizio (P=0.78)

Con differenza significativa tra i gruppi (P=0.05)

53 vs 62



Qualità della Vita: *l'esercizio fisico è terapia del distress?*

Fabio Manfredini
Nicola Lamberti

LO Medicina Riabilitativa AOIFE
Dip. Scienze Biomediche Chirurgiche Specialistiche UNIFE

***Esercizio fisico rappresenta un fattore efficace nella
gestione del distress psico- fisico del paziente nefropatico***




Identificare modelli applicabili nella realtà clinica «extra-trial»

Progetto UOC NEFROLOGIA

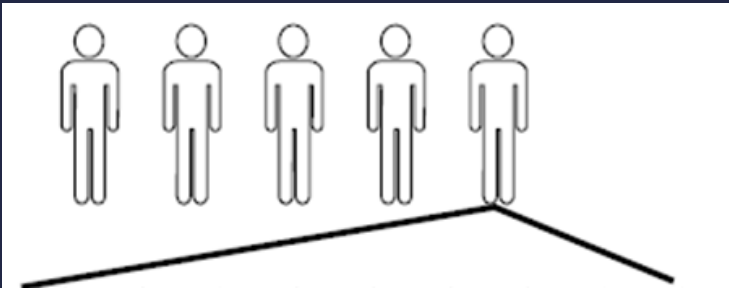
In collaborazione con UO Medicina Riabilitativa



Trapianto



Programma Operativo Emilia-Romagna
TRAPIANTO, ATTIVITA' FISICA & SPORT



Dialisi

Azione su funzione fisica e QoL con attività motoria ed esercizio

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