

A multidisciplinary approach for lifestyle change



Healthy Lifestyle Institute,
University of Perugia, Italy

Informazioni per consentire la
riproducibilità del modello di intervento

Presentazione

- Struttura del modello
- Risultati a breve termine
- Influenza delle variabili età, sesso sul miglioramento della forma fisica
- Punti di forza
- Punti di debolezza

The CURIAMO model



An innovative model for changing the lifestyles of persons with obesity and/or Type 2 diabetes mellitus

P. De Feo, C. Fatone, P. Burani, N. Piana, C. Pazzagli, D. Battistini, D. Capezzali, R. Pippi, B. Chipi, and C. Mazzeschi

Healthy Lifestyle Institute (C.U.R.I.A.MO.: Centro Universitario Ricerca Interdipartimentale Attività Motoria), University of Perugia, Perugia, Italy

Journal of Endocrinological Investigation 34:e349-54, 2011

- La persona al centro del processo di cura e di cambiamento
- CURIAMO trial (Australian New Zealand Clinical Trials Registry, ACTRN12611000255987) approved by CEAS Umbria Region, HREC number 1/10/1633.
- Analisi dei costi e dell'efficacia dell'intervento

Intensive phase (4 months)

First Medical
examination

Nutritional
counselling followed
by 4 educational
group sessions

Individualized
exercise programme
3 months

Psychological
counselling and
motivational
intervention

Therapeutic education: 8 group sessions to reflect on
ongoing lifestyle change and to increase motivation

The CURIAMO model to lifestyle change

Support for long-term adherence to lifestyle change

The CURIAMO model to lifestyle change

Outside trekking activities and Nordic Walking

Group psychotherapy: 12 sessions

Training for a difficult task

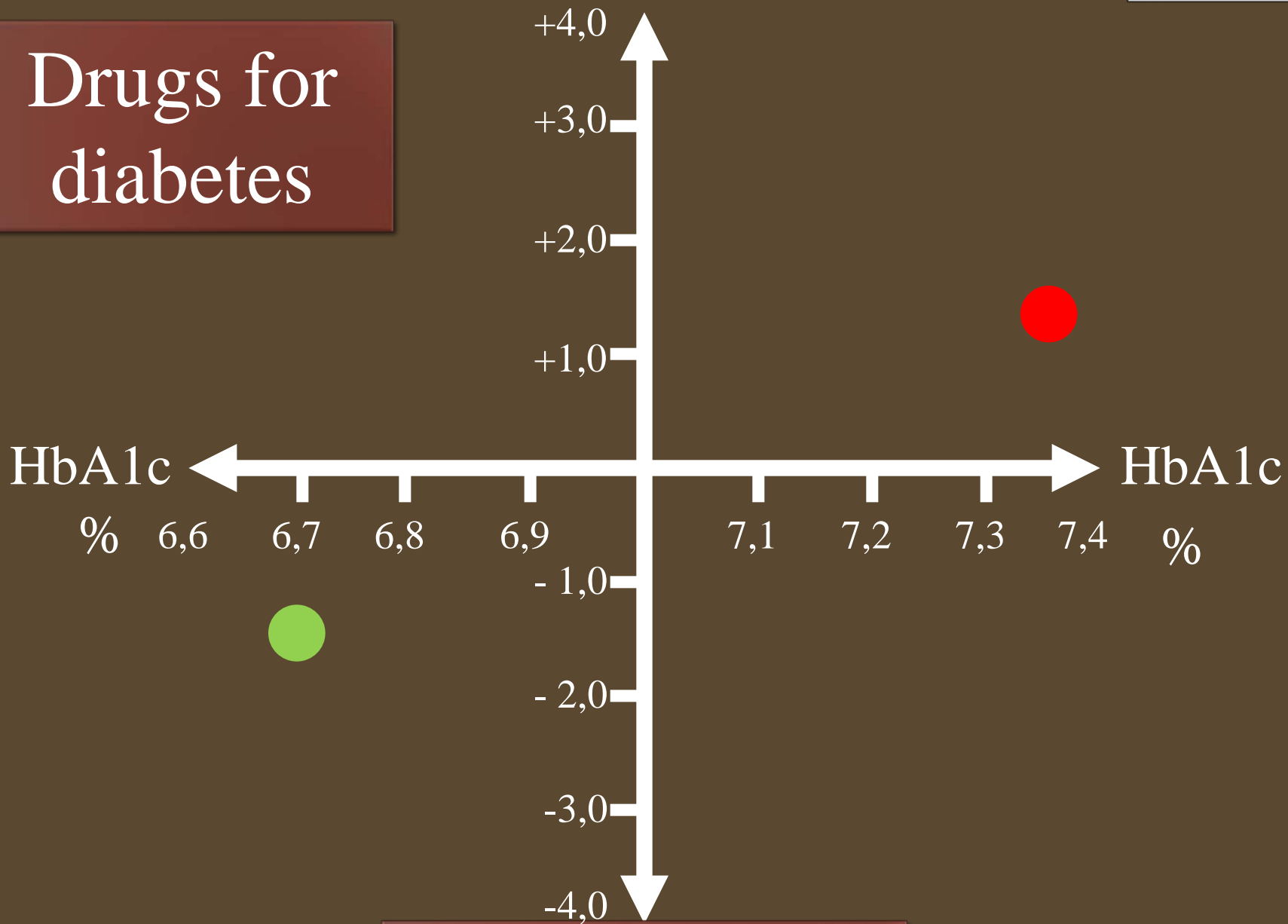
Control medical visits every 3 months for the first year, then every year

The CURIAMO model



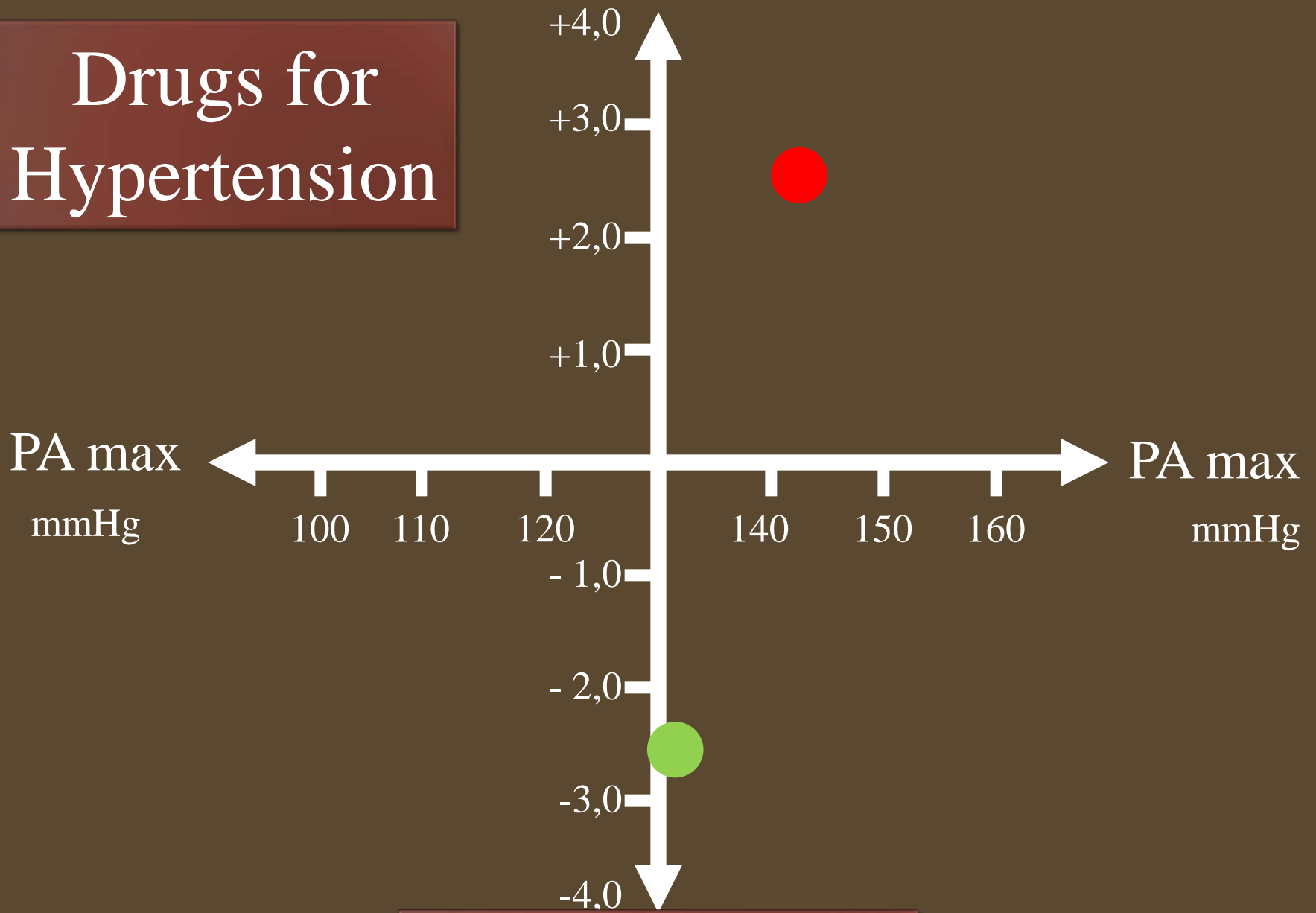
- Structure of the multidisciplinary model
- Changes after the intensive phase of intervention (4 months, 163 DM2 subjects, age 60.4 ± 7 years, 87 males, 76 females):
 - Body composition
 - Biochemical parameters
 - Pharmacological treatment
 - Physical performance
 - Mood and perceived quality of life
 - Predictors of long term adherence
- Support for long-term adherence to lifestyle change

Drugs for diabetes



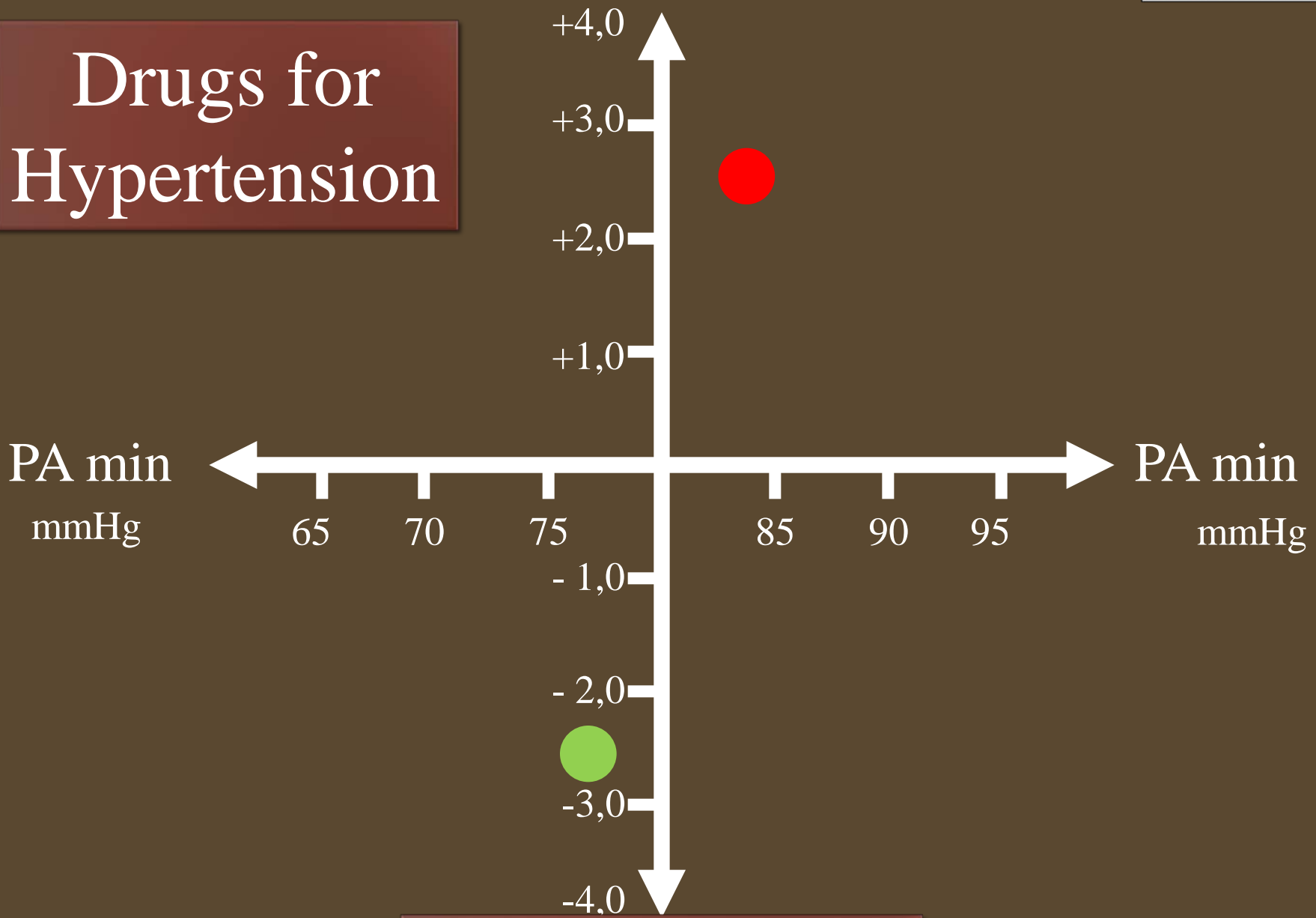
Daily Defined Dose

Drugs for Hypertension



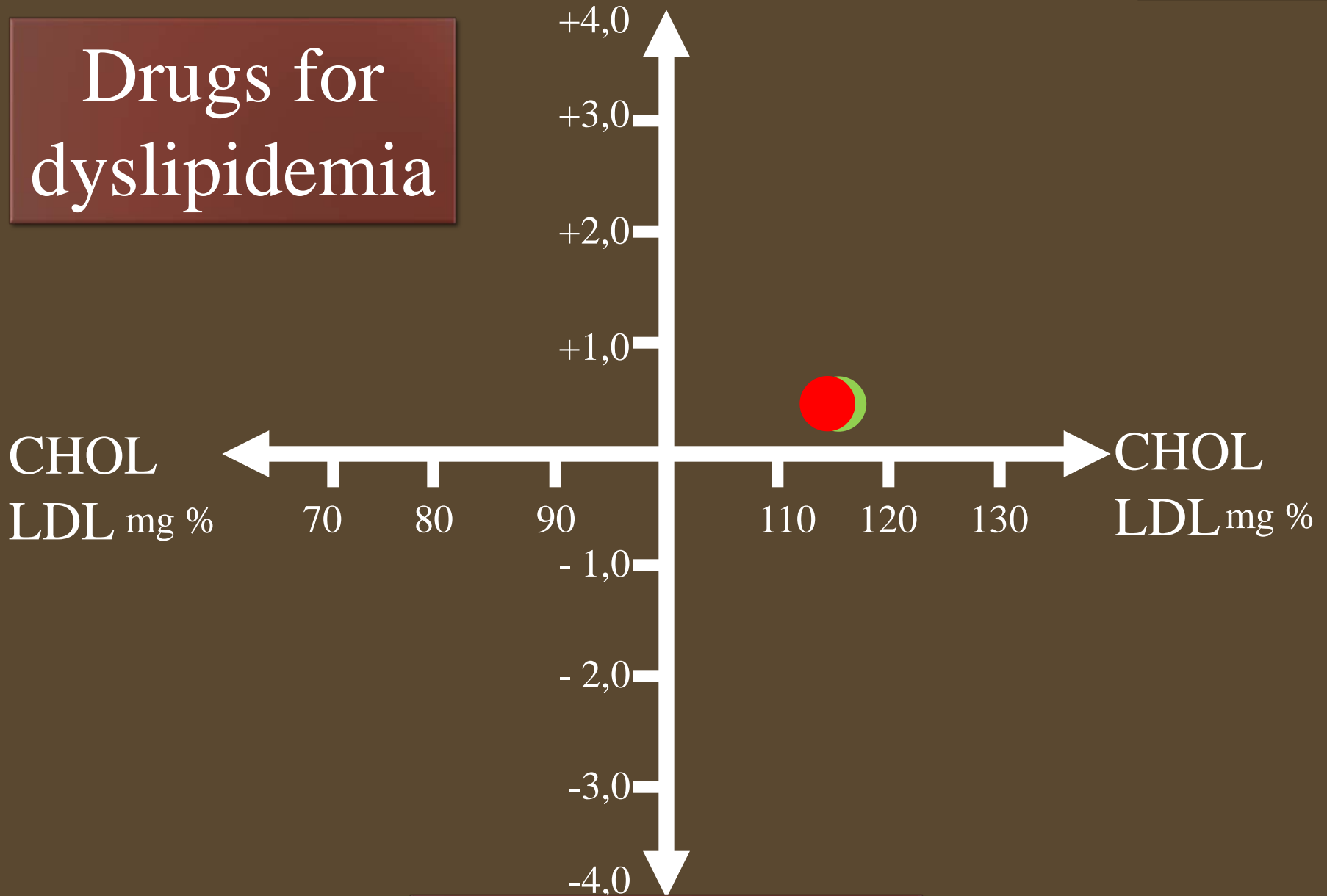
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Drugs for Hypertension



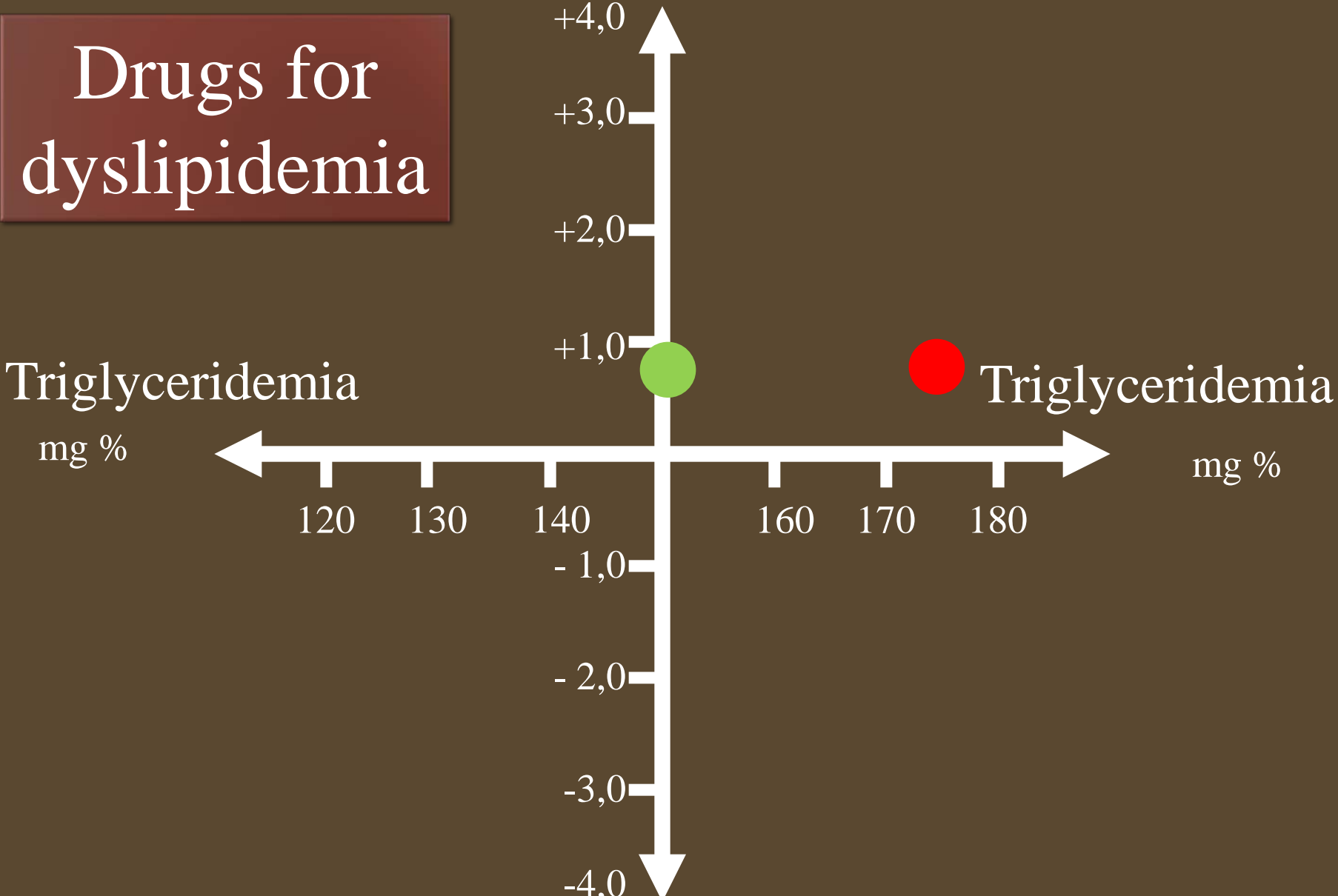
Daily Defined Dose

Drugs for dyslipidemia



Daily Defined Dose

Drugs for dyslipidemia



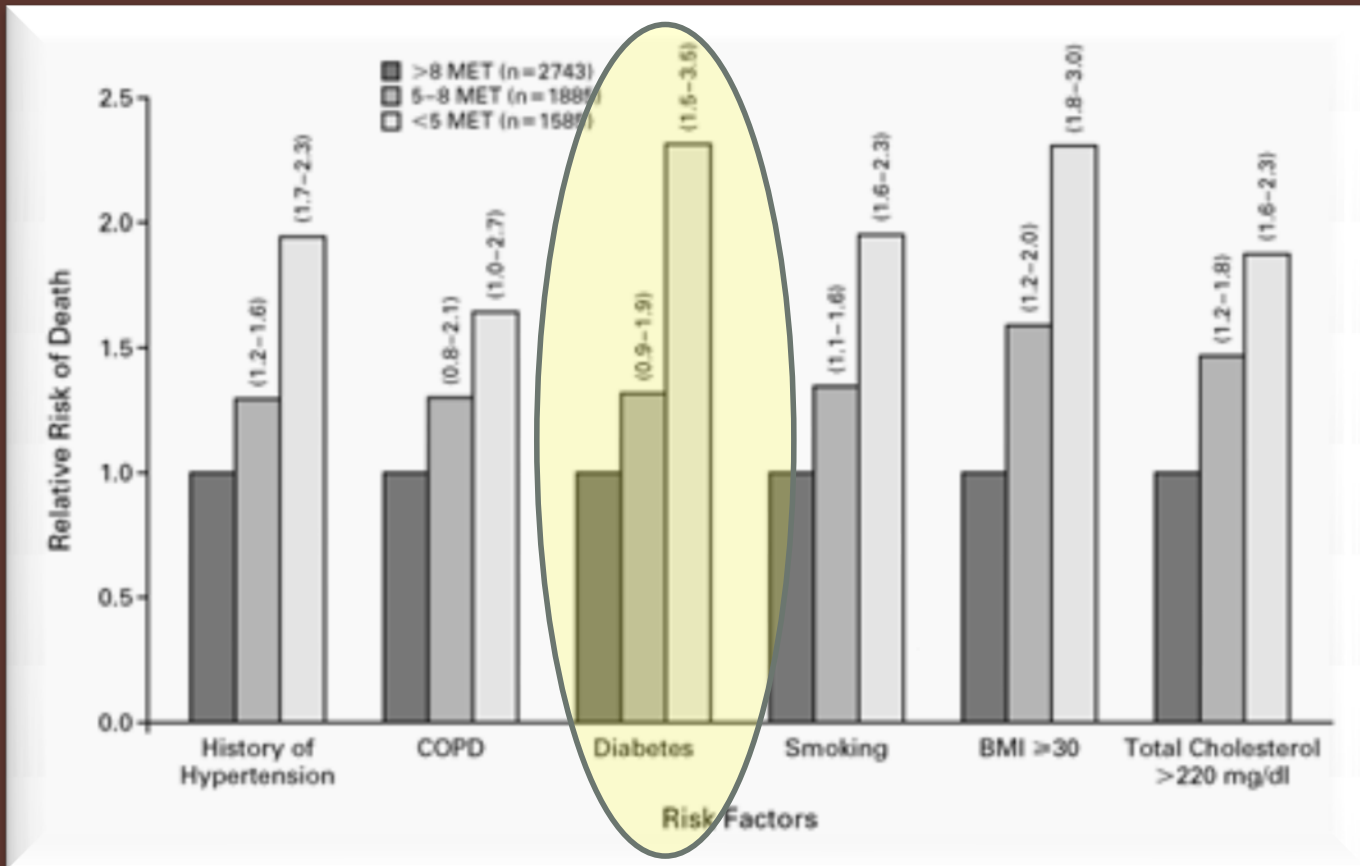
Daily Defined Dose

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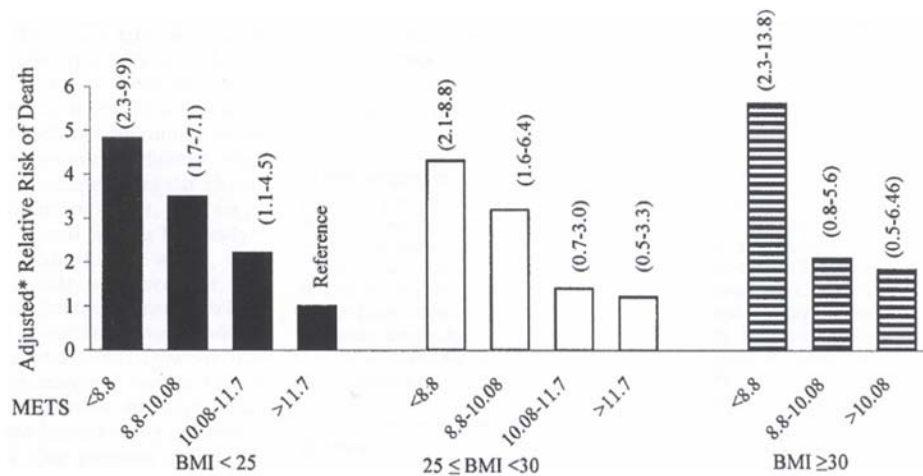
- Structure of the multidisciplinary model
- Changes after the intensive phase of intervention (4 months, 178 DM2 subjects, age 58.9 ± 6 years, 95 males, 83 females):
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Exercise Capacity and All-Cause Mortality



Myers et al. *N Engl J Med* 346: 793, 2002

Exercise Capacity and All-Cause Mortality



T. Church et al. *Diabetes Care* 27, 2004
(2196 diabetic males, mean age 49 years)

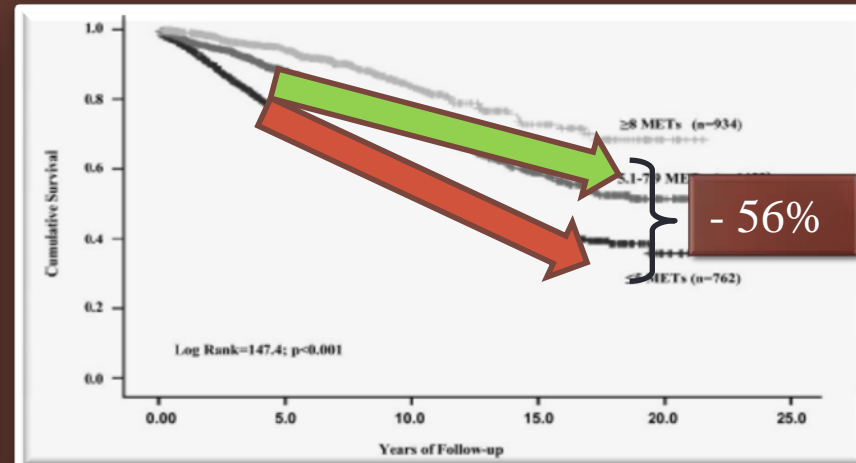


Table 2—HRs (95% CI) for all-cause mortality according to exercise capacity

	HR (95% CI)	P
All (n = 3,148)		
Peak exercise capacity (for each 1-MET increment)	0.79 (0.76–0.82)	<0.001
Adjusted for age and BMI	0.82 (0.79–0.86)	<0.001
Adjusted for age, BMI, cardiovascular risk factors, CVD, and cardiovascular medications	0.84 (0.81–0.87)	<0.001
Caucasians (n = 1,445)		
Peak exercise capacity (for each 1-MET increment)	0.77 (0.73–0.82)	<0.001
Adjusted for age and BMI	0.81 (0.76–0.85)	<0.001
Adjusted age, BMI, cardiovascular risk factors, CVD, and cardiovascular medications†	0.81 (0.77–0.86)	<0.001

P. Kokkinos et al. *Diabetes Care* 32, 2009
(3148 diabetic males, mean age 61 years)

An increase of 1 MET is associated with a reduction in all-cause mortality of 19%

The CURIAMO model

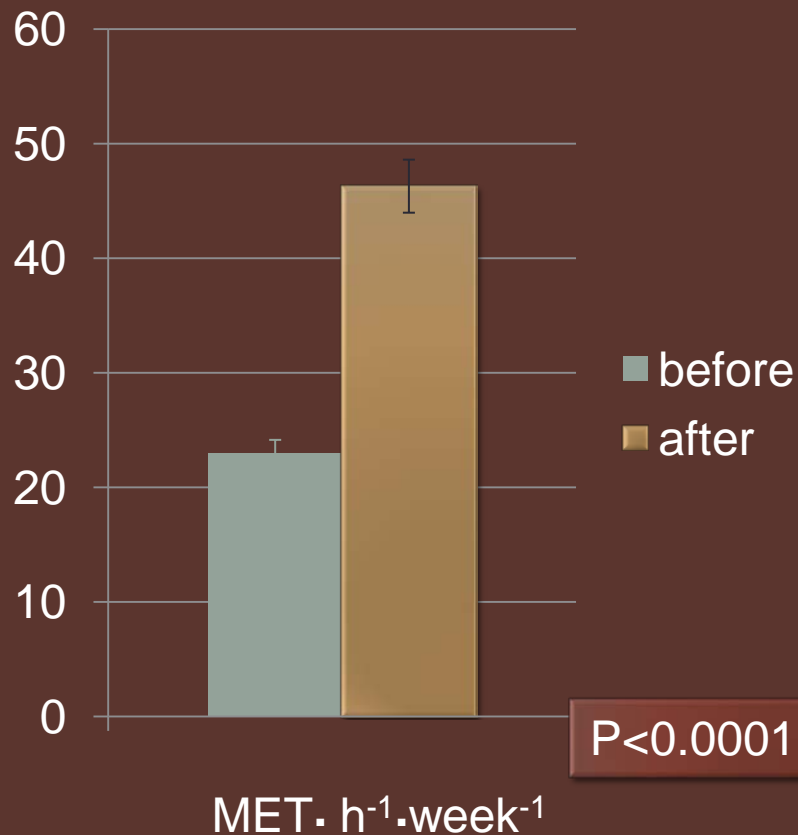


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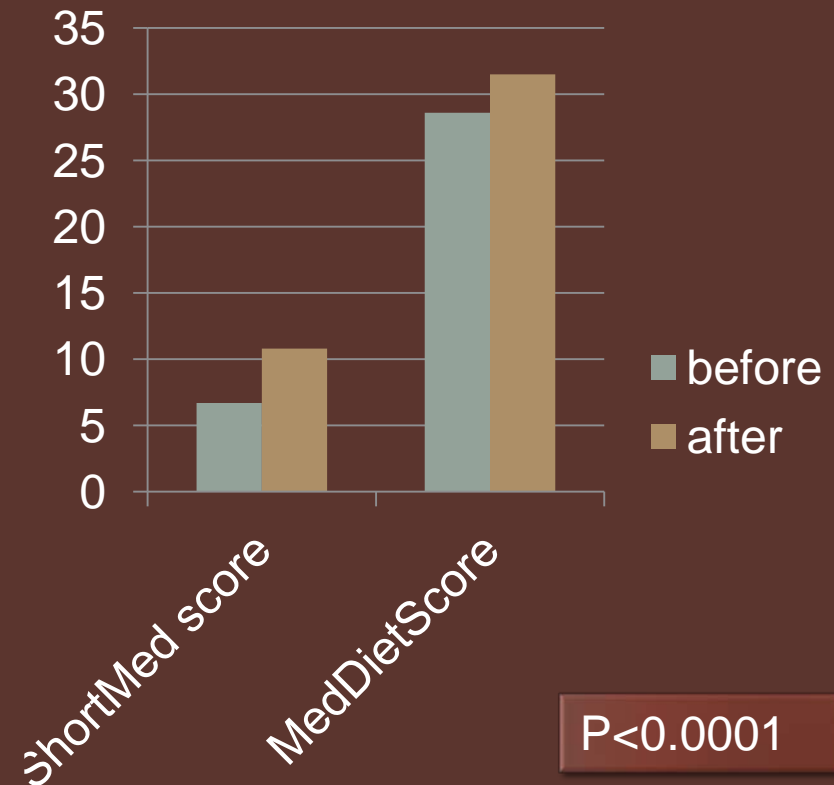
Predictors of a stable change



Energy expenditure (IPAQ)



Mediterranean diet score



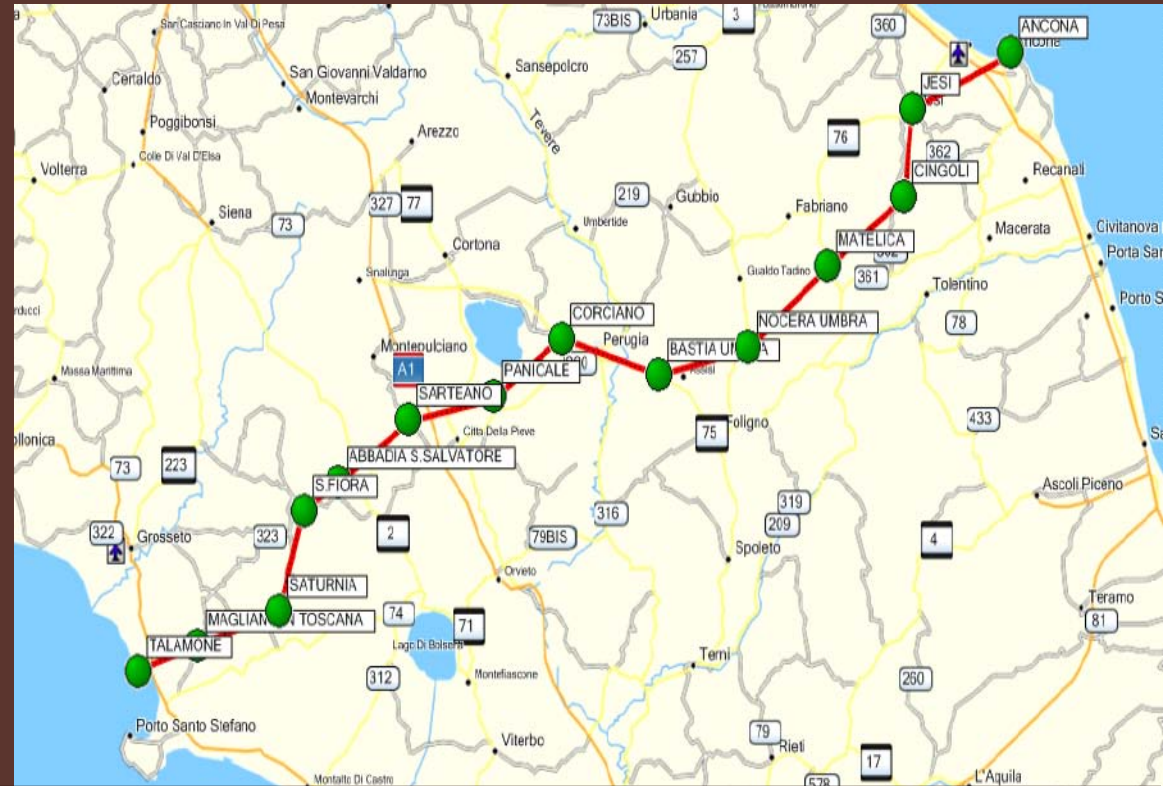
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Trekking and walking adventures





Step by step... Italy's Coast to Coast
390 km in 14 days
two editions in spring 2010 and 2011



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- Punti di debolezza

Punti di forza

Per gli operatori:

- Il lavoro in un gruppo multidisciplinare
- L'approccio innovativo che stimola la creatività
- Il feedback positivo dei pazienti

Per i pazienti:

- L'empatia degli operatori
- Il gruppo e la socializzazione
- Il miglioramento dell'autostima

Impact of the intervention on patients' views

The impact of the lifestyle intervention on patients' previous perception of disease, food and physical exercise was positive because they had experienced change. In particular, they reported that they had regained confidence in their own capacity to cope with obesity; they eat better and with a greater awareness; they are no longer scared about exercise. During therapy, the participants started to acknowledge the positive aspects of physical activity, describing it as an experience of pleasure, fun and well-being, especially when exercising was undertaken outdoors and in the company of others. Movement has positive psychological effects, it makes an individual feel free and combats stress, reinforces self-confidence and enhances harmony between body and mind in general.

The writings related to what the intervention had meant for them, were useful to understand that both the group and the different experts helped the individuals to improve their lifestyle.

Piana, N., Battistini, D., Urbani, L., Romani, G., Fatone, C., Pazzagli, C., Laghezza, L., Mazzeschi, C., De Feo, P. Multidisciplinary lifestyle intervention in the obese: its impact on patients perception of the disease, food and physical exercise. *Nutrition, Metabolism & Cardiovascular Diseases* 2012; doi:10.1016/j.numecd.2011.12.008

Punti di debolezza

- Non tutti i pazienti completano l'intervento (drop out rates circa il 10% per il DM2 e 30 % per l'obesità)
- L'analisi in corso dei risultati ad 1 anno dall'intervento mostra miglioramenti sempre significativi ma tendenzialmente inferiori rispetto a 3 mesi
- I pazienti obesi con BED richiedono un intervento psicologico più impegnativo

Conclusioni

- L'approccio multidisciplinare per la prevenzione e la cura nel DM2 offre risultati del tutto peculiari, non possibili con un intervento farmacologico: miglioramento dello **stato di forma fisica**, della **qualità della vita** e dell'**autostima**.
- L'**intervento multidisciplinare** sullo stile di vita è per l'azione combinata e sinergica delle sue componenti in grado di modificare in meglio lo stile di vita di persone con obesità e diabete e **riduce l'uso dei farmaci**.
- L'analisi del rapporto costo/beneficio del CURIAMO trial consentirà di stabilire **la validità del modello a lungo termine**.

GRAZIE PER L'ATTENZIONE!

