

Wat beweegt er in de geriatrie?

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Vragen

1. Zin van een behandeling
2. Kans op een degeneratieve ziekte
3. Kosten-Baten van een beleid

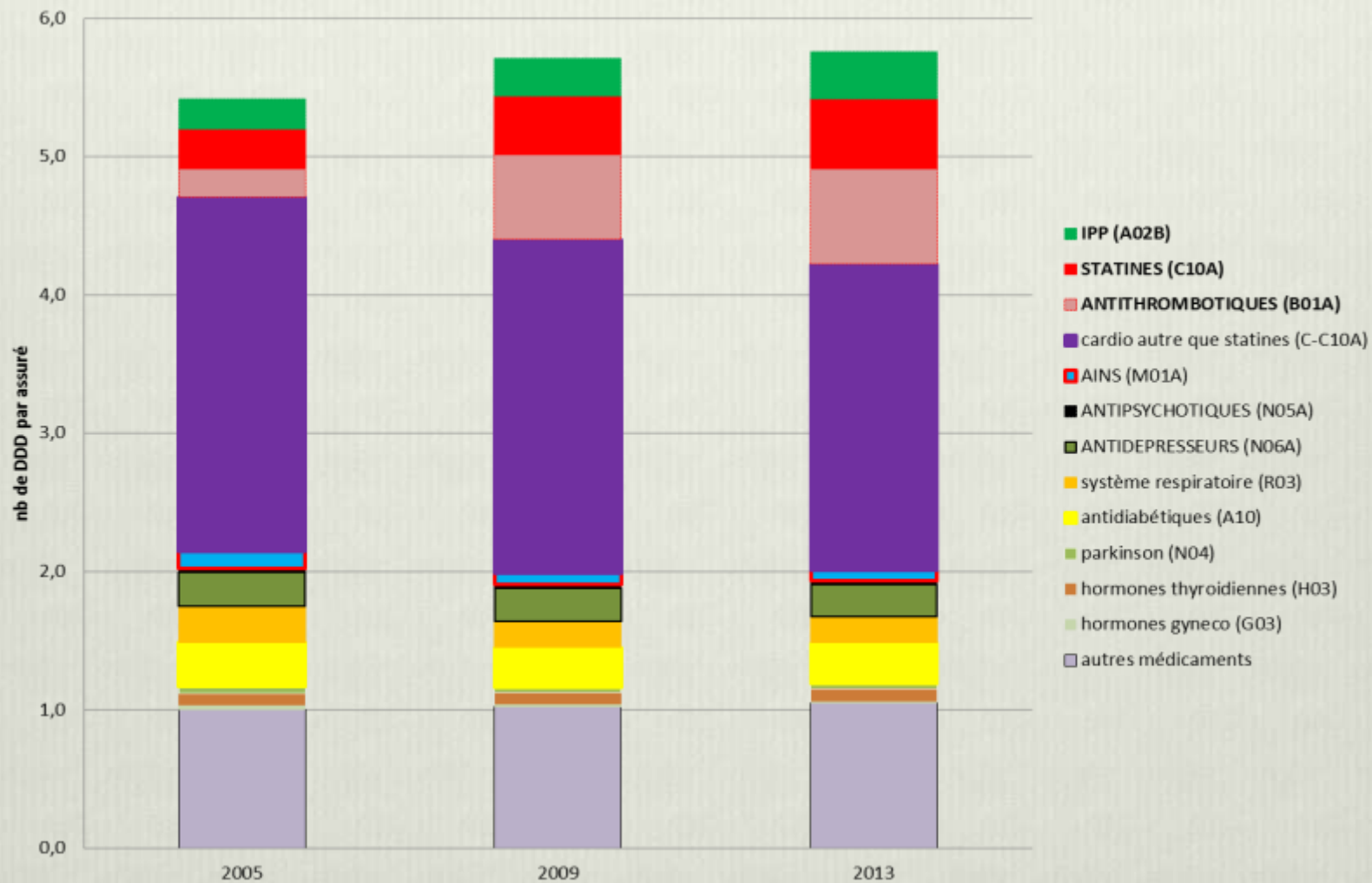


MentalHealthHumor.com

By: Chato B. Stewart

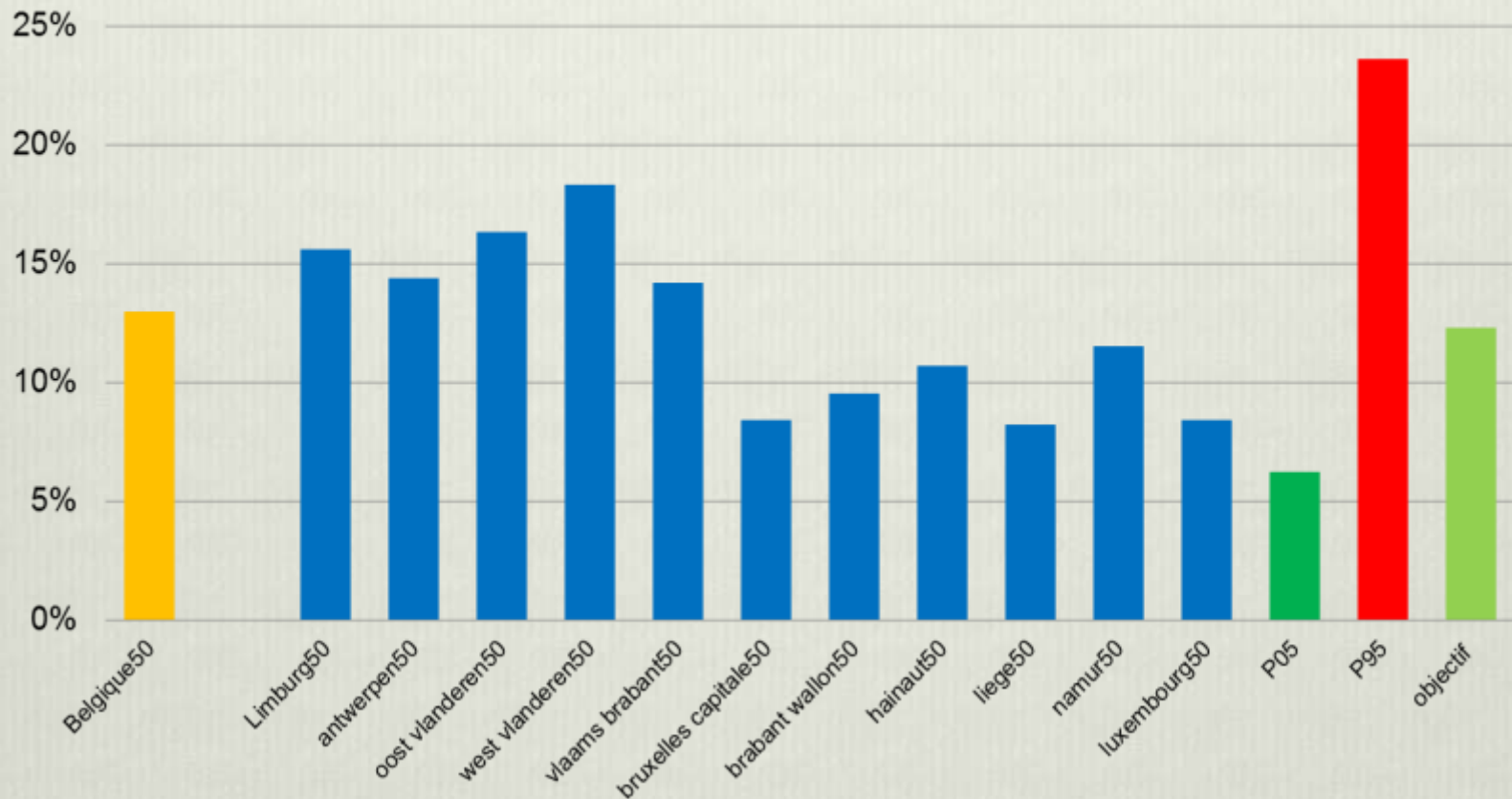


Rationeel voorschrijven



Bron: P.Meeus MD, MPH,MHA, 2015 RIZIV/INAMI

**% de patients avec antidépresseurs avec effets
anticholinergiques chez les patients âgés >75 ans avec
antidépresseurs (FB GP 2015 – activité 2013)**



Bron: P.Meeus MD, MPH,MHA, 2015 RIZIV/INAMI



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Research paper

Application of STOPP/START and Beers criteria: Compared analysis on identification and relevance of potentially inappropriate prescriptions

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professionals should lead to close adults. J Am Geriatr Soc 63:444

Key words: Beers List; medications; Beers Criteria; drugs; older adults; polypharmacy

Updated Beers Criteria for Older Adults

European Geriatric Medicine 7 (2016) 416–423

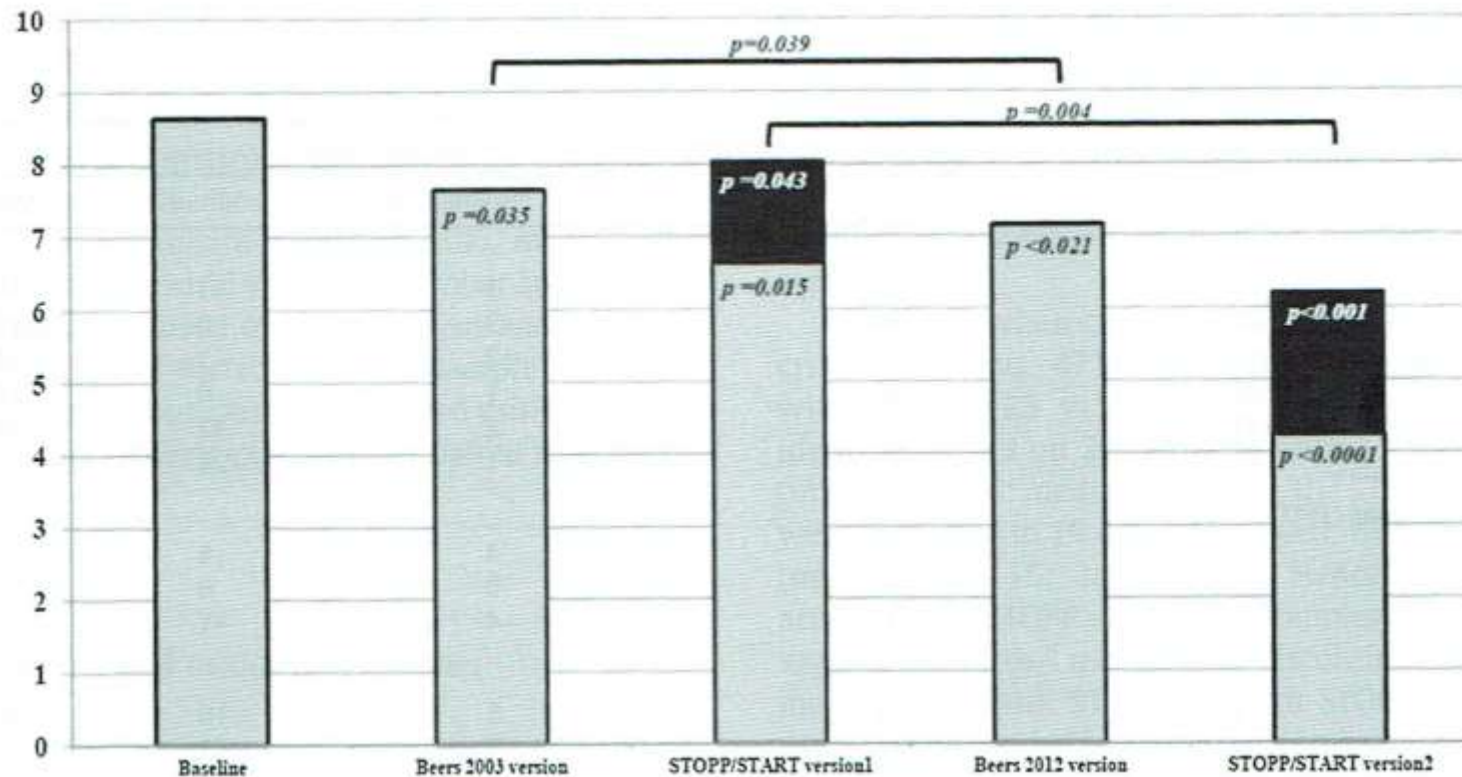
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BEERS versus STOPP/START

B. Boland et al. / European Geriatric Medicine 7 (2016) 416–423



B. Boland et al EGM 7(2016) 416-423

Rational Prescribing

OVER -prescribing

UNDER -prescribing

MIS -prescribing

DE -prescribing

Stopp/Start and Beers criteria

Step forward

Decision tools in progress

Keep interaction risks
in mind

Patient empowerment

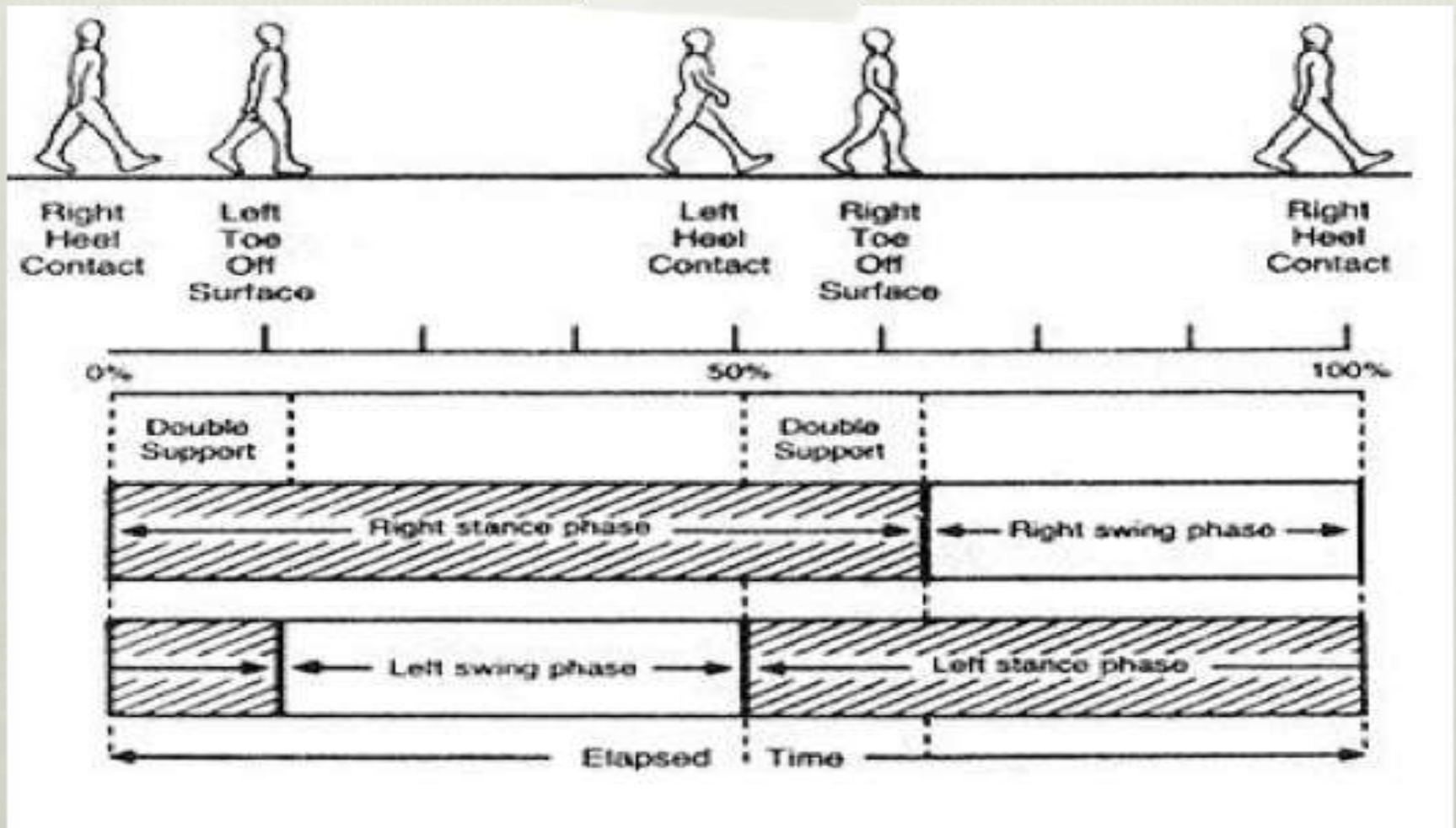




Dynamische Predictie-modellen

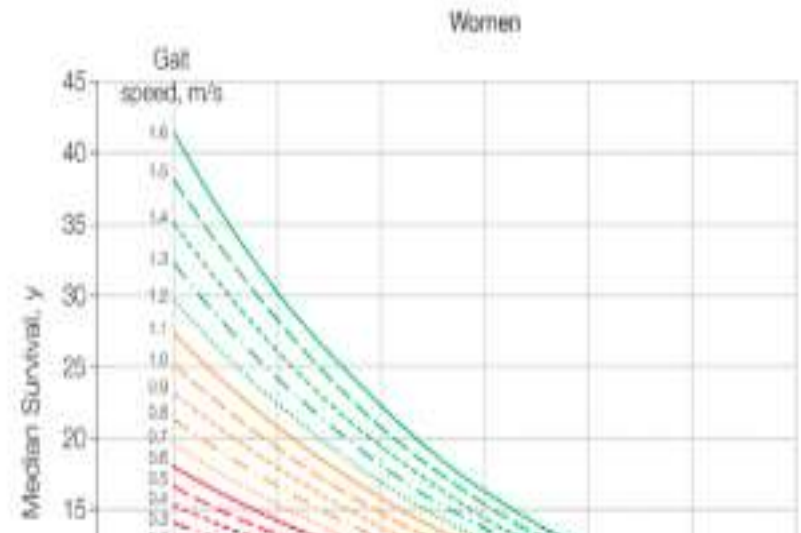
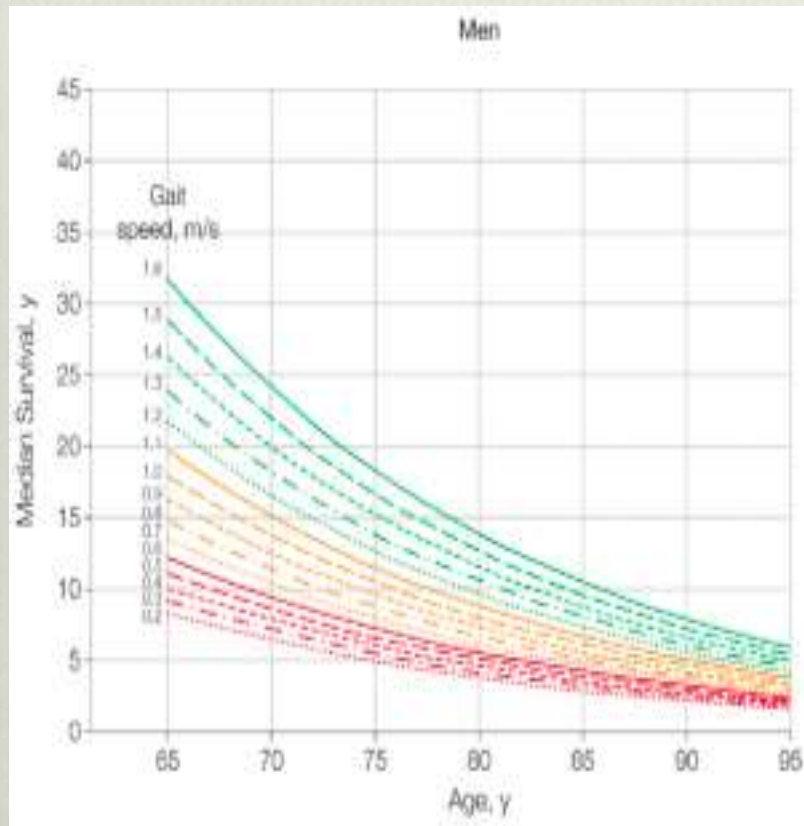
voor geriatrische syndromen

Gangcyclus



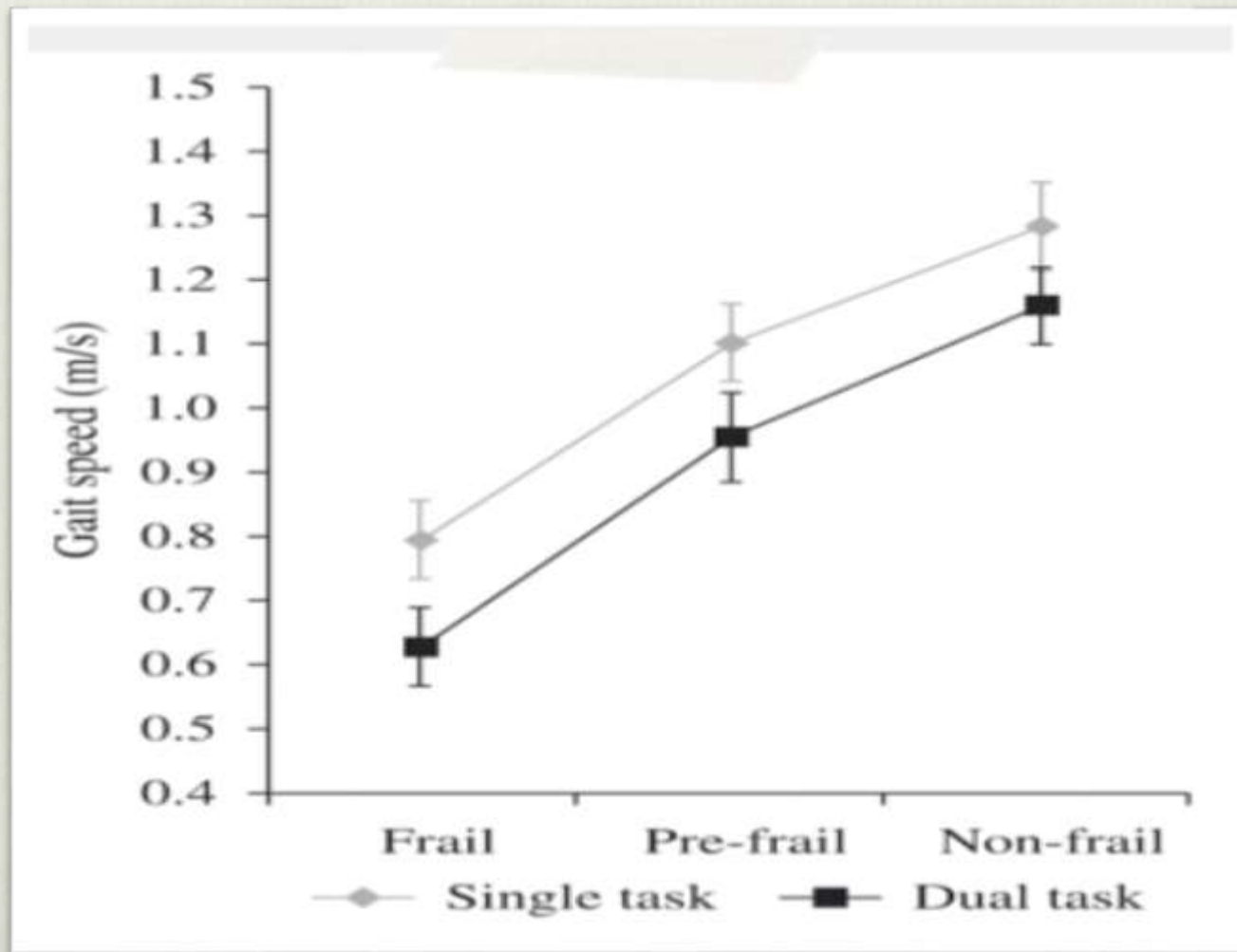
Gait Speed and Survival in Older Adults :

Stephanie Studenski



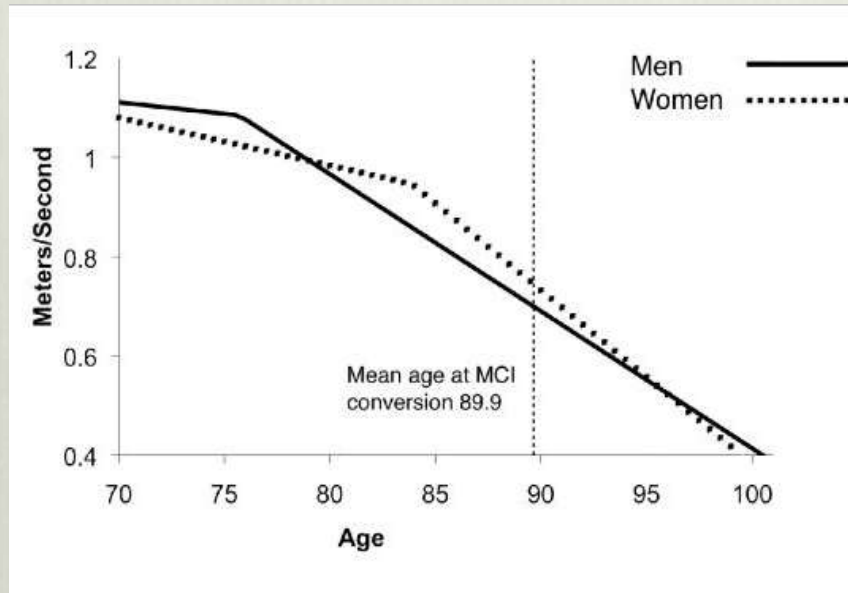
JAMA . 2011 January 5; 305(1): 50–58.

Frailty

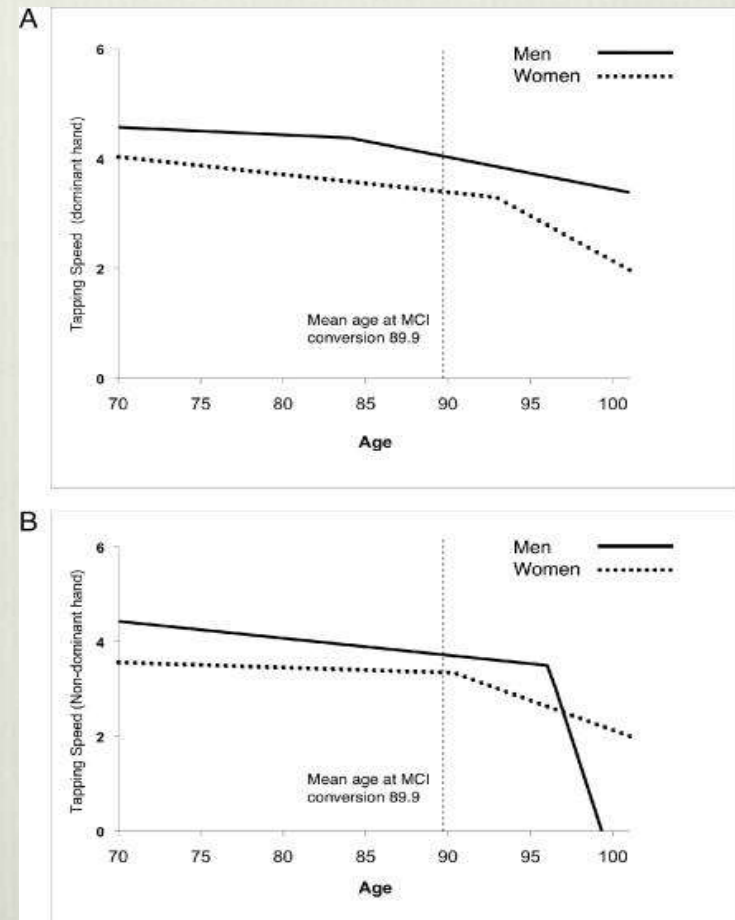


Motorische veranderingen Pre MCI

Gait speed



Finger tapping



Buracchio T, Dodge HH, Howieson D, Wasserman D, Kaye J. The trajectory of gait speed preceding mild cognitive impairment. Arch Neurol. 2010;67:980–986.

Motoric Cognitive Risk Syndrome (MCR) and the Risk of Dementia

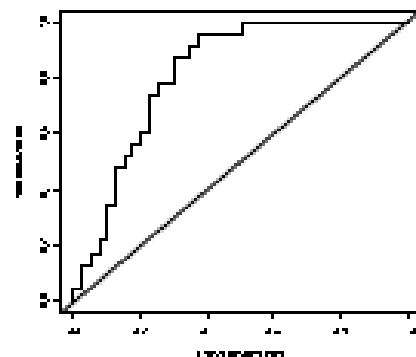
Table 1. Gait Speed Cutscores for Defining Slow Gait for the Motoric Cognitive Risk (MCR) syndrome*

Age group (y)	Men	Women
70–74	80.7	77.8
75–79	79.1	71.4
80–84	74.1	66.2
85 or older	65.9	57.5

Note: *Gait speed (cm/s) values at or below the cutscores (one standard deviation [SD] below age and sex means) previously established in the study cohort (11) were used to define slow gait.

Model : Gecombineerde gangkaracteristieken analyse

Model 1: No dementia versus Dementia
ROC curve



AUC=0.82

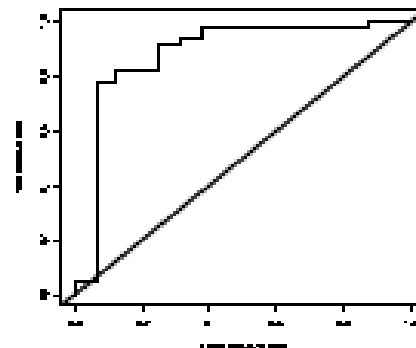
Formula Predicted Probability=

$\exp(1.75 + 0.24 \times SP \text{ gait speed} - 20.54 \times UP \text{ normalised gait speed} + 6.49 \times FP \text{ normalised steps per meter} - 23.1 \times UP \text{ normalised steps per meter} - 7.32 \times CW \text{ steps per meter} + 8.24 \times AW \text{ steps per meter} + 14.63 \times SP \text{ steps per meter})$

Cutoff 0.33
 Sensitivity 0.87
 Specificity 0.33
 Accuracy 76%

Dementia

Model 2: Normal versus Cognitive impairment
ROC curve



AUC=0.88

Formula Predicted Probability=

$\exp(+2.53 + 2.45 \times gender - 63.56 \times FP \text{ cycle time variability} - 0.07 \times FP \text{ gait speed} - 8.91 \times CW \text{ normalised gait speed} + 12.28 \times SP \text{ gait speed} - 13.38 \times CW \text{ steps per meter} + 7.42 \times UP \text{ steps per meter})$

Cutoff 0.43
 Sensitivity 0.98
 Specificity 0.38
 Accuracy 89%

Mild cognitive impairment



Geriatric assessment

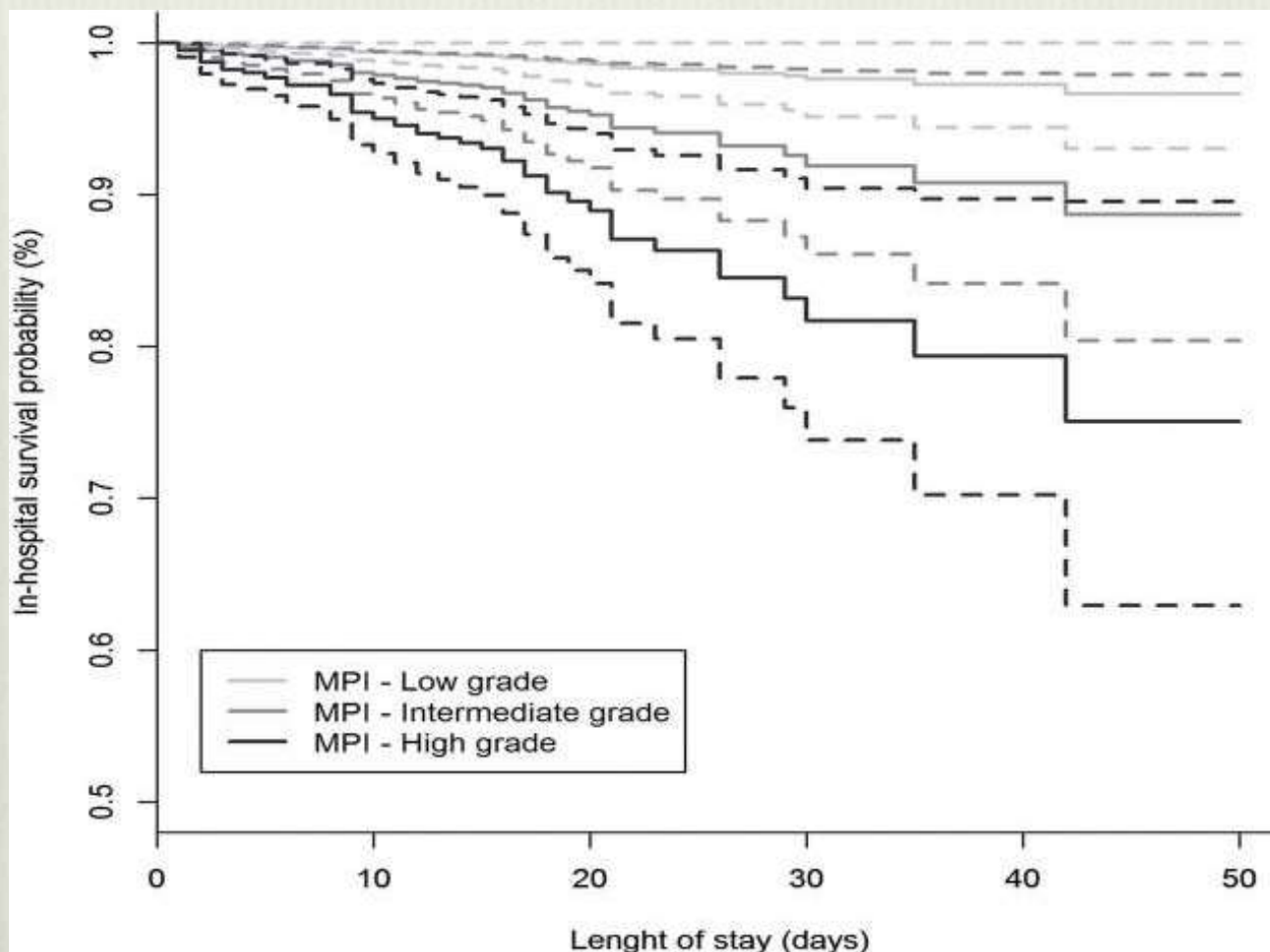
Hulpmiddel bij het nemen van beslissingen

Multidimensional Prognostic Index (MPI)

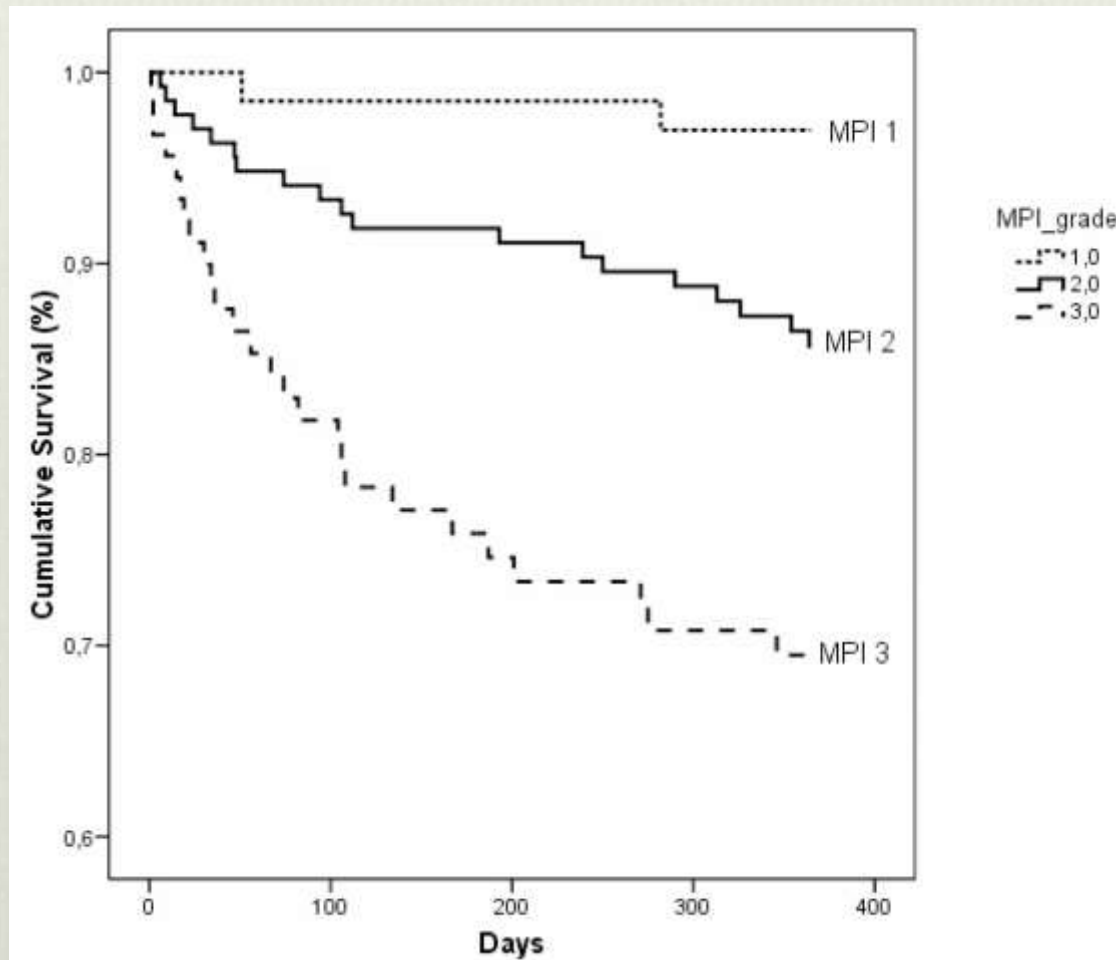


- ❖ a prognostic tool based on a standard CGA that predicts short- and long-term mortality in elderly subjects.
- ❖ ADL: 6 items
- ❖ IADL: 8 items
- ❖ SPMSQ: 10 items
- ❖ MNA: 18 items
- ❖ Exton-Smith Scale (ESS): 5 items
- ❖ Comorbidity Index (CIRS-CI): 14 items
- ❖ Number of drugs : 1 item
- ❖ Co-habitation status: 1 item

Survival and LOS



Survival and Dementia



Pilotto et al . J Alzheimers Dis. 2009 ; 18(1): 191–199. doi:10.3233/JAD-2009-1139.

Accuracy

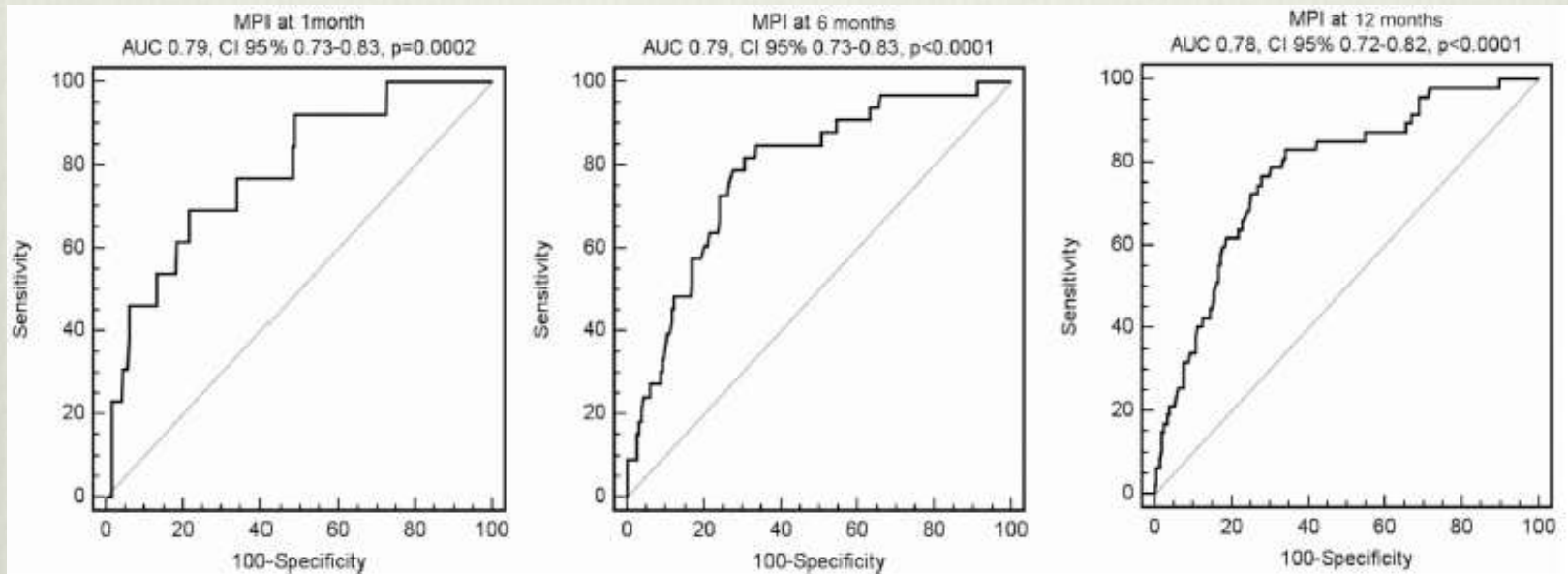


Fig. 2. Receiver Operating Curves (ROC) for MPI at 1 month (left), 6 months (center), and 12 months of follow-up (right).

Table 2. Mean Number of In-Hospital Days within 1, 3 and 10 Years Since Baseline, by Multidimensional Prognostic Index (MPI) Status and Age.

	66	72–78	81–87	90–99
Mean number of in-hospital days (95% CI) within 1 year of baseline visit				
MPI				
Low Risk	2.9 (1.8–3.9)	4.3 (3.3–5.3)	7.8 (3.5–12.1)	11.0 (7.4–14.5)
Medium Risk	9.0 (3.3–14.6)	13.3 (9.0–17.6)	18.9 (14.7–23.1)	24.5 (20.7–28.3)
High Risk	—	30.1 (6.3–53.9)	28.2 (16.3–40.0)	30.7 (22.4–39.0)
p	<0.001	<0.001	<0.001	<0.001
Mean number of in-hospital days (95% CI) within 3 years of baseline visit				
MPI				
Low Risk	6.4 (4.5–8.3)	9.6 (8.0–11.2)	16.3 (11.3–21.4)	24.3 (19.3–29.3)
Medium Risk	14.6 (6.5–22.7)	27.4 (21.2–33.6)	34.0 (27.8–40.1)	37.1 (32.2–42.0)
High Risk	—	33.9 (6.8–61.0)	41.3 (21.0–61.6)	36.9 (26.4–47.3)
p	<0.001	<0.001	<0.001	0.006
Mean number of in-hospital days (95% CI) within 10 years of baseline visit				
MPI				
Low Risk	17.4 (13.5–21.2)	37.9 (32.8–42.9)	48.7 (41.9–55.4)	46.8 (39.8–53.8)
Medium Risk	35.5 (19.6–51.4)	58.5 (48.0–69.0)	66.5 (57.2–75.8)	49.0 (43.3–54.6)
High Risk	—	34.6 (6.8–62.3)	45.7 (25.1–66.2)	37.9 (27.0–48.9)
p	<0.001	0.005	0.006	0.176

Multidimensional Prognostic Index (MPI) aggregated six domains (personal and instrumental activities of daily living, cognitive function, illness severity and comorbidity, the number of medications, co-habitation status). Age group 66 with high risk MPI omitted, due to only one participant in this category.

doi:10.1371/journal.pone.0133789.t002

Angleman SB, Santoni G, Pilotto A, Fratiglioni L, Welmer AK, et al. (2015) Multidimensional Prognostic Index in Association with Future Mortality and Number of Hospital Days in a Population-Based Sample of Older Adults: Results of the EU Funded MPI_AGE Project. PLOS ONE 10(7): e0133789. <https://doi.org/10.1371/journal.pone.0133789>

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0133789>

Table 3. Median Time to Death in Years, by Multidimensional Prognostic Index (MPI) Status and Age.

72–78				81–87			90–99		
Unadjusted									
MPI	Years	95% CI	p	Years	95% CI	p	Years	95% CI	p
Low Risk	Ref			Ref			Ref		
Medium Risk	-2.6	-4.2–0.9	0.002	-3.6	-4.5–2.8	<0.001	-2.2	-3.7–0.7	0.005
High Risk	-9.0	-10.0–8.1	<0.001	-7.2	-8.8–5.6	<0.001	-3.8	-5.3–2.3	<0.001
Adjusted for age									
MPI	Years	95% CI	p	Years	95% CI	p	Years	95% CI	p
Low Risk	Ref			Ref			Ref		
Medium Risk	-2.7	-4.3–1.1	0.001	-3.3	-4.1–2.6	<0.001	-1.6	-2.8–0.4	0.01
High Risk	-8.8	-10.3–7.4	<0.001	-6.6	-7.5–5.7	<0.001	-3.1	-4.3–1.9	<0.001
Adjusted for age and gender									
MPI	Years	95% CI	p	Years	95% CI	p	Years	95% CI	p
Low Risk	Ref			Ref			Ref		
Medium Risk	-2.5	-4.4–0.6	0.009	-3.6	-4.3–2.8	<0.001	-2.2	-3.1–1.3	<0.001
High Risk	-8.9	-10.4–7.5	<0.001	-6.8	-7.6–5.9	<0.001	-3.8	-4.7–2.8	<0.001

Multidimensional Prognostic Index (MPI) aggregated six domains (personal and instrumental activities of daily living, cognitive function, illness severity and comorbidity, the number of medications, co-habitation status). Age 66 excluded because too few had died to estimate median time to death. Mortality data until 2014-06-26. Analysis used Laplace regression.

doi:10.1371/journal.pone.0133789.t003

Angleman SB, Santoni G, Pilotto A, Fratiglioni L, Welmer AK, et al. (2015) Multidimensional Prognostic Index in Association with Future Mortality and Number of Hospital Days in a Population-Based Sample of Older Adults: Results of the EU Funded MPI_AGE Project. PLOS ONE 10(7): e0133789. <https://doi.org/10.1371/journal.pone.0133789>

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0133789>

**PROBLEM
SOLVED!**

