



**GRG-Journal Club 20 agosto 2010**

# **I molto vecchi**

**(determinanti di mortalità, medici e altro)**

*Renzo ROZZINI*

**Un ospedale è pieno di storie meravigliose e terribili e io, se fossi un dottore, le leggerei come si legge un bel romanzo, lasciandomi istruire. Farò solo un esempio.**

**Un mio amico scrittore stava morendo di un cancro al polmone all'ospedale, e prima di morire voleva sposare la sua compagna. Non era il gesto sentimentale che potrebbe sembrare; da un pezzo avevano smesso di essere amanti e abitavano semplicemente insieme. Ma lui ci teneva a lasciarle il suo appartamento, che aveva l'affitto bloccato. Pensava che se lo meritasse perché lo aveva assistito per tutto il periodo che aveva trascorso in ospedale, e poteva lasciarglielo solo dopo averla sposata.**

**Me l'aveva spiegato prima di perdere l'uso della parola in seguito a un infarto sopravvenuto durante un intervento esplorativo. Aveva anche precisato che non avrei dovuto organizzare il matrimonio finché non fossi stato sicuro che non c'erano più speranze. Quando vidi che il suo momento si avvicinava, feci come mi aveva chiesto e andai a cercare un rabbino. Quest'ultimo si rivelò un intellettuale pignolo, dall'aria professorale, e mi interrogò a lungo sulle convinzioni religiose del mio amico. L'unica cosa che potei rispondergli fu che aveva scritto esclusivamente di personaggi ebrei e del genere di sofferenze tradizionalmente associate agli ebrei. Mi chiese se la sposa fosse un'ebrea praticante, e io gli risposi che secondo me praticava inconsciamente. Brontolando il rabbino si lasciò convincere e venne in ospedale a celebrare il rito. Il mio amico era in una corsia con otto letti. Gli altri sette erano occupati da latinoamericani, e le loro radio strombazzavano salsa dalla mattina alla sera. C'era un viavai continuo di gente in visita, e tutti che parlava spagnolo a gran velocità. Il rabbino era infastidito dalla salsa, ma tirò le tende intorno al letto e diede inizio alla cerimonia. Erano solo un paio di minuti che salmodiava in ebraico, quando un giovane dottore che si era occupato del mio amico spalancò la tenda. Sembrava convinto che stessimo invadendo la sua giurisdizione, anche se avevamo già ottenuto il permesso dalla capo-infermiera. Quando capì che si stava celebrando un matrimonio, si chinò sul mio amico, che ormai da due settimane aveva perso l'uso della parola, ed ad alta voce, in tono prepotente, gli domandò: "Ami questa donna? Vuoi sposare questa donna?". Ecco un medico che interveniva nella vita di un uomo senza capirci assolutamente niente. Se avesse conosciuto il suo paziente, avrebbe potuto apprezzare il pathos della scena, a cui la salsa faceva da accompagnamento obbligato.**

**Ma non vedeva niente, non capiva niente.**

**La morte asciutta (Anatole Broyard, 2008)**

## Understanding the Determinants of Exceptional Longevity

Thomas Perls, MD, MPH, and Dellara Terry, MD, MPH

Centenarians represent an extreme of life expectancy. They achieve their exceptional longevity in part by lacking genetic variations linked to premature death. Pedigree studies have shown a substantial familial component in the ability to survive to extreme old age, and a recent study demonstrated a locus on chromosome 4 linked to exceptional longevity, indicating the likely existence of at least one longevity-enabling gene in humans. The children of centenarians have markedly reduced relative risks for age-related diseases, particularly heart disease, hypertension, and diabetes,

and are a promising model for genetic and phenotypic studies of 1) aging slowly relative to the general population and 2) the delay of and perhaps escape from important age-related diseases. These studies and those of other mammals and lower organisms show great promise for the delineation of important environmental and genetic determinants of aging well.

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For author affiliations, see end of text.

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# Exceptional Longevity in Men

## Modifiable Factors Associated With Survival and Function to Age 90 Years

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**Background:** Prospective data on nongenetic determinants of exceptional longevity are limited, and information on long-lived men and their functional status is particularly sparse. We examined modifiable factors associated with a life span of 90 or more years and late-life function in men.

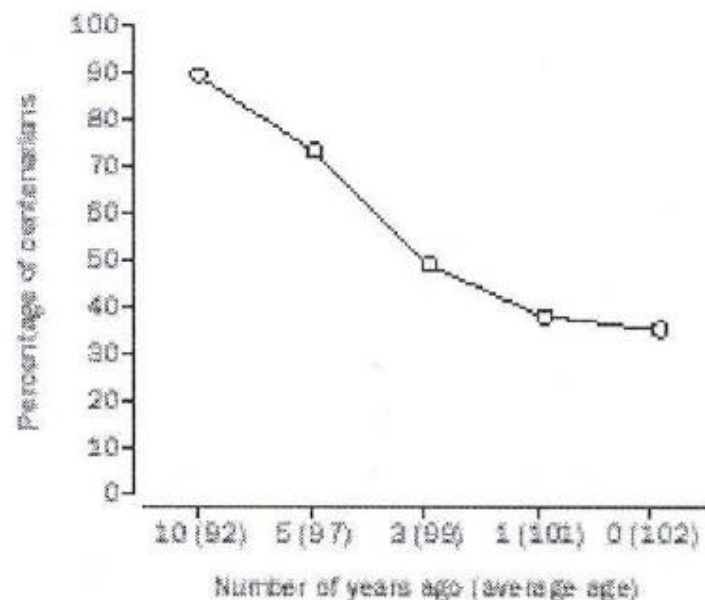
**Methods:** In this prospective cohort study of 2357 healthy men (mean age, 72 years) within the Physicians' Health Study (1981-2006), biological and lifestyle factors and comorbid conditions were assessed by self-report with baseline and annual questionnaires. Mortality and incidence of major diseases were confirmed by medical record review. Late-life function was assessed 16 years after baseline by the Medical Outcomes Study 36-Item Short-Form Health Survey.

**Results:** A total of 970 men (41%) survived to at least age 90 years. Smoking was associated with increased risk of mortality before age 90 years (hazard ratio [HR]; 2.10; 95% confidence interval [CI], 1.75-2.51), and similar associations were observed with diabetes (HR, 1.86; 95% CI, 1.52-2.26), obesity (HR, 1.44; 95% CI, 1.10-1.90), and hypertension (HR, 1.28; 95% CI, 1.15-1.43). Regular exercise was associated with a nearly 30% lower mortality risk (HR, 0.72; 95%

CI, 0.62-0.83). The probability of a 90-year life span at age 70 years was 54% in the absence of smoking, diabetes, obesity, hypertension, or sedentary lifestyle. It ranged from 36% to 22% with 2 adverse factors and was negligible (4%) with 5. Compared with nonsurvivors, men with exceptional longevity had a healthier lifestyle (67% vs 53% had  $\leq 1$  adverse factor), had a lower incidence of chronic diseases, and were 3 to 5 years older at disease onset. They had better late-life physical function (mean  $\pm$  SD score [maximum 100],  $73 \pm 23$  vs  $62 \pm 30$ ;  $P < .001$ ) and mental well-being (mean score,  $84 \pm 14$  vs  $81 \pm 17$ ;  $P = .03$ ). More than 68% (vs 45%) rated their late-life health as excellent or very good, and less than 8% (vs 22%) reported fair or poor health ( $P < .001$  for trend). Regular exercise was associated with significantly better—and smoking and overweight with significantly worse—late-life physical function. Smoking also was associated with a significant decrement in mental function.

**Conclusion:** Modifiable healthy behaviors during early elderly years, including smoking abstinence, weight management, blood pressure control, and regular exercise, are associated not only with enhanced life span in men but also with good health and function during older age.

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**Percentage of centenarians independently functioning over the course of the previous 10 years of their lives**

The centenarians experienced few hospitalisations. The average number of hospitalisations 10 years ago was 0.3, and at time 0 it was 0.6 hospitalisations per year. The most recent hospitalisation, on average, occurred 44 months before time 0, with an average length of stay of 7 days. Of those hospitalisations, only seven of 37 (19%) needed an intensive-care-unit visit. Orthopaedic injuries were cited as the main reason for admission. Finally, 10 years ago, 43% lived alone with only 14% in nursing homes. At time 0, 16% lived alone, whereas 59% lived in nursing homes.

**Centenarians: the older you get, the healthier you have been**

*Rachel Hitt, Yinong Young-Xu, Margery Silver, Thomas Perls*

## **È possibile l'estensione della spettanza di vita?**

**L'88% delle femmine e il 100% dei maschi che hanno raggiunto i 100 anni era funzionalmente indipendente all'età di 92 anni.**

**All'età di 97 anni lo era il 45% delle femmine e il 75% dei maschi.**

# Aspettativa di vita delle persone anziane (anni da vivere)

Età	Maschi						Femmine					
	70	75	80	85	90	95	70	75	80	85	90	95
<b>Sani</b>	18.0	14.2	10.8	7.9	5.8	4.3	21.3	17.0	13.0	9.6	6.8	4.8
<b>Medi</b>	12.4	9.3	6.7	4.7	3.2	2.3	15.7	11.9	8.6	5.9	3.9	2.7
<b>Fragili</b>	6.7	4.9	3.3	2.2	1.5	1.0	9.5	6.8	4.6	2.9	1.8	1.7

NCMS Life Tables of the United States 1997

## **90enne cade e annega nel canale (lunedì 16 agosto 2010)**

**Il corpo di Severino Meloni, pensionato di 90 anni residente a Bedizzole in via Larga 12, è stato recuperato privo di vita in un canale nel primissimo pomeriggio di questo lunedì 16 agosto dai volontari del Soccorso alpino di Brescia.**

**L'anziano era disperso dopo che si era allontanato da casa domenica mattina, forse per una breve passeggiata, e non vi aveva più fatto ritorno. I famigliari, preoccupati per il perdurare dell'assenza, avevano telefonato alla centrale operativa del 118 lanciando l'allarme.**

**Della ricerca si sono occupati i volontari del Cnsas e i carabinieri. Purtroppo il corpo della vittima è stato trovato e recuperato a Salago dopo che era stato fatto abbassare il livello dell'acqua di un canale per l'irrigazione che alimenta anche la centrale idroelettrica, collegato con il fiume Chiese. Sul posto era infatti stata ritrovata una pantofola dello scomparso.**

**Sono intervenuti anche i vigili del fuoco e i volontari della sezione locale della Protezione civile. Per cause sulle quali stanno indagando i militari della locale stazione, può darsi che l'uomo sia stato sorpreso sull'argine dal maltempo di domenica mattina.**

**E' possibile che sia scivolato finendo nel canale a causa di un malore o un improvviso acquazzone. Una volta in acqua, non ce l'ha più fatta a risalire e ha perso la vita per annegamento.**

**I funerali sono stati fissati per mercoledì pomeriggio alle ore 15 nella parrocchia di Santo Stefano di Bedizzole partendo dall'abitazione.**

**Ci sono quelli che si schiattano di colpo, come se si fosse rotto il nastro – l'occhio della mente conserva a lungo quell'ultima immagine, ed essi non muoiono mai del tutto – ma mio padre fu retrocesso passo dopo passo nella scala evolutiva prima di entrare nel nulla. Perse una posizione dopo l'altra in una ritirata interminabile. Come un tempo era stato generato venne infine degenerato; e io, come un bambino spinto da un amore insaziabile smonta il giocattolo preferito, osservai il suo meccanismo interno disgregarsi scoprendo cosa lo faceva funzionare. Allora come adesso sentii che era del tutto naturale.**

**La morte asciutta (Anatole Broyard, 2008)**

# Perché occuparci dei novantenni?

È un fenomeno rilevante dal punto di vista epidemiologico?

Quali sono i punti più critici delle conoscenze biomediche?

Quali nella gestione dei casi?

In quale setting è più rilevante/critico il problema?

È ipotizzabile una clinica del novantenne?

Diagnosi, prognosi, terapia?

A quali obiettivi di cura?

**Non mi piaceva come parlava: mi sembrava studiatamente studiato, come se posasse tutto il tempo, recitando la parte del dottore. In lui non vedevo nessun senso tragico della vita, nessun furioso desiderio di opporsi al fato.**

**La morte asciutta (Anatole Broyard, 2008)**

**Ero anche consapevole di avere un debole per i dottori ebrei. Pensavo che gli ebrei fossero i mediatori – i medici, gli avvocati, gli agenti di borsa, gli arbitri e gli artisti – della vita contemporanea.**

**La storia li aveva convinti che la vita era una malattia.**

**Mio padre, che era un uomo del sud, un antisemita vecchio stampo, quando si ammalò di cancro alla vescica volle a tutti i costi un medico ebreo.**

**Un medico ebreo, secondo lui, era stato educato alla malattia.**

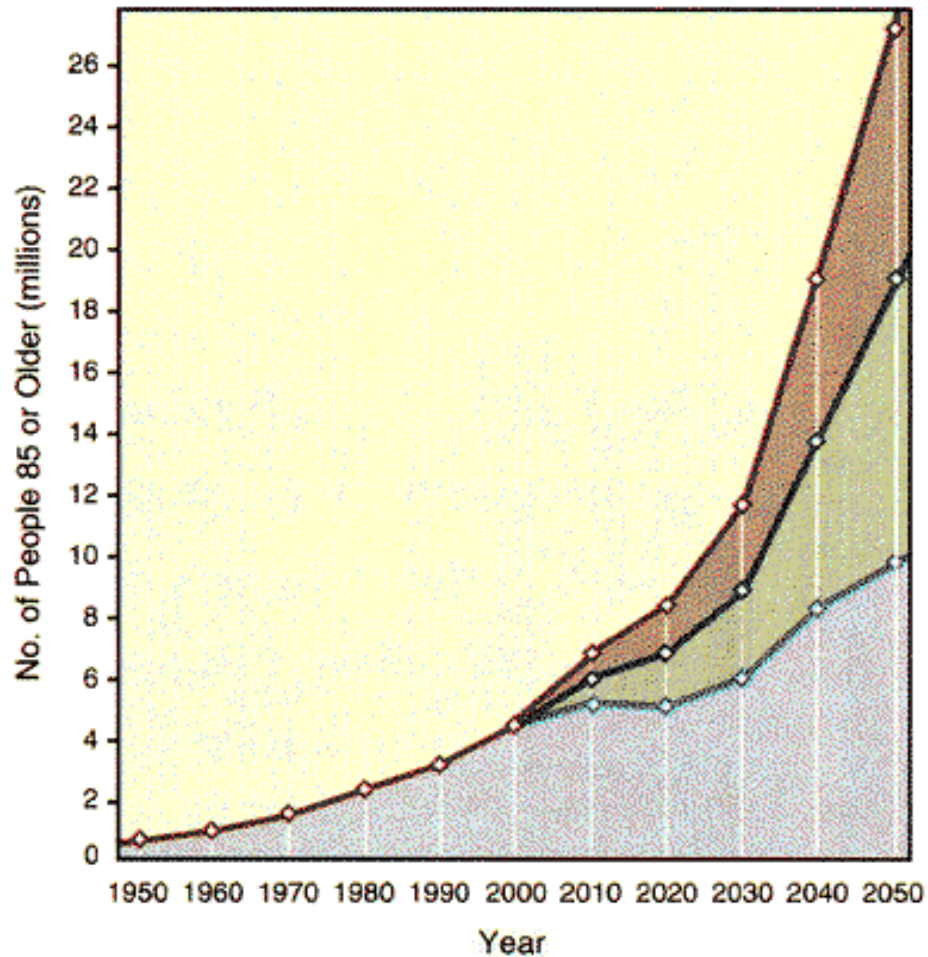
**Nella concezione biblica di mio padre, la vita di un ebreo era una storia di studio, riparazione e riforma.**

**Un ebreo sapeva quanto valesse la sopravvivenza perché aveva dovuto lottare per la sua.**

**Obbligati a trattare la vita come un affare più che un piacere, gli ebrei negoziavano a muso duro. Perdere un paziente era un cattivo affare.**

**La morte asciutta (Anatole Broyard, 2008)**

## The Size of the U.S. Population 85 Years of Age or Older from 1950 to 2050.



Three sets of estimates are shown: low (blue), intermediate (green), and high (purple). The values are actual from 1950 to 1990 and projected from 1991 to 2050.

**Table 1. Emergency Department visits according to age strata, 2003 to 2009**

	2003	2004	2005	2006	2007	2008	2009	*	Test for trend**
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)		
	N=40.944	N=40.772	N=41.895	N=44.352	N=45.185	N=48.749	N=53.335	+30.3	0.000
<b>Age groups</b>									
<65	32.618	32.393	32.557	34.297	34.502	37.043	40.728	-4,1%	0.000
65-74	3.670	3.671	3.974	4.196	4.484	4.693	4.934	+3,2%	0.008
75-84	3.232	3.350	3.689	3.966	4.167	4.491	4.813	+14,3%	0.000
85+	1.424	1.358	1.655	1.893	2.032	2.522	2.859	+54,1%	0.000

\*Increases in percentage of the rate of EDs patients for each age group from 2003 to 2009

\*\*Chisquare test for trend

**Table 2. Hospital admissions as total number (and percentage of ED visits for each value) through Emergency Department in to medical or surgical wards according to age strata, 2003 to 2009**

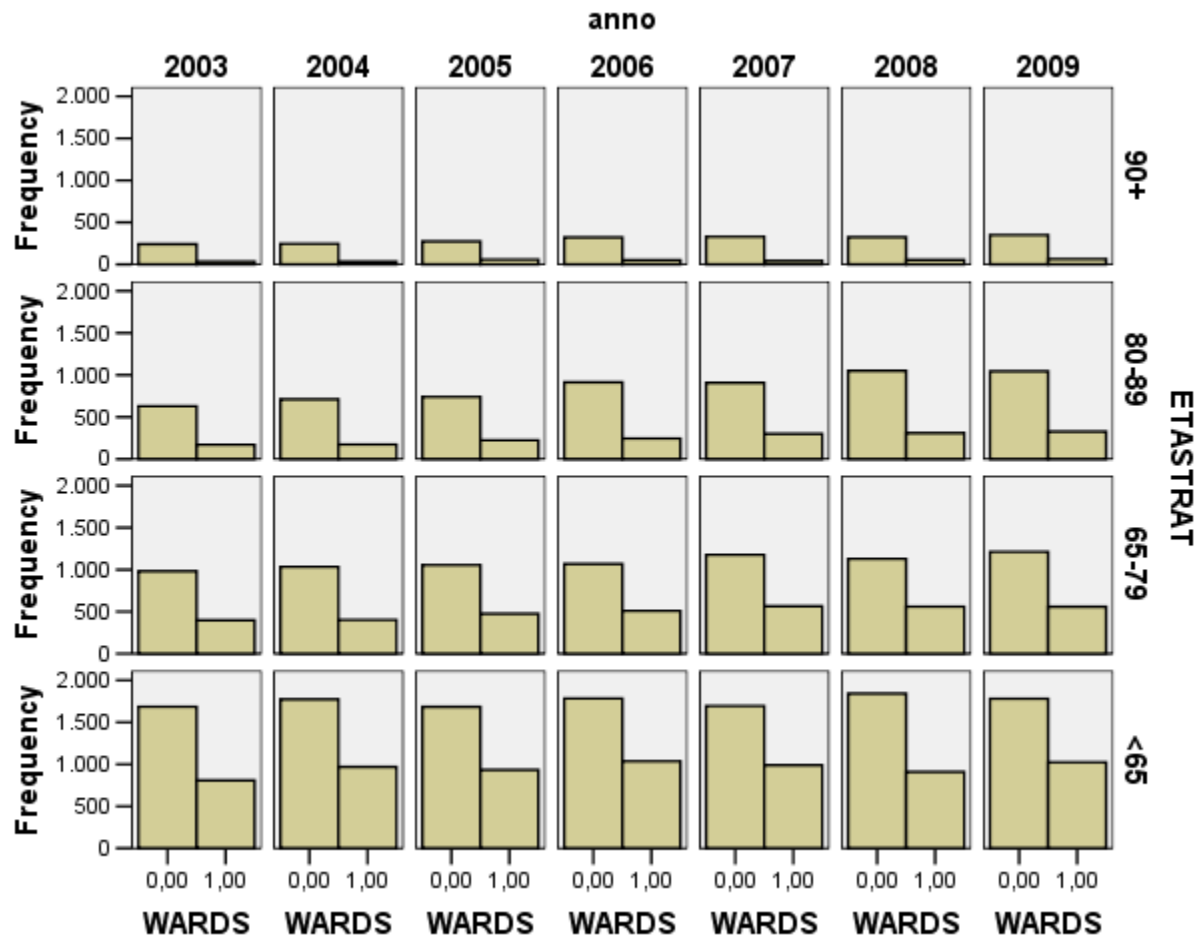
	2003 N (%)	2004 N (%)	2005 N (%)	2006 N (%)	2007 N (%)	2008 N (%)	2009 N (%)	% change 2003-09	Test for trend
<b>Medical wards</b>	N=3.536 (8.6)	N=3.763 (9.2)	N=3.752 (8.9)	N=4.088 (9.2)	N=4.107 (9.1)	N=4.346 (8.9)	N=4424 (8.3)		
<b>Age groups</b>									
<65	1.685 (5.2)	1.772 (5.5)	1.684 (5.2)	1.783 (5.2)	1.694 (4.9)	1842 (4.0)	1805 (4.4)	-14,4%	0.000
65-74	641 (17.5)	617 (16.8)	654 (16.5)	624 (14.9)	719 (16.0)	628 (13.4)	685(13.9)	-14,6%	0.000
75-84	740 (22.9)	844 (25.2)	852 (23.1)	973 (24.5)	966 (23.2)	1044 (23.2)	1055 (21.9)	14,0%	0.000
85+	470 (33.0)	530 (39.0)	562 (34.0)	708 (37.4)	728 (35.8)	832 (32.9)	879 (30.7)	49,5%	0.000
<b>Surgical wards</b>	N=1.411 (3.4)	N=1.578 (3.9)	N=1.692 (4.0)	N=1.841 (4.1)	N=1.895 (4.2)	N=1.834 (3.8)	N=1959 (3.7)		
<b>Age groups</b>									
<65	807 (2.5)	968 (3.0)	933 (2.9)	1.036 (3.0)	989 (2.9)	910 (2.4)	1019 (2.5)	-9,1%	0.000
65-74	268 (7.3)	261 (7.1)	326 (8.2)	315 (7.5)	345 (7.7)	380 (8.1)	353 (7.2)	-5,1%	0.000
75-84	246 (7.6)	266 (7.9)	301 (8.2)	338 (8.5)	386 (9.3)	361 (8.0)	385 (8.0)	12,7%	0.000
85+	90 (6.3)	83 (6.1)	132 (8.0)	152 (8.0)	175 (8.6)	183 (7.1)	202 (7.1)	61,7%	0.000

**Table 3. DRG weight in patients admitted in Medical or Surgical Wards during the period 2003-2009 according to age groups.**

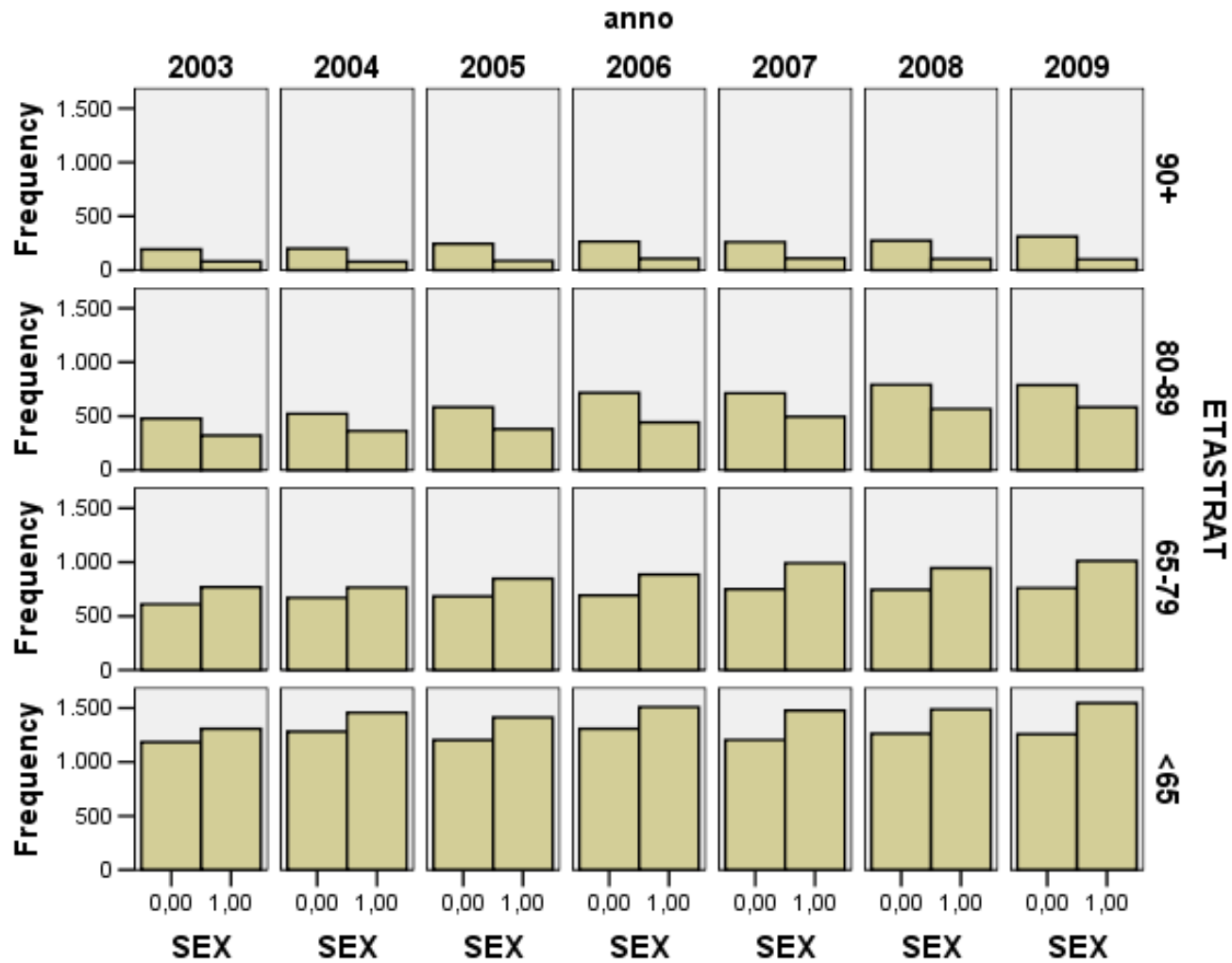
	2003	2004	2005	2006	2007	2008	2009	<i>p</i>
<b>Medical ward</b>								
< 65	0.72	0.74	0.76	0.76	0.78	0.77	0.74	0.000
65 – 74	1.06	1.03	1.05	1.08	1.09	1.12	1.15	0.000
75 – 84	1.13	1.10	1.15	1.14	1.14	1.25	1.19	0.000
85 +	1.09	1.19	1.21	1.16	1.26	1.33	1.27	0.000
All	0.91	0.93	0.97	0.97	1.00	1.04	1.02	0.000
<b>Surgical ward</b>								
< 65	2.07	1.96	1.90	1.92	2.02	2.06	1.99	0.000
65 - 74	3.03	2.99	3.14	2.93	3.05	3.12	3.21	0.000
75 - 84	3.16	3.00	2.83	3.15	2.90	3.51	3.02	0.000
85 +	2.33	2.29	2.80	2.43	2.80	2.67	2.64	0.000
All	2.45	2.32	2.37	2.36	2.46	2.63	2.49	0.000

**Test for trend**

# Age strata according to different wards of admission (Med, Surg)



# Age strata according to gender



# Age strata according to different wards of ER admission (Ger, MU)

Age	2003	2004	2005	2006	2007	2008	2009
<b>Ger Ward &lt;65</b>	<b>61 (7.8)</b>	<b>69 (9.5)</b>	<b>84 (10.7)</b>	<b>97 (11.7)</b>	<b>96 (9.8)</b>	<b>68 (6.7)</b>	<b>46 (4.5)</b>
65-79	315 (40.1)	260 (35.6)	264 (33.6)	250 (30.2)	295 (30.1)	320 (31.3)	33 (33.0)
80-89	288 (36.6)	290 (39.7)	306 (39.0)	341 (41.2)	405 (41.3)	459 (45.0)	435 (42.7)
90+	122 (15.5)	111 (15.2)	131 (16.7)	140 (16.9)	185 (18.9)	174 (17.0)	201 (19.7)
<b>Med Ward &lt;65</b>	<b>284 (34.8)</b>	<b>425 (34.9)</b>	<b>336 (31.7)</b>	<b>351 (27.7)</b>	<b>338 (28.7)</b>	<b>316 (28.8)</b>	<b>374 (32.1)</b>
65-79	276 (33.8)	414 (34.0)	366 (34.5)	407 (32.1)	429 (36.4)	364 (33.2)	388 (33.3)
80-89	188 (23.0)	280 (23.0)	258 (24.3)	376 (29.6)	308 (26.1)	318 (29.0)	298 (25.6)
90+	68 (8.3)	99 (8.1)	100 (9.4)	135 (10.6)	103 (8.7)	100 (9.1)	106 (9.1)

# Centenarians who avoid dementia

**Thomas Perls**

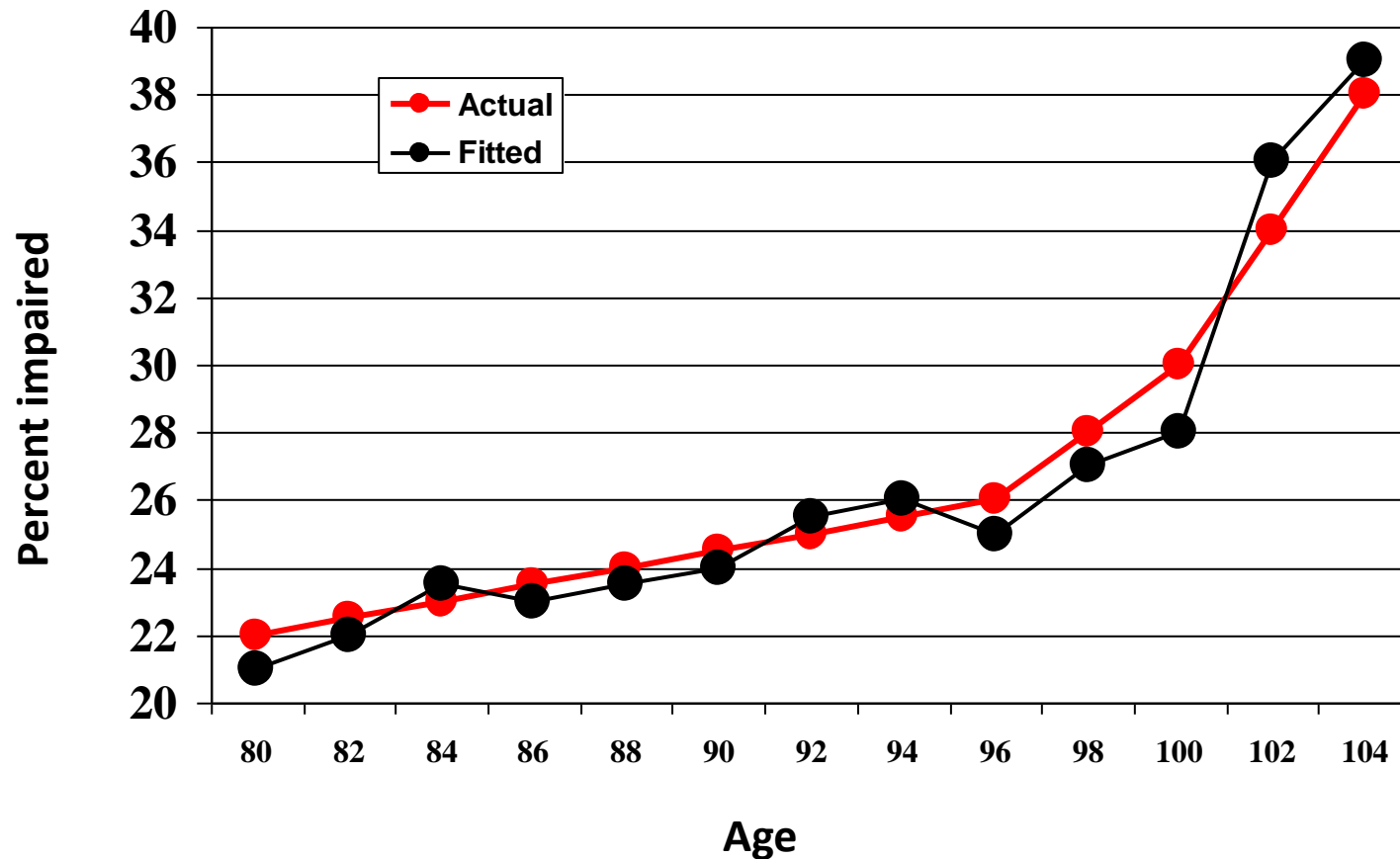
New England Centenarian Study, Boston Medical Center, 88 East Newton Street, Boston, MA 02118, USA

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Some researchers and many in the lay public believe the ageist myth that the older you get the sicker you get. If this were true, it would follow that most if not all centenarians should have Alzheimer's disease. Numerous centenarian studies disprove this assumption given that a small percentage (~15–25%) of centenarians are functionally cognitively intact. Among those who are not cognitively intact at 100, ~90% delayed the onset of clinically evident impairment at least until an average age of 92 years. Neuropsychological and neuropathological correlations thus far suggest that there are centenarians who demonstrate no evidence of neurodegenerative disease. There also appear to be centenarians who, despite the substantial presence of neuropathological markers of Alzheimer's disease, do not meet clinical criteria for having dementia, thus suggesting the existence of cognitive reserve. Centenarians are therefore of scientific interest as a human model of relative resistance to dementia.

**Trends in Neurosciences; 2004 October; 27;633-636**

# Two slope model for severe cognitive impairment



# Patients characteristics according to age strata (ACE-MU)

## Report

AGESTRAT		ETA	MMSE	EVENTS	GDS	DISEASE	CHARLSON	Drugs	IADL	PREBADL	BADL	POSTBADL
<70	Mean	65,7742	25,2196	,1256	3,6621	3,0187	2,5399	5,66	1,7415	88,0952	71,7262	77,9082
	N	589	551	589	441	588	589	422	588	588	588	588
	Std. Deviation	3,56021	7,24060	,38840	3,52158	1,68711	2,56425	3,030	2,46084	23,90771	37,18990	34,71291
70-74	Mean	73,1572	24,0861	,1140	4,2664	3,4370	2,5665	5,88	2,3523	86,1744	69,7150	77,3316
	N	579	569	579	503	579	579	406	579	579	579	579
	Std. Deviation	1,41464	7,13635	,38230	3,49567	1,74124	2,25002	2,976	2,62610	23,63218	35,45986	31,78655
75-79	Mean	78,1173	22,7315	,1673	4,9140	3,6535	2,7312	5,75	2,9657	81,3505	64,2876	70,8839
	N	759	730	759	616	759	759	552	759	759	758	758
	Std. Deviation	1,40136	7,79780	,44743	3,59639	1,84415	2,24289	2,898	2,73285	26,49839	36,91748	34,21912
80-84	Mean	83,0418	21,1819	,1754	4,9760	3,8747	2,8699	5,91	3,7422	76,5453	55,6265	64,3258
	N	838	797	838	625	838	838	651	838	838	838	838
	Std. Deviation	1,39531	8,20165	,45228	3,43218	1,76175	2,25517	2,901	2,75965	26,97235	37,73764	34,84124
85-89	Mean	86,9493	19,0427	,1718	4,8776	4,0620	3,0479	5,33	4,4056	72,1972	53,0704	60,7042
	N	355	351	355	237	355	355	236	355	355	355	355
	Std. Deviation	,82525	8,75024	,42024	3,50511	1,89307	2,23492	2,621	2,79304	28,47023	35,71320	34,30191
90+	Mean	91,6129	16,4169	,2304	4,6190	3,8891	2,8641	5,59	5,0924	62,3326	40,2425	47,2171
	N	434	415	434	231	433	434	313	433	433	433	433
	Std. Deviation	2,51874	9,66378	,48763	3,08325	1,86505	2,05635	2,988	2,64851	32,01902	36,34485	35,73700
Total	Mean	78,9550	21,8500	,1618	4,5688	3,6349	2,7532	5,74	3,2494	78,8865	60,3070	67,6471
	N	3554	3413	3554	2653	3552	3554	2580	3552	3552	3551	3551
	Std. Deviation	8,27444	8,49342	,43294	3,50558	1,81962	2,28534	2,922	2,87646	27,84715	38,03525	35,57680

# Patients characteristics according to age strata (ACE-MU)

## Report

AGESTRAT		ALBUM	APACHE	APS	HB	Colest	PCR	Creat	VOLUME	LOS	DRGW
<70	Mean	3,8388	8,9762	3,98	12,8640	194,4561	4,3873	1,0103	53,0998	6,36	1,3737
	N	579	589	589	573	570	573	572	567	585	570
	Std. Deviation	,73788	5,60668	5,126	2,20388	52,90276	7,99810	,78525	22,15994	4,100	1,84036
70-74	Mean	3,7939	9,4750	3,98	12,6021	192,7982	3,9607	1,1280	52,5290	6,44	1,2254
	N	568	579	579	563	558	562	565	550	579	556
	Std. Deviation	,74948	5,46464	4,840	2,37952	56,03402	7,91994	,94336	20,65107	3,926	1,34674
75-79	Mean	3,7268	10,4282	3,95	12,5640	191,6162	4,0047	1,1426	52,8255	6,87	1,3827
	N	750	759	759	747	740	745	750	736	759	739
	Std. Deviation	,68264	5,64633	4,913	2,59570	54,67360	7,04582	,88927	19,80497	3,956	1,65296
80-84	Mean	3,6743	11,2772	4,67	12,3636	184,6945	4,3515	1,2255	52,8843	6,74	1,3213
	N	825	837	838	819	815	827	822	798	838	821
	Std. Deviation	,67040	6,03277	5,423	2,29307	52,60474	6,90290	,75831	19,89184	4,333	1,17991
85-89	Mean	3,6919	11,3070	4,32	12,3233	182,3324	4,1156	1,2361	52,3477	6,54	1,2711
	N	350	355	355	343	343	346	345	330	355	348
	Std. Deviation	,63400	6,16614	5,139	2,24529	48,24184	6,36009	,76683	25,43145	3,869	1,27099
90+	Mean	3,4921	12,7581	5,83	11,8025	173,9515	6,1006	1,4189	53,1430	6,14	1,2156
	N	419	434	434	406	400	415	408	397	432	425
	Std. Deviation	,63615	6,60212	5,944	2,04444	50,73450	8,78025	1,02407	19,34172	4,117	,63812
Total	Mean	3,7122	10,6046	4,40	12,4590	187,6427	4,4054	1,1799	52,8278	6,56	1,3096
	N	3491	3553	3554	3451	3426	3468	3462	3378	3548	3459
	Std. Deviation	,69728	5,99266	5,248	2,34720	53,41087	7,50733	,86551	20,91244	4,083	1,40638

# Patients characteristics according to age strata (ACE-MU)

	Age groups			
	<70 m (sd)	70-84 m (sd)	85-89 m (sd)	90+ m (sd)
Età	67.7 (2.8)	77.7 (4.1)	86.3 (1.1)	91.4 (2.5)
Vivo solo	19,5	31,5	29,2	29,2
<b>MMSE</b>	<b>26.1 (7.5)</b>	<b>23.8 (6.5)</b>	<b>21.4 (12.6)</b>	<b>18.6 (8.5)</b>
GDS	4.2 (3.6)	5.1 (3.5)	5.4 (3.8)	5.1 (3.4)
Disease (n)	4.6 (1.7)	5.4 (1.9)	5.8 (2.0)	5.7 (2.2)
Charlson	5.5 (2.7)	6.9 (2.4)	8.0 (2.5)	8.3 (2.2)
Drugs	4.4 (2.2)	4.4 (1.8)	4.2 (1.8)	3.9 (2.1)
<b>Pre-BADL</b>	<b>91.2 (20.0)</b>	<b>85.1 (23.6)</b>	<b>75.7 (27.4)</b>	<b>68.5 (29.9)</b>
BADL	85.9 (25.3)	75.9 (30.6)	62.8 (33.4)	53.1 (35.4)
Post-BADL	87.6 (25.7)	79.0 (29.9)	66.7 (32.5)	57.1 (33.9)
IADL	1.6 (2.5)	2.8 (2.7)	4.1 (2.7)	4.9 (2.7)

# Patients characteristics according to age strata (ACE-MU)

	Age groups			
	<70 m (sd)	70-84 m (sd)	85-89 m (sd)	90+ m (sd)
Albumin	4.1 (0.7)	3.9 (0.7)	3.8 (0.7)	3.7 (1.1)
APACHE	6.8 (4.1)	8.1 (4.3)	9.6 (5.6)	10.0 (5.3)
APS	1.7 (2.6)	2.1 (2.7)	2.7 (3.6)	2.9 (3.4)
Robust (%)	83.6	69.2	50.0	40.1
Disabled (%)	7.9	14.6	22.3	21.8
<b>Disabled&amp;dem (%)</b>	<b>8.6</b>	<b>16.2</b>	<b>27.7</b>	<b>38.2</b>
Functional change				
BI: 5-25	9.2	13.6	17.9	22.6
BI: 30+	7.2	13.1	21.0	21.9
Dead (6 mos) (%)	13.6	19.5	31.6	38.1

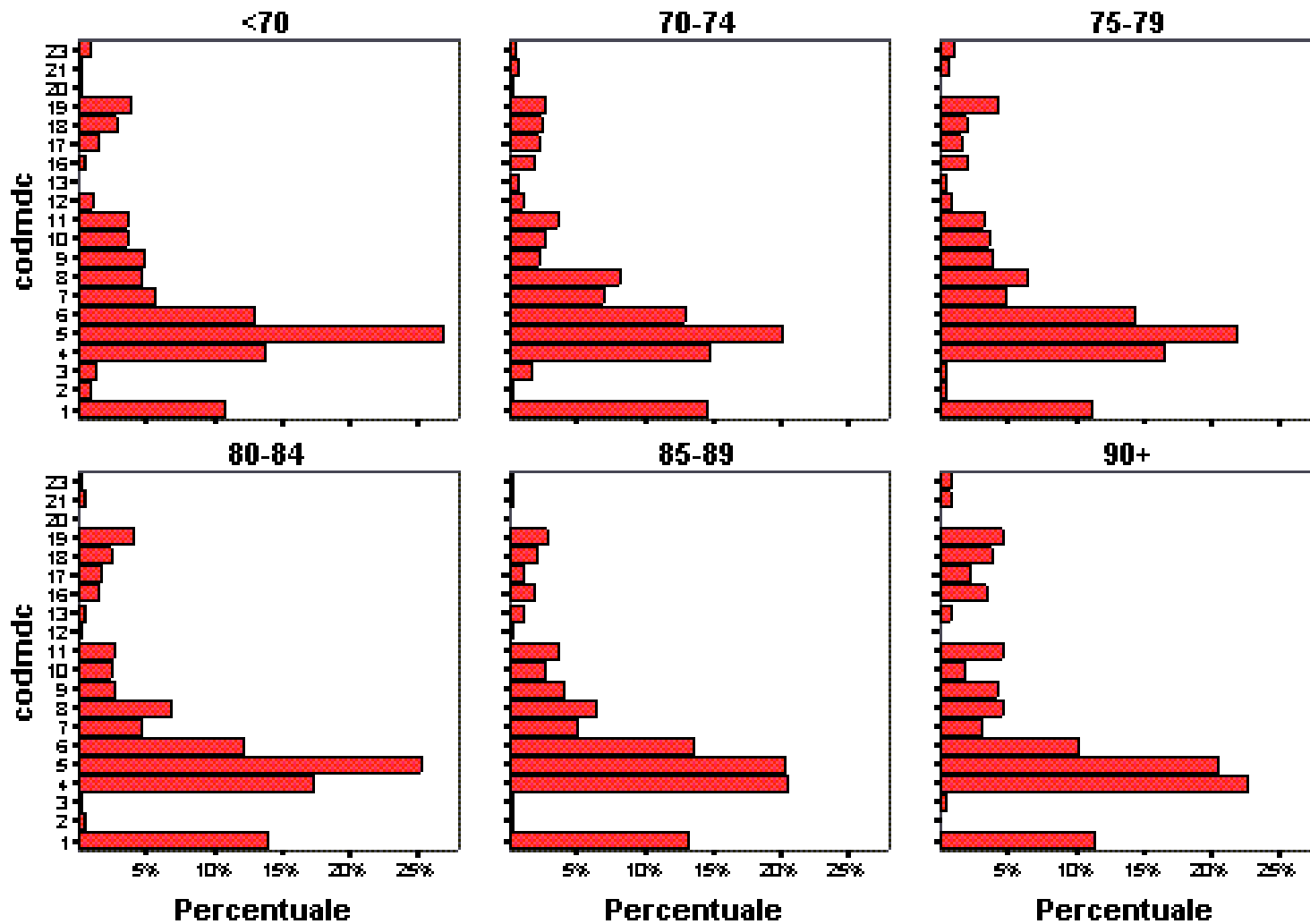
# The Oldest Old

The New England Journal of Medicine  
June 23, 1994 -Vol. 330, No. 25

**The hardest question to answer is how much morbidity and disability will be present in the growing population of elderly people. Here, past experience may not be an adequate guide. In the future, there may be better prevention of the causes of disability, such as stroke and osteoporotic fractures. Higher expectations and vigorous rehabilitation programs begun early may result in less dependence among the elderly. In the future, the very elderly will be a much more heterogeneous group, with greater racial, ethnic, and economic diversity. They will be far better educated than in previous generations, and more of the women will have been in the work force. Although many of the very elderly will be part of four-generation families, they will find the traditional family sources of support inadequate, because of declining family size, frequent divorces, and the older age of their children, who will be approaching retirement. The very elderly may therefore resist dependency and become more assertive as a group in demanding that communities meet their interrelated social and medical needs. The most successful outcome would be for the very elderly to take control of the last stage of life and make it livable and worth attaining.**

Edward W. Campion, M.D.

# Prevalenza di MDC in relazione alle classi di età nell'U.O. di Geriatria



# Prevalence of diagnoses in elderly patients 90+ (ACE-MU)

<b>Lung Diseases</b>	<b>19.0</b>
<b>Heart diseases</b>	<b>18.7</b>
<b>Sepsis</b>	<b>13.4</b>
<b>Cancer</b>	<b>9.8</b>
<b>GE diseases</b>	<b>9.3</b>
<b>Stroke</b>	<b>9.2</b>

## Characteristics and 3-months mortality rate of 2948 Elderly Hospitalized Patients with (CAP+) and Without Community Acquired Pneumonia (CAP-).

	CAP (+) (N=240) M±SD/ N (%)	CAP (-) (N=2708) M±SD/ N (%)	<i>p</i> *
Age (years)	81.5±7.6	79.7±7.1	<i>0.000</i>
Age (90+)	36 (15.1)	233 (8.6)	<i>0.171</i>
Gender (males)	112 (46.9)	958 (35.4)	<i>0.000</i>
Smokers	87 (36.4)	770 (28.4)	<i>0.006</i>
CRP (mg/dl)	8.4±10.2	3.4±6.2	<i>0.000</i>
Serum Albumin (g/dl)	3.4±0.7	3.8±0.7	<i>0.000</i>
Urea Nitrogen (mg/dl)	63.5±40.9	55.6±34.3	<i>0.001</i>
Creatinine (mg/dl)	1.3±1.1	1.1±0.8	<i>0.003</i>
Urea/creatinine ratio >60	69 (29.7)	701 (26.6)	<i>0.171</i>
Delirium	42 (17.6)	280 (10.3)	<i>0.001</i>
Dementia	77 (33.2)	477 (17.9)	<i>0.000</i>
COPD	116 (48.5)	492 (18.2)	<i>0.000</i>
Heart failure (NYHA III-IV)	19 (7.9)	338 (12.5)	<i>0.021</i>
Renal Failure	52 (22.0)	395 (14.8)	<i>0.003</i>
Malnutrition	34 (14.3)	193 (7.2)	<i>0.000</i>
Stroke	31 (13.0)	331 (12.2)	<i>0.401</i>
Diabetes Mellitus	63 (26.4)	555 (20.5)	<i>0.022</i>
Cancer	6 (2.5)	116 (4.3)	<i>0.121</i>
Metastatic cancer	4 (1.7)	169 (6.2)	<i>0.001</i>

## Characteristics and 3-months mortality rate of 2948 Elderly Hospitalized Patients with (CAP+) and Without Community Acquired Pneumonia (CAP-).

	<b>CAP (+) (N=240) M<sub>±</sub>SD/ N (%)</b>	<b>CAP (-) (N=2708) M<sub>±</sub>SD/ N (%)</b>	<b>P*</b>
<b>Charlson index (5+)</b>	<b>102 (42.7)</b>	<b>965 (35.6)</b>	<b>0.019</b>
<b>Drugs (7+)</b>	<b>74 (37.8)</b>	<b>547 (28.4)</b>	<b>0.005</b>
<b>Disabled (two weeks before admission)</b>	<b>90 (37.7)</b>	<b>552 (20.4)</b>	<b>0.000</b>
<b>Disabled on admission</b>	<b>153 (64.0)</b>	<b>1060 (39.2)</b>	<b>0.000</b>
<b>APACHE II-APS subscore<sup>§</sup></b>	<b>6.0<sub>±</sub>5.6</b>	<b>3.4<sub>±</sub>4.1</b>	<b>0.000</b>
<b>APACHE II-APS subscore &gt;12</b>	<b>34 (14.2)</b>	<b>104 (3.8)</b>	<b>0.000</b>
<b>CURB-65 High risk score (Class III)**</b>	<b>108 (45.2)</b>	<b>---</b>	<b>---</b>
<b>Length of stay (days)</b>	<b>6.9<sub>±</sub>3.2</b>	<b>6.7<sub>±</sub>3.9</b>	<b>0.331</b>
<b>Three months mortality (after discharge)</b>	<b>46 (19.2)</b>	<b>278 (10.3)</b>	<b>0.000</b>

# Three-month mortality risk in 2948 elderly hospitalized patients

	Events/n	RR <sup>a</sup>	95% CI	RR <sup>b</sup>	95% CI
Age (90+)	58/269	2.5	1.8-3.4	1.7	1.2-2.4
Gender (males)	144/1070	1.5	1.2-1.8	---	---
Smokers	103/857	1.2	1.0-1.5	1.2	1.0-1.8
Disabled two weeks before admission	145/642	3.5	2.7-4.4	1.6	1.2-2.2
APACHE II-APS* subscore >12	55/138	6.2	4.3-8.9	1.7	1.2-2.6
Urea/creatinine ratio >60	110/770	1.7	1.3-2.2	1.4	1.1-1.9
Pneumonia	46/240	2.1	1.5-2.9	1.4	0.9-2.0
Delirium	71/322	2.6	1.9-3.5	1.5	1.1-2.1
Dementia	122/554	3.6	2.8-4.6	1.9	1.4-2.7
COPD	88/608	1.5	1.2-1.9	2.4	1.1-5.8
Renal Failure	70/447	1.7	1.2-2.2	---	---
Malnutrition	70/227	4.4	3.2-5.9	1.9	1.3-2.6
Stroke	65/362	1.9	1.4-2.6	---	---
Metastatic cancer	50/173	3.7	2.6-5.3	1.2	1.1-1.3
Charlson index (5+)	217/1067	4.2	3.3-5.4	1.8	1.3-2.5
Drugs (7+)	133/621	2.5	1.9-3.3	1.6	1.2-2.1

# Variables related to 6 months mortality in a population of elderly patients admitted to a Geriatric Ward (Cox regression analysis)

	<b>RR</b>	<b>95% C.I.</b>
<b>Gender (males)</b>	<b>1.5</b>	<b>1.1-2.3</b>
<b>Dementia</b>	<b>1.8</b>	<b>1.1-2.8</b>
<b>Cancer</b>	<b>4.4</b>	<b>2.9-6.6</b>
<b>Heart failure</b>	<b>1.7</b>	<b>1.1-2.8</b>
<b>APS (3+)</b>	<b>2.5</b>	<b>1.6-3.7</b>
<b>Disability</b>	<b>2.2</b>	<b>1.4-3.4</b>
<b>Age</b>		
<b>&lt;70</b>	<b>1.0</b>	<b>(ref.)</b>
<b>70-84</b>	<b>0.7</b>	<b>0.3-1.3</b>
<b>85-89</b>	<b>0.8</b>	<b>0.3-1.3</b>
<b>90+</b>	<b>1.5</b>	<b>0.6-2.5</b>

# Patients characteristics according to age strata in SICU

	Age groups			
	<70 m (sd)	70-84 m (sd)	85-89 m (sd)	90+ m (sd)
Età	65.2 (2.8)	77.4 (4.1)	86.4 (1.1)	91.6 (2.2)
<b>MMSE</b>	<b>23.1 (10.6)</b>	<b>19.7 (10.5)</b>	<b>17.1 (11.3)</b>	<b>13.0 (10.1)</b>
GDS	2.2 (3.1)	3.6 (3.1)	2.8 (3.0)	4.1 (3.1)
Disease (n)	4.2 (1.8)	4.9 (2.2)	5.5 (1.9)	5.6 (1.8)
Charlson	5.3 (2.3)	6.4 (1.6)	7.2 (1.7)	8.1 (1.6)
Drugs	7.1 (3.0)	7.9 (3.2)	7.6 (3.5)	7.1 (2.9)
<b>Pre-BADL</b>	<b>80.6 (29.9)</b>	<b>75.3 (32.3)</b>	<b>73.9 (27.9)</b>	<b>52.3 (35.0)</b>
BADL	37.2 (38.7)	29.4 (35.4)	21.7 (32.3)	18.8 (27.9)
Post-BADL	58.3 (40.5)	51.0 (39.6)	48.2 (38.4)	32.1 (32.3)
IADL	2.1 (2.7)	3.2 (2.9)	4.1 (2.9)	5.4 (2.3)

# Patients characteristics according to age strata in SICU

	Age groups			
	<70 m (sd)	70-84 m (sd)	85-89 m (sd)	90+ m (sd)
Albumin	3.4 (0.7)	3.3 (0.6)	3.4 (0.5)	3.2 (0.6)
APACHE	13.1 (5.5)	14.4 (5.9)	15.9 (6.6)	15.6 (6.1)
APS	8.7 (5.1)	8.7 (5.8)	9.9 (6.4)	9.6 (5.9)
Robust (%)	54.8	46.9	34.1	3.4
Disabled (%)	28.6	27.2	29.3	35.6
Disabled&dem (%)	13.0	25.9	36.6	61.0
Functional change				
BI: 5-25	11.7	13.8	2.4	20.3
BI: 30+	19.2	56.7	12.7	11.5
Dead (in H) (%)	9.1	11.6	17.1	16.9

**Proust diceva che il suo dottore non teneva conto del fatto che lui aveva letto Shakespeare.**

**La morte asciutta (Anatole Broyard, 2008)**

## Characteristics of 434 nonagenarians hospitalized elderly patients

	Total N (%) / M $\pm$ sd
Age	92.6 $\pm$ 2.5
Gender (male)	131 (30.2)
Living alone	77 (17.7)
Geriatric Depression Scale-GDS*	4.6 $\pm$ 3.1
Depressed (GDS 5+) (valid cases=231)	82 (35.5)
Mini Mental State Examination-MMSE	16.4 $\pm$ 9.7
Dementia (MMSE <18)	185 (44.6)
Delirium	88 (20.3)
IADL functions lost (2 wks pre adm.)	5.1 $\pm$ 2.6
Barthel Index (2 wks before adm.)	62.3 $\pm$ 32.0
Barthel Index (2 wks before admission) < 60	298 (68.7)
Barthel Index (on admission)	40.2 $\pm$ 36.3
Barthel Index (on discharge)	47.2 $\pm$ 35.7
No improvement in BADL during hospitalization	310 (71.4)

(valid cases=231)

## Characteristics of 434 nonagenarians hospitalized elderly patients

	Total N (%) / M <sub>±</sub> sd
Charlson score	2.8 <sub>±</sub> 2.0
Charlson score (4+)	138 (31.8)
APACHE II score	12.7 <sub>±</sub> 6.6
Acute Physiology Score-APS	5.8 <sub>±</sub> 5.9
APS (8+)	132 (30.4)
Serum albumin	3.5 <sub>±</sub> 0.6
Serum albumin (< 3.5g/dl)	214 (49.3)
Dehydration (BUN/creatinine ratio >60)	119 (27.4)
Drugs (n)	5.6 <sub>±</sub> 2.9
Drugs (7+)	99 (22.8)

(valid cases=231)

# Characteristics of 434 nonagenarians hospitalized elderly patients

	Total N (%) / M $\pm$ sd
<b>Main reason of admission</b>	
Respiratory diseases (COPD acute exacerbation=31, Pneumonia=89)	120 (27.6)
Heart failure (NYHA III-IV)	77 (18.1)
Stroke	64 (14.7)
Cancer (with or without metastasis)	34 (7.8)
Liver Cirrhosis	18 (4.2)
Diabetes mellitus ( <u>uncompensated</u> )	16 (3.7)
 <i>Preexisting Comorbidity</i>	
Hypertension	259 (59.8)
COPD	222 (51.2)
Cancer (Previous)	64 (14.7)
Stroke (Previous)	122 (28.2)
Arthritis	100 (23.1)
Diabetes mellitus	86 (19.8)
Admission from ER	407 (94)
Length of stay (days)	6.1 $\pm$ 4.1
In hospital mortality	50 (11.5)
Three month mortality (total)	123 (28.3)
<i>Three month hospital readmission (1+)</i>	<i>105 (24.3)</i>

(valid cases=231)

# Clinical conditions associated to 3 month mortality in 434 nonagenarians admitted to hospitals for acute diseases

	n/events	RRA	95%CI	RRB	95% CI
Barthel Index (on adm) < 60	298/111	6.7	3.4-12.9	3.3	1.3-8.8
No improvement in BADL during hospit	310/95	1.6	1.0-2.6	2.2	1.3-3.8
Dementia (MMSE <18)	185/71	3.3	2.1-5.3	1.6	0.9-2.6
Delirium	88/40	2.6	1.6-4.3	1.9	1.1-3.2
APS (8+)	132/72	5.9	3.7-9.3	2.6	1.5-4.4
Dehydration (BUN/creatinine ratio >60)	119/45	2.3	1.4-3.7	1.7	1.0-2.7
Cancer (with or without metastasis)	34/15	2.1	1.1-4.4	3.1	1.5-6.3
Drugs (7+)	99/58	5.5	3.2-9.2	2.6	1.5-4.6
Charlson Index ( $\geq 4$ )	138/51	1.8	1.2-2.8	---	---
Serum albumin (<3.5g/dl)	214/80	3.0	1.9-4.7	---	---
COPD exacerbation, CAP	120/41	1.4	1.0-2.2	---	---
	---				
Stroke	64/26	1.9	1.1-3.4	---	---
Diabetes mellitus (uncompensated)	16/9	3.4	1.2-9.5	---	---

**Che fare?**

**Il problema è sempre lo stesso**

**A novant'anni si muore con  
(l'infarto, la polmonite, lo stroke, il  
diabete, etc.) e non per ...**

# Quali fattori modificabili?

**Barthel Index (on adm) < 60, No improvement in BADL during hospitalization, Dementia (MMSE < 18), Delirium, APS (8+), Dehydration (BUN/creatinine ratio > 60), Cancer (with or without metastasis), Drugs (7+)**

**Inoltre, mi piacerebbe un dottore che fosse non solo un eccellente medico del fisico, ma anche un po' del metafisico. Qualcuno che sappia curare il corpo e l'anima.**

**C'è un sé fisico che è ammalato, e c'è un sé metafisico che è ammalato. Quando moriamo, la nostra filosofia muore con noi. Per questo voglio qualcuno che abbia un *penchant* per la metafisica a tenermi compagnia.**

**Per avere accesso al mio corpo, il mio dottore deve arrivare al mio carattere.**

**Deve passare attraverso la mia anima – non solo attraverso il mio ano. Quella è la porta di servizio della mia personalità.**

**La morte asciutta (Anatole Broyard, 2008)**

**Ma il malato ha bisogno del contagio della vita.**

**La morte asciutta (Anatole Broyard, 2008)**

# Prediction of Survival for Older Hospitalized Patients: The HELP Survival Model

*J.M.Teno, F.E. Harrell Jr., W.Knaus, et al. J Am Geriatr Soc 48:S16-S24, 2000*

Accurate estimation of length of life for older hospitalized persons may be calculated using a limited amount of clinical information available from the medical chart (APACHE II collected on the third hospital day, Glasgow Coma Score, major diagnosis -CHF, cancer, orthopedic- age, ADL, exercise capacity, weight loss, global quality of life) plus a brief interview with the patient or surrogate.

# Predicting Functional Status Outcomes in Hospitalized Patients Aged 80 Years and Older

*A.W. Wu, Y.Yasui, A.Galanos et al. J Am Geriatr Soc 48:S6-S15, 2000*

Many older patients are functionally impaired at the time of hospitalization, and many develop functional limitation. A limited amount of readily available clinical information (**baseline functional status and quality of life; depth of coma, lower serum albumin level, dementia, depression or incontinence, being bedridden, in need of NH, older age**) can yield satisfactory prediction of functional status 2 months after hospitalization. Model like this may prove to be useful in clinical care...

**E' un peccato che i medici non leggano un po' poesia come parte della loro formazione.**

**Il morire o l'esser malato è una specie di poesia. Un deragliamento. Nella critica letteraria si parla di deragliamento sistematico dei sensi.**

**E' esattamente quello che succede al malato.**

**Quindi credo che i medici potrebbero studiare la poesia per capire queste dissociazioni, questi deragliamenti, e in tal modo abbraccerebbero la condizione del paziente in maniera più completa.**

**La morte asciutta (Anatole Broyard, 2008)**

**Ecco un paradosso al cuore della medicina: perché un dottore, come uno scrittore, dovrebbe avere una propria voce, qualcosa che trasmetta il timbro, il ritmo, il lessico e la musica della sua umanità, che ci ripaghi del mutismo delle macchine. Quando un medico fa una diagnosi difficile, non è solo la sua scienza a dettarla, ma anche una voce interiore. La diagnosi dipende dall'ispirazione quanto l'arte. Che lo voglia o no, il medico è un narratore, e può trasformare le nostre vite in storie belle o brutte, indipendentemente dalla diagnosi. Se il mio dottore me lo permettesse, sarei felice di aiutarlo, prendendolo come mio paziente.**

**La morte asciutta (Anatole Broyard, 2008)**

# Dobbiamo occuparci dei molto vecchi

È un fenomeno rilevante dal punto di vista epidemiologico: **10% dei ricoveri in ACE.**

Il punto più critico è la **perdita dell'omeostasi.**

L'ospedale è un punto nevralgico per il novantenne, è la **“fabbrica” della disabilità!**

In ospedale la prevenzione della **disabilità è l'outcome primario** cui tendere.

È obbligatoria una **clinica del novantenne:**  
(diagnosi, prognosi, terapia)

# Outcome of Critically Ill Oldest-Old Patients (Aged 90 and Older) Admitted to the Intensive Care Unit

Konstantinos Rellos, MD,\* Matthew E. Falagas, MD,<sup>†‡§</sup> Konstantinos Z. Vardakas, MD,<sup>‡</sup> George Sermaides, BSc,<sup>‡</sup> and Argyris Michalopoulos, MD<sup>‡</sup>

**OBJECTIVES:** To compare the outcomes of critically ill oldest-old patients ( $\geq 90$ ) with those of younger patients.

**DESIGN:** Prospective cohort study.

**SETTING:** General intensive care unit (ICU) of a tertiary care hospital in Athens, Greece.

**PARTICIPANTS:** The oldest-old and younger patients.

**MEASUREMENTS:** In-hospital and ICU mortality and stay, demographics, comorbidity, and complications.

**RESULTS:** Of 5,505 consecutive patients admitted to the ICU, 60 (1.1%) were in the oldest-old group (aged 90–98). Their mean length of ICU and hospital stay  $\pm$  standard deviation was  $5.3 \pm 6.8$  and  $23.3 \pm 35.7$  days, respectively. ICU mortality was 20%. Total in-hospital mortality was 40%, compared with 8.9% ( $P = .001$ ) in younger patients. Acute Physiology and Chronic Health Evaluation II score was independently associated with in-hospital mortality (odds ratio = 1.18, 95% confidence interval = 1.05–1.33). Of 24 oldest-old patients who died, 22 (91.7%) died in the ICU or in the ward within 30 days after ICU discharge.

**CONCLUSION:** All-cause in-hospital mortality was higher in the oldest-old group than in younger patients, but the mortality of this cohort of patients did not seem to reach a figure that would make physicians, relatives, and healthcare administrators decide against ICU care in this population. *J Am Geriatr Soc* 2005.

**Key words:** elderly; health services utilization; outcome; prognosis

decades.<sup>2–5</sup> As the older population increases, the number of elderly patients who receive critical care services is expected to increase substantially over the next 10 to 20 years. Thus, older people will constitute a higher proportion of ICU patients.<sup>6,7</sup>

It has been argued that critical care services for elderly patients should be limited to conserve resources, because these patients have a high mortality rate and short expectation of life.<sup>8</sup> However, the hypothesis that older people consume more critical care resources and benefit less than younger patients has not been studied systematically, especially with regard to specific disease states. This prospective study was conducted to examine the outcomes of critically ill oldest-old patients admitted to the ICU.

## METHODS

This prospective cohort study evaluated the oldest-old ICU patients, defined as patients aged 90 and older, consecutively admitted to the 30-bed general ICU at Henry Dunant Hospital from December 1, 2000, to May 31, 2004. ICU patients younger than 90 consecutively admitted to the same ICU during the same period were used as a control group. The primary outcome measure was all-cause in-hospital mortality within 30 days after ICU admission. The criteria for ICU admission were the same in both aged groups.

The following parameters were prospectively collected for all oldest-old patients: age, sex, comorbidities, ICU ad-

## Rapid Communication

# Patients Aged 90 Years or Older in the Intensive Care Unit

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**Background.** Age is an important prognostic factor in patients admitted to intensive care units (ICUs), but it is not as important as illness severity. However, age seems to remain an important independent triage criterion for ICU admission, and 90 years of age seems to represent a psychological barrier for many ICU physicians. The aim of this preliminary study is to compare the management and outcome of patients aged 90 years or older admitted to a respiratory ICU with those of patients aged 70 years or younger.

**Methods.** In our matched case-control study over a 6-year period, 36 patients aged 90 years or older (case patients) were selected and matched according to sex with 72 controls chosen in the 20- to 69-year age range. The Simplified Acute Physiology Score (SAPS) II was then computed without using age as a variable.

**Results.** Pre-existing comorbidities were significantly less frequent in cases than in controls (5.1% vs 30.5%,  $p < .01$ ). Compared to controls, cases were more frequently admitted for cardiac failure (22% vs 7%,  $p < .05$ ) and less frequently for neurological diseases (0% vs 11%,  $p < .05$ ). The use of advanced life-support measures in the ICU such as mechanical ventilation, central venous or arterial catheterization, and vasoactive and/or inotropic drugs was not significantly different between case patients and controls. This was also the case for ICU mortality and for the mean duration of ICU and hospital stay. Although there was a trend toward a higher hospital mortality among case patients than among controls, it did not reach statistical significance (47% vs 27%,  $p = .07$ ).

**Conclusion.** Our results reinforce the idea that age alone is not a relevant criterion for ICU admission.

Table 1. Diagnostic at Admission in the ICU

Primary Diagnostic	Cases (N = 36)	Controls (N = 72)	p
Respiratory	17	35	NS
Acute respiratory failure	12	29	
Pneumonia	7	16	
COPD	4	4	
Status asthmaticus	0	5	
Atelectasis	1	3	
Pulmonary embolism	0	1	
Pleura*	3	6	
Hemoptysis	2	0	
Cardiac arrest	2	5	NS
Septic shock	4	4	NS
Intoxication	1	8	NS
Neurological†	0	8	<.05
Cardiac failure	8	5	<.05
Other	4	7	NS
Gastrointestinal bleeding	1	1	
Acute renal failure	2	0	
Metabolic	1	1	
Postoperative	0	2	
Miscellaneous	0	3	

Notes: \* Pleura: pneumothorax, hemothorax, pyothorax, and any pleural effusion associated with respiratory failure.

† Neurological: stroke, coma, status epilepticus, and encephalitis.

NS = nonsignificant; ICU = intensive care unit; COPD = chronic obstructive pulmonary disease.

**Table 1.** Details of patients, trauma and treatment [data shown is *n* (%) unless stated]

Patient characteristics	<i>n</i> (%)
Age in years [median (range)]	97 (95–103)
Females	42 (84)
<i>Pre-existing morbidity</i>	
Coronary heart disease	20 (40)
Diabetes	14 (28)
Hypertension	12 (24)
Cerebrovascular episodes	2 (4)
Asthma	2 (4)
Antiplatelet agents/Warfarin dependent	44 (96)
<i>Anatomical site of injury</i>	
Lower limb	32 (64)
Upper limb	8 (16)
Head injury	4 (8)
Pelvis	6 (12)
<i>Treatment</i>	
Conservative non-surgical	28 (56)
Surgical	36 (44)

In summary, this retrospective review of over 57,000 emergency department attendances identified 50 patients 95 years or older presenting with trauma. Notwithstanding their advanced years and pre-existing co-morbidity, 88% had resumed their pre-injury state at 6 months, suggesting that extremely old trauma patients merit consideration of definitive treatment as for younger patients.

## **Six month outcome of extremely old (≥95 years) trauma patients**

# Psychiatry and the Oldest Old

Dan G. Blazer, M.D., Ph.D.

**Objective:** This article reviews the assessment and management of psychiatric problems among the oldest old.

**Method:** The author reviewed the English-language literature pertinent to the characteristics of people 85 years old or older and the assessment and management of psychiatric disorders in this age group with a special focus on depression in the oldest old.

**Results:** Much of the current literature in geriatric psychiatry ignores the oldest old, focusing instead on the treatment of specific psychiatric disorders with unimodal or bimodal therapies. In contrast, geriatric medicine has focused on geriatric syndromes, functional status, comprehensive geriatric assessment, and multimodal

intervention. The author describes an approach to treating the oldest old that incorporates depression as an example. This approach is based on the philosophy that has worked well in geriatric medicine but has been increasingly abandoned by psychiatry over recent years.

**Conclusions:** Comprehensive, interdisciplinary assessment and therapy were the cornerstones of geriatric psychiatry 30 years ago. As psychiatry has moved toward a medical model and emphasized pharmacological therapies, it has moved away from the mainstream of geriatric practice. The time has come for geriatric psychiatry to rejoin geriatric medicine so that psychiatry can recapture its roots and deliver optimal care to the oldest old.

*(Am J Psychiatry 2000; 157:1915–1924)*

# Antidepressant Pharmacotherapy in the Treatment of Depression in the Very Old: A Randomized, Placebo-Controlled Trial

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Old-Old Depression Study Group

**Objective:** This study determined the efficacy of antidepressant medication for the treatment of depression in the “old-old.”

**Method:** This randomized 8-week medication trial compared citalopram, 10–40 mg/day, to placebo in the treatment of patients 75 and older with unipolar depression.

**Results:** A total of 174 patients who were 58% women with a mean age of 79.6 years (SD=4.4) and a mean baseline Hamilton Depression Rating Scale score of 24.3 (SD=4.1) were randomly assigned to treatment at 15 sites. There was a main effect for site but not for treatment condition. The remission rate, defined as a final

Hamilton depression scale score <10, was 35% for the citalopram and 33% for the placebo groups. However, patients with severe depression (baseline Hamilton depression scale score >24) tended to have a higher remission rate with medication than with placebo (35% versus 19%).

**Conclusions:** In the oldest group of community-dwelling patients to be studied to date, medication was not more effective than placebo for the treatment of depression. However, given the considerable psychosocial support received by all patients, the placebo condition represents more than the ingestion of an inactive pill. Across sites, there was considerable range in response to medication, 18% to 82%, and to placebo, 16% to 80%.

**Il dottore è l'unico familiare del paziente in un paese straniero.**

**Può darsi che debba rinunciare a un po' della sua autorevolezza in cambio di più umanità; ma, come sapevano i vecchi medici di famiglia, non si tratta di un cattivo affare.**

**La morte asciutta (Anatole Broyard, 2008)**

### Report

AGESTRAT		ETA	MMSE	EVENTS	GDS	DISEASE	CHARLSON	Drugs	IADL	PREBADL	BADL	POSTBADL
<70	Mean	65,7742	25,2196	,1256	3,6621	3,0187	2,5399	5,66	1,7415	88,0952	71,7262	77,9082
	N	589	551	589	441	588	589	422	588	588	588	588
	Std. Deviation	3,56021	7,24060	,38840	3,52158	1,68711	2,56425	3,030	2,46084	23,90771	37,18990	34,71291
70-74	Mean	73,1572	24,0861	,1140	4,2664	3,4370	2,5665	5,88	2,3523	86,1744	69,7150	77,3316
	N	579	569	579	503	579	579	406	579	579	579	579
	Std. Deviation	1,41464	7,13635	,38230	3,49567	1,74124	2,25002	2,976	2,62610	23,63218	35,45986	31,78655
75-79	Mean	78,1173	22,7315	,1673	4,9140	3,6535	2,7312	5,75	2,9657	81,3505	64,2876	70,8839
	N	759	730	759	616	759	759	552	759	759	758	758
	Std. Deviation	1,40136	7,79780	,44743	3,59639	1,84415	2,24289	2,898	2,73285	26,49839	36,91748	34,21912
80-84	Mean	83,0418	21,1819	,1754	4,9760	3,8747	2,8699	5,91	3,7422	76,5453	55,6265	64,3258
	N	838	797	838	625	838	838	651	838	838	838	838
	Std. Deviation	1,39531	8,20165	,45228	3,43218	1,76175	2,25517	2,901	2,75965	26,97235	37,73764	34,84124
85-89	Mean	86,9493	19,0427	,1718	4,8776	4,0620	3,0479	5,33	4,4056	72,1972	53,0704	60,7042
	N	355	351	355	237	355	355	236	355	355	355	355
	Std. Deviation	,82525	8,75024	,42024	3,50511	1,89307	2,23492	2,621	2,79304	28,47023	35,71320	34,30191
90+	Mean	91,6129	16,4169	,2304	4,6190	3,8891	2,8641	5,59	5,0924	62,3326	40,2425	47,2171
	N	434	415	434	231	433	434	313	433	433	433	433
	Std. Deviation	2,51874	9,66378	,48763	3,08325	1,86505	2,05635	2,988	2,64851	32,01902	36,34485	35,73700
Total	Mean	78,9550	21,8500	,1618	4,5688	3,6349	2,7532	5,74	3,2494	78,8865	60,3070	67,6471
	N	3554	3413	3554	2653	3552	3554	2580	3552	3552	3551	3551
	Std. Deviation	8,27444	8,49342	,43294	3,50558	1,81962	2,28534	2,922	2,87646	27,84715	38,03525	35,57680

**Report**

AGESTRAT		ALBUM	APACHE	APS	HB	Colest	PCR	Creat	VOLUME	LOS	DRGW
<70	Mean	3,8388	8,9762	3,98	12,8640	194,4561	4,3873	1,0103	53,0998	6,36	1,3737
	N	579	589	589	573	570	573	572	567	585	570
	Std. Deviation	,73788	5,60668	5,126	2,20388	52,90276	7,99810	,78525	22,15994	4,100	1,84036
70-74	Mean	3,7939	9,4750	3,98	12,6021	192,7982	3,9607	1,1280	52,5290	6,44	1,2254
	N	568	579	579	563	558	562	565	550	579	556
	Std. Deviation	,74948	5,46464	4,840	2,37952	56,03402	7,91994	,94336	20,65107	3,926	1,34674
75-79	Mean	3,7268	10,4282	3,95	12,5640	191,6162	4,0047	1,1426	52,8255	6,87	1,3827
	N	750	759	759	747	740	745	750	736	759	739
	Std. Deviation	,68264	5,64633	4,913	2,59570	54,67360	7,04582	,88927	19,80497	3,956	1,65296
80-84	Mean	3,6743	11,2772	4,67	12,3636	184,6945	4,3515	1,2255	52,8843	6,74	1,3213
	N	825	837	838	819	815	827	822	798	838	821
	Std. Deviation	,67040	6,03277	5,423	2,29307	52,60474	6,90290	,75831	19,89184	4,333	1,17991
85-89	Mean	3,6919	11,3070	4,32	12,3233	182,3324	4,1156	1,2361	52,3477	6,54	1,2711
	N	350	355	355	343	343	346	345	330	355	348
	Std. Deviation	,63400	6,16614	5,139	2,24529	48,24184	6,36009	,76683	25,43145	3,869	1,27099
90+	Mean	3,4921	12,7581	5,83	11,8025	173,9515	6,1006	1,4189	53,1430	6,14	1,2156
	N	419	434	434	406	400	415	408	397	432	425
	Std. Deviation	,63615	6,60212	5,944	2,04444	50,73450	8,78025	1,02407	19,34172	4,117	,63812
Total	Mean	3,7122	10,6046	4,40	12,4590	187,6427	4,4054	1,1799	52,8278	6,56	1,3096
	N	3491	3553	3554	3451	3426	3468	3462	3378	3548	3459
	Std. Deviation	,69728	5,99266	5,248	2,34720	53,41087	7,50733	,86551	20,91244	4,083	1,40638