Gruppo di ricerca geriatrica

Journal Club - 15 Luglio 2005

Caso clinico Ipertensione arteriosa nell'anziano

Tony Sabatini

ecm

Summary

- Casi clinici (due)
- Definition, classification & risk stratification
- Antihypertensive therapy in elderly
- Hypertension & Mortality
- Comments & Conclusions

CASO CLINICO 1

- **Uomo di 83 anni, coniugato, ex bancario, con storia clinica caratterizzata da pregresso intervento per ernia inguinale destra; ha sempre praticato moderata attività sportiva. Guida l'auto. Ha completa integrità motoria e cognitiva.**

- **Da 2 anni è in terapia con ATENOLOLO 50mg per "aritmia imprecisata"**

- **Viene ricoverato nel Ns Reparto per dolore toracico associato a riscontro di rialzo pressorio (190/110 mmHg)**

- **In PS viene trattato con NIFEDIPINA SL**

- **Durante la degenza il paziente viene sottoposto ad esami (ematochimici e cardiologici: ECG, Ecocardio, test da sforzo, ABPM)**

CASO CLINICO 1

- **Gli esami mostrano una ipertrofia ventricolare sinistra, non segni di ischemia miocardica inducibile dallo sforzo. Il monitoraggio pressorio conferma una ipertensione arteriosa sisto-diastolica. Si evidenzia una ipercolesterolemia lieve.**

- **Il paziente viene dimesso con diagnosi di "Dolore toracico atipico. Ipertensione arteriosa. Ipercolesterolemia lieve".**

CASO CLINICO 2

- Uomo di 83 anni, ex-operaio, ex-fumatore, moderato bevitore, da oltre 20 anni è affetto da ipertensione arteriosa, per anni non trattata

- Nel 2000 ricovero per major stroke con emiplegia destra ed afasia motoria (quest'ultima quasi completamente regredita)

- In seguito il paziente, che deambula con appoggio, sviluppa un progressivo decadimento cognitivo e disturbi comportamentali

- Nel 2002 riscontro di neoplasia vescicale superficiale trattata con instillazioni endovescicali di BCG

- Viene ricoverato dal PS per "Sincope di ndd con con caduta a terra e trauma toracico.Crisi ipertensiva (200/80 mmHg)"

CASO CLINICO 2

- I valori pressori sono sui 200/90 mmHg nonostante una terapia antiipertensiva (calcioantagonista, ACE-inibitore, diuretico ed alfa bloccante)

- E' anche in terapia cronica con TICLOPIDINA 250mg 1c

- Il MMSE risulta di 14/30; BADL premorbose 40/100

- Il paziente viene sottoposto a svariati accertamenti (TC encefalo: encefalopatia multiinfartuale con ampia lesione ischemica non recente a livello capsulare sinistro), EEG (anomalie temprali bilaterali non specifiche), ECG (Ritmo sinusale-62/min)

CASO CLINICO 2

- Viene effettuato, dopo EcoDoppler TSA, che mostra lesioni stenosanti del 40% bilaterali dell'a. carotide interna, un massaggio del seno carotideo che risulta negativo

- Emerge una ipotensione ortostatica sintomatica per capogiri e pallore (differenza di circa 40 mmHg tra clino ed ortostatismo)

- Il paziente viene dimesso con diagnosi di "Sincope verosimilmente da ipotensione ortostatica sintomatica"

DEFINITION AND CLASSIFICATION

- Hypertension is the most common chronic condition for which Americans & Europeans see a health care provider and is increasing in prevalence as Americans age and grow larger (in waist circumference and body mass index).

- The objective of identifying and treating high blood pressure is to reduce the risk of cardiovascular disease and associated morbidity and mortality.

DEFINITION AND CLASSIFICATION

- **Hypertension is defined as systolic blood pressure (SBP) of 140 mm Hg or greater, diastolic blood pressure (DBP) of 90 mm Hg or greater, or taking antihypertensive medication.**

- **It is useful to provide a classification of adult blood pressure for the purpose of identifying high-risk individuals and to provide guidelines for follow-up and treatment.**

2003 European Society of Hypertension–European Society of Cardiology guidelines for the management of arterial hypertension*

Guidelines Committee**

Journal of Hypertension 2003, **21**:1011–1053

Conflict of interest disclosures are given in the Appendix.

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Reference Card From the
Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7)

In 2005, just 2 years after publication of **JNC-7**, **the American Society of Hypertension (ASH)** has realized a need to revise their definition of hypertension and recommendations for its recognition and treatment.

The preliminary outline for a new definition/classification of hypertension has been drawn up by a **Writing Group of the American Society of Hypertension (WG-ASH)** and presented in preliminary form at the 20th ASH annual scientific meeting in San Francisco, California (May 14-18, 2005)

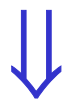
The new definition/classification proposed by the WG-ASH is based on the view that **hypertension is a complex cardiovascular disorder and is not just a scale of threshold blood pressure values**.

It characterizes **the disease** as a **progressive cardiovascular syndrome** **with many causes that result in both functional and structural changes to the heart and vascular system**.

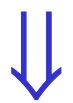
RISK STRATIFICATION

Physiopathology of cardiovascular diseases

risk factors/diabetes mellitus



target organ damage



clinical conditions

Table 2 Stratification of risk to quantify prognosis

Other risk factors and disease history	Blood pressure (mmHg)				
	Normal SBP 120–129 or DBP 80–84	High normal SBP 130–139 or DBP 85–89	Grade 1 SBP 140–159 or DBP 90–99	Grade 2 SBP 160–179 or DBP 100–109	Grade 3 SBP ≥ 180 or DBP ≥ 110
No other risk factors	Average risk	Average risk	Low added risk	Moderate added risk	High added risk
1–2 risk factors	Low added risk	Low added risk	Moderate added risk	Moderate added risk	Very high added risk
3 or more risk factors or TOD or diabetes	Moderate added risk	High added risk	High added risk	High added risk	Very high added risk
ACC	High added risk	Very high added risk	Very high added risk	Very high added risk	Very high added risk

ACC, associated clinical conditions; TOD, target organ damage; SBP, systolic blood pressure; DBP, diastolic blood pressure.

NEW CLASSIFICATION

Writing Group of the American Society of Hypertension (WG-ASH) 2005

The goal of this **risk-based approach** is to identify individuals at any blood pressure level who have a reasonable likelihood of future cardiovascular events

One aspect in which the **WG-ASH classification** differs from JNC-7 is the absence of the blood pressure category **"prehypertension"** which was introduced for the first time in JNC-7.

The new classification aims to identify some people with low blood pressure levels as having **stage 1 hypertension** if they also exhibit early signs of vascular damage, thus prompting healthcare providers to offer treatment to this at-risk group.

Other individuals with low blood pressure levels and no signs of vascular abnormalities are classified as **normal**, with a risk of cardiovascular disease that is no different than that of the general population.

WG-ASH Definition and Classification of Hypertension

Classification	Blood Pressure Elevations		Cardiovascular Disease*	Cardiovascular Risk Factors	Early Disease Markers	Target Organ Disease
Normal	Normal or rare	or	None	None or few	None	None
Hypertension:						
Stage 1	Occasional or intermittent	or	Early	Several	Usually present	None
Stage 2	Sustained	or	Progressive	Many	Overtly present	Early signs present
Stage 3	Marked and sustained	or	Advanced	Many	Overtly present with progression	Overtly present with or without cardiovascular disease events

***Determined by constellation of risk factors, early disease markers, and target organ disease.**

WG-ASH Blood Pressure Categories Compared With JNC VI and JNC 7

JNC VI	JNC 7	WG-ASH	SBP (mmHg)		DBP (mmHg)
Optimal	Normal	Normal	<120	and	<80
	Prehypertension	or Hypertension	120-139	or	80-90
Normal		Stage 1	<130	and	<85
High-normal			130-139	or	85-89
Hypertension	Hypertension				
Stage 1	Stage 1	Stage 1 or	140-159	or	90-99
	Stage 2	Stage 2	</=160	or	>/=100
Stage 2		Stage 3	160-179	or	100-109
Stage 3			</=180	or	>/=110

STATE-OF-THE-ART PAPER

Recent Hypertension Implications and Controversies

Bryan Williams, MD, FRCP (J Am Coll Cardiol 2005;45:813–27)

STATE-OF-THE-ART PAPER

Recent Hypertension Implications and Controversies

Bryan Williams, MD, FRCP (J Am Coll Cardiol 2005;45:813–27)

- The assessment of all of the recent head-to-head trials **does not** support the view that ACE inhibition prevents major cardiovascular events beyond the benefits attributable to blood pressure lowering in clinical trials.

- The key debate over the next few years will not be whether one class of blood pressure-lowering drug is better than another, but rather **what is the most effective therapeutic strategy to reduce the overall CVD risk burden of individual patients**.

- It is also impossible to target treatment appropriately without assessing the total CVD risk burden of the patient, ideally formally by risk charts or calculators

STATE-OF-THE-ART PAPER

Recent Hypertension Implications and Controversies

Bryan Williams, MD, FRCP (J Am Coll Cardiol 2005;45:813–27)

GOING BEYOND BLOOD PRESSURE? ADD A STATIN

- *Just as it is not necessary to be "hypertensive" to benefit from blood pressure lowering, it is also not necessary to have a high blood cholesterol level to benefit from statin therapy*.

- The data from the **Heart Protection Study** and the **ASCOT study** are very important complementary data with regard to CVD prevention. Both have both shown that irrespective of baseline cholesterol or blood pressure, **statin therapy** reduces the risk of stroke and CHD.

- Thus, from a pragmatic and evidence-based perspective, the new target should be CVD risk, not its individual components.

STATE-OF-THE-ART PAPER

Recent Hypertension Implications and Controversies

Bryan Williams, MD, FRCP (J Am Coll Cardiol 2005;45:813–27)

TARGETING CVD RISK RATHER THAN HYPERTENSION

- **Statins** should and will become routine therapy in people with treated hypertension, especially those at highest CVD risk, because they potently complement the primary objective of antihypertensive therapy—notably, to reduce the risk of CHD and stroke.

- This is undoubtedly the most effective way to "**go beyond blood pressure**."

COMMENTO

Un soggetto che ha valori normali di pressione non può essere definito affetto da “ipertensione arteriosa”; ciò nonostante può avere un notevole rischio cardiovascolare

Credo che nel futuro per “go beyond blood pressure” non bisognerebbe considerare nelle diagnosi **il grado di ipertensione arteriosa** né dell’**ipercolesterolemia** ma **l’entità del rischio cardiovascolare** (espresso in termini di gravità e/o in percentuali di rischio)

Ad esempio a parità di valore pressorio la presenza di ipercolesterolemia, di diabete mellito o di danno d’organo o di malattia cardiovascolare sposta l’entità del rischio aggiuntivo da basso a molto elevato.

Therapeutic approaches in special conditions elderly

Guidelines	Criteria	Recommended Treatment
JNC 7[9]	Target BP <140/90 mm Hg	Diagnosis of hypertension class based on values of SBP and/or DBP Treatment recommendations same as for younger hypertensives
ESH/ESC 2003[12]	Target BP <140/90 mm Hg	Anithypertensive treatment in the elderly to follow general treatment guidelines, but gradual approach recommended, especially for frail persons
World Health Organization/ International Society of Hypertension 1999[13]	Age given as a risk factor for CVD: men >55 years and women >65 years ISH defined as SBP ≥140 mm Hg and DBP ≤90 mm Hg	Recommend treatment for hypertension up to age 80 years Advise caution in the treatment of very elderly, in the absence of sufficient data for those ≥80 years
2001 Canadian Hypertension Recommendations[14]	Elderly >60 but <84 years[15] Target BP <140/90 mm Hg	Thiazide diuretics, ARBs, or long-acting dihydropyridine CCBs recommended as initial therapy for ISH without other compelling indications For very elderly, treatment should be cautious and individualized[15]
Scottish Intercollegiate Guidelines Network[16]	Blood pressure check recommended for patients >75 years Need for identification of at-risk patients in 60–75 years age group Full assessment of cardiovascular risk Target BP: <140/90 mm Hg	Lifestyle changes Low-dose thiazide diuretics, β blockers, ACE inhibitor (no renal artery stenosis present), CCBs (avoid short acting) indicated as first line therapy ARB as alternative to ACE inhibitor if cough is present as adverse effect

JNC=Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure; BP=blood pressure; SBP=systolic blood pressure; DBP=diastolic blood pressure; ESH/ESC=European Society of Hypertension/European Society of Cardiology; CVD=cardiovascular disease; ARB=angiotensin receptor blocker; CCB=calcium channel blocker; ISH=isolated systolic hypertension; ACE=angiotensin-converting enzyme

Source: J Clin Hypertens © 2004 Le Jacq Communications, Inc.

Box 12 Position statement: Antihypertensive therapy in the elderly

- There is little doubt from randomized controlled trials that older patients with systolic–diastolic or with isolated systolic hypertension benefit from antihypertensive treatment in terms of reduced cardiovascular morbidity and mortality.
- Initiation of antihypertensive treatment in elderly patients should follow the general guidelines, but should be particularly gradual, especially in frail individuals.
- Blood pressure measurement should also be performed in the erect posture, to exclude patients with marked postural hypotension from treatment and to evaluate postural effects of treatment.
- Many elderly patients will have other risk factors, target organ damage and associated cardiovascular conditions, to which the choice of the first drug should be tailored.
- Many elderly patients need two or more drugs to control blood pressure, particularly since it is often difficult to lower systolic blood pressure to below 140 mmHg.
- In subjects aged 80 years and over, a recent meta-analysis concluded that fatal and non-fatal cardiovascular events, but not mortality, are reduced by antihypertensive therapy.

Quanto detto vale per il soggetto anziano (< 80 anni), healthy (robusto) ma

Non esistono trial randomizzati nei vecchi disabili e comorbidi

Review Article

Embracing Complexity: A Consideration of Hypertension in the Very Old

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Journal of Gerontology: MEDICAL SCIENCES 2003, Vol. 58A, No. 7, 653–658

- In populations **aged 85 years and older**, higher levels of systolic and diastolic blood pressures are associated with increased survival, and this relationship is not eliminated by controlling for **comorbidity**, **blood pressure treatment**, and **other relevant factors**.

- In addition, in **3 of the 4 published randomized controlled trials** of treatment of hypertension that included subjects aged 80 years or older, the investigators reported loss of efficacy of treatment in preventing the primary end points in subjects **aged 80 and older**. In a meta-analysis of those trials, **total mortality** was actually 14% higher (p=.05) in the treatment group for subjects aged 80 years and older.

Hypertension is associated with good outcomes for the very old

Table 1. Five-Year Mortality by Level of Systolic or Diastolic Blood Pressure at Entry, in 2 Population-Based Studies of Those Aged 85 and Older

Systolic BP	Percent Alive at 5 Years		Diastolic BP	Percent Alive at 5 Years	
	Leiden	Tampere		Leiden	Tampere
90–120	15	5	50–69	12	(*)
>120–140	25	14	60–69	26	8
>140–160	39	29	70–79	31	19
>160–180	36	40	80–89	34	31
>180–200	31	39	90–99	35	39
>200	41	44	100–109	(**)	35
			>110	41	46

Notes: * In the Tempere study ($n = 561$), the lowest category of diastolic blood pressure was <70 (4).

** In the Leiden study ($n = 833$), the highest category of diastolic blood pressure was >100 (5).

The most striking implication is that high blood pressure is a marker for survival in the 85-and-older populations.

Put another way, when confronted with an 88-year-old patient, the clinician should be happy to find, for example, a blood pressure of 200/100. This individual has a substantially greater chance of survival than if his or her blood pressure were 130/70.

A blood pressure of, for example, 120/70 in a 90 year old is a poor prognostic sign.

This concept may make some readers uncomfortable, but that discomfort does not relate to the validity of the observation.

The association of elevated blood pressure with increased survival in the very old is well supported by the evidence.

Outcomes of antihypertensive therapy in the very old

Three (STOP-Hypertension, EWPHE, Sys-Eur) of the 4 trials (STOP-Hypertension, EWPHE, Sys-Eur, SHEP) that have examined the effect of treatment in those aged 80 years and older have reported a significant interaction between age and treatment effect, whereby **the benefits of treatment on survival is eliminated or reversed in subjects aged 80 years and older.**

Table 2. Subgroup Meta-Analysis of Outcomes of Antihypertensive Treatment in 1566 Subjects Aged 80 and Older Enrolled in 5 Double-Blind Trials, Followed for an Average of 3 Years

Outcome	Number of Events		Relative Risk (95% Confidence Interval)**
	Treatment (n = 824)	Control (n = 742)	
Stroke*	51	69	0.64 (0.40, 0.89)
Coronary events*	39	41	0.85 (0.48, 1.32)
Heart failure*	33	50	0.58 (0.37, 0.90)
Cardiovascular deaths	104	93	1.11 (0.87, 1.41)
All deaths	208	180	1.14 (1.00, 1.31)

Notes: * For stroke, coronary events and heart failure, data were unavailable from EWPHE.

** Data are taken from Gueyffier et al. (28). The 95% confidence intervals were estimated from Figures 1 and 2 in Ref. 28.

Two patterns are apparent:

First, treatment was associated with significantly reduced risks of stroke and heart failure.

Second, mortality was higher in the treated group.

This was true for cardiovascular mortality, where there was an 11% higher risk of death in the treatment group compared with placebo (p = .42) and for total mortality where the excess risk of death experienced by the treatment groups was 14% (p = .05).

Thus antihypertensive treatment in those aged 80 and older was associated with reductions in risk of stroke and heart failure but an increase in total mortality.

Table 3. Summary of 2 Meta-Analyses of Outcomes of Antihypertensive Treatment: One Comprising 1566 Subjects Aged 80 and Older and the Other Comprising 15,693 Subjects Aged 60 and Older

	Relative Risk (95% Confidence Interval)	
Outcome	Subjects 80 years*	Subjects 60 years**
Stroke	0.64 (0.40, 0.89)	0.70 (0.59, 0.82)
Coronary event	0.85 (0.48, 1.32)	0.77 (0.66, 0.90)
Cardiovascular death	1.11 (0.87, 1.41)	0.82 (0.71, 0.96)
All death	1.14 (1.00, 1.31)	0.87 (0.68, 0.98)

Notes: * Data taken from Gueyffier et al. (28).

** Data taken from Staessen et al. (29). The two meta-analyses were performed by the same group of investigators (28,29), with similar analytic approaches. The 1566 subjects included in the meta-analysis of subjects aged ≥80 years are also included in the meta-analysis of subjects ≥60 years.

However in the meta-analysis of trials enrolling subjects aged 60 years and older, treatment was associated with a 13% reduction in total mortality (p = .02) compared to a 14% increase in mortality in the meta-analysis of trials with subjects aged 80 years and older (p=.05).

What is the explanation for these findings

In searching for mechanisms to explain the unusual findings reviewed thus far, **2 questions should be addressed separately**:

A) Why does elevated blood pressure predict survival in the very old?

B) Why do attempts to lower elevated blood pressures in the very old result in excess mortality?

A) Why does elevated blood pressure predict survival in the very old ?

The potential explanations for this phenomenon are of 2 types:

1. Elevated blood pressure in the very old is a **marker for physiologic vigor**; or
2. Elevated blood pressure is **good for very old people**; it may be necessary, for example, to maintain perfusion of vital organs (NDR: it is one of the **cause of healthy**)

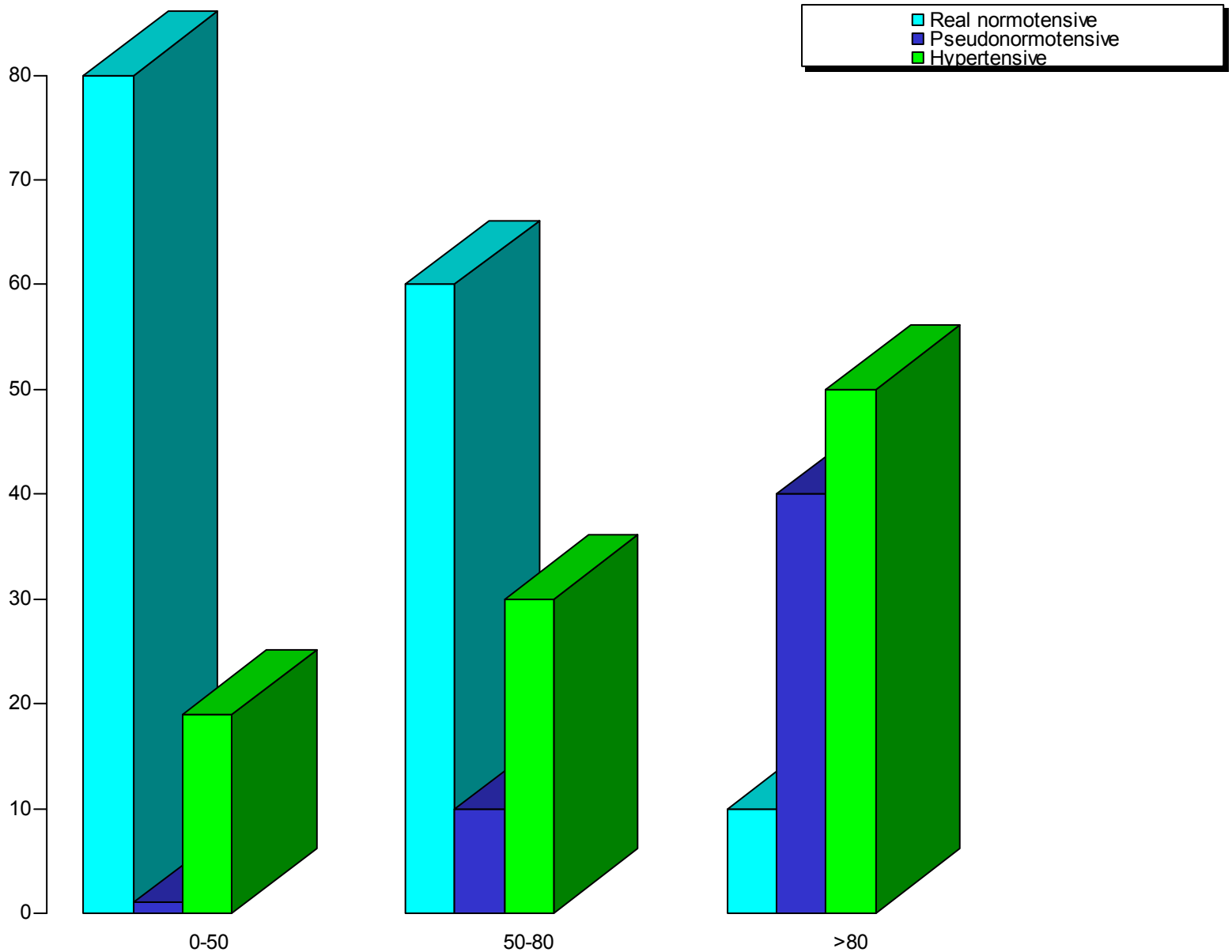
The rapid rise in prevalence of hypertension with advancing age reaches a plateau at about age 70.

The reason why the prevalence of hypertension does not continue to rise with age over age 70 is because of the high prevalence of cardiovascular disease and other serious comorbidities in older subjects.

Thus, **older subjects with ‘‘normal’’ blood pressures are comprised of 2 populations**:
- **those with truly normal blood pressures** and
- **those where the normal pressure is a product of a failing cardiovascular system in individuals who would otherwise have elevated pressures**.

The older the population, the greater the proportion of normotensives attributable to comorbidity.

Prevalence of different pressure groups according to age groups



B) Why do the clinical trials report excess deaths from treatment of blood pressure in very elderly?

Even if antihypertensive treatment had the same absolute benefit to mortality in those 85 years and older as in those 60 years and older, it would be difficult to detect, given the much higher underlying death rate of the very old population.

But that does not explain the increase in mortality associated with treating hypertension in very old people; it only explains why any benefit might be difficult to document.

Hypertension in the Very Elderly Trial (HYVET)

The ongoing Hypertension in the Very Elderly Trial (HYVET), which has yet to report its results (2006), is as large as the metaanalysis of the 5 trials shown in **Table 2**.

This 2100-patient study is the first morbidity and mortality trial investigating the association between BP reduction and cardiovascular mortality in very elderly persons (>80 years) with hypertension.

The **HYVET**, which will randomize patients to a diuretic plus angiotensin-converting enzyme (ACE) inhibitor treatment strategy vs. no treatment, is powered to detect a 35% difference in stroke events between the placebo and active treatment groups; secondary end points include total and cardiovascular mortality. The results of this trial will provide additional information with respect to the **risk-benefit assessment** in treating hypertension in very elderly persons

This trial will report on quality of life indicators as well as mortality.

Management of Hypertension in the Very Elderly Patient

William J. Elliott

(***Hypertension*. 2004;44:800-804.)**

Sufficient data have been gathered from 5710 patients 80 years of age in the **INdividual Data ANalysis of Antihypertensive (INDANA) metaanalysis**, **ALLHAT**, and **HYVET pilot** to provide an initial estimate, but the results have not yet been commingled.

The results in octogenarians in the last 2 studies have not yet been published, and the number and outcomes in **Syst-China** are still not public. **ALLHAT** did not include a placebo arm, so it cannot be used in a metaanalysis comparing active treatment with placebo, which leaves only 2953 patients until the main **HYVET trial** is completed, when the number will be 5053.

It is unlikely that antihypertensive drug treatment will be associated with a significant difference in all-cause mortality among individuals 80 years of age given current data.

Management of Hypertension in the Very Elderly Patient

William J. Elliott

(*Hypertension* 2004;44:800-804)

Therefore, the existing data indicate an overall benefit of drug treatment of hypertension to prevent stroke and heart failure, the 2 most feared sequelae of hypertension for most very elderly patients.

Whether such treatment is associated with a significant change in risk of death is unclear but should be more firmly established when the main HYVET trial is completed.

Until then, most elderly people would probably accept the notion that antihypertensive drug treatment prevents a debilitating stroke or heart failure (NDT: *"ameliorative care" per effetto sulla funzione*) , even if it does not prolong life (*non effetto sulla life*) .

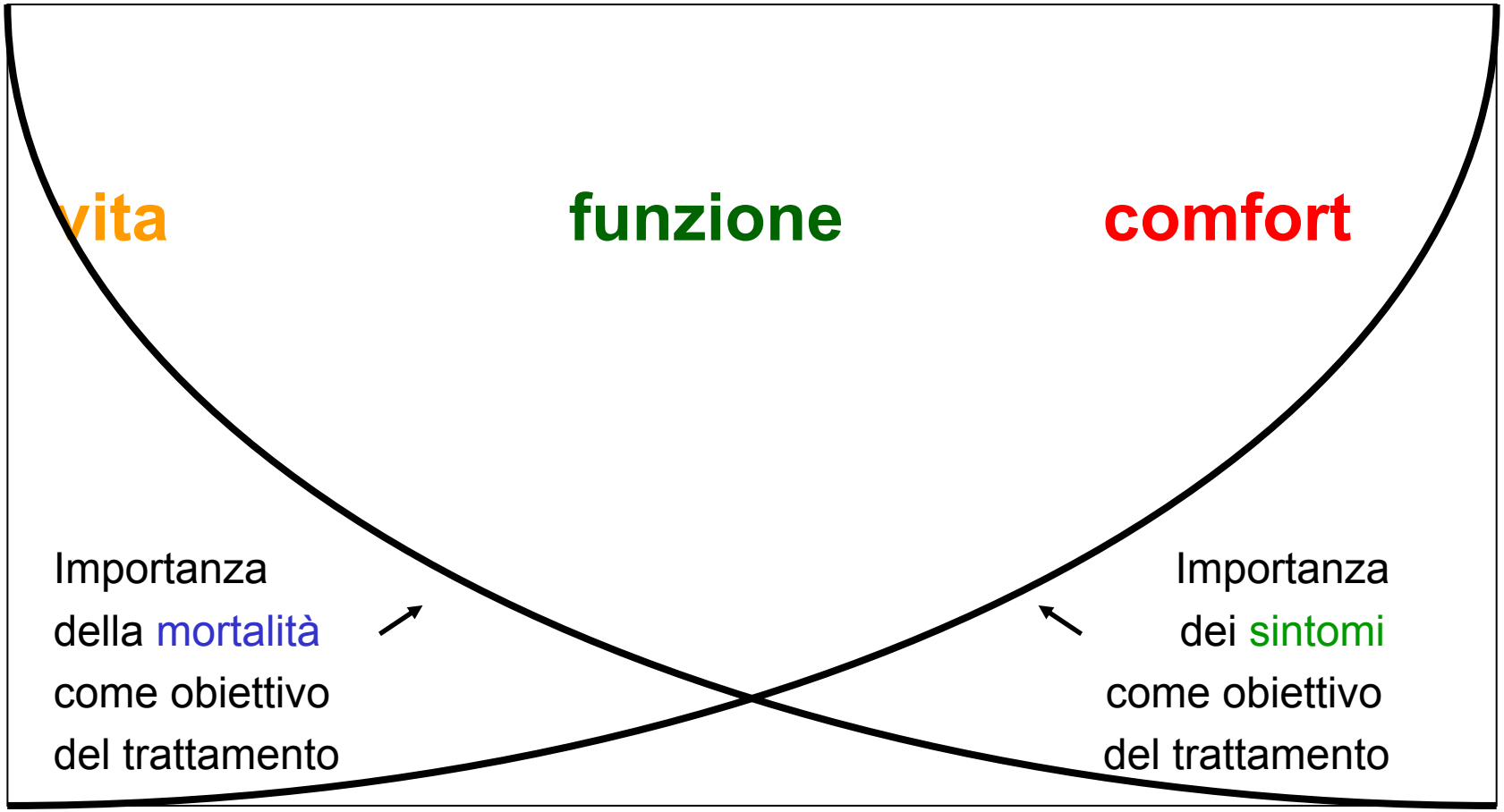
Manton K, Corder L, Stallard E. Chronic disability trends in elderly United States populations: 1982–1994. Proc Natl Acad Sci U S A. 1997;94:2593–2598.

Table 4. Death Rates and Prevalence of Disability by Age Group for the United States, 1999*

Age (y)	Deaths/1000 persons/y	Percent Disabled**
35–44	1.9	
45–54	4.3	
55–64	10.0	
65–74	24.8	8.4
75–84	57.5	21.4
85+	154.8	52.7

Notes: * Data on death rates are from National Vital Statistics System, CDC/NCHS. Data on disability are from Manton et al. (41).

** Percent disabled include those institutionalized or impaired in activities of daily living.



Robusto Intermedio Disabile lieve Disabile grave Dipendente Terminale

Aspettativa di vita

> 5 anni **< 5 anni** **<2 anni** **<6 mesi**

Hypertension and the Elderly: More Than Just Blood Pressure Control

Lawrence Baruch, MD J Clin Hypertens 6(5):249-255, 2004

Evidence-based medicine for treating elderly persons for hypertension generally extends to the 60-79-years age group.

A meta-analysis of hypertension trials was conducted to explore the potential clinical benefits of treatment for patients over age 80 years.

According to this analysis, actively treated elderly patients had a 34% reduction in stroke, 22% reduction in the rate of major cardiovascular events, and a 39% reduction in the rate of heart failure. However, no treatment benefit was found for cardiovascular death, and a nonsignificant relative excess of 6% of death from all causes was noted in the treatment group.

Hypertension and the Elderly: More Than Just Blood Pressure Control

Lawrence Baruch, MD J Clin Hypertens 6(5):249-255, 2004

Although the findings on mortality contrast with the benefit of treatment for nonfatal events, the authors of the meta-analysis state that ***these results do not argue for setting an age threshold beyond which hypertension should not be treated***.

However, because of the potentially wide divergences seen in the health of octogenarians, the beneficial effects of treatment escape generalization in this group of patients.

A **frail octogenarian** might be **harmed by treatment**, whereas a **healthy patient** might **benefit from treatment**.

COMMENTO

L'aumento della **mortalità cardiovascolare** secondaria alla **terapia antiipertensiva** può essere correlata ad esempio ad una ridotta perfusione degli organi vitali, in particolare encefalo (con alterazioni ischemiche e funzionali), reni (comparsa di insufficienza renale) e cuore (ischemia miocardica e/o aritmie)

L'aumento della **mortalità totale** può quindi essere una conseguenza di quanto suddetto o legata ad esempio alle cadute (es da ipotensione ortostatica).

CASO CLINICO 1

- **Uomo robusto di 83 anni, con aspettativa di vita di circa 9 anni**

- **Il paziente viene dimesso, con terapia con ATENOLOLO, una ACE-inibitore, ASA 100mg/die ed una STATINA con valori di PA di 130/80 mmHg (Polypill)**

CASO CLINICO 2

- Uomo di 83 anni con disabilità motoria severa (modesta disfasia, emiplegia destra) e decadimento cognitivo, con aspettativa di vita di circa 2,5 anni

- Il paziente viene dimesso, con terapia con ACE-INIBITORE, CALCIOANTAGONISTA, ALFA-BLOCCANTE e TICLOPIDINA con valori di PA sui 160/80 mmHg

- Non è stata aumentata la TICLOPIDINA a 250mg X 2 nè è stata aggiunta STATINA

Aspettativa di vita negli anziani

Anni da vivere

	Uomini						Donne					
Età	**70**	**75**	**80**	**85**	**90**	**95**	**70**	**75**	**80**	**85**	**90**	**95**
Robusto	18.0	14.2	10.8	7.9	5.8	4.3	21.3	17.0	13.0	9.6	6.8	4.8
Intermedio	12.4	9.3	6.7	4.7	3.2	2.3	15.7	11.9	8.6	5.9	3.9	2.7
Fragile	6.7	4.9	3.3	2.2	1.5	1.0	9.5	6.8	4.6	2.9	1.8	1.7

Based on NCMS Life Tables of the United States 1997,
Adapted from Walter LC and Covinsky KE . JAMA 2001:285; 2750-6

Comorbid Conditions May Affect Antihypertensive Medication Use by Elderly

Philip S. Wang et al. Brigham and Women's Hospital Harvard Medical School , Massachusetts
Hypertension, June 2005

"Although the benefits of antihypertensive drugs have been clearly established, they remain underused by vulnerable older populations".

Antihypertensive use was consistently reduced in patients with asthma or COPD, depression, GI disorders and osteoarthritis, compared with patients without these conditions.

Logistic regression analysis also revealed that reduced use of antihypertensive medications was also associated with older age, female sex, white race, greater severity of other comorbidities, absence of some cardiovascular indications, hospitalizations, nursing home care, physician visits, and use of fewer other medications.

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"Highly prevalent, noncardiovascular conditions appear to deter use of antihypertensives in elderly with hypertension“

"Identifying reasons for this underutilization is a critical first step in developing interventions to improve use of this highly effective therapy.“

COMMENTO

Come per altri trattamenti cardiovascolari, in cui è stato evidenziato un underuse di farmaci che la medicina basata sull'evidenza aveva mostrato efficaci (nei trial), come ad esempio per :

1) **Anticoagulanti orali nella FA;**
2) **ACE-inibitori nello scompenso cardiaco;**
3) **Beta-bloccanti nell' infarto miocardico acuto;**
4) **Statine nella riduzione degli eventi vascolari (ictus e IMA)**

Così per gli antiipertensivi sembra esserci un sottoutilizzo in alcuni gruppi di pazienti anziani

COMMENTO

Come per altri casi è verosimile che spesso non si tratti di malpratica ma di accuratezza clinica legata alla percezione del non beneficio atteso dalla terapia in esame (antiipertensiva nel caso in questione).

Non è ancora chiaro quanto del beneficio di una classe di farmaci sia legato all'effetto pressorio o all'effetto "vascolare"

CONCLUSIONI

L'età molto avanzata è un periodo di grande eterogeneità fisiologica (o fisiopatologica)

Per tale motivo forse non dobbiamo seguire regole soltanto basate sull'età (classica la prima domanda del medico al Collega che propone il ricovero: quanti anni ha?)

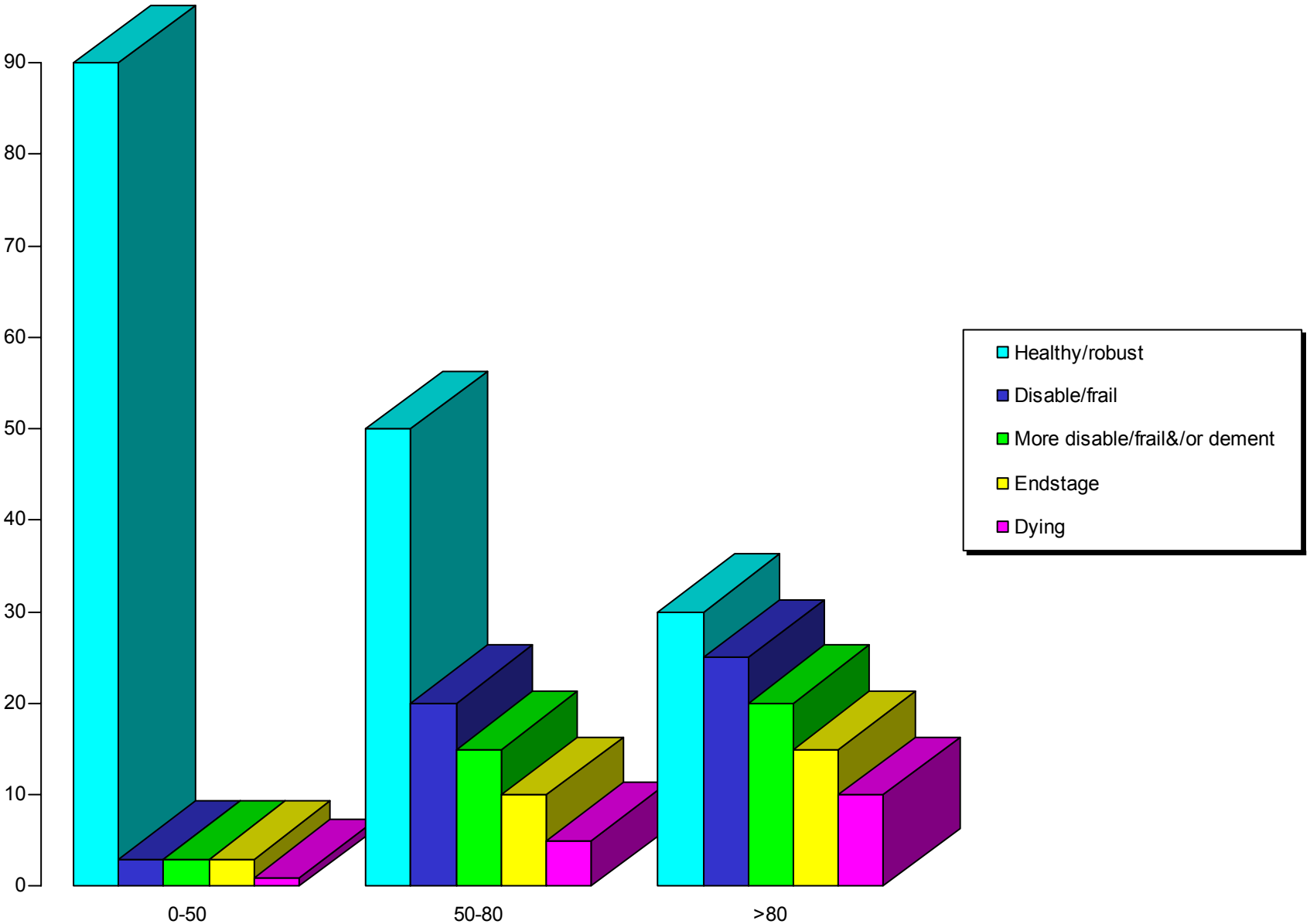
Diehr and colleagues hanno osservato che una popolazione di soggetti molto anziani è costituita da una "mixture" di quelli che stanno invecchiando e di quelli che stanno morendo.

(***Diehr P, Williamson J, Burke G, Psaty B. The aging and dying processes and the health of older adults. J Clin Epidemiol. 2002;55:269–278***).

CONCLUSIONI

Ai fini di trarre considerazioni e conclusioni, sia prognostiche che terapeutiche, sarebbe utile definire sottopopolazioni più omogenee tra i molto anziani, definendo potenziali categorie, in base all'età, lo stato funzionale, mentale (cognitivo - affettivo) ed eventualmente alla comorbilità che permettano una stratificazione prognostica e quindi una indicazione di trattamento (ma anche di non trattamento) di un dato soggetto

Prevalence of different health status conditions according to age groups



CONCLUSIONI

Dei soggetti ultraottantenni è verosimile che solo il primo gruppo di pazienti (**robusti/healthy**), con aspettativa di vita maggiore (che avrà forse iniziato ad assumere la polypill dall'età di 55 anni), si beneficerà di **terapia antiipertensiva o vascolare** sia in termini di riduzione della **mortalità** che di **eventi cardiovascolari (stroke e scompenso cardiaco in particolare)** (**longevous and ameliorative care**) (**"soggetti che stanno invecchiando bene"** Diehr)

Del sottogruppo di **soggetti lievemente disabili e dementi** la terapia porterà verosimilmente ad una riduzione degli **eventi cardiovascolari (stroke e scompenso cardiaco)** ma non della mortalità (**ameliorative care**)

Per i sottogruppi di **anziani molto disabili & dementi e terminali** è forse opportuno non dare una terapia verosimilmente non utile se non addirittura dannosa! (**"soggetti che stanno morendo"**Diehr) (**palliative care**)

CONCLUSIONI

Il nostro lavoro (di medici che si occupano di grandi vecchi) è quindi particolarmente difficile perché a differenza di altri specialisti della medicina, come ad esempio i cardiologi, i quali per la maggior parte dei loro pazienti (essendo adulti ed anziani healthy) solitamente applicano delle linee guida o protocolli ben definiti,

noi ci occupiamo di una popolazione eterogenea composta da vari sottogruppi, con finalità terapeutiche diverse, e quindi dobbiamo conoscere le linee guida per applicarle (in alcuni casi) ma avendo la cultura, la consapevolezza e l'autorevolezza di non applicarle ….. quando non ne ravvisiamo il beneficio (in termini di qualità e/o durata di vita) per quel singolo paziente

CONCLUSIONI

Lo scenario futuro, con il trattamento e la sopravvivenza da malattie una volta considerate "mortali" (come gli infarti o i tumori), e lo spostare in avanti negli anni le malattie croniche (respiratorie, reumatologiche, cerebrovascolari, etc), farà sì che i nostri pazienti avranno un pesante fardello di disabilità e comorbidità.

Pertanto nei Dipartimenti Medico Geriatrici vedremo sempre di meno i soggetti robusti (che saranno trattati dai reparti specialistici) e in numero crescente i sempre più disabili/fragili/molto comorbidi

I nostri outcomes saranno sempre di meno la vita e sempre più la funzione e/o il comfort?

”Lo scopo del nostro lavoro non sempre è di far vivere di più ma spesso di far vivere (e morire) bene”