

Welcome address

Dear Colleague,

By 2035 it has been estimated that about 25% of the world's population will be 65 years or older. Cardiac function is altered in an age-related manner and cardiovascular diseases increase with increasing age. Increasing age is a major predictor of death from stroke and approximately 25% of the elderly if suffering from CVD. Similar figures are reported for isolated hypertension. Considering these notable figures we may ask ourselves: are we doing enough in diagnosing these patients? What evidence do we have to choose an appropriate treatment? Should we be more aggressive or stay conservative with the existing treatment options? How could we optimize the patient follow-up? In other words should we consider our today's knowledge and practices as "good" and will this be "enough" to face the ever-growing elderly population?

In this context the Course Directors and Program Committee, constituted by Professors Aladár Rónaszéki (Budapest, Hungary) and Olivier Hanon (Paris, France) are very pleased to welcome you to join the first edition of the **European Cardiology Conference on the Elderly Patient** that will be held from **December 5 to 7, 2008** in **Budapest, Hungary**.

The purpose of this Conference is to help you to identify cardiac changes which are characteristic of physiologic aging and not disease, to highlight the altered presentation and modifications of therapy for elderly patients with common cardiovascular diseases such as hypertension, atrial arrhythmias, and coronary artery disease, and to identify cardiovascular diseases and treatments which are unique to older populations.

In order to offer you the latest innovative and clinically relevant findings in the management of the elderly patient, the Course Directors and Program Committee and a large panel of **internationally renowned experts** will present a customized scientific program covering a wide range of prominent issues you may encounter when facing this growing and particularly fragile patient population.

The following primary **educational objectives** have been defined for this conference:

- ✓ to inform Cardiologists about the latest scientific advances with regard to the elderly patient;
- ✓ to focus on new and emerging medical therapies;
- ✓ to assess and to improve diagnostic aspects in this special population;
- ✓ to allow Cardiologists meeting and debating with international experts on (controversial) issues, challenges, and special cases related to their daily practice.

On behalf of the Program Committee and Organizing Committee we wish you an instructive course and pleasant stay in Budapest - the capital with world's largest number of thermal springs...



Eduard Otte, MD
Organizing Committee



Valérie Callies, MD
Local Conference Organization

1st European Cardiology Conference on the Elderly Patient

■ Dates

The conference will start in the afternoon of Friday December 5 with registration at 15h30 followed by the Welcome Address in the Plenary Lecture Room at 16h30. The course will end on Sunday December 7 at 13h00.

■ Lecture room

◆ Ballroom I & II

■ Conference opening hours

- ◆ Friday: 15h15-18h30
- ◆ Saturday: 8h45-18h15
- ◆ Sunday: 9h00-13h15

■ Language

The official language is English. To insure optimal understanding all lectures and debates will be in English and **be translated simultaneously into Hungarian**. For this purpose headphones will be distributed at the beginning of each session.

■ Conference format

The Conference is designed to allow **maximum interaction** between participants and faculty. After each topic presented during the Academic **Plenary Sessions** questions will be answered during a panel discussion.

■ Conference badges

Your personal conference badge allows you to access to all Conference facilities and activities and is necessary to obtain CME credits. At the meeting venue attendees are expected to wear their conference badge visibly and at all times. **No badge = No access**

Scientific Program

Friday, December 5

15h30-16h00

Registration

16h30-17h00

Welcome address by Course Directors and Introductory lecture: Epidemiology and prevention of cardiovascular diseases in the Elderly

A. Rónaszéki

17h00-18h15

Coronary heart disease in the very elderly

R.G. Kiss

- Diagnostic strategy
- Angioplasty or not in acute coronary syndrome and chronic situations
- Are the guidelines for medical therapy applicable?

J. Belmin

W. Desmet

P. Assayag

Saturday, December 6

9h00-10h15

Atrial fibrillation

D. Miličić

- Atrial fibrillation and comorbidities
- Therapeutic strategy of atrial fibrillation in the very elderly
- Anticoagulants or antiplatelet agents?

D. Miličić

J. Borbola

A. Gentric

10h15-10h30

Break

10h30-11h45

Hypertension in the very elderly

O. Hanon

- Blood pressure and cardiovascular risk
- Hypertension and cognitive decline
- Strategy for antihypertensive therapy

R. deChâtel

O. Hanon

A. Bénétos

11h45-13h15

HYVET study: a new era in the management of very elderly hypertensive patients

C. Thuillez

Symposium sponsored by EUTHERAPIE

- HYVET: main results
- Impact of HYVET results on heart failure prevention in the elderly?
- Pharmacological and clinical properties of the combination indapamide/perindopril

O. Hanon

F. Diévert

C. Thuillez

13h15-14h30

Lunch

14h30-16h00

Management of Heart failure in the very elderly

A. Rónaszéki

- Heart failure and comorbidities
- Specificities of diagnostic
- Interest of BNP
- Specificities of treatment

A. Rónaszéki

N. Nyolczas

J. Dagorn

JP. Emeriau

16h00-16h30

Break

16h30-18h00

Vascular risk factors in the very elderly

L. Szollár

- Is metabolic syndrome a reality in the very elderly?
- Lipid management in the elderly
- What antidiabetes therapy in the very elderly?

L. Szollár

E. Duron Garnier

S. Conroy

Sunday, December 7

10h00-12h00

Clinical cases and Discussion Cardiogeriatrics Test

J. Borbola / S. Conroy / E. Duron Garnier

In this special session the Conference Experts will present different interesting Clinical Cases. This session also allows much interactivity between Attendees and Conference Experts and is the ideal occasion to debate on issues and challenges you may encounter in your daily practice.

During this session the outcomes of Cardiogeriatrics Poster Test will also be presented.

12h00-12h15

Closing remarks by Course Directors

12h15-13h00

Collection of evaluation forms

1st European Cardiology Conference on the Elderly Patient

■ Course accreditation



The **European Cardiology Conference on the Elderly Patient (ECCEP 2008)** is held under the auspices of the **Hungarian Society of Cardiology** and the **European Board for Accreditation in Cardiology (EBAC)** for **9 hours of external CME credits**.



Each participant should claim only those hours of credit that have actually been spent in the educational activity. EBAC works according to the quality standards of the European Accreditation Council for Continuing Medical Education (EACCME), which is an institution of the European Union of Medical Specialists (UEMS).

To obtain the accreditation certificate, please present the completed Standard Evaluation Form on Sunday December 7 after the closing remarks at the Conference Hospitality and Accreditation Desk. The accreditation certificate will be granted in the weeks following the event.

In compliance with EBAC/EACCME guidelines, all speakers/chairpersons participating in this program (satellite symposia excluded) have disclosed or indicated potential conflicts of interest which might cause a bias in the presentations.

The Organizing Committee is responsible for ensuring that all potential conflicts of interest relevant to the event are declared to the audience prior to the CME activities.

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FRANÇAIS

Questionnaire d'évaluation

Afin d'obtenir votre certificat d'accréditation FMCCME, merci de bien vouloir compléter ce questionnaire à l'issue de la Conférence et de le remettre au bureau Accueil/Accréditation

1. Intérêt de la Conférence sur ma pratique quotidienne :
 Très insatisfaisant Insatisfaisant Moyen Satisfaisant Excellent

2. Niveau scientifique de la Conférence :
 Très insatisfaisant Insatisfaisant Moyen Satisfaisant Excellent

3. Qualité des présentations :
 Très insatisfaisant Insatisfaisant Moyen Satisfaisant Excellent

4. Niveau scientifique des FMC (symposia satellites exclus) ?

Quelle conférence commerciale ou promotionnelle évidente vous a-t-elle encouragée à participer à la Conférence ?

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ENGLISH

Standard Evaluation Form

Please complete this evaluation form at the end of the event in order to receive your CME attendance certificate in the weeks that will follow the Conference.

1. Usefulness of the course to improve my practice:
 Poor Fair Average Above average Excellent

2. Scientific content of the material/course:
 Poor Fair Average Above average Excellent

3. Quality of presentations:
 Poor Fair Average Above average Excellent

4. Quality of organization:
 Poor Fair Average Above average Excellent

5. Was there any commercial or promotional bias evident in the CME course (satellite symposia excluded)?
 Yes No

6. Did CME accreditation have any influence on your choice of event?
 Yes No

7. Additional comments:

8. Which country do you come from?

43-47 avenue de la Grande Armée - F-75016 Paris - France



Coronary heart disease in the very elderly

Dr. Róbert Gábor Kiss, MD, PhD, FESC

Dept. of Cardiology - ÁEK Hospital - Budapest, Hungary

- Dr. Kiss is currently Head and Chief Cardiologist of the Department of Cardiology at the State Health Center (ÁEK) in Budapest as well as the General Secretary and Board Member, Hungarian Society of Cardiology. He is member of the Cardiovascular Research Group, Hungarian Academy of Sciences - Semmelweis University and since 1997 he acts as a referee for Thrombosis and Haemostasis and the European Heart Journal.

From 2001-2003 Dr Kiss was the President of Hungarian Society of Thrombosis and Haemostasis and is since 1995 faculty member, Thrombosis and Vascular Center, Budapest, World Heart Federation. Since 2003 he is member of the Working Group on Thrombosis and Haemostasis of the European Society of Cardiology.



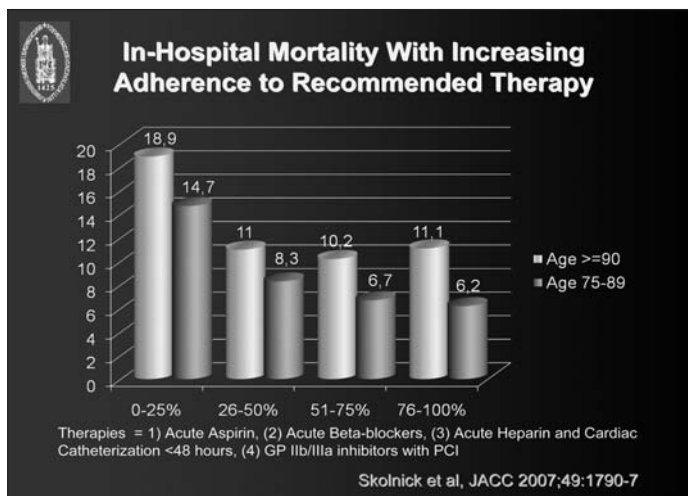
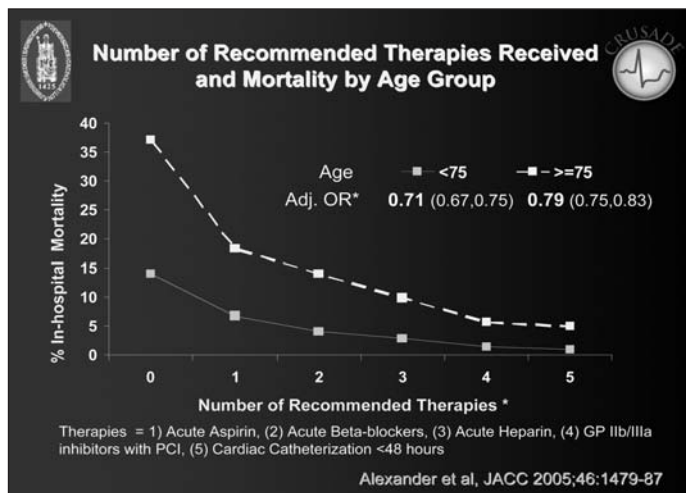
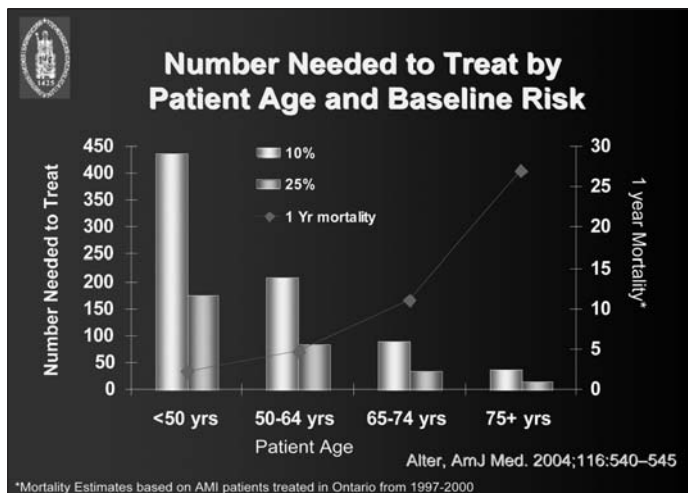
Coronary heart disease in the very elderly

Prof. Joël Belmin, MD, PhD

Dept. of Gerontology - Charles-Foix University Hospital - Ivry-sur-Seine, France

Diagnostic strategy

Angioplasty or not in acute coronary syndrome and chronic situations



Odds Ratio of In-Hospital Mortality According to Acute Therapy Received Among Patients Aged \geq 75 Years

Acute Therapy	Adjusted OR	95 % CI
Aspirin	0.65	0.58 – 0.73
Beta-blocker	0.67	0.61 – 0.74
Heparin	1.06	0.96 – 1.17
Cath within 48 h	0.70	0.64 – 0.77
GP IIb/IIIa inhibitor	1.24	1.12 – 1.38
Cath + IIb/IIIa	0.94	0.84 – 1.06

Coronary heart disease in the very elderly

Prof. Patrick Assayag, MD, PhD

Dept. of Cardiology - University Hospital Bicêtre - Le Kremlin Bicêtre, France

Are the guidelines for medical therapy applicable?



Atrial fibrillation

Prof. Davor Miličić, MD, PhD, FESC

President, Croatian Cardiac Society - Head, Dept. of Cardiovascular Diseases - Director, Heart Transplant Programme - Zagreb University School of Medicine - University Hospital Center Zagreb - Zagreb, Croatia

Atrial fibrillation and comorbidities

Atrial fibrillation

Prof. József Borbola, MD, PhD, FESC

National Institute of Cardiology - Budapest, Hungary

Therapeutic strategy of atrial fibrillation in the very elderly



Atrial fibrillation

Prof. Armelle Gentric, MD, PhD

Brest University Hospital - Dept. of Geriatrics - Brest, France

Anticoagulants or antiplatelet agents?

Hypertension in the very elderly

Prof. Rudolf deChâtel, MD, PhD, DSc

1st Dept. of Medicine - Semmelweis University - Budapest, Hungary

Blood pressure and cardiovascular risk

■ Professor Rudolf de Châtel received his M.D. degree at the Budapest University Medical School in 1962, and obtained his Ph.D. and D.Sc. degrees from the Hungarian Academy of Sciences. Since 1968 he has been working as a clinician at the 1st Department of Medicine, Semmelweis University Budapest. After having completed a 1-year fellowship in the laboratory Professor Reubi at the University of Berne, Switzerland, he established the Nephrology and Hypertension Unit at the Department in Budapest. His clinical research work in the field of sodium metabolism and hypertension diabetic patients was awarded by the Hungarian Academy of Sciences with the degree of D.Sc. He became full Professor of Medicine in 1992, and he was appointed Chairman of the 1st Department of Medicine from 1993 to 2003. Meanwhile he served two 3-year terms as Dean of the Faculty of Medicine from 1991 to 1997.

Professor de Châtel became member of the Executive Committee of the International Society of Internal Medicine (ISIM) in 1994, and was elected President of ISIM for the period of 1998-2000. He is also President of the Hungarian Society of Hypertension. He has published over 100 papers, the majority of them in international journals.

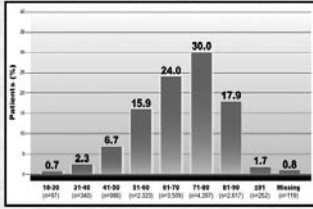
For his scientific merits he was given the Award of the Hungarian Academy of Sciences in 1994, the national Albert Szent-Györgyi Award in 1997, and the Eszter Török Memorial Award in 2000.

In the industrialized countries half of the population dies as a result of cardiovascular diseases; in about 80% of these patients hypertension plays a pivotal role in the pathogenesis. The beneficial affect of antihypertensive treatment was first demonstrated by the prospective, randomized, double blind clinical studies in the early 1970s. Data obtained in thousands of patients revealed that the incidence of stroke could be reduced by almost 40% while the morbidity and mortality of coronary heart disease dropped by merely 16%. The most spectacular result – more than 50% reduction – was obtained in the prevention of chronic heart failure. The disappointing data on myocardial infarction were, however, improved when elderly patients with isolated systolic hypertension were prospectively studied in several large studies; in these patients the diuretic/beta-blocker based therapy or calcium antagonist treatment could prevent fatal coronary events by about 30%. Newer antihypertensive drugs (ACE inhibitors, ARB-s) could amend the efficacy of therapy, particularly in patients with associated clinical conditions (diabetes, PAD, nephropathy) and in those surviving hypertension-related cardiovascular complications. Recent international guidelines uniformly emphasize that cardiovascular morbidity and mortality can be reduced most efficiently by treating patients aggressively to target blood pressure.

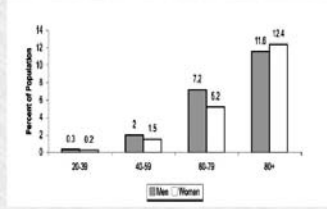
Interest of BNP

Heart failure has become a major public health problem

Elderly and very elderly patients represent an increasing part of the patients with congestive heart failure (CHF)



Age distribution of patients with HF (IMPROVE CHF)

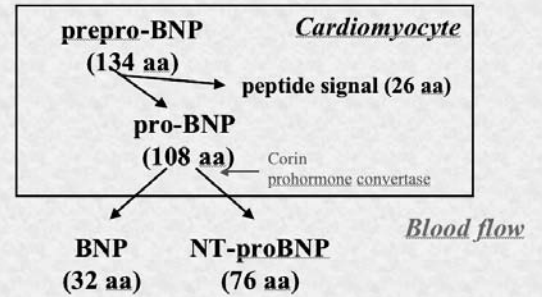


Prevalence of HF by sex and age (NHANES: 1999-2004)

Rosamond *Circulation* 2008; 117: e25-e146

NATRIURETIC PEPTIDES : BNP and NT-proBNP

- hormones coming mainly from **ventricles**
- only small amounts are stored in granules
- secreted and released in the blood flow in response to **increased wall stress**



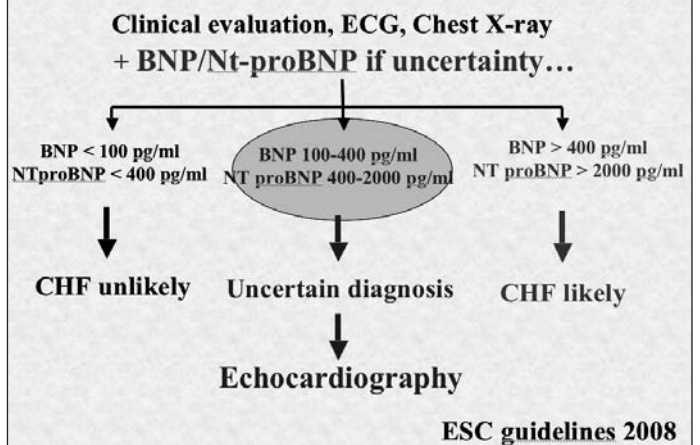
FACTORS ASSOCIATED WITH HIGH LEVELS :

- Advanced age
- Female gender
- Renal dysfunction
- Other heart diseases : atrial fibrillation, coronary heart diseases
- Pulmonary diseases : chronic obstructive pulmonary disease, asthma, pulmonary hypertension
- High output states: severe sepsis, cirrhosis, hyperthyroidism

FACTORS ASSOCIATED WITH LOW LEVELS :

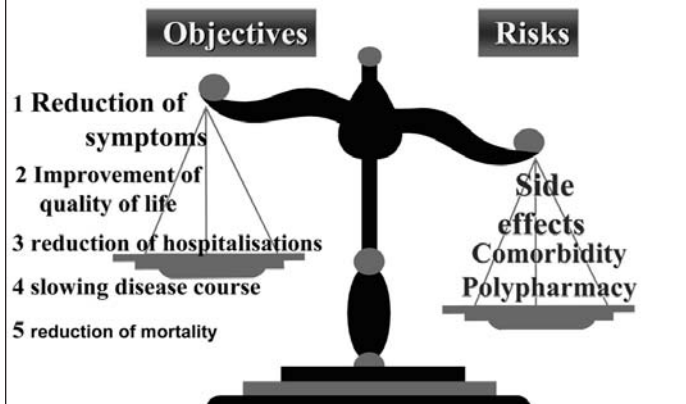
- Obesity
- Flash pulmonary oedema

DIAGNOSIS OF HF :



Specificities of treatment

Treatment of heart failure in elderly



Angiotensin-converting enzyme inhibitors and heart failure in elderly

In the epidemiological studies age is a limiting factor for

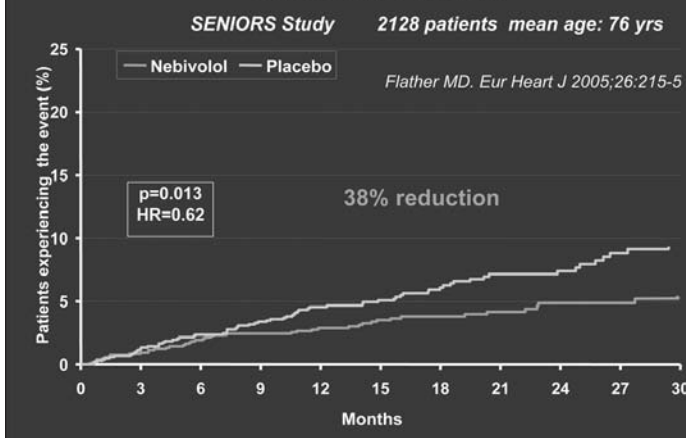
- ACE inhibitor prescription
- prescription of recommended dosages

Heckman GA *Can J Cardiol* 2004; 20: 963-9

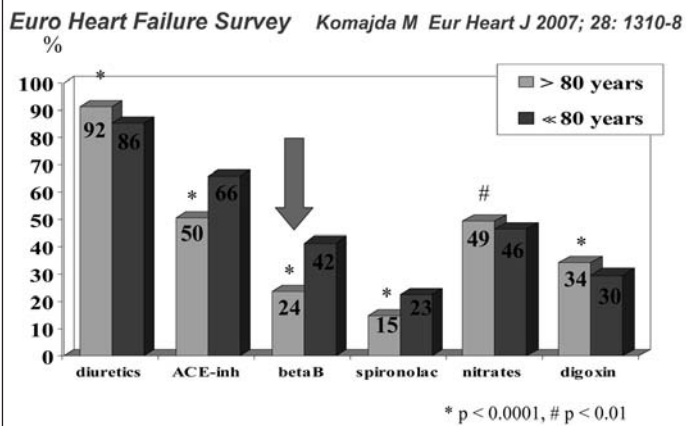
Manyemba J *Eur J Heart Fail* 2003; 5: 693-6

Masoudi FA *Circulation* 2004; 110: 724-31

Sudden death



Heart failure treatments



Is metabolic syndrome a reality in the very elderly?

Metabolic Syndrome as a vascular risk factor in the elderly

Pro	Contra
MS (ATPIII) was an independent predictor of coronary or cerebrovascular events and was associated with a 38% increased risk. MS yields independent prognostic information, even after adjusting for traditional cardiovascular risk factors and the individual domains of the metabolic syndrome. <i>Scuteri et al. Diabetes Care 2005 28:882</i>	At baseline, in both men and women there was a significant association with stroke (OR) = 1.67 in men and OR = 1.72 in women) and diabetes (OR = 4.58, in men and OR = 5.15 in women). During 4-year follow-up, nondiabetic men with MS had a risk of CVD mortality 12% higher compared to those without MS, whereas no significant differences were found in women. <i>Maggi et al. J Gerontology: A Biol Sci Med Sci 2006 61A: 505</i>
A diagnosis of MS provides additional prediction of CHD events, stroke events, and total mortality beyond that provided by other conventional risk factors. <i>Simons et al. Med J Australia 2007 186:400</i>	MS is not itself associated with mortality but may improve the usefulness of IL-6 as a mortality predictor in old age. <i>Ravaglia et al. Diabetes Care 2006 29:2471</i>
Subjects over 70 years are at high risk for cardiovascular events: MS in this group is associated with a significantly greater risk. <i>Butler et al. J Am Coll Cardiol 2006 47:1595</i>	The prevalence of AMI and stroke determined according to the IDF-criteria is not different significantly from the results obtained in subjects with MS or without MS. Diagnostic criteria of the IDF for the MS are not valid for the elderly population. <i>Motta et al. Arch Gerontol Geriatrics xxx (2008) xxx-xxx (in press)</i>
Women and men with MS were 20% to 30% more likely to experience any CVD event than subjects without MS. High blood pressure was the component most strongly associated with incident CHD. Results support that link the presence of MS with the development of CVD, and further underscore the importance of recognizing and treating high blood pressure. <i>McNeill et al. J Am Geriatr Soc 2006 54:1317</i>	Substantially higher proportions of deaths were attributable to EFG and hypertension (population attributable risk fraction [PAR%], 22.2%) than to MS (PAR%, 6.3%). These findings suggest limited utility of MS for predicting total or CVD mortality in older adults compared with assessment of fasting glucose and blood pressure alone. <i>Mozzaffarian et al. Arch Intern Med. 2008;168:969</i>
MS predicts CVD mortality as a marker in elderly subjects, but not above the risk associated with its individual components. <i>Wang et al. Eur Heart J 2007 28:857</i>	Metabolic syndrome and its components are associated with type 2 diabetes but have weak or no association with vascular risk in elderly populations, suggesting that attempts to define criteria that simultaneously predict risk for both cardiovascular disease and diabetes are unhelpful. <i>Sattar et al. Lancet 2008 371:1927</i>

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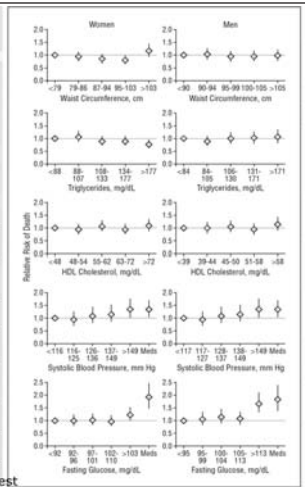
Relative risk of death according to MS Cardiovascular Health Study (4268 older adults, age at baseline 73 y, follow-up 15 y)

Mozzaffarian D et al. Arch Intern Med. 2008;168(9):969-978

Risk of mortality according to individual metabolic syndrome criteria

MS criteria	Absent	Present (HR)
Abdominal obesity	1	0.94
High TG	1	0.92
Low HDL	1	1.00
Hypertension	1	1.32
EFG	1	1.39
MS	1	1.22

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Hazard ratios for CVD and DM associated with MS in PROSPER (Prospective Study of Pravastatin in the Elderly at Risk) and BRHS (British Regional Heart Study)

Sattar et al. Lancet 2008; 371: 1927-35

	CVD	Diabetes
PROSPER (4812 non-diabetic individuals 70-82 years, 3.4 y)		
Metabolic syndrome	1.07	4.41
BMI	0.99	2.51
Triglycerides	1.10	2.10
HDL cholesterol	1.15	2.09
Fasting glucose	0.94	18.42
BP	1.23	2.47
BRHS (2737 men aged 60-79 y, 7 y)		
Metabolic syndrome	1.27	7.47
Waist circumference	1.08	3.86
Triglycerides	1.17	2.50
HDL cholesterol	1.46	3.49
Fasting glucose	1.05	5.97
BP	1.68	3.60

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Is metabolic syndrome a reality in the very elderly? As a predictor of total and CVD mortality: probably no.

- In both men and women there was a significant association with stroke ([OR] = 1.67, in men and OR = 1.72, in women) and diabetes (OR = 4.58, in men and OR = 5.15 in women). During 4-year follow-up, nondiabetic men with MS had a risk of CVD mortality 12% higher compared to those without MS, whereas no significant differences were found in women. *Maggi et al. J Gerontology: A Biol Sci Med Sci 2006 61A: 505*
- In PROSPER and BRHS studies, BMI or waist circumference, triglyceride, and glucose cutoff points were not associated with risk of cardiovascular disease, but all five components were associated with risk of new-onset diabetes. Metabolic syndrome and its components are associated with type 2 diabetes but have weak or no association with vascular risk in elderly populations, suggesting that attempts to define criteria that simultaneously predict risk for both cardiovascular disease and diabetes are unhelpful. Clinical focus should remain on establishing optimum risk algorithms for each disease. *Sattar et al. Lancet 2008; 371: 1927-35*
- Substantially higher proportions of deaths were attributable to EFG and hypertension (population attributable risk fraction [PAR%], 22.2%) than to MS (PAR%, 6.3%). Results were similar when we used WHO or IDF criteria. These findings suggest limited utility of MS for predicting total or CVD mortality in older adults compared with assessment of fasting glucose and blood pressure alone. *Mozzaffarian et al., Arch Intern Med. 2008;168:969*
- The prevalence of AMI and stroke determined according to the IDF-criteria is not different significantly from the results obtained in either the elderly population with "normal" or increased waist circumference (WC), nor in subjects with MS or without MS. Diagnostic criteria of the IDF for the MS are not valid for the elderly population. *Motta et al., Arch Gerontol Geriatrics xxx (2008) xxx-xxx (in press)*

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Lipid management in the elderly

Recommendations considering studies in the elderly

- Eliminate Hypothyroidism
- In elderly people measure CK before initiating statin
- The national Cholesterol Education program Adult treatment panel III guidelines (before PROSPER) seems inappropriate for the elderly
- A Statin treatment is recommended in secondary prevention (CHD, Stroke) between 70 and 80 years old
- A Statin treatment is not recommended in primary prevention after 80 years old
- A statin treatment prescribed in primary prevention may be continued after 80 years old
 - If multiple cardio-vascular risk factor
 - no other disease that will reduce life expectancy
 - Statin well tolerated
- How low to target LDL in the elderly? (Davidson MH)
 - Prove-it in favor of an aggressive LDL-lowering
 - But higher rate of side effects

It is time for a cardiovascular primary prevention trial in the elderly ? (*Stroke. 2007;38:441-50*)

- 2X2 factorial trial
 - Placebo or a statin (double blind fashion)
 - 1 or 2 blood pressure-lowering regimens
- Statin will be chosen in order to obtain an LDLC < 100 mg/dl
- Subjects > 70 years old with 50% subjects > 80 years old
 - Free of clinical evidence of CV disease, diabetes
 - Without comorbidities likely to limit survival to < 5 years
- Primary end-point: MI, CHD death, congestive heart failure, stroke
- Sample size needed: 1,800 subjects

Conclusion

- Statins underprescribed: statin utilization is 40 to 60% in the elderly after MI
- High cholesterol treatment for elderly people is justified in secondary prevention
- If
 - Life expectancy is quite high with a good quality of life
 - The patient agrees to undergo new treatment
 - Other pathologies and other treatments are taken into account

What antidiabetes therapy in the very elderly?

Epidemiology of Diabetes in Older People

- Prevalence 7-30%
- Delays in diagnosis & treatment significant
- IGT/sub-clinical DM precedes diagnosis by 12 years
 - Many have already developed vascular complications
- Overt vascular complications increases risk
 - Onset of heart failure in older subjects with diabetes drops 5-year survival from 85% (HF-free) to 21% (HF-present)

High Glucose Levels and Symptom Profiles Patients aged 70+

- | | |
|-------------------------|--|
| • Lethargy | usually glucose >11 mmol/l |
| • Increased micturition | disturbed sleep patterns
increased fall rate
dehydration
incontinence |
| • Visual impairment | increased fall rate
poor mobility |
| • Erectile impotence | complicated by vascular disease |
| • Pain | limb pain and decreased threshold |
| • Cognitive impairment | memory disorder
psychomotor slowing |
| • Depressive symptoms | irritability and intolerance |

Sinclair AJ, 2005: Based on observations of 100 patients aged 70+years with moderate to poor glycaemic control: HbA1c >8.5%

Impact of function, cognition & mood on treatment

- Mobility limitation interacts with exercise
- Impaired cognition impacts on delivery of diabetes therapy
- Depression impacts on compliance



Conclusions

- Diabetes, vascular disease and ageing lead to complexity of illness
- Older patients may have impaired lower limb function, mental impairment or depression
- The focus must be on maintaining wellbeing and functional status
- Larger scale clinical intervention studies designed to include older subjects are needed – otherwise important questions will remain unanswered