



WHL · NEWSLETTER

News from the World Hypertension League (WHL).
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World Health Organization.

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Editorial

The key role of antihypertensive therapy in stroke prevention



Dr. Jan Staessen

Stroke is the second most frequent cause of death worldwide, exceeded only by ischaemic heart disease,¹ but age-standardised mortality rates vary tenfold or more from countries with low incidence, for example Switzerland (25 stroke deaths per 100 000 in 40–69 year olds), to geographic areas with high risk, such as Eastern Europe, Finland, south-eastern Africa, or Japan. The Stroke Belt in the south-eastern United States and the gradient in stroke mortality from southern to northern China exemplify how even within the same country, environmental factors, lifestyle and ill-defined genetic variation may interact to determine stroke mortality.

In relative terms, stroke incidence is similar in men and women, but race may have a major impact. In the United States, blacks have stroke mortality rates roughly twice that of whites. In many countries of Western Europe and North America, as well as in Japan, age-adjusted stroke rates steadily declined over the past 50 years. Most experts believe that this favourable secular trend is due to the more accurate primary and secondary prevention, which came with the recognition of the role of cardiovascular risk factors, the availability of powerful and well-tolerated antihypertensive drugs, and the growing prosperity of industrialized countries. Ready access to emergency health care determines the case-fatality rate of stroke. In affluent countries, stroke units increasingly implement the principle that time buys brain, but victims of a major

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The final version of the **Egyptian Hypertension Society (EHS) Guidelines for Management of Hypertension in Egypt and Developing Countries** was discussed during a four-day meeting in Luxor, 6–9 December 2002 and is now under revision. The EHS Working Group on Guidelines has been active over the past 18 months in preparing these guidelines.

A 5-day winter course on hypertension and cardiovascular risk management represents one of the most important educational activities of the Society. Attendees were from Egypt and other Arab countries; namely, Saudi Arabia, Lebanon, Syria, Jordan, Kuwait, Yemen, Sudan and United Arab Emirates.

A five-country survey involving more than 1,700 physicians from Egypt, Lebanon, Pakistan, Tunis and Iran, tested knowledge and attitudes regarding hypertension management and diagnosis. The results will be presented during the next regional World Hypertension League meeting to be held in Cairo on April 8, 2003.

The web site www.ehs-egypt.net has been activated and will be updated every 3 months.

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stroke in more deprived or remote parts of the world have no access to specialized care and usually die within days after the onset of symptoms. The case-fatality rate defined as the proportion of events that lead to death within 1 month averages around 30%, but varies from 15% in the Nordic countries of Europe to 50% in Eastern European populations.

Whereas in the United States stroke rates dropped by 70% from 89 per 100 000 population in 1950 to 26 in 1996, the incidence is steeply rising in Eastern Europe and many developing nations of the third world. Deprivation and demographic changes are two mutually amplifying factors, which underlie this disastrous trend. In Eastern European countries, economic hardship, the collapse of social support and the increasing recourse to alcohol as a means to cope with the difficulties of daily life, probably explain most of the secular trend in stroke incidence. In the Russian Federation, male life expectancy at birth dropped from 57.6 years in 1990 to 51.4 years in 1997. In several other parts of the world, especially in developing nations, the population is on a remarkable transition path from a state of high to low birth and death rates. Such rapid and large demographic revolution has never been witnessed in the history of humankind. Worldwide, one out of every 10 persons is now 60 years or above. By 2050, one out of 5 will be 60 years or older. People >80 years of age are the fastest growing segment of the older population. They currently make up 11% of the age group above 60 years and will increase to 19% by 2050. Stroke rates rise exponentially with age from about 30 per 100 000 population in the third and fourth decades of life to almost 3000 in octogenarians. These observations explain the paradox why despite the decline in age-adjusted rates, in absolute numbers, stroke incidence and stroke mortality will continue to grow in the foreseeable future. Hypertension, smoking, excessive alcohol intake (>300 gram per week), diabetes mellitus, and hyperlipidaemia are among the modifiable risk factors for stroke. Up to one quarter of all strokes are directly attributable to smoking, which independently increases the risk of stroke about threefold. Hypercholesterolaemia is a risk factor for ischaemic stroke, whereas in far-eastern populations low cholesterol levels are related to the risk of cerebral haemorrhage. Combined data of primary and secondary prevention trials indicate that a 20% reduction of

total serum cholesterol reduces the risk of recurrent stroke by approximately one fifth. However, hypertension is the most consistent and powerful predictor of stroke. It is involved in nearly 70% of strokes. Elevation of blood pressure promotes stroke by aggravating atherosclerosis in the aortic arch and the cervical and cerebral arteries. It causes arteriosclerosis and lipohyalinosis in the small penetrating end-arteries of the brain, and contributes to heart disease, of which stroke is a complication.

Many stroke survivors are left with cognitive, affective, and physical impairments, become dependent, and require lifelong assistance with activities of daily living. Prevention is key to the control of the stroke pandemic and cannot be achieved without better control of hypertension in the general population. Primary and secondary prevention trials demonstrated that anti-hypertensive treatment reduces the risk of stroke by 30 to 40%.

Prolonged follow-up of the patients (>60 years) randomised in the Systolic Hypertension in Europe Trial demonstrated that in over 75% of patients, systolic pressure could be lowered to less than 150 mm Hg to a level averaging 142 mm Hg.² Postponing antihypertensive therapy by a median of 2 years led to 17 otherwise preventable strokes per 1000 previously untreated patients followed for further 4 years.² The combined evidence from placebo-controlled and actively controlled trials³ demonstrated that irrespective of race and age, thiazide diuretics and long-acting dihydropyridine calcium-channel blockers are most effective in reducing blood pressure and preventing the cerebrovascular complications of hypertension. In addition, therapy initiated with angiotensin-converting enzyme inhibitors is less effective, especially in older⁴ and non-Caucasian⁴ patients compared to diuretics.⁴ Finally, whenever possible, anticoagulation or antiplatelet therapy must be instituted in patients at high risk of stroke because of atrial fibrillation.

Jan A. Staessen, MD, PhD, FAHA
Dept. of Molecular and Cardiovascular
Research University of Leuven
Herestraat 49
3000 Leuven, Belgium
Phone: +32-16-34-7104
Fax: +32-16-34-7106
E-mail: jan.staessen@med.kuleuven.ac.be

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References

1. Murray CJL, Lopez AD. Mortality by cause for eight regions of the world: global burden of disease study. *Lancet* 1997; **349**: 1269–76.
2. Staessen JA, Thijs L, Fagard R, on behalf of the Syst-Eur Investigators. Principal outcome results of the Syst-Eur follow-up study. *Hypertension* 2002; **40** (suppl): 19.
3. Staessen JA, Wang JG, Thijs L. Cardiovascular prevention and blood pressure reduction: a meta-analysis. *Lancet* 2001; **358**: 1305–15.
4. Coordinators for the ALLHAT Collaborative Research Group. The Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT). *JAMA* 2003; **288**: 2981–97.

A complete reference list is available from the Newsletter editorial office in Berlin. ■

WHL News continued

International Conference for Cardiovascular Disease Control and Prevention in Africa

In Sub-Saharan African regions, cardiovascular disease is rapidly emerging as a serious chronic disease. Hypertension affects more than 20 million people and leads to high rates of death from stroke, heart failure and heart attacks. There is a need for early public health intervention to limit the spread of cardiovascular disease.

The aim of the International Conference, jointly organized by WHO, WHL, Free Brussels University (ULB), the African Union and the European Union is to set up specific priority strategies that can help control the cardiovascular disease epidemic in Sub-Saharan Africa.

The Conference objectives are: 1) to develop specific guidelines for control of high blood pressure and cardiovascular disease risk factors, and 2) to develop an African education training program which is appropriate for all levels of medical professionals to control high blood pressure.

Experts from Africa and other continents are involved in this important meeting. Dr. Daniel Lemogoum is the Coordinator and Organizing Secretariat. Future **WHL Newsletters** will describe the outcome of this important Conference. The Conference will be held from May 10–12, 2003 in Brussels, Belgium. Please see section **Calendar** on page 4 for contact information. ■

Obituary

Lennart Hansson died on November 8, 2002 from cancer. Lennart Hansson was well known internationally as a research leader in the area of cardiovascular medicine and especially hypertension. He was born in Sweden in 1940, graduated from medical school in Göteborg, Sweden, in 1968, where he trained in epidemiology, pharmacology and clinical aspects of hypertension. He also trained at the University of Michigan. In 1992 he became professor of medicine at the University of Uppsala where he organized several important large-scale trials in hypertension treatment including STOP-2 and HOT.

Lennart Hansson was the first chair of the Swedish League against hypertension and represented Sweden when the World Hypertension League was founded under the leadership of Franz Gross, Cesare Bartorelli and Tom Strasser in 1983.

In addition to his involvement in the World Hypertension League, Lennart Hansson served as secretary and president of the International Society of Hypertension during the 1980s and, from 1995 to 1997, as the president of the European Society of Hypertension.

Leaving an impressive opus of scientific work, Lennart Hansson, in addition to his organization skills, will be remembered as a person who also had a passion for the good things in life, such as golf and wine.



Detlev Ganten ■

People

Prof. Jerzy Gluszek was elected new president of the **Polish Society of Hypertension**, Klinika Nadciśnienia Tętniczego I Chorob Naczyn A.M., ul. Długa ½, 61-848 Poznan, Poland.

Phone: (+48) 61-854-9090

Fax: (+48) 61-854-9094

E-mail: jerzygluszek@02.pl

The address of the **Bulgarian Hypertension League** has changed: Professor Choudomir Nachev, University Hospital St. Anna, 1, Dimitar Mollov Blvd. , 1784 Sofia, Bulgaria.

Phone/Fax: (+359) 2 975 9050

E-mail: nachev@tradel.net

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Dr. Gustavo Rivara R. was elected President and Dr. Enrique Ruis, Secretary General of the **Peruvian Society of Cardiology**, Guillermo Marconi 337, Lima 27, Peru.

Phone: (+511) 4-405 395
 Fax: (+511) 4-415 932
 E-mail: sperucar@amauta.rcp.net.pe
 Website: www.cardperu.edu.pe

The **Philippine Society of Hypertension** elected a new board: Dr. Esperanza I. Cabral is President, Dr. Nelson S. Abelardo is Vice President, and Dr. Rafael R. Castillo is Secretary, Unit 309 Amberland Plaza, Julia Vargas Avenue, Ortigas Complex, 1605 Pasig City, Philippines.

Phone: (+632) 687-2841
 Fax: (+632) 631-7970
 E-mail: phihpyer@pworld.net.ph

Impressum

The objectives of the WHL are to promote the detection, control and prevention of arterial hypertension in populations. The World Hypertension League (WHL) is a federation of leagues, societies and other national bodies devoted to this goal. Individual membership is not possible. The WHL is a division of the International Society of Hypertension (ISH), and is in official relations with the World Health Organization (WHO).

Secretariat:

Medical College of Ohio, Department of Medicine
 3120 Glendale Avenue, Toledo, OH 43614-5809, USA
 Phone: (+1) 419 383-6016, Fax: (+1) 419 383 5360
 E-mail: gmonhollen@mco.edu
 Internet: <http://www.mco.edu/whl>

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 Patrick J. Mulrow (Toledo), Secretary General

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Advisors to the Board:

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 M. Mohsen Ibrahim (Cairo), Developing Countries
 Jörg Pöttsch (Berlin-Buch), Communications

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 Anja Kroke, Editor; Erika Pisch, Editorial Assistant

Editorial Office:

Max Delbrück Center for Molecular Medicine (MDC)
 Robert-Rössle-Strasse 10, 13125 Berlin-Buch, Germany
 Phone/Fax: (+49) 30 9406-2123
 E-mail: whl@mdc-berlin.de

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Calendar

International Conference for Cardiovascular Disease Control and Prevention in Africa

May 10–12, 2003
 Brussels, Belgium

Information: Dr. Daniel Lemogoum
 ULB-Erasme Hospital, 808 Lennik Road
 1070 Brussels, Belgium
 Fax: (+32) 2 555-6713
 E-mail: dlems@hotmail.com

3rd Asian-Pacific Congress of Hypertension

September 28–October 1, 2003

Information: Stella Chee,
 Congress Secretariat
 Ace Daytons Direct (International) Ltd.
 Singapore
 Fax: (+65) 6379 5261
 Fax: (+65) 6475 6436
 E-mail: admin@acedaytons-direct.com

10th National Scientific Sessions of the Consortium for Southeastern Hypertension Control

October 16–18, 2003
 Coral Gables, FL, USA

Information: COSEHC, Medical Center Blvd.
 Winston-Salem, NC 27157-1032
 Website: www.cosehc.org.

WHL Regional Meeting with the Chinese Hypertension League

October 16–18, 2003
 Beijing, China

Information: Dr. Liu Lisheng
 Cardiovascular Institute & Fu Wai Hospital
 Beijing 100037
 Peoples' Republic of China
 Fax: (+86) 10 6835 1990
 E-mail: chlhypt@163bj.com

27th Scientific Meeting of the German Hypertension Society

November 26–29, 2003
 Bonn, Germany

Information: Prof. Dr. med. R. Düsing
 Congress Secretariat, Daniela Ruckriegel
 Rosengartenplatz 2, 69161 Mannheim
 Germany
 Fax: (+49) 621 4106 137
 E-mail:
 daniela.ruckriegel@mcon-mannheim.de