



INTERNATIONAL SOCIETY OF HYPERTENSION

Member of the Scientific Advisory Board  
of the World Heart Federation



# Hypertension News – an Electronic Newsletter

## Opus 5

14 October 2004

Dear ISH member,

HT News Opus 5 contains:

(i) a report from the President, (ii) a report from the planning of the 2006 meeting in Fukuoka, (iii) road maps to lower CV risk, (iv) a young investigator's perspective on ISH, (v) a report from the ESH meeting in Paris in June 2004, as well as (vi) a report from the ISH Lower and Middle Income Strategy group.

The next issue of Hypertension News (Opus 6)  
will be published in January 2005.

Best wishes,  
Lars H Lindholm

## **Report of the President**

**Michael Alderman**

**New York, USA**

This chance to reach our members directly presents an irresistible invitation to share random thoughts – in the hope that they interest you as well. As always, a changing world brings new challenges. With your indulgence, I would like to talk about four: growing awareness of the worldwide impact of hypertension and cardiovascular disease; the integrated fact of vascular disease, of which blood pressure is but one dimension; revolutionary changes in means of communication; and, finally, the changing nature of research support. None of these are paradigm shifts, but reflect factors, long evolving, that now intrude more prominently upon our universe.

Recent World Health Organization and World Bank pronouncements, together with a spate of epidemiological studies, confirm that cardiovascular diseases have become the leading causes of morbidity and mortality throughout the world. Moreover, cardiovascular “risk factors” associated with these diseases are the same worldwide. Much of this appears to be due to behavioral and environmental influences. With the exception of tobacco smoking, too little is known about both how to change these phenomena and, of equal importance, what the consequences of proposed changes might be. This requires a new kind of research agenda that will best be informed by wide international collaboration.

At the same time, more detailed understanding of vascular biology is demonstrating the interaction of a variety of molecular pathways to alter vascular structure and function. The notion of discreet research disciplines linked to such remote physical phenomena as blood pressure is fast becoming obsolete. How we organize research and education, and how it is funded, are pressing issues that can profit from the involvement of ISH and its distinguished membership.

The ease of interaction produced by World Wide Web, the Internet, and e-mail has already generated new opportunities for education, research, and patient care that have changed, for the better, what we do. MRIs recorded in Chicago are read in Bangladesh – or the other way around. One piece of this story, the role and practice of medical journals, has only just begun its adaptation to this changing world. How will it affect the practice of science, as well as public-professional interaction? These questions are very much on the agenda of Professor Zanchetti and his colleagues at the Journal of Hypertension. Members of ISH and the European Society of Hypertension (with which we share the journal) might well also become familiar with the issues, and consider their implications.

Finally, there is the issue of economics – nothing new here? Researchers, academics, and practitioners are and have always been living in a real world where finances are critical determinants of life. Our own most direct concern is the research enterprise. How, and to what end research is funded affects its outcome. For a variety of reasons, the upward trend of both public and commercially generated funding appears to be, if not diminishing, at least slowed. This impacts not only current work, but also the behavior of young career-deciding potential scientists. In the United States, some observers believe that the “clinical investigator” may become an endangered species. ISH and its members are intimately involved in how this plays out. We need to become knowledgeable and involved in the public discussion to articulate the value of science – at the same time, trying to restrain our self-serving instincts.

These are but a few subjectively selected issues, which cry out for understanding, informed discussion, and self-conscious decision-making. ISH fails to recognize a changing world at

its peril. The only certainty – as there should be – is that societies (and individuals) formed a generation ago must change over time. How the large, atomized community we call ISH can successfully respond to this challenge requires our best thinking. Perhaps we can marshal the magic of the web to engage our membership. Perhaps readers would like to submit to the Newsletter their reactions and thoughts both about the issues themselves, and about how your society might effectively respond.

## **The 21st Scientific Meeting of the International Society of Hypertension to be held in Fukuoka on October 15–19, 2006**

**Toshio Ogihara**  
**Osaka, Japan**

It has been 16 years since the last time the 12th ISH Meeting was held in Kyoto, Japan in 1988. Now, in October 2006, the 21st ISH Meeting will be held in Fukuoka, which is located in Kyushu, the southwest region of the main island of Japan. Fukuoka has been known to be an energetic city with friendly atmosphere and great local cuisine as well as a famous gateway to our Asian neighbors. ISH2006 could bring along many people to such a wonderful city.

ISH2006 will be a special one: a joint meeting of ISH, the Asia Pacific Society of Hypertension (APSH), and the Japanese Society of Hypertension (JSH). We will hold the meeting on a large and global scale, to suit the theme “Global Challenge for Overcoming High Blood Pressure”.

I would like to take this opportunity to thank all of the ISH2006 Fukuoka Committees and Advisory Members for your support and advice. I also would like to give my special thanks to the ISH Scientific Council, who have been very supportive in various ways, such as organizing ISH Industry Meetings for providing us smooth access to the sponsors, contacting us promptly and frequently, and giving us good advice and useful information.

I believe that we have been on the right track for the preparations of the ISH Meeting. We have been carefully programming the meeting by circulating the questionnaires among the committees for State-of-the-Art lectures, Breakfast Topical Workshop, and Investigator-Initiated Satellite Symposia. We have received some crucial opinions to activate the overall planning. These opinions will reflect the final phase of our decision-making.

While pursuing a cutting-edge scientific meeting, we start planning Social Programs, as we believe it will be a good chance to introduce Japanese culture and characteristics to the participants. To those who would like to experience Japan, you can count on us.

Please visit our updated website at <http://www.congre.co.jp/ish2006/> for information.

We are looking forward to welcoming you in Fukuoka, Japan.

## **Guidelines for Antihypertensive Treatment: Road Maps to Lower Cardiovascular Risk?**

**Suzanne Oparil, M.D.**

**Birmingham, Alabama, USA**

Informed by the results of many new observational studies and clinical trials of antihypertensive treatment, and stimulated by concerns about poor hypertension control in the population (29% in the U.S., 17% in Canada, and 8% average in European countries<sup>1</sup>), panels of experts in the U.S., Canada and Europe have published guidelines for the prevention, diagnosis and management of hypertension within the past year.<sup>2-7</sup> Other guidelines address the management of hypertension in special patient groups, e.g. diabetics<sup>8</sup>, patients with chronic kidney disease<sup>9</sup>, and African Americans<sup>10</sup>. Coming soon are yet more guidelines written by national groups and designed to address the needs of particular populations, e.g. Japanese persons, in the setting of particular healthcare delivery systems.

From this plethora of guidelines emerge more similarities than differences:

- All agree that uncontrolled hypertension is a major public health problem worldwide and that more aggressive approaches to prevention and treatment of hypertension are urgently needed – utilizing both lifestyle modification and pharmacologic treatment as interventions.
- All agree that systolic hypertension is both a more robust risk factor for cardiovascular disease outcomes and more difficult to control than diastolic hypertension, particularly among older, higher risk patients. Accordingly, it is the prime target for antihypertensive therapy.
- All agree that pharmacologic treatment of hypertension is effective in preventing cardiovascular disease outcomes – and that more aggressive (lower threshold, lower goal BP) treatment is indicated in high-risk patients, i.e. those with diabetes, renal disease and perhaps high coronary risk.
- The extent of BP reduction is more important than the mode of treatment in determining outcomes.
- The goal BP for most patients is <140/90 mmHg; for those with diabetes, renal disease, and possibly high coronary artery disease risk, <130/80 mmHg.

Approaches to patient assessment and treatment modalities do differ among guidelines, however:

- JNC7 (U.S. guidelines) has taken a simplified approach that is meant to be more “user friendly” for health care providers, most of whom are busy general/family practitioners
  - Hypertension is divided into 2 stages:
    - Stage 1 (140-159/90-99 mmHg), for which initial pharmacologic therapy with a single agent is considered appropriate
    - Stage 2 (>160/100 mmHg), a level at which cardiovascular disease risk is approximately doubled, and for which initial 2-drug therapy is considered appropriate
  - Treatment decisions are based on a risk factor approach, i.e. the BP per se is used to determine treatment thresholds and goals. Other risk factors are managed according to guidelines for these comorbid conditions, but patients are not stratified by the presence or absence of risk factors or target organ damage for the purpose of defining treatment thresholds and goals.

- The European Society of Hypertension/European Society of Cardiology and World Health Organization/International Society of Hypertension guidelines take a global risk approach and include treatment algorithms with many strata (20 in ESH/ESC and 9 in WHO/ISH) based on BP, as well as comorbidities and target organ damage.
  - Prompt drug treatment is recommended only for those at high (20–30% 10-year risk) or very high (>30% 10-year risk) absolute risk.
  - Treatment goals are defined, not in terms of BP per se, but in terms of reduction in the long-term total risk of cardiovascular morbidity and mortality. This requires multiple risk factor modification and appropriate management of associated clinical conditions.

The various guidelines also differ in the extent to which they provide specific recommendations to the practitioner for choosing treatments.

- JNC7, WHO/ISH, and the Canadian guidelines recommend a thiazide diuretic as initial therapy in most cases, and as a component of combination therapy if monotherapy is insufficient for BP control.
- The BHS IV guidelines provide an algorithm for choosing drugs/drug combinations based on the patient's renin status.
- The ESH/ESC guidelines defer drug choices to the health care provider's judgment with consideration to the individual patient's personal, medical, and cultural characteristics. The 5 major drug classes with outcome data, diuretics, beta blockers, ACE inhibitors, ARBs, and CCBs, are mentioned as acceptable alternatives.
- JNC7 defines a set of "compelling indications," concomitant conditions for which use of a particular antihypertensive drug class is indicated based on clinical trial data. These include heart failure, post-myocardial infarction, diabetes, chronic kidney disease, and high coronary disease risk.

In the last analysis, the differences among these guidelines, while the topic of some spicy – and even acrimonious – debates at scientific meetings, are more apparent than real. In fact, most established hypertensives require 2 or more drugs to achieve BP control, so choices for initial therapy are moot. The global risk concept, while not spelled out in U.S. guidelines, is covered by the mandate to treat concomitant risk factors according to the guidelines of other specialty groups. We all agree on the ultimate goal of treatment – the real difficulties lie in implementation. JNC7 provides practical guidance on how to enhance adherence to treatment recommendations, along with web-based reference materials. The report places strong emphasis on the critical role of empathy, trust, and patient motivation in hypertension control and ends with the acknowledgement "Finally, in presenting these guidelines, the committee recognizes that the responsible physician's judgment remains paramount."

References:

1. Wolf-Maier K, Cooper RS, Banegas JR, et al. Hypertension prevalence and blood pressure levels in 6 European countries, Canada, and the United States. *JAMA* 2003;289:2363-9.
2. Chobanian AV, Bakris GL, Black HR, Cushman WC, Green LA, Izzo, JL Jr, Jones DW, Materson BJ, Oparil S, Wright, JT Jr, and Roccella EJ. The Seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure: The JNC 7 Report. *JAMA* 2003;289:2560-72.

3. Chobanian AV, Bakris GL, Black HR, et al. Seventh report on the Joint National Committee on prevention, detection, evaluation, and treatment of high blood pressure: JNC 7-complete report. *Hypertension* 2003;42:1206-52.
4. Mancia G, Rosei A, DeBaker G, et al. 2003 European Society of Hypertension-European Society of Cardiology guidelines for the management of arterial hypertension. *J Hypertens*. 2003;21:1011-1053.
5. World Health Organization, International Society of Hypertension Writing Group. 2003 World Health Organization (WHO)/International Society of Hypertension (ISH) statement on management of hypertension. *J Hypertens* 2003;21:1983-92.
6. Khan NA, McAlister FA, Campbell NR, Feldman RD, Rabkin S, Mahon J, Lewanczuk R, Zarnke KB, Hemmelgarn B, Lebel M, Levine M, Herbert C; Canadian Hypertension Education Program. The 2004 Canadian recommendations for the management of hypertension: Part II – Therapy. *Can J Cardiol*. 2004;20:41-54.
7. Williams B, Poulter NR, Brown MJ, Davis M, McInnes GT, Potter JF, Sever PS, McG Thom S. British Hypertension Society Guidelines: Guidelines for management of hypertension: report of the fourth working party of the British Hypertension Society, 2004 – BHS IV. *J Hum Hypertens* 2004;18:139-185.
8. American Diabetes Association. Hypertension management in adults with diabetes. *Diabetes Care* 2004; 27:S65-S67.
9. National Kidney Foundation. K/DOQI clinical practice guidelines for hypertension and antihypertensive agents in chronic kidney disease. *Am J Kidney Dis*. 2004;43:65-230.
10. Douglas JG, Bakris GL, Epstein M, Ferdinand KC, Ferrario C, Flack JM, Jamerson KA, Jones WE, Haywood J, Maxey R, Ofili EO, Saunders E, Schiffrin EL, Sica DA, Sowers JR, Vidt DG, and the Hypertension in African American Working Group. Management of high blood pressure in African Americans: Consensus statement of the Hypertension in African Americans Working Group of the International Society on Hypertension in Blacks. *Arch Intern Med*, 2003; 163:525-541.

## **A Young Investigator's Perspective on ISH**

**Maciej Tomaszewski**

**Glasgow, United Kingdom**

Many people in the early stages of their research careers apply for memberships in prestigious scientific societies each year. Most of these organizations are trying to attract the youngest scientists by offering a wide range of assistance, privileges and benefits. As an example, a simplified method of becoming a member has been introduced by several societies. All you have to do to become a member is find the website and fill in an online questionnaire. However simple, this procedure may leave a candidate with an impression that all that really matters is a credit card number. Therefore, I fully support current International Society of Hypertension regulations requesting two letters of support for each application. Also more time-consuming and introducing certain selection to young candidates, ISH membership, once successful, feels like a prize not a simple transaction.

Several societies offer competitive annual fees for young researchers. Although our ISH annual fee is relatively low and includes subscription to Journal of Hypertension, I feel that certain grading in payment between senior and junior members could be considered in the future. Preferential fees for candidates under the age of 35 are already supported by International Society of Hypertension during conferences and they are always welcome enthusiastically by the youngest participants.

Among other important factors that are considered by each young scientist before joining a scientific organization is an opportunity of finding a mentor and/or getting funding for research. Long-term fellowship is an ideal possibility combining both options. The International Society of Hypertension generously supports travel and accommodation awards for young researchers attending ISH meetings, but additional competitive fellowships for young scientists could certainly help the youngest ISH members to pursue a career in cardiovascular medicine. As a recipient of an ISH Clinical Research Fellowship (funded as a result of ISH 1996 [Glasgow]), I experienced the benefits of being mentored by an internationally recognized expert and getting access to cutting-edge science in Professor Anna F. Dominiczak's laboratory. For those who are not awarded fellowships or other long-term research support, a scientific meeting is probably the best chance to interact with established scientists. Therefore, young researchers always actively attend special sessions organized for Young Investigators. I encourage the ISH to continue supporting these initiatives since this is one of the most effective ways of training future ISH leaders and promoting excellence in science.

In order to keep each ISH member up-to-date with all that is going on in ISH (including the organization itself, meetings, grant opportunities) an efficient way of information delivery is absolutely essential. In this regard a regularly distributed Newsletter is working very well, providing both information and a possibility of feedback from ISH members. As a form of such a feedback from "the youngest" ISH members I eagerly accepted an invitation to contribute a short paragraph with a perspective on ISH.

## **Report from the ESH Meeting in Paris in June 2004**

**J.M. Mallion**

**Grenoble, France**

The Fourteenth European Meeting on Hypertension (EHS) was held at the Palais des Congrès in downtown Paris from June 13 to June 17, 2004.

This meeting was organized under the aegis of the European Hypertension Society and the local French organizing committee. It was presided over by Professor Jean Michel Mallion from Grenoble University Hospital.

The meeting was judged a great success with more than 8,000 delegates (8,042 subscriptions to be precise) coming mainly from every country in Europe but also from other parts of the world (Europe – EU: 67.57%, Europe – Non-EU: 10.99%, North America: 5.44%, Asia – Far East: 5.13%, Asia – Middle East: 4.13%, South America: 3.63%, Africa: 2.09%, Australia & Oceania: 1.03%). A huge number of abstracts (1,420) were submitted which entailed hard work for all those who had agreed to act as reviewers but ensured a high scientific standard in the ultimate presentations.

The meeting also provided a forum for scientific exchange with oral and poster presentations representing the central part of the program:

- Lectures, keynote talks, debates and round-table discussions complemented presentations of original research on subjects of clinical interest given by experts on hypertension from across the world.
- There were breakfast meetings and scientific sessions organized by EHS working groups as well as separate sessions to present the work of young European investigators. Also, teaching sessions focusing on practical topics or clinical cases were organized for physicians interested in becoming European hypertension specialists.
- Satellite symposia organized by drug companies (17 in total) were held in the days before and after the main meeting or in the evenings. At these, information was presented about new treatment modalities for hypertension and related cardiovascular diseases.
- Posters presented under the supervision of the session chairpersons were given a special place to promote scientific exchange.

This year, the traditional ESH awards were conferred on R. Fagard from Leuven, Belgium (Björn Folkow Award) and W. Birkenhagen from Rotterdam, The Netherlands (Alberto Zanchetti Life Achievement Award). New awards were conferred on M. Safar from Paris, France (Paul Milliez Award) and on D. Hering (Poland), T. Kuznetsova (Belgium), M. Tomaszewski (UK) (Jiri Widimski Awards).

One of the key points of this year's meeting was the attention given to other risk factors associated with hypertension. This field was addressed in special sessions and lectures as well as in workshops organized by Working Groups to cover specific approaches in the areas of excess body weight and obesity, sedentarity, diabetes and dyslipidemia, although sight was never lost of the fact that, in all cases, hypertension remains at the heart of the pathological process.

More than ever, this meeting has been an opportunity for contact and exchange between experts in fields as diverse as internal medicine, nephrology, cardiology and endocrinology as well as neurology, genetics and therapeutics. All in the spirit of genuine multidisciplinary.

It is clear that its melting pot character is the great strength and uniqueness of the European Hypertension Society which is trying harder than ever to make top-quality medical training available to all. These training programmes extend the teaching sessions organized at the European Hypertension Society's Summer and Winter Schools. The exchanges instigated at meetings like this do not stop when the delegates go home but will be carried on and consolidated at the Fifteenth European Meeting on Hypertension to be held in Milan on June 17–21, 2005. Hope to see you all there.

## **Report from the ISH Lower and Middle Income Countries Strategic Initiatives Working Group**

**Robert Fagard  
Leuven, Belgium**

When I joined the Scientific Council of the International Society of Hypertension in the year 2000, I was very much surprised at the next Council meeting that the Society was apparently going through some identity crisis, particularly with regard to the prefix “International”. On the one hand, there was a mixed attitude towards existing and emerging regional societies; on the other hand, the Council felt that low and middle income countries had been neglected to a large extent in the past. To the best of my knowledge these discussions led to the creation of the ISH Strategic Planning Group, chaired by our current president Prof. M. Alderman. The main conclusion of this think-tank with regard to ways to enhance the Society’s contribution to antihypertensive care and cardiovascular health in low and middle income countries can be found in the minutes of the meeting of the group held in Milan on June 12, 2003. Recommendations included:

- encouragement and enhancement of biomedical research in the developing world;
- integration in a total approach of health promotion and prevention;
- collaboration with other international, regional and national scientific societies and international agencies;
- exploration of specific research projects;
- provision of technical and methodological support, and, last but not least,
- to obtain specific support for these activities.

At the next meeting of the Strategic Planning Group in São Paulo in February 2004, the group was transformed into the ‘ISH Lower and Middle Income Countries Strategic Initiatives Working Group’ in order to translate the goals into practical activities. I was kindly asked to chair the group, in close collaboration with M. Alderman, who guarantees the continuity between the former group and the newly founded committee. It is obvious that emphasis changed from ‘Planning’ to ‘Initiatives’, which, needless to say, is the more difficult part of the whole enterprise.

There are a number of considerations at the start of the new working group.

A first consideration is that the problems in low and middle income countries are most likely different from country to country, or from region to region, and that the expertise of individual members of the group is probably restricted to particular parts of the world. It would therefore make sense to create responsible regional subcommittees, with the following tentative proposal:

- Western Europe and Africa: Fagard, London, Seedat, Akinkugbe
- Eastern Europe, Middle East and Central Asia: Zicha, Erdine, Viskoper
- Australia and Eastern Asia: McMahon, Beilin, Wu, Yusoff, Ogihara
- The Americas: Gavras, Alderman, Kohlman, Sanchez.

A second concern is the current ISH membership from low and middle income countries. A crude calculation of membership according to the income of countries as defined by the World Bank ([www.worldbank.org](http://www.worldbank.org)) gives the following result:

- high income countries: 87%
- upper middle income countries: 4.8%
- low middle income countries: 5.5%

- low income countries: 2.6%

An important task of the Society is therefore to increase membership from low and middle income countries, while at the same time safeguarding its high standards for membership, which, according to the by-laws “is limited to those who have accomplished meritorious original investigation in the field of hypertension or related topics”. We will have to identify qualified individuals, but offer membership at limited costs, for example, without compulsory individual subscription to the paper journal, so that the fee would currently amount to an affordable 21.50 USD.

Next, the group will have to set some more immediately attainable specific goals in low and middle income countries, such as:

- supporting for hypertension meetings in those countries and active participation by ISH members in such meetings;
- working closely with local hypertension societies;
- establishing an inventory of ongoing research in hypertension and related topics, and a list of dedicated researchers in those countries, who can then be invited to apply for ISH membership;
- creating travel grants for young researchers to attend ISH scientific meetings;
- offering financial support for local research programmes, possibly through competitive grant application per region;
- brokering “sister” and mentor relationships between institutions and individuals in developing and developed countries;
- establishing strong working links with cognate societies (e.g. ISN) and organizations (e.g. WHF, WHO and our affiliated society WHL) already working in this area.

Clearly, our goals are ambitious, and therefore our ability to attain these goals will require funding. With its limited financial means, the Society must generate new resources from outside sources to fund these initiatives, which are currently considered a central element in the ISH mission. Always a significant hurdle, the raising of funds is a particular challenge now. Strategies will need to be developed for this purpose and a few members of the Council earmarked to work on this.

Finally, the working group would appreciate comments of ISH members on these initiatives, and all suggestions for potential members or sites of potential research development in low and middle income countries are welcome.

R. Fagard,  
on behalf of M. Alderman, L. Beilin and members of the ISH Lower and Middle Income Countries Strategic Initiatives Working Group  
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