HOT OFF THE PRESS

Should we use ambulatory blood pressure monitoring before we start antihypertensive treatment?

The new NICE guidelines recommend that ambulatory blood pressure monitoring (ABPM) should be used for the initial evaluation of patients with hypertension. In the British Medical Journal, Hodgkinson and colleagues published a systematic review of studies comparing repeated clinic blood pressure measurements with ABPM. They conclude that if ABPM was used as the reference, clinic blood pressures had a sensitivity of 75% and specificity of 75% for diagnosing hypertension. Repeated home blood pressure measurements had a sensitivity of 85% and a specificity of 62%. Thus, if ABPM is used as the gold standard, clinic blood pressures are not sufficient for diagnosing hypertension.

The same group published a cost-effectiveness analysis showing that the use of ABPM for diagnosing hypertension was cost saving compared with repeated clinic blood pressures. This was true for both men and women and for both younger and older patients.


Blood pressure goals in patients with diabetes

Recently, two systematic reviews have been published that address a similar question - how low should blood pressure be lowered in patients with diabetes? Both reviews summarized the effects from randomized controlled trials in meta-analyses of antihypertensive treatment in patients with diabetes. However, the selection of studies and the methodology used was somewhat different. Both studies found that the risk for stroke decreased with decreasing blood pressure, even below a systolic blood pressure of 130 mm Hg. The risk for myocardial infarction did not decrease when blood pressure was lowered down to that level. There was also a significant increase in serious side effects at these very low blood pressures in one of the reports. The debate about blood pressure goals continues, but these two important publications support that the benefits of lowering blood pressure below 130 mm Hg may not outweigh the risks.

J Hypertens 2011; July; 29(7):1253-69

Renal denervation and sleep apnea

One of the most thrilling new treatments for hypertension is renal denervation. This treatment decreases blood pressure much more than any antihypertensive drug and also seems to have other positive effects, like decreased insulin resistance. Another interesting effect of renal denervation is now reported from a small series of patients with resistant hypertension and sleep apnea. Sleep apnea improved in 8 out of 10 patients. The mechanism for this effect is not entirely clear, but it is possible that the effect on preventing sodium reabsorption with subsequent water retention might be a plausible mechanism.

To me, these guidelines are excellent thanks to their openness, inclusiveness, structure and rigour. Moreover they are evidence graded and founded on systematic reviews made by a very professional team. However, some groups of patients are not included such as those with diabetes mellitus type 2, secondary causes of hypertension, accelerated or acute hypertension. Hypertension in pregnant women, and in children, and young people under 18 is also omitted.

The lack of recommendations for patients with diabetes and hypertension is an important limitation since much of their excess cardiovascular risk is attributable to co-existent hypertension, as recently shown by Dr. G Chen and co-workers in Hypertension (2011;57:891-7). The authors retrospectively analysed data from the Framingham original and offspring cohorts. The population-attributable risk from hypertension in patients with diabetes mellitus was 44% for all-cause death and 41% for any cardiovascular event. In comparison, after adjustment for concurrent hypertension, the population-attributable risk from diabetes mellitus in Framingham subjects was only 7% for all-cause mortality and 9% for any cardiovascular disease event.

Dear friends, have a good read and do not forget to take a look at the NICE Hypertension recommendations!

Best wishes,

Lars H. Lindholm

As you know, we are focusing on our commitments to New Investigators and our global constituents.

To further support younger members we are introducing 2 ISH New Investigators Awards that for the first time will be judged and presented to the best oral and poster presentations at the Hypertension Sydney 2012 meeting of the ISH next year.

The Council also agreed to put some funds behind initiatives and ensure that these are distributed as widely as possible. For the next 2 years, ISH will allocate up to USD 40,000 for projects from each of the regions covered by the Regional Advisory Groups (RAGs).

There will be a call from the RAGs for proposals in the near future. They will be looking for initiatives of broad benefit such as outreach teaching workshops for areas in which international expert opinion on blood pressure might be scarce. Plans for joint regional meetings of national societies and member societies of the ISH International Forum might also be considered. Proposals will be collated and ranked by the RAGs and advice sought, where relevant, from the Lower and Middle Income Outreach Committee before these are passed to the Executive for decisions and funding.

The Council also considered how the ISH might deal with membership applications from clinicians who have a record of long-standing commitment and high-level contribution to blood pressure, but might not have pursued research in a way that builds a strong CV of original research. Such memberships are theoretically possible under our Constitution, but we have never specifically encouraged such applications or defined the criteria by which they might be judged.

The Executive has been developing plans for ISH membership for clinicians and these will be released soon. You will see that the emphasis is very much towards new members with a demonstrably high standard of clinical contribution to blood pressure.

It is certainly an exciting time to be in the ISH and I’d encourage you to become advocates of our Society and attract colleagues to join as new members. The timing is great in terms of becoming eligible to make significant savings on the registration fees for the ISH Meeting in Sydney.

Enjoy reading about other developments in this edition of Hypertension News.
On 24th August the latest guidelines produced by the UK’s National Institute for Health and Clinical Excellence (NICE) in collaboration with the British Hypertension Society (BHS) were launched. These guidelines update the NICE 2006 guidance and include four major changes to currently recommended routine practice of hypertension investigation and management in the UK.

The first, perhaps most radical change, relates to the diagnosis of hypertension for which ambulatory blood pressure monitoring (ABPM) is recommended to confirm the diagnosis if a clinic blood pressure (BP) is recorded at 140/90 mmHg or higher. For those who cannot tolerate ABPM, home BP monitoring (HBPM) for between 4 to 7 days is recommended as an alternative. Details of how to measure BP using ABPM and HBPM are provided. Increased use of ABPM or HBPM is also recommended for monitoring the BP of some patients during their continued follow-up.

Recommendations regarding who should receive antihypertensive treatment have not changed since the 2006 guidelines and hence these guidelines continue to be more conservative than the most recent American (JNC 7) and European guidelines. The major difference between UK guidance and that from US and Europe regarding treatment thresholds is that for those with stage 1 hypertension (140-159/90-99 mmHg) drug therapy is not necessarily considered indicated unless other concomitant problems (e.g. target organ damage, established vascular or renal disease, diabetes, or high estimated cardiovascular risk) coexist.

The second major change in clinical practice recommended in these guidelines compared with those of 2006, concerns the first line agents to be used for those aged 55 years and above and for black people of African or Caribbean origin of any age. Such people are recommended to receive a calcium-channel blocker (CCB) and not (unless there is oedema or a high risk of heart failure) a diuretic, which had hitherto been the alternative recommended drug class.

The third major change in guidance is that only ‘A’ (ACE-inhibitor or ARB) drugs plus ‘C’ (CCB) drugs are recommended as the standard combination of 2 drugs. Previously ‘A’ plus ‘D’ (diuretics) was considered as a possible alternative combination of drugs.

Finally, the fourth major change is to specify that the ‘D’ drugs to be used (i.e. diuretics) should not be thiazides (e.g. bendroflumethiazide or hydrochlorothiazide) but rather, non-thiazide diuretics, which rather confusingly (and inaccurately) are described as “thiazide-like” diuretics (i.e. indapamide or chlorothalidone) are recommended as third line agents.

Importantly these 4 major changes in recommended treatments are made in the context of uncomplicated hypertensive patients without compelling indications for a specific drug class (e.g. beta blockers for angina).

The algorithm for sequencing antihypertensive agents which incorporates these changes is summarised in the Figure, which confirms that beta-blockers remain relegated as no higher than fourth-line agents (unless compelling indications apply).

There are a few other changes in the guidelines compared with 2006 regarding risk assessment, lifestyle modification, patient education and contraindicated drug combinations (e.g. ACE-inhibitor plus an ARB) but these changes are trivial in comparison with the 4 major changes outlined above.

The authors firmly believe based on health-economic analyses, that the change to use ABPM or HBPM to diagnose hypertension will be much more cost effective than current practice. Furthermore, on the basis of recent trial evidence (e.g. ACCOMPLISH) the new simplified ‘A/C’ treatment algorithm is considered to be more evidence-based and is likely to generate better BP control among the hypertensive population and thereby reduce the associated toll of cardiovascular disease.

It remains to be seen how well these proposals will be received and to what extent they will be implicated.

By N. Poulter, ISH Council member

References

FIGURE SHOWN OVERLEAF
During this conference, an ISH sponsored session - A Global Hypertension Initiative: Trainee/New Investigator Session was hosted for the very first time. The event was organised by the ISH New Investigator Committee (NIC); recently established, with the primary aim to support and encourage new investigator interaction in blood pressure and related research.

The symposium was a half day event which included both oral and poster sessions aimed at encouraging the participation of new investigators in blood pressure and related research. The symposium was introduced and attendees were welcomed by Stephen Harrap, ISH President.

Dylan Burger of the NIC briefly described the process of abstract selection for the presentations. Two interactive oral sessions were conducted; each including six presentations. Praveen Veerabhadrappa and Fadi Charchar of NIC moderated the oral sessions along with new investigators Eric George and Catherine Howard.

There was an enthusiastic discussion amongst new and established investigators alike. The poster session consisted of 39 top scoring abstracts across a variety of scientific disciplines with the top 13 poster presentations receiving awards on site.

Finally, Praveen Veerabhadrappa thanked the participants and concluded the session highlighting the next New Investigator Symposium at “Hypertension Sydney 2012” - The 24th Meeting of the International Society of Hypertension (ISH) in collaboration with the 9th Congress of the Asian

The High Blood Pressure Research 2011 Scientific Sessions, jointly sponsored by the Inter-American Society of Hypertension (IASH), the American Heart Association’s Council for High Blood Pressure Research (CHBPR) and the Council on Kidney in Cardiovascular Disease conference was held from September 20-24, 2011 in Orlando, Florida, USA; to bridge basic and translational hypertension research in the Americas.
Pacific Society of Hypertension (APSH) and the 34th Annual Scientific meeting of the High Blood Pressure Research Council of Australia (HBPRCA).

All told, the New Investigators Symposium had in excess of 300 participants from 9 countries and 5 continents. This was a truly global symposium which was successfully conducted for the first time at a major scientific conference.

The ISH New Investigator Committee would like to thank all participants and attendees. We look forward to the next Symposium to be held in conjunction with the ISH 2012 biennial meeting.

AWARDEES OF ORAL SESSIONS:
- Michael Flister
  Medical Coll. of Wisconsin, Milwaukee, WI, USA
- Jiandong Zhang
  Duke Univ., Durham, NC, USA
- Kedra Wallace
  Univ. of Mississippi Medical Ctr., Jackson, MS, USA
- Frank S. Ong
  Cedars-Sinai Medical Ctr., Los Angeles, CA, USA
- Yumei Feng
  Tulane Univ., New Orleans, LA, USA
- Neha Singh
  North Dakota State Univ., Fargo, ND, USA

AWARDEES OF ORAL SESSIONS CONTINUED:
- Ricardo A. Pena Silva
  Univ. of Iowa, Iowa City, IA, USA
- Antonia G. Miller
  Monash Univ., Melbourne, Australia
- Xifeng Lu
  Erasmus Univ. Medical Ctr., Rotterdam, Netherlands
- Sarah H. Lindsey
  Wake Forest Sch. of Med, Winston-Salem, NC, USA
- Huijing Xia
  Louisiana State Univ. Health Science Ctr., New Orleans, LA, USA
- Johannes Stegbauer
  Heinrich-Heine-Univ., Düsseldorf, Germany

AWARDEES OF POSTER SESSIONS:
- Richard D Wainford
  LSUHSC, New Orleans, LA, USA
- Andrea Zsombok
  Tulane Univ., New Orleans, LA, USA
- Lucinda M Hilliard
  Monash Univ., Melbourne, Australia
- Shannon M Harlan
  Univ. of Iowa, Iowa City, IA, USA
- Mariane Bertagnolli
  Univ. de Montréal, Montréal, QC, Canada
- Catherine G. Howard
  Tulane Univ., New Orleans, LA, USA
- Jasenka Zubcevic
  Univ. of Florida, Gainesville, FL, USA
- Jeremy Prokop
  Univ. of Akron, Akron, USA
- Jennifer M Sasser
  Univ. of Florida, Gainesville, FL, USA
- Kathirvel Gopalakrishnan
  Univ. of Toledo Coll. of Med. and Life Sciences, Toledo, OH, USA
- Andreas M Beyer
  Medical Coll. of Wisconsin, Milwaukee, WI, USA
- Fernanda R Giachini
  Georgia Health Sciences Univ., Augusta, GA, USA
- Keisa W Mathis
  Univ. of Mississippi Medical Ctr., Jackson, MS, USA

ACKNOWLEDGEMENT: NIC is grateful to
- Dr. Rhian Touyz, Chair HBPRC;
- Dr. Gabriel Navar, Chair IASH;
- Justin Grobe, Chair TAC/HBPRC;
- Helen Horsfield, Secretariat ISH;
- Susan Kunish, Manager, Scientific Conference Programs HBPRC;
- Abstract reviewers and session moderators.
We have been delighted with the response and number of offers of assistance from senior ISH members following our email featuring profiles of the 3 ISH New Investigators shown overleaf.

We would like to give a special thank you to.

- A. Allen (Australia)
- A. Bagrov (USA)
- D. Batlle (USA)
- J. Cockcroft (UK)
- F. Leenen (Canada)
- A. Mangoni (UK)
- C. Mondo (Uganda)
- K. Narkiewicz (Poland)

We also thank all members (not listed above) who have sent personal messages of support.

New Investigators involved in the Scheme to date:

Yumei Feng
USA

Lyudmila Korostovtseva
Russia

Ivy Shiue
Sweden

How to become involved in the Scheme:

The Programme is restricted to the ISH Community (Regular Members and Research Fellows).

Established Investigators:

Please contact the ISH Secretariat to express your commitment in acting as a mentor and include the following:

- A brief description of your research area (3-4 sentences)
- Your contact information (your Lab, Department, University/Institute, e-mail and website addresses)
- A photo of yourself

New Investigators:

Please send the ISH Secretariat:

- A short piece about your research and yourself (3-4 sentences)
- Your contact information
- A photo of yourself

When responding please identify whether you would like to make contact with an ISH Mentor who is an expert in your field, simply to build networks or obtain useful advice and possible collaboration.

We hope that the Scheme will lead to successful interactions in relation to anything from offering simple advice on specific experimental methods to possibilities of postdoctoral employment and that connections established will offer mutual benefit to all those involved.

SPOTLIGHT
ISH New Investigator of the Month

The ISH NIN webpages have been updated with a Spotlight section to feature ISH New Investigators of the Month.

http://www.ish-world.com/Nin/Pages/Spotlight.aspx

For September we included a profile of Radec Debiec from the Department of Cardiovascular Sciences at the University of Leicester, UK. He was the 1st Research Fellow to join the Society in 2008.

September 2011

Radek Debiec
Current Position: PhD student; (funded through University of Leicester 50th Anniversary Scholarship)

You will see that the current profile is of Lyudmila Korostovtseva, a PhD student, Researcher at the Almazov Federal Heart, Blood and Endocrinology Centre, St. Petersburg, Russia.

October 2011

Lyudmila Korostovtseva
Current Position: PhD student, Researcher Almazov Federal Heart, Blood and Endocrinology Centre, St Petersburg, Russia

Please contact the Secretariat should you be interested in highlighting your work (as an ISH Research Fellow), or the work of any young researcher in your institute/organisation.
Each RAG comprises, where appropriate, a mixture of members from developed and developing countries, so that the whole will be greater than the sum of the parts.

During the recent ISH Scientific Council meeting in Milan in June, RAG proposals for a wide range of projects (offering diversity, relevance, originality and flexibility) were reviewed and it was agreed which submissions merit support over the next year in each of the five regions (1) Africa (2) Asia and Australasia (3) Central and South America (4) Eastern Europe and Middle East (5) Western Europe and North America. It was also agreed that a maximum of USD 40,000 should be offered per region per year. The ISH will offer this on a two year term and will then re-assess the situation.

A report follows from T. Morgan regarding a recent Asia and Australasia RAG activity and we look forward to updating you on further RAG activities in the next issue of Hypertension News.

The ISH together with the Chinese Hypertension League (CHL) held two workshops in China in July. These were the third set of workshops aimed at bringing to remote regions of China an awareness of the problems caused by high blood pressure to the population and society as well as to individuals.

The ISH provided the funds to transport International Speakers to Beijing. CHL in conjunction with Novartis provided all local arrangements and transportation. This model is available for other countries to follow through the Regional Advisory Group Grants Committee for Asia and Pacific.

The two regions visited on this occasion were Inner Mongolia (Hohhot) and Guiyang (Southern China). The two International speakers were Trefor Morgan from Australia and Rashid Rahman from Malaysia. They were supported by local Professors; Ning Ling Sun; Xiao Wei Yan; Wei Zhong Zhang; Ying Qing Feng; the Chairpersons were Prof. Zhao Su Wu (who was also the overall organizer of the workshops) and Prof Xing Sheng Zhao.

Professor Morgan spoke about the need for a community wide reduction of blood pressure in order to achieve the best overall outcome. He emphasised the cost savings that could be achieved by primary prevention.

The overall requirement is not only to reduce BP but all the other risk factors for cardiovascular disease though BP reduction would achieve the greatest results. Reduction of sodium intake and an increase in potassium intake are the principle targets achievable and require education of the public, doctors, food companies and government. The model put forward by Professor Macgregor of voluntary cooperation by food companies with the backup of legislation is probably the way to proceed. However in China most salt is added in the home and a model of replacing salt with a sodium potassium salt is being studied.

Professor Rahman presented data indicating the prevalence of hypertension throughout the western world and Asia indicating that this is a problem for
all countries in the region though there are differences in development of end organ diseases which appear to be dependent on the affluence of the society, racial differences and dietary intake.

In the less well developed society, and ones in which treatment may not be freely available, hemorrhagic stroke is more common. As societies become more affluent heart disease increases. Treatment prevents and reduces hemorrhagic stroke but ischemic stroke initially increases. If primary prevention fails or is not implemented hypertension in individuals needs to be detected and treatment started and maintained. The most important goal is to reduce BP. He discussed the Chinese updated guidelines in which Blockade of the renin angiotensin, calcium channel blockers and diuretics are first line therapy with a recognition that combination therapy (fixed or otherwise) is often required and may be first line in many cases. These two talks were presented in English and translated by Prof. Yuqing Zhang and Prof. Wei Yi Mai respectively.

The other talks were in Mandarin. Prof. Ning Ling Sun and Prof. Xiao Wei Yan presented the updated version of the 2010 Chinese Hypertension Guidelines. Prof. Wei Zhong Zhang stressed the importance of high blood pressure control related in particular to the kidney. Prof. Ying Qing Feng reviewed recent metaanalyses that have been made.

Overall a most enjoyable 3 days marred only by inclement weather which delayed transport between the cities. On my last day in Beijing I was taken to visit the New Convention Centre where the ISH-APSH-CHL meeting will be held in 2018. The venue has an outstanding array of facilities which will help to make an outstanding meeting.

We encourage other national societies to plan similar activities and submit requests for assistance to the RAGS committee for ASIA PACIFIC.

By Trefor Morgan,
Chair Asia & Australasia RAG
The founders of the seminar have accomplished not just the training of an international corps of persons working on the prevention of cardiovascular disease but the making of bridges across countries and cultures through peaceful international scientific cooperation. So many past fellows have stressed that the seminar has been most inspiring not only in terms of research and prevention of cardiovascular disease, but in terms of personal friendships made. We believe very strongly in the need to continue building on these achievements.

This immensely productive and rewarding initiative comes about through the goodwill of all those involved in the organization. The host country supports the costs of local organization, accommodation and board of the participants. The seminar faculty volunteer their efforts for the seminar. The Council, through WHF and other sponsorship, supports all other academic and organizational aspects of the seminar.

For further information please contact:
Professor Kay-Tee Khaw
Seminar Coordinator
Clinical Gerontology Unit Box 251
University of Cambridge School of Medicine
Addenbrooke’s Hospital
Cambridge CB2 2QQ, UK.
Tel +44 1223 217292 Fax +44 1223 336928
Email: kk101@medschl.cam.ac.uk

Our aim continues to recruit new and young hypertension researchers and we would be delighted if members could assist us with this process. Please encourage the students, post doctorate and research associates from your laboratory, group and department to join the Society.

Please help us to recruit new members
We would welcome your assistance to help us recruit new members to the Society.

If you have a colleague who would like to become a member of ISH please ask them to complete the downloadable Application Form that can be found in the Membership section of the Society’s website: www.ish-world.com. Applications must also be accompanied by:

- A written statement by two members of the Society as to the qualifications of the nominee (names of regional/national members can be provided by the Secretariat, or unsupported applications can be reviewed by the Executive Committee)
- A list of the nominee’s academic degrees, professional positions (a short CV)
- A list of the nominee’s five best and five most recent publications relating to hypertension or allied fields.

Nominations are initially considered by the Membership Committee and ultimately approved by the Society at its Biennial Scientific Meetings.

MEMBERSHIP

Membership subscriptions 2011

Please note (as stated in the Constitution): Membership shall automatically cease upon failure to pay the annual subscription fee for two consecutive years.

If you haven’t yet paid your membership fee this year and are interested in retaining your links to the Society, we would be delighted to receive your payment.

Please visit the membership section of www.ish-world.com. Alternatively, contact the Secretariat to receive a payment form.

Members Area of www.ish-world.com

The secure Members Area of the ISH website includes the following information:

- Past copies of the ISH Newsletter
- Minutes of Society meetings
- A list of ISH Members with full contact details

Please also remember to update the Secretariat with any changes to your contact details, especially your email address.

- Access to the Journal of Hypertension for those who are eligible for free online access. This free online access is available for new members (since 2006) who reside or work in one of the resource poor countries, zones and territories defined by HINARI or in S. Africa.

To access this section of the website you are required to register (using your membership number, email address and a password of your choice). If you do not know your membership number, please contact the Secretariat.
# UPCOMING MEETINGS

## 2011

**Hypertension Canada first Canadian Hypertension Congress**
www.hypertension.ca

**5th Asian Chapter Meeting of International Society of Peritoneal Dialysis**
www.neprothai.org

**Artery 11**
www.arterysociety.org

**6th Central European Meeting on Hypertension & XXVIth Congress on Hypertension of Slovak Society of Hypertension**

World Hypertension League Regional Congress 2011 incorporating the 13th International Symposium on Hypertension & Related Diseases
www.whlrc2011.com

**9th World Congress on Insulin Resistance, Diabetes and Cardiovascular Disease**
www.insulinresistance.us

**8th Asian-Pacific Congress of Hypertension 2011**
www.apch2011.tw

**3rd International Symposium on Albuminuria - The Prognostic Role of Albuminuria: Impact on Kidney and Cardiovascular Outcomes**
www.kidney.org

**14th Annual Meeting of the Lebanese Hypertension League**

Fixed Combination 2011
www.fixedcombination.com/2011

**14th Annual Meeting of the Lebanese Hypertension League**
www.lhtl.org

**5th International Meeting of the French Society of Hypertension**

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## 2012

**2 - 5 October**
Ontario, Canada

**2012 continued**

**9th Mediterranean Meeting on Hypertension & Atherosclerosis**
www.medhvp.org

**22nd European Meeting on Hypertension & Cardiovascular Protection**
www.esh2012.org

**2nd International Congress on Cardiac Problems in Pregnancy**
www.cppcongress.com

**6th Congress of the Asian Society of Cardiovascular Imaging**
www.asci2012.org

**Hypertension Sydney 2012**
www.ish2012.org

### Abstract & registration sites open

**26th October 2011**

**2014**
**14 - 19 June**
Athens, Greece

**2016**
Seoul, Korea

**2018**
Beijing, China
The ISH would like to acknowledge the support of our Corporate Members:

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