

**THE BLOOD PRESSURE UNIT
&
ADAPT CENTRE**

Beaumont Hospital

ANNUAL REPORT, PUBLICATIONS

AND

SCIENTIFIC PRESENTATIONS

2000

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Introduction

History

The Blood Pressure Unit was founded in 1978 in the Charitable Infirmary, Jervis Street, with support provided by the Charitable Infirmary and the Royal College of Surgeons in Ireland. From the outset the Unit has concentrated on research into the pharmacology of blood pressure lowering drugs, particularly in the elderly, and on the development of blood pressure measuring techniques, especially techniques of ambulatory blood pressure measurement. To-date some 500 publications on these research areas have been produced by the Unit.

ADAPT Clinic and Centre

The Arterial Disease Assessment Prevention and Treatment (ADAPT) Clinic was established in collaboration with Professor David Bouchier-Hayes and Professor Desmond Fitzgerald in 1997. The rationale for this unique clinic was based on the concept that disease of the arterial organ was a fundamental denominator in all cardiovascular disease, and acknowledgment that by concentrating resources on traditional target organs – the heart, brain and kidney, the central arterial organ was often neglected. The ADAPT Clinic was established to ensure that all patients with cardiovascular disease, regardless of the speciality to which they presented, received the most comprehensive risk factor assessment with appropriate life-style modification, and that appropriate drug treatment would be directed at the arterial organ.

The ADAPT concept was further developed in 1999 with the establishment of the ADAPT Centre. This cardiovascular laboratory is equipped to perform state-of-the-art cardiovascular assessment, which includes echocardiography – 3D and M-mode - electrocardiography with stress testing, Holter monitoring, applanation tonometry, pulse wave velocity analysis, 24-hour ABPM, 24-hour silent ischaemia monitoring, fundal photography and imaging, and carotid wall imaging. Through its association with the Department of Clinical Pharmacology and BIOSYS at RCSI, the Laboratory can assess biochemical markers of risk, thrombosis and endothelial damage.

The ADAPT centre is under the direction of Professor O'Brien. Senior staff include Professor Desmond Fitzgerald, Professor David Bouchier-Hayes, Dr. P. McCormack, Dr. Alice Stanton and Dr. Joan Moroney, and the Centre is staffed by 2 research registrars, 5 research nurses, a technician, computer analyst and 2 secretaries.

The goal of ADAPT is to apply common protocols of risk factor management to all patients with cardiovascular disease. This has been achieved for patients with hypertension, dyslipidaemia, surgical vascular disease, and the elderly with hypertension. This year the ADAPT concept was extended to patients with stroke and transient cerebral ischaemic events, and I am glad to welcome Dr. Joan Moroney to the ADAPT team. Dr. Patricia McCormack took over management of the clinic for the elderly with hypertension, and I am pleased to welcome Patricia back to this important area of research, and particularly to the ADAPT team. Discussions have been initiated with Dr. Christopher Thompson to extend the ADAPT facilities to patients with diabetes. As a consequence of these ADAPT developments the out-patient service continued to grow with over 13,000 patients attending the Blood Pressure, the Elderly with Hypertension, Stroke/TIA, Lipid, Cardiac and ADAPT Clinics. The waiting time for appointments at these clinics was reduced from over 6 months to just under 3 months.

Clinical Research Centre

The opening of the CRC during the year has provided the Hospital with an unique facility for scientific and clinical research. The ADAPT Centre has participated in the successful HEA grant award, which will fund scientific research in the Centre. The ADAPT Centre has re-located some of its investigational resource in the CRC and looks forward to greater involvement in the future.

DABL™ Program

The efficient out-patient management of cardiovascular disease has been achieved by utilising a management system that is dependent on a specially designed computer program – DABL™ Cardiovascular, which has been developed over the past decade. During the year this program was further developed by ECF Medical Ltd., so as to be accessible through the Internet. The DABL Program has also been applied to a number of research projects being conducted by the Blood Pressure Unit and ADAPT Centre.

Cardiovascular risk management

The ADAPT Centre has submitted an application under the Cardiovascular Strategy for funding for a pilot study using the DABL Program to stratify patients in the North Eastern Health Board area into high, medium and low risk categories. Named the RHASP (Reduction of Heart Attack and Stroke through Prevention) Study, the project aims to establish joint clinics with primary care physicians so as to be able to determine if such categorisation will permit the more rational allocation of resources in an effort to reduce Ireland's burden of cardiovascular disease, which is the highest in Europe.

Publications and communications

In 2000 the Blood Pressure Unit and the ADAPT Centre continued to contribute to hypertension research, publishing 27 scientific papers, and delivering research presentations at home, in the UK, France, Sweden, Greece, Hungary and the United States. These are listed on pages 7 – 11, and will be available shortly on the ADAPT web site. The ADAPT concept was given further endorsement when the paper "The arterial organ in cardiovascular disease: ADAPT Clinic", published in the *Lancet*, was awarded the RAMI Award for the best paper in the Risk Factor Category in November 2000.

International collaborative research

The ADAPT Centre continued to participate in a number of important international collaborative studies, which included the ASCOT Study (*vide infra*); the Syst-Eur Phase II Study, a follow-up study of the original Syst-Eur Study to determine if calcium-channel blocking drugs are beneficial in the long-term management of isolated systolic hypertension; the OvA Study, which is designed to determine if ambulatory blood pressure measurement is superior to office blood pressure in the long-term management of hypertension; the THOP Study, which is designed to show if less antihypertensive medication will be prescribed using self-blood pressure measurement rather than office blood pressure; the HYVET Study, which is examining the value of treating hypertension in the very elderly, and the PROGRESS Study, which is designed to determine if ACE inhibition will prevent stroke. Participation in these studies has necessitated collaborative research with a number of institutions and universities abroad; these include St. Mary's Hospital, London, the University of Louvain, the University of Ghent, the Hammersmith Hospital, Glasgow University, the University of Auckland and Cornell Hospital in New York.

ASCOT Study

The ADAPT Centre completed recruitment for the Anglo-Scandinavian Cardiovascular Outcome Trial (ASCOT), entering 518 patients into the study. This is the largest international endeavour in which we have participated. ASCOT has recruited a total of 19,000 patients at high risk from cardiovascular complications of hypertension to determine which blood pressure lowering or cholesterol-lowering drug is most beneficial in preventing stroke and heart attack. Dr. Alice Stanton and Nurse Hilda O'Neill have supervised a team of doctors and nurses specially recruited for the ASCOT programme. All the biochemistry and the storage of genetic samples are being carried out by newly created facilities in the Royal College of Surgeons.

ADAPT research projects

The ADAPT Centre commenced recruiting patients for a large multi-centre study in Ireland to study the antihypertensive efficacy of the first oral rennin inhibitor in hypertension. The Centre will co-ordinate centres in Dublin, Cork, Limerick and Ballinasloe, which will recruit 300 patients over the next year.

The Allied Irish Bank, Phase II Study, is now nearing completion with detailed cardiovascular data having been obtained from over 400 subjects. The Blood Pressure Unit data base contains comprehensive blood pressure data on over 20,000 patients. These data are being analysed in relation to cardiovascular outcome to determine which blood pressure variable is best related to cardiovascular mortality.

Other research projects include:

- role of silent ischaemia in the perioperative period
- influence of blood pressure variability on outcome in the elderly
- treatment of unstable angina.
- assessment of retinal microvascular geometry in health and disease
- development and validation of a novel assay of microvascular endothelial function
- genetics of hypertension, vascular damage and cardiovascular events

Working Parties

I continued to act during the year as Chairman of the working parties on blood pressure measurement of the British Hypertension Society, of the British Standards Institution, and of the European Society of Hypertension. I also continued in my role as Chairman of the Irish Heart Foundation Council on High Blood Pressure, and as a member of the EU Standards Committee on Blood Pressure Measurement, and as a member of the Association for the Advancement of Medical Instrumentation in the US. I am a member of the ASCOT Steering Committee and Chairman of the ASCOT Sub-study Committee, which is supervising 21 sub-studies, and Professor Desmond Fitzgerald and Dr. Alice Stanton are members of the ASCOT Genetics Committee.

ADAPT website

The ADAPT web site will open in Spring 2001. This will provide a comprehensive bibliography of publications from the Blood Pressure Unit since 1978 and it will be possible to obtain PDF copies of papers published in 1999 and 2000. Frequently requested papers from

earlier years will be made available later. The site will also provide details on the DABL™ Program and the ADAPT risk factor management system.

Acknowledgements

The research outlined in this report was facilitated by a grant from the Charitable Infirmary Charitable Trust, which has given valuable support to our research over many years and without which our many achievements would not have been possible. Research has also been funded by grants from Imperial College, London, Astra Zeneca, Servier Laboratories and Speedel Ltd, all of which we acknowledge with gratitude. I would like to thank Mr. P Lyons, Mr. L. Duffy and Mr. D. Browne who supported and facilitated the establishment of the ADAPT Centre. I would like to pay tribute to the diligence and loyalty of all the staff in the Blood Pressure Unit and the ADAPT Centre, characteristics, which facilitate the team approach so necessary in scientific research. Finally, I wish to acknowledge the importance of the facility provided for our research work in the Clinical Investigation Area of the Hospital, without which it would not have been possible to conduct much of the work outlined in this report.

Eoin O'Brien

31st December 2000

The Blood Pressure Unit & ADAPT Centre Staff 2000

Medical

Eoin O'Brien	Patricia McCormack
Desmond Fitzgerald David	Louis Keary
Bouchier-Hayes Alice Stanton	Charlotte Cribben
Jean Moroney	Sineal Gupta
Joseph Duggan	Helen Power

Blood Pressure Unit Nursing

Fáinsía Mee	Niamh Carmody
Geraldine McCarthy	Cora McKiernan
Rosaleen Madigan	Caroline Wilson

ADAPT Centre Nursing

Hilda O'Neill	Dáire Ryan
Alison Walsh	Noreen Moloney
Kathleen Walsh	Jeanette McGovern
Aibhle Murray	Elaine McHale
Ann O'Connor	Caroline Wilson
Geraldine McCarthy	Mary Rowley

Technical

Echocardiographer
Simon Lyons

Computer Analyst
Neil Atkins

Dietician
Paula O'Connor

Secretarial

Valerie Hughes
Barbara Gallagher
Debbie Behan
Emer Kavanagh

Aideen Doyle
Orla Lambe
Eunice Carey

PUBLICATIONS

in

2000

SCIENTIFIC AND EDUCATIONAL PUBLICATIONS 2000

Scientific papers

Cardiovascular

1. O'Brien E, Coats A, Owens P, Petrie J, Padheld P, Littler WA, de Swiet MA, Mee F. Use and, interpretation of ambulatory blood pressure monitoring: recommendations of the British Hypertension Society. *BMJ* 2000; **320**: 1128-34
2. Owens P, Kelly L, Nallen R, Ryan D, Fitzgerald D, O'Brien. Comparison of anti-hypertensive and metabolic effects of losartan and losartan in combination with hydrochlorothiazide: a randomized controlled trial. *J Hypertens* 2000;**18**:339-345
3. Owens P, O'Brien E, Lyons S. Arterial hypotension: prevalence of low blood pressure in the general population using ambulatory blood pressure monitoring. *J Human Hypertens* 2000;**14**:243-247
4. Staessen JA, O'Brien ET, Thijs L, Fagard R. Modern approaches to blood pressure measurement. *Occup Environ Med* 2000;**57**:510-520
5. O'Brien E, Staessen J. Critical appraisal of the JNC VI, WHO/ISH and BHS guidelines for essential hypertension. *Exp. Opin. Pharmacother* 2000;**1**:675-682
6. S.Z.Zhao, X.Y.Xu, A.D.Hughes, S.A.Thom, A.V.Stanton, B.Ariff, Q.Long. Blood flow and vessel mechanics in a physiologically realistic model of a human carotid arterial bifurcation. *Journal of Biomechanics* 2000;**33**:975-984
7. N Chapman, G Haimes, AV Stanton, SA Thom, AD Hughes. Acute Effects of Oxygen and Carbon Dioxide on Retinal Vascular Network Geometry in Hypertensive and Normotensive Subjects. *Clinical Science* 2000;**99**:483-488

Syst-Eur Trial

8. Fagard RH, Staessen JA, Thijs L, Gasowski J, Bulpitt CJ, Clement D, de Leeuw PW, Dobovisek J, Jaaskivi M, Leonetti G, O'Brien E, Palatini P, Parati G, Rodicio J, Vanhanen H, Webster J. Response to Antihypertensive Therapy in Older Patients With Sustained and Nonsustained Systolic Hypertension. *Circulation* 2000;**102**:1139-1144.
9. Forette F, Rigaud AS, Seux M-L, Staessen J, Thijs L, Birkenhäger WH on behalf of the Systolic Hypertension in Europe investigators. Reduction of dementia by calcium-anatagonist-based antihypertensive treatment. *Eur Heart J* 2000;**2** (Suppl D): D17-D19.
10. Seux M-L, Forette F, Staessen JA, Thijs L, Birkenhäger WH, Webster J, Babarskiene M-R, Babeanu S, Bossini A, Gill-Extremera B, Girerd X, Laks T, Lilov E, Moisseiev V, Tuomiliehito J, Vanhanen H, Yodfat Y, Fagard R on behalf of the Systolic Hypertension in Europe investigators. Treatment of isolated systolic hypertension and dementia prevention in older patients. *Eur Heart J* 2000;**2** (Suppl M): M6-M12.
11. Fagard R, Staessen JA, for the Systolic Hypertension in Europe (Syst-Eur) Trial investigators. Treatment of isolated systolic hypertension in the elderly: further evidence from the Syst-Eur trial. *Eur Heart J* 2000;**2** (Suppl M): M2-M5.

PROGRESS Study

12. Chalmers J, Neal B, MacMahon S on behalf of the PROGRESS Management Committee. PROGRESS (Perindopril Protection Against Recurrent Stroke Study): regional characteristics of the study population at baseline. *J Hypertens* 2000;**18** (Suppl 1):S13-S19.
13. Tzourio C, Anderson C for the PROGRESS Management Committee. Blood pressure reduction and risk of dementia in patients with stroke in PROGRESS (Perindopril Protection Against Recurrent Stroke Study). *J Hypertens* 2000;**18** (Suppl 1):S21-S24.

ESH Workshop on Blood Pressure Measurement at Milan

14. O'Brien E, Proceedings from a workshop on measurement of blood pressure of the Working Group on Blood Pressure Monitoring of the European Society of Hypertension, Milan, June 1999. *Blood Pressure Monit* 2000;**5**:31-32
15. O'Brien E. Consequences of banning mercury and the cuff controversy. *Blood Pressure Monit* 2000;**5**:33-34
16. Redon J. Ambulatory blood pressure for special groups. *Blood Pressure Monit* 2000;**5**:35-37
17. Staessen J. Ambulatory blood pressure in clinical trials. *Blood Pressure Monit* 2000;**5**:39-41
18. O'Brien E. Proposals for simplifying the validation protocols of the British Hypertension Society and the Association for the Advancement of Medical Instrumentation. *Blood Pressure Monit* 2000;**5**:43-45
19. Parati G. Continuous finger monitoring of blood pressure: advantages, problems and perspectives. *Blood Pressure Monit* 2000;**5**:47-49

First International Conference on self-blood pressure monitoring at Versailles

20. Asmar R, Zanchetti A on behalf of the Organizing Committee and participants. Guidelines for the use of self-blood pressure monitoring: a summary report of the first international consensus conference. *J Hypertension* 2000;**18**:493-508
21. Asmar R. Proceedings from the First International Consensus Conference on Self-Blood Pressure Measurement. *Blood Pressure Monit* 2000;**5**:91-92
22. O'Brien E, De Gaudemaris R, Bobrie G, Agabiti Rosei E, Vaisse B and the participants of the First International Consensus Conference on Blood Pressure Self-Measurement. Devices and validation. *Blood Pressure Monit* 2000;**5**:93-100
23. Staessen J, Thijs and the participants of the First International Consensus Conference on Blood Pressure Self-Measurement. Development of diagnostic thresholds for automated self-measurement of blood pressure in adults. *Blood Pressure Monit* 2000;**5**:101-109
24. Mengden T, Chamontin B, Phong Chau NG, Gamiz JLP, Chanudet X and the participants of the First International Consensus Conference on Blood Pressure Self-Measurement. User procedure for self-measurement of blood pressure. *Blood Pressure Monit* 2000;**5**:111-129

25. Herpin D, Pickering T, Stergiou G, de Leeuw, Germano G and the participants of the First International Consensus Conference on Blood Pressure Self-Measurement. Clinical applications and diagnosis. *Blood Pressure Monit* 2000;**5**:131-135
26. Imai Y, Poncelet P, DeBuyzere M, Padfield PL, Van Montfrans GA and the participants of the First International Consensus Conference on Blood Pressure Self-Measurement. Prognostic significance of self-measurements of blood pressure. *Blood Pressure Monit* 2000;**5**:137-143
27. Denolle T, Waeber B, Kjeldsen S, Parati G, Wilson M, Asmar R and the participants of the First International Consensus Conference on Blood Pressure Self-Measurement. Self-measurement of blood pressure in clinical trials as therapeutic applications. *Blood Pressure Monit* 2000;**5**:145-149.

Editorials

1. O'Brien E. Replacing the mercury sphygmomanometer. *BMJ* 200;**320**:815-816

Letters

1. Staessen J, O'Brien E. Ambulatory Blood Pressure: Normality and Comparison With Other Measurements. *Hypertension* 2000;**35**;e8
2. O'Brien E on behalf of the BHS Working Party on Blood Pressure measurement. Of ambulatory blood pressure monitoring. *BMJ* 2000;**321**:894.
3. O'Brien E. Why do we use the Dinamap? *Hypertension*. 2000; 35;e26 June.

Books Chapters

1. O'Brien E, Owens P. "Classic sphygmomanometry: a *fin de siecle* reappraisal." In *Epidemiology of Hypertension*. Ed, C. Bulpitt. HANDBOOK OF HYPERTENSION. Series Eds. W.H.Birkenhager and J.L.Reid. Elsevier. Amsterdam. 2000. pp.130-151.
2. Staessen JA, Emelianov D, Tjijis L, Celis H, Clement D, Davidson C, Gasowski J, Gil-Extremero B, Fogari R, Jaaskivi M, Lehtonen A, Nedogoda S, O'Brien E, Palatini P, Parati G, Salvetti A, Vanhanen H, Webster J, Fagard R em nome dos investigadores do Estudo Syst-Eur. Mapa nos idosos. In *Monitorizacao Ambulatorial de Pressao Arterial. Um Guia Pratico*. Eds: L.S.M. Pereira and R. Henriques. Revinter. Rio de Janeiro. 2000. pp. 97-112.

Abstracts

1. Lyons S, Owens P, Fennessey F, Atkins N, Ryan D, O'Brien E. Comparison of pulse wave velocity measurement using 'Colson' arterial distensibility Complier and the 'PWV' Sphygmocor Pulse Wave System. *J Human Hypertens* 200;**14**:277
2. Mayett J, Patel P, Starmans-Kool M, Chapman N, Hughes AD, Thom SAMcG, Stanton AV. Is carotid artery intima-media thickening a reliable marker of early atherosclerosis? *Amer J Hypertens* 2000;**13**:192A
3. Chapman JN, Witt N, Stanton AV, Gau X, Thom SA, Hughes AD. A comparison of manual and 3 automated methods of determining retinal arteriolar diameters. *Amer J Hypertens* 2000;**13**:192A

4. Stanton AV, Chapman JN, Mayett J, Sever PS, Poulter NR, Hughes AD, Thom SA. Regression of intima media thickness and intima media area with blood pressure lowering by calcium channel blockade and angiotensin converting enzyme inhibition. *Amer J Hypertens* 2000;**13**:206A
5. Mayett J, Chapman JN, Hughes AD, Thom SAMcG, Stanton AV. Why do Afro-Caribbeans have a low incidence of ischaemic heart disease? *Amer J Hypertens* 2000;**13**:258A.
6. Spiering W, Rodriguez S, Atkins N, O'Brien E, de Leeuw. Association between diurnal blood pressure and angiotensin-converting enzyme insertion/deletion polymorphism. *J Hypertens* 2000;**18** (Suppl 4): S178.
7. Spiering W, Rodriguez Hernandez S, Kroon AA, Zwaan IM, Atkins N, Daemen E, O'Brien E, de Leeuw. Association between diurnal blood pressure and angiotensin-converting enzyme insertion/deletion polymorphism. *J Hypertens* 2000;**18** (Suppl 2): S146.
8. Voyaki S, Staessen J, Thijs L, Eustratopoulos A, Wang J, Birkenhager W, de Leeuw P, Rodicio J, Fagard R for the Systolic Hypertension in Europe (Syst-Eur) Trial investigators. *J Hypertens* 2000;**18** (Suppl 2): S85.
9. O'Sullivan C, Duggan J, Lyons S, Thornton J, Lee M, O'Brien E. Hypertensive target organ damage in the very elderly. *J Hypertens* 2000;**18** (Suppl 2): S51

General and educational

1. O'Brien E. White coat hypertension. *Modern Medicine of Ireland*. June 1999.23-28
2. O'Brien E. The ADAPTCentre at Beaumont Hospital. *HeartWise* 2000;**3**:16-20 .
3. Houston M. We're not identifying the hearts to watch. *Irish Times* 4.12.2000. p. 10
4. O'Brien E. The reality of the unreal. Beckett's Ireland. *Localmotives er et nettmagasin for samtidskunst og -kultur*. Pinapple Publishing. www.localmotives.com. 21.12.2000

SCIENTIFIC AND EDUCATIONAL COMMUNICATIONS 2000

Hypertension: New pathways of 24-hour control. Cardiff. 4th March 2000

O'Brien E. The importance of 24-hour control and beyond.

American Society of Hypertension, Scientific Meeting. New York. 17th – 20th May 2000.

Mayett J, Patel P, Starmans-Kool M, Chapman N, Hughes AD, Thom SAMcG, Stanton AV. Is carotid artery intima-media thickening a reliable marker of early atherosclerosis?

Chapman JN, Witt N, Stanton AV, Gau X, Thom SA, Hughes AD. A comparison of manual and 3 automated methods of determining retinal arteriolar diameters.

Stanton AV, Chapman JN, Mayett J, Sever PS, Poulter NR, Hughes AD, Thom SA. Regression of intima media thickness and intima media area with blood pressure lowering by calcium channel blockade and angiotensin converting enzyme inhibition.

Mayett J, Chapman JN, Hughes AD, Thom SAMcG, Stanton AV. Why do Afro-Caribbeans have a low incidence of ischaemic heart disease?

First Consensus Conference on Clinical Applications of Arterial Stiffness. Paris. France. 16th – 18th June. 2000

Stanton AV. *Clinical Applications of Arterial Tonometry*

Tenth European Meeting on Hypertension. Goteborg, Sweden. 29th May – 3rd June, 2000

O'Brien E and Kjeldsen S.E. Chairmen. Topical Workshop: Prognostic value of home blood pressure measurements.

O'Brien E. "Should home blood pressure measurements be discarded in favour of 24-hour ambulatory blood pressure measurement? Is the prognostic evidence more solid than for home blood pressure?"

O'Brien E. "Can we build a risk edifice without a threshold foundation".

O'Brien E. "Blood pressure measurement."

Hypertension 2000. Athens. Greece. 6 – 7th October 2000.

O'Brien E. *Ambulatory blood pressure monitoring: clinical applications.*

Irish Angiology Society Meeting. Dublin. 23rd – 25th November 2000.

O'Brien E. *ADAPT Clinic.*

10th Blood Pressure Monitoring Symposium and 8th Congress of the Hungarian Society of Hypertension. Budapest, 16 December 2000

O'Brien E. ABPM: ABPM: a *fin de siècle* appraisal

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CURRENT RESEARCH PROJECTS & COLLABORATIVE CENTRES

I. BLOOD PRESSURE MEASUREMENT

- Project title:** *THOP Study. Home Pressure and Treatment of Hypertension.*
Investigators: E. O'Brien, L. Keary, J. Staessen,
Collaborating centres: Catholic University of Leuven, BELGIUM.
Zeneca Ltd., IRELAND.
- Project title:** *Comparison of arterial tonometry and pulse wave velocity*
Investigators: S. Lyons, D. Ryan, E. O'Brien, B. Williams, M. O'Rourke
Collaborating centres: Leicester University, UK
St. Vincent's Hospital, Sydney
- Project title:** *Device validations according to BHS/AAMI standards*
Investigators: E.O'Brien, N. Atkins
- Project title:** *Recommendations for banning of mercury.*
Investigators: E. O'Brien and members of the British Hypertension Society and the Working Group on Blood Pressure Measurement of the European Society of Hypertension.
- Project title:** *Recommendations on Blood Pressure Measurement*
Investigators: E. O'Brien and others
Collaborating centres: British Hypertension Society, UK
British Standards Institute, UK
DHSS, UK
EU Standards Committee, GERMANY
European Society of Hypertension, HOLLAND
Council on High Blood Pressure, IRELAND
TNO, HOLLAND
Food and Drug Administration, US

II. AMBULATORY BLOOD PRESSURE MEASUREMENT

- Project title:** *AIB Study, Phase II: Ambulatory blood pressure and end-organ changes **
Investigators: E. O'Brien, S. Lyons, N. Atkins, K. O'Flynn, A. Tyndall, R Devereaux, J. Staessen.
Collaborating centres: Allied Irish Bank, Ballsbridge, DUBLIN
Catholic University of Leuven, BELGIUM,
Cornell University, New York, USA
Royal College of Surgeons, IRELAND
Charitable Infirmary Charitable Trust, IRELAND
Irish Heart Foundation, IRELAND
- Project title:** *OvA Study:Office versus A BPM in management of hypertension.*
Investigators: E. O'Brien and D. Clement.
Collaborating centres: University of Gent, BELGIUM.
- Project title:** *Recommendations for Ambulatory Blood Pressure Measurement.*
Investigators: E. O'Brien and members of the British Hypertension Society and the Working Group on Blood Pressure Measurement of the European Society of Hypertension.
- Project title:** *Analysis of Blood Pressure Unit data base.*
Investigators: E. O'Brien, N. Atkins, P. Owens, P. deLeeuw.
Collaborating centres: University of Maastricht, THE NETHERLANDS

Project title: *Ambulatory blood pressure and mortality.*
Investigators: K. Hinedi, E. O'Brien, N. Atkins, A. Stanton
Collaborating centres: Registrar of Deaths, Joyce House, Dublin, IRELAND

Project title: *The NEAR Study. New approaches to neural alterations.*
Investigators: E. O'Brien, A. Zanchetti, G. Parati
Collaborating centres: University of Milan, ITALY

III. HYPERTENSION IN THE ELDERLY

Project title: *Isolated Systolic Hypertension in the Elderly: The SYST-EUR Phase II Study*

Investigators: P. McCormack, E. O'Brien, J. Staessen.
Collaborating centres: Catholic University of Leuven, BELGIUM.

Project title: *The HYVET Study. Hypertension in the Very Elderly*

Investigators: P. McCormack, E. O'Brien and C Bulpitt
Collaborating centres: Hammersmith Hospital, London., UK.

Project title: *Target organ status in elderly patients with hypertension.*

Investigators: J. Duggan, E. O'Brien.
Collaborating centres: James Connolly Memorial Hospital

Project title: *The PROGRESS (Perindopril Protection Against Recurrent Stroke) Study.*

Investigators: P. McCormack, E. O'Brien and J. Reid, J. Chalmers, S. MacMahon
Collaborating centres: Western Infirmary, Glasgow, UK
University of Auckland, NEW ZEALAND

Project title: *Blood Pressure in elderly patients in different health states.*

Investigators: J. Duggan, C. O'Sullivan, E. O'Brien.
Collaborating centres: James Connolly Memorial Hospital, IRELAND
Royal College of Surgeons, IRELAND

IV. DRUG TREATMENT OF HYPERTENSION

Project title: *Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT). Main Study*

Investigators: E. O'Brien, A. Stanton, D. Fitzgerald, P. Sever, N. Poulter, B. Dahlhoff.

Collaborating centres: St. Mary's Hospital, London, UK
Imperial College, London, UK
University of Göteborg, SWEDEN.
Royal College of Surgeons, IRELAND

Project title: *Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT). Sub-study: ABPM in ASCOT*

Investigators: E. O'Brien, A. Stanton, G. McInnes.
Collaborating centres: St. Mary's Hospital, London, UK
St. Bartholomew's Hospital, London, UK.
Western Infirmary, Glasgow, UK

Project title: *Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT). Sub-study: Silent Ischaemia in ASCOT*

Investigators: E. O'Brien, A. Stanton.
Collaborating centres: St. Mary's Hospital, London, UK

Project title: *Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT).
Sub-study: Omron Audit in ASCOT*
Investigators: E. O'Brien, A. Stanton, H. O'Neill.
Collaborating centres: St. Mary's Hospital, London, UK

Project title: *Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT).
Sub-study: Tonometry in ASCOT*
Investigators: E. O'Brien, A. Stanton, B. Williams.
Collaborating centres: Leicester University, UK

Project title: *Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT).
Genetic/Phenotyping Sub-study*
Investigators: A. Statton, D. Fitzgerald, E. O'Brien, P. Sever, N. Poulter,
S. Thom.
Collaborating centres: St. Mary's Hospital, London, UK
Imperial College, London, UK
Royal College of Surgeons, IRELAND

Project title: *Perindopril/indapamide study on arterial Tonometry and pulse
wave velocity.*
Investigators: E. O'Brien, D. Fitzgerald, D. Ryan, M. Safar, JM Mallion
Collaborating centres: University of Grenoble, FRANCE
Servier Laboratories, FRANCE and IRELAND

V. COMPUTERISED SYSTEMS FOR OUT-PATIENT MANAGEMENT

Project title: *Development of Computerised systems for Out-patient
Management – the DABL and ADAPT Programmes*
Investigators: N. Atkins, E. O'Brien, D. Bouchier-Hayes, W. Rickard
Collaborating centres: Department of Surgery, Royal College of Surgeons, IRELAND

VI. RETINAL MICROVASCULAR STUDIES

Project title: *Retinal microvascular network geometry and cardiovascular risk
in humans*
Investigators A. Stanton, E. O'Brien
Collaborating Centres Department of Clinical Pharmacology, NHLI, Imperial College, UK.

Project title: *The eye as a window to in vivo human microvascular endothelial
function*
Investigators A. Stanton,
Collaborating Centres Department of Clinical Pharmacology, NHLI, Imperial College, UK

EDITORIAL BOARD MEMBERSHIP

Journal of Human Hypertension: E. O'Brien
Journal of Hypertension: E. O'Brien
High Blood Pressure and Cardiovascular Prevention: E. O'Brien
Blood Pressure: E. O'Brien
Blood Pressure Monitoring: E. O'Brien
The Recorder: E. O'Brien

COMMITTEE MEMBERSHIP

Working Group on Blood Pressure Monitoring. *European Society of Hypertension*
E. O'Brien. Chairman

Working Party on Blood Pressure Measurement. *British Hypertension Society.*
E. O'Brien. Chairman.

HCC/10 Committee for the revision of standards for mercury and aneroid sphygmomanometers. *British Standards Institute.* E. O'Brien. Chairman

CEN/TC205 EEC Committee for Non-active medical devices. E. O'Brien

Association for the Advancement of Medical Instrumentation (AAMI), Arlington, US
E. O'Brien. Individual Liason Member

Steering Committee. *European Study of Systolic Hypertension in the Elderly (Syst-Eur)*
E. O'Brien

Side-project on Ambulatory Measurement. *European Study of Systolic Hypertension in the Elderly (Syst-Eur).* E. O'Brien

Steering Committee. *European Study of Ambulatory Blood Pressure Measurement.* E. O'Brien

Irish Medicines Board. D. Fitzgerald.

Council on High Blood Pressure. Professor E. O'Brien, Chairman. A. Stanton.

Steering Committee. THOP (Home Pressure and Treatment of Hypertension) Study. E. O'Brien.

Steering Committee Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT): E. O'Brien

Sub-study Committee. Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT):
E. O'Brien. Chairman

Genetics Committee. Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT): D. Fitzgerald, A. Stanton, E. O'Brien.