

**THE ADAPT CENTRE
&
BLOOD PRESSURE UNIT**

Beaumont Hospital

ANNUAL REPORT, PUBLICATIONS

AND

SCIENTIFIC PRESENTATIONS

2001

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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 over 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. 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, electrocardiography with stress testing, Holter monitoring, applanation tonometry, pulse wave velocity analysis, 24-hour ambulatory blood pressure monitoring, beat-to-beat non-invasive blood pressure monitoring, 24-hour silent ischaemia monitoring, fundal photography and imaging, and carotid wall (intima-media thickness) imaging. Through its association with the Department of Clinical Pharmacology, SURGEN and BIOSYS at RCSI, the Laboratory can assess biochemical and genetic markers of risk, thrombosis and endothelial damage.

The ADAPT centre is under the direction of Professor O'Brien, who was appointed to the Servier Chair of Clinical Pharmacology in April 2001. Senior staff include Professor Desmond Fitzgerald, Professor David Bouchier-Hayes, Dr. Patricia McCormack, Dr. Alice Stanton and Dr. Joan Moroney, and the Centre is staffed by two research registrars, five research nurses, a technician, computer analyst and two 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, stroke and transient cerebral ischaemic events and the elderly with hypertension. This year the ADAPT concept was extended to patients with diabetes and this collaboration with Dr. Christopher Thompson is a welcome development. 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.

The research work emanating from the Blood Pressure Unit and the ADAPT Centre was given further endorsement when the inaugural Journal of Medical Science Lifetime Achievement Award was presented in November 2001 for a significant contribution to clinical research over 20 years. Professor Desmond Fitzgerald's contribution to cardiovascular research was acknowledged with award of the prestigious Bristol-Myers Squibb Unrestricted Cardiovascular Research Grant of US\$100,000 per annum for 5 years.

Clinical Research Centre

The ADAPT Centre entered into further collaborative research with the Clinical Research Centre, and I am pleased to acknowledge with gratitude the considerable help given to ADAPT personnel by the Director of the CRC, Dr. Dermot Kenny, not only in providing research facilities, but also in making it possible to welcome and entertain overseas visitors in the Board Room. The ADAPT Centre entered into a formal agreement with the CRC whereby echocardiographic

facilities will be provided by Mr. Simon Lyons. The ADAPT Centre continued to participate in the successful HEA grant awards, which will fund scientific research in the Centre.

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. In acknowledgement of the role of the Hospital in the development of DABL™ Cardiovascular, the program was donated to the Hospital for use in the cardiovascular clinics. During the year DABL™ Anticoagulant was developed as part of a management system to rationalise the Anticoagulant Clinic. The DABL Program has also been applied to a number of research projects being conducted by the ADAPT Centre.

Cardiovascular risk management

The ADAPT Centre has collaborated with the Department of Health in linking the DABL Program with the HealthLink program so as to be able to transmit information on cardiovascular risk from specialist hospital clinics to primary care physicians. A pilot study using the DABL and HealthLink programs to stratify patients in the North Eastern Health Board area into high, medium and low risk categories is due to commence in January 2002. 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 2001 the ADAPT Centre continued to contribute to hypertension research, publishing 29 scientific papers, and delivering research presentations at home, in the UK, the Netherlands, Italy, Japan and the United States.

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 ADVANCE Study, which explores the value of both better blood pressure and glycaemic control in non insulin dependent diabetes mellitus. During the year the results of the PROGRESS Study, in which the ADAPT Centre was the only Irish participant, were published in the *Lancet* showing that ACE inhibition prevents 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 continued as one of the major centres (with over 500 patients participating) in the Anglo-Scandinavian Cardiovascular Outcome Trial (ASCOT). This is the largest international endeavour in which we have participated. ASCOT has recruited over 20,000 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 has supervised a team of doctors and nurses specially recruited for the ASCOT programme. During the year the protocols for 22 sub-studies were published in a supplement of the *Journal of Human Hypertension* with the guest editor being the chairman of the

Sub-study Committee, Eoin O'Brien. The biochemistry and the storage of genetic samples for the entire study are being carried out by BIOSYS and SURGEN in the Royal College of Surgeons.

ADAPT research projects

The ADAPT Centre was the coordinating centre for a large multi-centre study in Ireland to study the antihypertensive efficacy of the first oral renin inhibitor in hypertension. The Centre coordinated centres in Dublin, Cork, Limerick and Ballinasloe, recruiting some 240 patients. The preliminary results of a pilot study of this drug demonstrated its efficacy and suggests that it may provide a new and interesting mode of treatment for hypertension.

The Allied Irish Bank, Phase II Study, was completed during the year with detailed cardiovascular data having been obtained from over 441 subjects. These data, which are now being analysed, will provide information for the first time on the changes in 24-hour ambulatory blood pressure with age and the relationship of such change to target organ status.

The ADAPT Centre data base contains comprehensive blood pressure data on over 22,000 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 conducted during the year included:

- role of silent ischaemia in left ventricular hypertrophy
- influence of blood pressure variability on outcome in the elderly
- 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 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, and Professor Desmond Fitzgerald and Dr. Alice Stanton are members of the ASCOT Genetics Committee.

ADAPT website

The ADAPT web site (http://www.ecf.ie/adapt_website) opened during year. This provides a comprehensive bibliography of publications from the Blood Pressure Unit since 1978 and it is possible to obtain PDF copies of recently published papers; frequently requested papers from earlier years are also available. The site also provides 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 (and latterly his successor Mr. John Lamont), and Mr. L. Duffy for their support. 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.

Eoin O'Brien

31st December 2001

The ADAPT Centre & Blood Pressure Unit

Staff 2001

Medical

Eoin O'Brien	Louis Keary
Desmond Fitzgerald	Samuel Sanmuganathan
David Bouchier-Hayes	Milos Stojanovic
Alice Stanton	Kareem Hinedi
Jean Moroney	Sarah Sherif
Patricia McCormack	Bala Gusau

Blood Pressure Unit Nursing

Fáinsía Mee	Cora McKiernan
Rosaleen Madigan	

ADAPT Centre Nursing

Hilda O'Neill	Kathleen Walsh
David Farrell	Geraldine McCarthy
Louise Hacke	Caroline Wilson
Alison Walsh	

Technical

<i>Echocardiographer</i>	<i>Computer Analyst</i>
Simon Lyons	Neil Atkins
<i>Dietician</i>	
Paula O'Connor / Daniel McCartney	

Secretarial

Valerie Hughes	Eunice Carey
Barbara Gallagher	Orla Lambe
Kim Smyth	Debbie Behan

PUBLICATIONS

in

2001

SCIENTIFIC AND EDUCATIONAL PUBLICATIONS 2001

Scientific papers

1. O'Brien E, Waeber B, Parati G, Staessen G, Myers MG. on behalf of the European Society of Hypertension Working Group on Blood Pressure Monitoring. Blood pressure measuring devices: recommendations of the European Society of Hypertension. *BMJ* 2001;**322**:531-536.
2. Beevers G, Lip GYH, O'Brien E. ABC of Hypertension. The pathophysiology of hypertension. *BMJ* 2001;**323**:912-6
3. Beevers G, Lip GHY, O'Brien E. ABC of Hypertension. Part I. Sphygmomanometry: Factors common to all techniques. *BMJ* 2001;**322**:981-5
4. Beevers G, Lip GHY, O'Brien E. ABC of Hypertension. Part II. Conventional sphygmomanometry: Technique of auscultatory blood pressure measurement. *BMJ* 2001;**322**:1043-1047
5. O'Brien E, Beevers G, Lip GHY. ABC of Hypertension. Part III. Automated sphygmomanometry: ambulatory blood pressure measurement. *BMJ* 2001;**322**:1110-1114
6. O'Brien E, Beevers G, Lip GHY. ABC of Hypertension. Part IV. Automated sphygmomanometry: self blood pressure measurement. *BMJ* 2001;**322**:1167-1170
7. Voyaki SM, Staessen JA, Thijs L, Wang JG, Efstratopoulos AD, Birkenhager W, de Leeuw PW, Leonetti G, Nachev C, Rodicio JL, Tuomilehto J, Fagard R, for the Systolic Hypertension in Europe (Syst-Eur) Trial Investigators. Follow-up of renal function in treated and untreated older patients with isolated systolic hypertension. *J Hypertens* 2001;**19**:511-519
8. Sever P, Dahlöf B, Poulter N, Wedel H, Beevers G, Caulfield M, Collins R, Kjeldsen S, McInnes G, Mehlsen J, Nieminen M, O'Brien E, Ostergren J. Rationale, design, methods and baseline demographic data of participants in the Anglo-Scandinavian Cardiac Outcomes Trial. *J Hypertension* 2001;**19**:1139-1147
9. Sever P, Dahlöf B, Poulter N, Wedel H, Beevers G, Caulfield M, Collins R, Kjeldsen S, McInnes G, Mehlsen J, Nieminen M, O'Brien E, Ostergren J. Anglo-Scandinavian Cardiac Outcomes Trial : a brief history, rationale and outline protocol. *J Human Hypertens* 2001;**15** (Suppl 1):S1-2
10. Stanton A, Fitzgerald D, Hughes A, Mayet J, O'Brien E, Poulter N, Sever P, Shields D, Thom S. An intensive phenotyping study to enable the future examination of genetic influences on hypertension associated cardiovascular disease. *J Human Hypertens* 2001;**15** (Suppl 1):S13-18
11. O'Brien E, McInnes GT, Stanton A, Thom S, Caulfield M, Atkins N. Ambulatory blood pressure monitoring and 24 hour blood pressure control as predictors of outcome in treated hypertensive patients. *J Human Hypertens* 2001;**15** (Suppl 1):S47-51
12. O'Brien E, Gribben C, Stanton A, Atkins N, Lyons S. Left ventricular hypertrophy and silent ischemia: A pilot study to examine the relationship in hypertensive patients. *J Human Hypertens* 2001;**15** (Suppl 1):S75-77
13. O'Neill H, O'Brien E, Stanton A, Hedditch K. The suitability of an automated blood pressure measuring device – the Omron HEM-705CP – in a large multicentre study: the ASCOT Study. *J Human Hypertens* 2001;**15** (Suppl 1):S83-85
14. PROGRESS Collaborative Group. Randomised trial of a perindopril-based blood-pressure-lowering regimen among 6105 individuals with previous stroke or transient ischaemic attack. *Lancet* 2001;**358**:1033-1041
15. Celis H, Thijs L, Staessen JA, Birkenhager WH, Bulpitt CJ, de Leeuw PW, Leonetti G, Nachev C, Tuomilehto J, Fagard RH for the Syst-Eur investigators. Interaction between nonsteroidal anti-inflammatory drug intake and calcium-channel blocker-based antihypertensive treatment in the Syst-Eur trial. *J Human Hypertens* 2001;**15**:613-618
16. O'Brien E. State of the market in 2001 for blood pressure measuring devices. *Blood Press Monit* 2001;**6**:171-176
17. Thijs L, O'Brien ET, Staessen JA for the Systolic Hypertension in Europe (Syst-Eur) Trial Investigators. Ambulatory and conventional pulse pressures and mean pressures as determinants of the Sokolow-Lyon ECG voltage index in older patients with systolic hypertension. *Blood Press Monit* 2001;**6**:197-202

18. O'Brien E. The need for specialized vascular units: the ADAPT approach. *Seminars in Vascular Medicine* 2001;**1**:133-136
19. Asmar RG, London GM, O'Rourke M, Safar M for the REASON Project coordinators and investigators. Improvement in Blood Pressure, Arterial Stiffness and Wave Reflections With a Very-Low-Dose Perindopril/Indapamide Combination in Hypertensive Patients: A Comparison With Atenolol. *Hypertension* 2001;**38**:922-926
20. Stanton AV, Chapman JN, Mayet J, Sever PS, Poulter NR, Hughes AD, Thom SA. Effects of blood pressure lowering with amlodipine or lisinopril on vascular structure of the common carotid artery. *Clin Sci (Lond)*. 2001;**101**:455-64.
21. Chapman N, Witt N, Gao X, Bharath AA, Stanton AV, Thom SA, Hughes AD. Computer algorithms for the automated measurement of retinal arteriolar diameters. *Br J Ophthalmol* 2001;**85**:74-9.

Editorials

1. O'Brien E. Ambulatory blood pressure monitoring in primary care: a comment. *Br J Cardiology* 2001;**8**:531-535.
2. O'Brien E. Blood pressure measurement is changing! *Heart* 2001;**85**:3-5
3. O'Brien E, Staessen J. A plea for harmonising guidelines. *International Journal of Cardiology* 2001;**79**:129-132
4. O'Brien E. Editorial Note. Anglo-Scandinavian Cardiac Outcomes Trial. ASCOT. Main Protocol Summary and Sub-Study Protocols. *J Human Hypertens* 2001;**15** (Suppl 1)S1

Letters

1. O'Brien E. Response to the Advisory Statement from the Council for High Blood Pressure Research of the American Heart Association Advocating Retention of Mercury Sphygmomanometer. *Hypertension* 2001;**38**:e19-e20
2. O'Brien E. Blood pressure measurement. Authors' reply. *BMJ* 2001;**323**:805-806

Book Chapters

1. Staessen JA, Fagard RH, Thijs L, for Syst-Eur Investigators. The Systolic Hypertension in Europe Trial. In: *Clinical Trials in Hypertension*, Ed: Black HR, Marcel Dekker Inc., New York, New York, USA, 2001, pp 313-356 (ISBN 0-8247-0270-0).
2. Fagard RH, Staessen JA, Thijs L, Bulpitt CJ. For EWPHE Investigators. The European Working Party on High Blood Pressure in the Elderly (EWPHE) Trial. In: *Clinical Trials in Hypertension*, Ed: Black HR, Marcel Dekker Inc., New York, New York, USA, 2001, pp 159-175 (ISBN 0-8247-0270-0).
3. O'Brien E. "Special blood pressure measuring devices". In: *Hypertension Manual*. Ed. G. Mancia. Harcourt Brace & Co. Ltd. 2001. Pp173-184

Books

1. Beevers G, Lip GYH, O'Brien E. ABC of Hypertension. 4th Edition. 2001. BMJ Books. London

Abstracts

1. Fagard R, Thijs L, Staessen JA on behalf of the Syst-Eur Trialists. A normal ambulatory blood pressure poorly predicts normalization of clinic pressure in hypertension. *AJH* 2001;**14**:21A.
2. Staessen JA, Thijs L, Celis H, Fagard R on behalf of the Syst-Eur Trialists. How well can blood pressure be controlled? Progress report on the Systolic Hypertension in Europe Follow-up Study (Syst-Eur 2). *AJH* 2001;**14**:176A
3. Fletcher AE, Bulpitt CJ, Tuomilehto J, Thijs L, Staessen JA, Brown J, Bossini A, Kawecka-Jaszcz P, Livinen P, Terzoli L, Vanska LO, Vanhanen H. On behalf of the Syst-Eur Trial Investigators. Quality of life in treated elderly patients with isolated systolic hypertension: results from the Syst-Eur Trial. *J Hypertens* 2001;**19** (Suppl 2):S16

4. Forette ML, Seux L, Thijs L, Birkenhager WH, Fagard R, Staessen JA, Tuomilehto J, Webster J, Yodfat Y. On behalf of the Syst-Eur Investigators. Antihypertensive treatment prevents dementia: new evidence from the the Systolic Hypertension in Europe (Syst-Eur) Study. *J Hypertens* 2001;**19 (Suppl 2)**:S183
5. Staessen JA, Thijs L, Celis H, Fagard R on behalf of the Systolic Hypertension in Europe (Syst-Eur) Investigators. How well can blood pressure be controlled? Progress report on the Systolic Hypertension in Europe Follow-up Study (Syst-Eur 2). *J Hypertens* 2001;**19 (Suppl 2)**:S103
6. Fagard R, Thijs L, Staessen JA on behalf of the Syst-Eur Trial Investigators. A normal ambulatory blood pressure poorly predicts normalization of clinic pressure in hypertension. *J Hypertens* 2001;**19 (Suppl 2)**:S3
7. Beckett NS, Cooke JD, Fletcher AE, Bulpitt CJ. On behalf of the Hyvet Pilot Investigators. Number of patients achieving blood pressure targets in 12 months in the hypertension in the Very Elderly Trial (HYVET) Pilot. *J Hypertens* 2001;**19 (Suppl 2)**:S103
8. Martinez-Perez ME, Hughes AD, Stanton AV, Thom SA, Chapman N, Bharath AA, Parker KH. Changes of retinal blood vessel tree topology in hypertension. (abstract) ASH poster presentation. *Amer J Hypertens* 2001.

General and Educational

1. O'Brien E. Land mines. In *Oxford Illustrated Companion to Medicine*. Ed. S. Lock, J. Last and G. Dunea. Oxford University Press. 2001. pp.462-464
2. O'Brien E. A more holistic approach to cardiovascular disease. *Forum* 2001;**18**:46-48
3. O'Brien E. Holistic approach to hypertension. *Nursing in the Community* 2001;**2**:6-8
4. O'Brien E. Recent advances in ambulatory blood pressure measurement. *Ir Med News* 2001;May 28th.34
5. O'Brien E. Today's role for ambulatory BP measurement. *Prescriber* 2001;**12**:95-104
6. O'Brien E. *Hypertension Medicine*. Edited by Michael A. Weber. Humana Press, Totowa, New Jersey. Pp. 461. Book Review. *Ir J Clin Sci*
7. O'Brien E. "Paint the smell of grass" Nevill Johnson (1911-1999). *The Recorder. Journal of the American Irish Historical Society*. 2001;**14**:61-70
8. O'Brien E. British Hypertension Recommendations on the Use and Interpretation of Ambulatory Blood Pressure Monitoring: Clinical Indications. Part I. *Journal by Fax*. 2001
9. O'Brien E. British Hypertension Recommendations on the Use and Interpretation of Ambulatory Blood Pressure Monitoring: Selecting a Monitoring Device. Part II. *Journal by Fax*. 2001
10. O'Brien E. **Bodies Politic**. *Disease, Death and Doctors in Britain, 1650-1900*. Roy Porter. Reaktion Books. London. Pp. 328. 137 illus. ISBN 1 861 89 094 X. *BMJ* 2001;**323**:405

SCIENTIFIC AND EDUCATIONAL COMMUNICATIONS 2001

Workshop for visiting Dutch Cardiologists to Beaumont Hospital, RCSI Research Building, Beaumont Hospital. 4th January 2001.

O'Brien E, Stanton A. Computerised management of cardiovascular patients using the DABL Program: improving the design and delivery of health care in hospital out-patients and primary care.

Scientific Symposium. Lauswolt. The Netherlands. 18th January 2001

O'Brien E. Computerised cardiovascular risk management.

Scientific Symposium. Rotterdam. The Netherlands. 25th January 2001

O'Brien E. Computerised cardiovascular risk management.

Merrion Faculty of General practitioners. Dublin. 13th February 2001

O'Brien E. Blood Pressure Measurement and beyond.

General Practitioner Symposium. Wicklow. 25th April 2001

O'Brien E. Blood Pressure Measurement and beyond.

Eleventh European Meeting on Hypertension. Milan. 15 – 18th June 2001

Workshop: Ambulatory Blood Pressure: How should data be analyzed? Chairman: E. O'Brien.

O'Brien E. Plotting and reporting data.

Plenary Session: Blood Pressure Measurement. Chairman: E. O'Brien

Scientific Seminar: What's new in blood pressure measurement? Chairman: E. O'Brien

O'Brien E. State of the market for blood pressure measuring devices

Asmar RG, London GM, O'Rourke ME, Safar ME. Compared effects on arterial stiffness of very-low-dose perindopril/indapamide combination and atenolol in hypertensive patients. The REASON Project. Poster presentation.

Duke Clinical Research Centre and FDA Advisory Meeting. Washington. 20-21st July. 2001

24-hour ambulatory blood pressure monitoring (ABPM) techniques may provide the best prognostic marker for risk stratification, treatment choices, and regulatory evaluation of new antihypertensive agents.

O'Brien E. Ambulatory devices; validation and use.

Third Annual Beaumont Hospital Renal Transplant/Nephrology Study Day. Dublin. 7th September. 2001

O'Brien E. Cardiovascular risk factor management.

Servier Chair of Clinical Pharmacology Inaugural Lecture. Royal College of Surgeons in Ireland. 19th September 2001.

O'Brien E. Can clinical empiricism motivate medical research?

Eurostage Hypertension Meeting. Dublin, Ireland. 28th September 2001

Stanton A. Haemodynamics, wall mechanics & atheroma

O'Brien E. Risk factor management

American Heart Association, 55th Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research 2001.

Stanton A, Jensen C, Mann J, O'Brien E. Blood Pressure Lowering with SPP100, a Novel Orally Active Renin Inhibitor - A Pilot Study.

Clinical Research Course. Clinical Research Centre. Beaumont Hospital. Dublin. 25th October 2001

O'Brien E. Can clinical empiricism motivate medical research?

The Eighth International Consensus Conference on Blood Pressure Monitoring. European Society of Hypertension Working Group on Blood Pressure Monitoring. Chairman: E. O'Brien). Sendai, Japan. 28th October – 1st November. 2001

O'Brien E. Validation Up-date.

O'Brien E. State of the market for blood pressure measuring devices.

O'Brien E. Has conventional sphygmomanometry ended with the banning of mercury?

Irish Angiology Society Conference 2001. 2nd November 2001. Dublin

Stanton A, Jensen C, Mann J, O'Brien E. Blood Pressure Lowering with Aliskiren, a Novel Orally Active Renin Inhibitor - A Pilot Study.

Healthcare Informatics Informatics Society of Ireland. 6th Annual Conference and Scientific Symposium. Dublin. 15th November 2001

O'Brien E. DABL™ Cardiovascular: a computer program for the management of cardiovascular disease.

PROGRESS Study: stroke prevention and treatment. Symposium. Dublin. 16th November 2001

O'Brien E. Chairman

McCormack P. Stroke Prevention.

Moroney J. Acute Ischaemic Stroke: Advances in Management

Irish Heart Foundation Council on High Blood Pressure. Up-date Symposium. *Management of Hypertension*. Dublin. 23rd November 2001

Stanton A. How should we measure blood pressure?

O'Brien E. The multifactorial risk factor approach.

General Physician Symposium, Dublin, December 2001.

Stanton A. Management of Blood Pressure in Diabetes Mellitus.

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:** *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. Stanton, 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

Project title: *Action in Diabetes and Vascular Disease, Preterax and
Diamicron MR Controlled Evaluation. (ADVANCE) Main Study*
Investigators: E. O'Brien, A. Stanton, C. Thompson, N. Poulter, S MacMahon,
J. Chalmers.,
Collaborating centres: St. Mary's Hospital, & Imperial College, London, UK.
Institute for International Health, University of Sydney, Australia.

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

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Irish Medicines Board. D. Fitzgerald.

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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.