

**THE BLOOD PRESSURE UNIT
&
ADAPT CENTRE**

Beaumont Hospital

ANNUAL REPORT, PUBLICATIONS

AND

SCIENTIFIC PRESENTATIONS

1999

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Introduction

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 450 publications on these research areas have been produced by the Unit.

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 the target organs, the central organ, the arterial tree, 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 intimal imaging. Through its association with BIOSYS at RCSI, the Laboratory can assess biochemical markers of risk and assess endothelial function.

The ADAPT centre is under the direction of Professor O'Brien. Senior staff include Professor Desmond Fitzgerald, Professor David Bouchier-Hayes, Dr. J. Duggan, Dr. Alice Stanton and Dr. Dermot Kenny, and the Centre is staffed by 3 research registrars, 8 research nurses, a technician, computer analyst and 2 secretaries. As a consequence of the ADAPT facility the out-patient service continued to grow with nearly 5,000 patients attending the Blood Pressure, Lipid, Cardiac and the ADAPT Clinics.

In 1999 the Blood Pressure Unit continued to contribute to hypertension research, publishing 25 scientific papers, and delivering research presentations at home, in the UK, France, Italy, Belgium, Austria, the United States and New Zealand (where I was invited to give the Gaston Bauer Lecture).

The Unit continued to participate in a number of important international collaborative studies, which included the Syst-Eur, OvA, TOHP, HYVET and PROGRESS studies. The Unit participated in collaborative research with a number of institutions and universities abroad; these included 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.

The Unit continued recruiting patients for the Anglo-Scandinavian Cardiovascular Outcome Trial (ASCOT), the largest international endeavour in which the Unit has participated. ASCOT will recruit a total of 18,000 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 supervised a team of doctors and nurses specially recruited for the ASCOT programme. During the year she was joined on the ASCOT team by Dr. Helen Power, Nurses Hilda O'Neill, Janette McGovern and Noreen Molony and Ms Barabara Gallagher. 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 Genetics Committee. All the biochemistry and the storage of genetic samples are being carried out by newly created facilities in the Royal College of Surgeons.

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.

The research outlined in this report was facilitated by a grant from the Charitable Infirmary Charitable Trust which has given valuable support to the Unit over many years and without which its achievements would not have been possible. 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

31/12/1999

The Blood Pressure Unit & ADAPT Centre

Staff 1999

Medical

Professor Eoin O'Brien

Dr. Charlotte Cribben

Professor Desmond Fitzgerald

Dr. Louis Keary

Dr. Joseph Duggan

Dr. Sineal Gupta

Dr. Alice Stanton

Dr. Helen Power

Dr. Dermot Kenny

Blood Pressure Unit Nursing

Sister Fáinsía Mee

Nurse Cora McKiernan

Nurse Caroline Wilson

Nurse Geraldine McCarthy

ADAPT Centre Nursing

Nurse Hilda O'Neill

Nurse Dáire Ryan

Nurse Ruth Nallon

Nurse Noreen Moloney

Nurse Elizabeth Kinsella

Nurse Jeanette McGovern

Nurse Elaine McHale

Mary Rowley

Technical

Mr. Simon Lyons
Echocardiographer

Mr. Neil Atkins
Computer Analyst

Ms Una Mulligan
Dietician

Secretarial

Ms Valerie Hughes

Ms Aideen Doyle

Ms Barbara Gallagher

Ms Ann Grady

PUBLICATIONS

in

1999

Scientific papers

1. Owens P, Atkins N, O'Brien E. Diagnosis of White Coat Hypertension by Ambulatory Blood Pressure Monitoring. *Hypertension* 1999;**34**:267-272
2. Owens P, O'Brien ET. Hypotension in patients with coronary disease - can profound hypotensive events cause myocardial ischaemic events? *Heart* 1999;**82**:477-81
3. Staessen J, O'Brien ET. Development of diagnostic thresholds for automated blood pressure measurement in adults. *Blood Pressure Monit* 1999;**4**:127-136
4. O'Brien E. Criteria for validation of devices. Task Force I: Methodological aspects. *Blood Pressure Monit* 1999;**4**:279-281
5. O'Brien E. Methods of analysis. Task Force I: Methodological aspects. *Blood Pressure Monit* 1999;**4**:286-287
6. Mancia G, O'Brien E, Imai Y, Redon J. Task Force II: Ambulatory blood pressure monitoring in population studies. *Blood Pressure Monit* 1999;**4**:295-301
7. Staessen JA, Beilin L, Parati G, Waeber B, White W and the Participants of the 1999 Consensus Conference on Ambulatory Blood Pressure Monitoring. Task Force IV: Clinical use of ambulatory blood pressure monitoring. *Blood Pressure Monit* 1999;**4**:319-333
8. Bulpitt CJ, Fletcher AE, Thijs L, Staessen J, Antikainen R, Davidson C, Fagard R, Gil-Extremera B, Jääskivi M, O'Brien E, Palatini P, Tuomilehto J, on behalf of SYST-EUR investigators. Symptoms reported by elderly patients with isolated systolic hypertension: baseline data from the SYST-EUR trial. *Age and Ageing* 1999;**28**:15-22
9. Staessen J, Thijs L, Fagard R, O'Brien E, Clement D, deLeeuw P, Mancia G, Nachev C, Palatini P, Parati P, Tuomilehto J, Webster J for the Systolic Hypertension in Europe Trial Investigators. Predicting Cardiovascular Risk Using Conventional vs Ambulatory Blood Pressure in Older Patients with Systolic Hypertension. *JAMA* 1999;**282**:539-546
10. Tuomilehto J, Rastenyte D, Birkenhaeger WH, Thijs L, Antikainen R, Bulpitt CJ, Fletcher AE, Forette F, Goldhaber A, Palatini P, Sarti S, Fagard R, (Staessen JA, Arabidze GG, Carrageta M, Celis H, Kocemba J, Leonetti G, Nachev C, O'Brien ET, Ritz E, Rodicio JL, Rosenfeld J, Heyrman J, Stibbe G, Van-den-Haute H, Yodfat Y, Hubner GE) for the Systolic Hypertension in Europe Trial Investigators. Effects of Calcium-Channel Blockade in Older Patients with Diabetes and Systolic Hypertension. *N Eng J Med* 1999;**340**:677-84

Publications in 1999

11. Staessen JA, Thijs L, Birkenhager WJ, Bulpitt C, Fagard R on behalf of the Syst-Eur Investigators. Update on the Systolic Hypertension in Europe (Syst-Eur) Trial. *Hypertension* 1999;**33**:1476-1477
12. Gasowski J, Staessen JA, Celis H, Fagard RH, Thijs L, Birkenhaeger WH, Bulpitt CJ, Fletcher AE, Arabidze G, de Leeuw PW, Diollery CT, Forette F, Kawecka-Jaszcz K, Leonetti G, Nachev C, O'Brien ET, Safar M, Rodico JC, Rosenfeld J, Tuomilehto J, Webster J, Yodfat Y for the Systolic Hypertension in Europe Investigators. Systolic Hypertension in Europe (Syst-Eur) Trial Phase 2: objectives, protocol, and first interim report. *J Human Hypertens* 1999;**13**:135-145
13. Fagard RH, 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 Supplements* 1999;**1** (Supplement M): M2-M5
14. Seux M-L, Forette F, Staessen J, Thijs L, Birkenhaeger, Webster J, Babarskiene M-R, Babaneau S, Bossini A, Gil-Extremera B, Girerd X, Laks T, Lilov E, Moissejev V, Tuomilehto J, Vanhanan H, Yodfat Y, Fagard R, on behalf of the Syst-Eur Investigators. Treatment of isolated systolic hypertension and dementia prevention in older patients. *Eur Heart J Supplements* 1999;**1** (Supplement M): M6-M12
15. Thornton J, Thornton E, O'Callaghan J, Varghese JC, O'Brien E, Walshe J, Lee M. Evaluation of Dynamic Gadolinium-Enhanced Breath-Hold MR Angiography in the Diagnosis of Renal Artery Stenosis. *AJR* 1999;**173**:1279-1283
16. Thornton J, O'Callaghan J, Walshe J, O'Brien E, Varghese JC, Lee M. Comparison of digital subtraction angiography with gadolinium-enhanced magnetic resonance angiography in the diagnosis of renal artery stenosis. *Eur Radiol* 1999;**9**:930-934
17. Mee F, Atkins N, O'Brien E. Evaluation of the Profilat II[®] ambulatory blood pressure system according to the protocols of the British Hypertension Society and the Association for the Advancement of Medical Instrumentation. *Blood Pressure Monit* 1999;**3**:353-361
18. O'Brien E, Mee F, Atkins N. Evaluation of the Schiller BR-102 ambulatory blood pressure system according to the protocols of the British Hypertension Society and the Association for the Advancement of Medical Instrumentation. *Blood Pressure Monit* 1999;**4**:35-43
19. Beckett NS, Connor M, Sadler JD, Fletcher AE, Bulpitt CJ on behalf of the HYVET investigators. Orthostatic fall in blood pressure in the very elderly hypertensive: results of the Hypertension in the Very Elderly Trial (HYVET) – pilot. *J Human Hypertens* 1999;**13**:839-840

Publications in 1999

20. Stanton A.V.: Haemodynamics, wall mechanics & atheroma: A clinician's perspective. *Proc. Instn Mech Engrs* 1999; **213** Part H: 385-390.
21. O'Brien E. Modification of blood-pressure measuring devices and the protocol of the British Hypertension Society. *Blood Pressure Monit* 1999;**4**:53-54

Editorials

1. O'Brien E, Staessen J. What is hypertension? *Lancet* 1999;**353**:1541-1543
2. O'Brien E. White coat hypertension: how should it be diagnosed? *J Human Hyperten* 1999;**13**:801-802
3. Stanton AV. Prediction of cardiovascular damage in hypertensive patients: clinic or ambulatory blood pressures? *J Human Hypertens* 1999;**13**:81-83

Letters

1. O'Brien E, Staessen J. What is hypertension? *Lancet* 1999;**354**:593-594
2. O'Brien E. The banning of mercury. *ISH Hypertension News*. December 1999
3. Staessen J, O'Brien E. Reliability of Self-Measured Blood Pressure for Research Purposes. *Arch Intern Med* 1999;**159**:2365-2366

Book Chapters

1. Kostis JB, Omalley K, O'Brien E. The Elderly. In: The ABCs of Antihypertensive Therapy. Ed. Franz H. Messerli. Second Edition. Lippincott Williams & Wilkins. New York. 1999. Pp. 246-254
2. Staessen JA, Emelianov D, Thijs L, Celis H, Clement D, Davidson C, Gasowski J, Lehtonen P, Nedogada S, O'Brien E, Palatini P, Parati G, Salvetti A, Vanhanen H, Webster J, Fagard R. Mapa nos idosos. Monitorização ambulatorial de pressão arterial. 1999. Pp. 97-110

Books and booklets

O'Brien E, Beevers G, Marshall D. ABC KÖNYVEK HYPERTONIA.
Literatura Medica Kiadó. Hungary. 1997

Abstracts

1. Owens P, O'Brien E. Hypotension In Patients With Coronary Disease - Can Profound Hypotensive Events Cause Myocardial Ischaemic Events? *J Hypertens* 1999;**17 (suppl 3)**: S80-S81

Publications in 1999

2. Owens P, Lyons SP, O'Brien E. Prevalence of Low Blood Pressure in a Normal Population sample using Ambulatory Blood Pressure Monitoring. *J Hypertens* 1999;**17 (suppl 3)**: S89-S90
3. G. Mansfield, P. Owens, N. Atkins, E. O'Brien. What is the importance of Inter-arm differences in blood pressure? *J Hypertens* 1999;**17 (suppl 3)**: S22
4. Staessen JA, Thijs L, Fagard R. For the Systolic Hypertension in Europe (Syst-Eur) Trial Investigators. Conventional and ambulatory blood pressure as predictors of cardiovascular risk in older patients with systolic hypertension. *J Hypertens* 1999;**17 (suppl 3)**: S16
5. Rodriguez Hernandez SA, Kroon AA, Owens P, Lyons S, de Leeuw PW, O'Brien ET. Renal damage and left ventricular hypertrophy are associated with nocturnal blood pressure decline even in adequately treated hypertensives. *J Hypertens* 1999;**17 (suppl 3)**: S30
6. Gasowski J, Staessen JA, Celis H, Fagard RH, Thijs L, Birkenhaeger WH, Bulpitt CJ, Fletcher AE, Arabidze G, de Leeuw PW, Dollery CT, Duggan J, Kawecka-Jaszcz K, Leonetti G, Nachev C, Safar M, Rodico JC, Rosenfeld J, Seux M, Tuomilehto J, Webster J, Yodfat Y. On behalf of the Systolic Hypertension in Europe Investigators. Systolic Hypertension in Europe (Syst-Eur) Trial Phase 2: objectives, protocol, and initial progress. *Am J Hypertens* 1999;**12**:145A
7. Atkins N, O'Brien ET. Towards a simpler and common protocol for the validation of blood pressure measuring devices. *AJH* 1999;**12**:147A
8. Forette F, Staessen J, Seux ML, Thijs L. Prevention of dementia in the Systolic Hypertension in Europe (Syst-Eur). *Am J Hypertens* 1999;**12**:26A
9. Staessen JA, Thijs L, Fagard R. For the Systolic Hypertension in Europe (Syst-Eur) Trial Investigators. Conventional and ambulatory blood pressure as predictors of cardiovascular risk in older patients with systolic hypertension. *Am J Hypertens* 1999;**12**:31A
10. Gasowski J, Staessen JA, Celis H, Fagard RH, Thijs L, Birkenhaeger WH, Bulpitt CJ, Fletcher AE, Arabidze G, de Leeuw PW, Dollery CT, Duggan J, Kawecka-Jaszcz K, Leonetti G, Nachev C, Safar M, Rodico JC, Rosenfeld J, Seux M, Tuomilehto J, Webster J, Yodfat Y. On behalf of the Systolic Hypertension in Europe Investigators. Systolic Hypertension in Europe (Syst-Eur) Trial Phase 2: objectives, protocol, and initial progress. *J Hypertens* 1999;**17 (suppl 3)**: S201
11. Seux ML, Staessen JA, Forette F. Treatment of isolated systolic hypertension in the elderly and prevention of dementia. *J Hypertens* 1999;**17**:861-862

Publications in 1999

12. Atkins N, O'Brien E. Towards a simpler and common protocol for the validation of blood pressure measuring devices. *J Human Hypertens* 1999;**13**:889

General and Educational

1. O'Brien E. Current and future developments in the management of hypertension. *Irish Medical News*. 19.4.1999.
2. O'Brien E. From Nowhere? Beckett's Ireland. Introduction to *The Beckett Festival Programme*. Barbican Centre. London. September 1999.
3. Victorian Society in Merrion Square. *HeartWise* 1999;**2**:21-22.
4. O'Brien E. "Blood pressure monitoring becomes automated." *American College of Cardiology ACCEL Interview*. December 1999.
5. O'Brien E, Owens P. Identifizierung von unterformen der hypertonie durch ambulante blutdruckmessung. *Hertz* 1999. 19-20

SCIENTIFIC AND EDUCATIONAL COMMUNICATIONS 1999

Irish College of General Practitioners. Dun Laoghaire Faculty. 19th January 1999.

- O'Brien E. *Recent Advances in the Diagnosis of Hypertension*

RCSI Annual Research Day. RCSI. Dublin. 7th April 1999.

- G. Mansfield, P. Owens, N. Atkins, E. O'Brien. What is the importance of Inter-arm differences in blood pressure?

American Society of Hypertension. 14th Scientific Meeting. New York. 19th – 22nd May 1999.

- O'Brien E. *The ADAPT (Arterial Disease Assessment Prevention & Treatment) Clinic: Concentrating on the Arterial Tree Rather Than the Target Organ*. Invited Lecture to session: *New Predictors of Risk*. "1st May 1998
- Atkins N, O'Brien E. Towards a simpler and common protocol for the validation of blood pressure measuring devices. Poster Presentation.

The First Consensus Conference on Self-Blood Pressure Measurement. Versailles. France Societe Française d'Hypertension Arterielle Filiale de la Societe Française de Cardiologie. 4th June 1999.

- O'Brien E. Devices and Validation.

Ninth European Meeting on Hypertension. University of Milan. 11-15th June 1999.

- Owens P, O'Brien E, Lyons S. Prevalence of low blood pressure in a normal population using ambulatory blood pressure monitoring. Oral presentation.
- Owens P, O'Brien E. Hypotension in patients with coronary heart disease: can profound hypotensive events cause myocardial ischaemic events?. Oral presentation.
- G. Mansfield, P. Owens, N. Atkins, E. O'Brien. What is the importance of Inter-arm differences in blood pressure? Poster presentation.

Working Group on Blood Pressure Monitoring. Ninth European Meeting on Hypertension. University of Milan. 11-15th June 1999.

- Workshop at ESH. Chairman: E. O'Brien

Cardiac Society of Australia and New Zealand (CSANZ). Annual Scientific Meeting. Wellington. New Zealand. 7-11 August 1999

- O'Brien E. Gaston Bauer Lecture: When is high blood pressure hypertension? Plenary Session: History of Cardiovascular Medicine.
- O'Brien E. From Wit and Humour to the Heart in Irish Medicine

ASCOT Educational Seminar. Dublin. 10th September 1999.

- O'Brien E. Ambulatory blood pressure measurement.

Symposium on Contemporary Issues in Cardiovascular Disease. National Museum. Dublin. Dublin. 11th September 1999.

O'Brien E. Ambulatory blood pressure monitoring: what's new?

British Hypertension Society Scientific Meeting. University of Strathclyde. Glasgow. 13-15th September 1999.

- Atkins N, O'Brien E. Towards a simpler and common protocol for the validation of blood pressure measuring devices.

ASCOT Educational Seminar, Dublin. 17th September 1999.

- O'Brien E. Ambulatory blood pressure measurement.

The Leuven Consensus Conference on Ambulatory Blood Pressure Monitoring, Leuven. 23-25th September 1999

- O'Brien E. Chairman. Task Force I: Methodological Aspects.
- O'Brien E. Task Force I: Methodological Aspects. *Methods of analysis*
- O'Brien E. Task Force II. Population Studies: *Experience from the AIB Study*

The arterial tree: the prime target organ. Dublin. 16th October 1999.
Chairman: E. O'Brien

- O'Brien E. *Unifying arterial management: the ADAPT Clinic*
- Stanton A. *Haemodynamics, wall mechanics and atheroma*
- Fitzgerald D. *Platelet vessel wall interactions*

Austrian Society of Hypertension. Scientific Meeting. Falagenfurt. Austria. 12th November 1999.

- O'Brien E. *Advances in validation methodology.*

Hypertension – An Old Challenge for the New Millennium. Dublin. 26th November 1999.

- O'Brien E. *A century of poor blood pressure control.*

Norwegian Society of Nephrology. London. UK. 10th December 1999

- O'Brien E. *Can we live without ABPM?*

CURRENT RESEARCH PROJECTS & COLLABORATIVE CENTRES

I. BLOOD PRESSURE MEASUREMENT

- Project title:** *TOPH Study. Home Pressure and Treatment of Hypertension.*
- Investigators:** E. O'Brien and J. Staessen,
Collaborating centres: Catholic University of Leuven, BELGIUM.
Zeneca Ltd., IRELAND.
- Project title:** *Assessment of Korotkoff Sounds*
- Investigators:** E. O'Brien, P. Owens, N. Atkins, P. Healy.
Collaborating centres: Kevin Street College of Technology, IRELAND
Royal College of Surgeons, IRELAND
- Project title:** *Comparison of arterial tonometry and pulse wave velocity*
- Investigators:** P. Owens, 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, F. Mee, 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.

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: J. Duggan, E. O'Brien, F. Mee, J. Staessen.

Collaborating centres: Catholic University of Leuven, BELGIUM.

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

Investigators: J. Duggan, 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: J. Duggan, 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, C. Gribben.

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

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

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 Measurement. *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.

Steering Committee. British Hypertension in the Very Elderly Trial (BHET). J. Duggan

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

Steering Committee. TOPH (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