

# **THE BLOOD PRESSURE UNIT**

**Beaumont Hospital**

**ANNUAL REPORT, PUBLICATIONS**

**AND**

**SCIENTIFIC PRESENTATIONS**

**1996**

## **Contents**

<b>Introduction</b>	<b>3</b>
<b>Summary of Departmental Activities in 1996</b>	<b>6</b>
<b>Blood Pressure Unit Staff</b>	<b>11</b>
<b>Scientific Publications for 1996</b>	<b>12</b>
<b>General and educational publications for 1996</b>	<b>14</b>
<b>Exhibitions mounted in 1996</b>	<b>15</b>
<b>Scientific and educational communications for 1996</b>	<b>16</b>
<b>Awards and post-graduate degrees</b>	<b>18</b>
<b>Television and radio programmes</b>	<b>18</b>
<b>Collaborative Projects</b>	<b>19</b>
<b>Editorial Board and Committee membership</b>	<b>22</b>
<b>APPENDIX I</b>	
<b>Bibliography of Publications from 1978 to 1995</b>	<b>i</b>
<b>APPENDIX II</b>	
<b>Scientific Communications from 1978 to 1995</b>	<b>xxxiv</b>

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

In 1996 the Blood Pressure Unit continued its research interests, publishing 17 scientific papers, 6 chapters in books, 4 letters in journals, and 14 papers of general educational and cultural interest. The Unit enters 1997 with 10 papers in press and some 25 research projects underway. As 1996 was the occasion of the centenary of the introduction of clinical sphygmomanometry by Scipione Riva-Rocci in 1896, the Unit was to the fore in celebrating the event by publishing 6 original papers relating to the history of blood pressure measurement, hosting and chairing an international satellite meeting in Dublin on the occasion of the 16th Scientific Meeting of the International Society of Hypertension in Glasgow entitled *A centenary tribute to conventional blood pressure measurement: whither blood pressure measurement in the next century?* and mounting a major photographic exhibition in Glasgow and later at the British Hypertension Society Scientific Meeting in Cambridge entitled *Scipione Riva-Rocci 1896-1996. A centenary tribute.*

Members of the Unit delivered scientific presentations at home and in 8 countries abroad. I was invited to address the United Nations in New York on a subject slightly outside the field of hypertension (but none-the-less consequent upon the scientific reputation of the Unit) entitled *The diplomatic implications of emerging diseases* at a Symposium on Preventive Diplomacy at which the then secretary-general, Boutros Boutros-Ghali and his recently appointed successor Kofi Annan, were also contributors.

On the service level the Shared Care Programme was updated and there was a 25% increase in the number of patients seen at out-patients with the result that the waiting list for new referrals has now been maintained at a maximum of six to eight weeks. This year the Unit established its own echocardiographic service with the purchase of a Hewlett Packard machine and we were fortunate in recruiting Simon Lyons as Echocardiographer. This much-needed facility was made possible through generous grants from the Charitable Infirmary Charitable Trust, the Royal College of Surgeons and the Irish heart Foundation. The day case facility for the exclusion of secondary hypertension continued to investigate one patient weekly with a surprisingly high 30% detection rate for a cause for hypertension, which was curable in many instances. The numbers attending the weekly Lipid Clinic, under the direction of Professor Fitzgerald, continued to grow mainly due to the increasing demand for expert advice in the use of lipid lowering drugs in managing the dyslipidaemias. The elderly with hypertension,

who have always been a special concern of the Unit, had their special needs attended to by Dr. J. Duggan who holds a weekly clinic for older patients.

The Unit continued to participate in a number of important international collaborative studies. In the European multicentre Syst-Eur trial (with the University of Louvain), the Unit is the co-ordinating centre for the ambulatory side-project of this study which has recruited over 2000 patients. This study is evaluating the need to treat elderly patients with isolated systolic hypertension. The Office versus Ambulatory (OvA) Study (with the University of Gent) has now been in progress for a decade and the first results are being analysed. The APTH Study (with the University of Louvain) has been completed and has shown for the first time that patients managed by ambulatory blood pressure rather than by conventional measurement require significantly less antihypertensive medication and have an improved quality of life. The Unit joins the scientific committee of the TOPH study which will use the same methodology as the APTH study to determine if home blood pressure measurement carries the same benefit as ambulatory blood pressure. Other international studies in progress include the HYVET (with the Hammersmith Hospital) to determine the benefits of treating very elderly patients with hypertension, and the PROGRESS study (with Glasgow University and the University of Auckland), which is studying the possible benefit of ACE inhibition in patients with stroke. The Unit commenced Phase II of the Allied Irish Bank Study in collaboration with the University of Louvain and Cornell University in New York, in which 800 employees who had had ambulatory blood pressure measured 7 years ago are being recalled for repeat measurement and a detailed cardiovascular assessment including echocardiography. The Unit has been asked to join the Steering Committee and Sub-study Committee of the Anglo-Scandinavian Cardiovascular Outcome Trial (ASCOT) and to co-ordinate an ambulatory blood pressure sub-study. This large study which aims to recruit 18,000 patients at high risk from cardiovascular complications of hypertension is one of the most important studies ever conducted in hypertension.

Sister Mee completed her term as Chairman of the Nurses Hypertension Association and her contribution was recognised when she was invited to give the keynote address at the inaugural meeting of the Nurses Hypertension Association in Melbourne, Australia. I continued to act during the year as Chairman of both the Working Party on Blood Pressure Measurement of the British Hypertension Society and of the Committee for Revision of the Standards for Mercury and Aneroid Sphygmomanometers of the British Standards Institution. I am also a member of the European Standards Committee in Berlin which has the responsibility of drafting a Directive for standards of blood pressure measuring devices, the first two parts of which were published in 1996 with the final part being due for publication in 1997.

As well as continuing basic pharmacological research on blood pressure lowering drugs, the Unit continued to evaluate the accuracy and reliability of systems of ambulatory blood pressure measurement and in this capacity acts as adviser to many standards institutions.

During the year the Blood Pressure Unit joined the World- Wide Web and our research activities may now be shared by Internet users at <http://www.iol.ie/~bpu/bh.bpu.html>.

The service work and research in hypertension outlined in this report was facilitated by continuing support from the Charitable Infirmary Charitable Trust, the Research Committee of the Royal College of Surgeons, the Irish Heart Foundation and Beaumont Hospital, each of which provided the much needed facilities and support for staff, without which the achievements listed in this report would not have been possible. I would like to pay tribute to the diligence and loyalty of all the staff in the Unit, characteristics which facilitate the team approach so necessary in scientific research. I would like to acknowledge with gratitude the support of our colleagues, both clinical and administrative and I also 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

Director

31/12/1996

## SUMMARY OF DEPARTMENTAL ACTIVITIES IN 1996

Departmental activities in the Unit derived from the following programme during 1996:

### *Development and evaluation of blood pressure measuring systems*

The Unit's work in the field of blood pressure measurement is summarised under the headings:

#### 1. Establishing International Standards

The Blood Pressure Unit continued to lead the international drive for more accurate blood pressure measuring devices. The British Hypertension Society Working Party under the Chairmanship of Professor O'Brien met on a number of occasions to draft a proposal for the eventual banning of mercury from hospitals and to consider how the kilopascal might be introduced as the unit of measurement of blood pressure. (Publication 12) The Working Party also began revision of the BHS protocol for validation of blood pressure measuring devices. The European CEN Committee published the first two parts of its three-part directive on blood pressure measuring devices. (Publications 9 & 10)

#### 2. Validation of blood pressure measuring devices

The Unit continued to evaluate new devices conducting studies of the new generation of ambulatory recorders, which included the Novacor *Integra*, the Profimat II, and the Schiller BR and began to study and assess automated devices that might be suitable for use in hospitals and practice as replacements for the mercury sphygmomanometer. In this regard, the Omron HEM 705-CP proved to be the first of such devices to satisfy international criteria for accuracy. (Publications. 4,8,11 ,13 - 15,17)

### *Application of 24-hour ambulatory blood pressure in determining prognosis in hypertension:*

The Blood Pressure Unit continued to participate in a number of longitudinal studies which included:

#### 1. Long-term follow-up of patients with hypertension on the Blood Pressure Unit data-base dating from 1980.

The Blood Pressure Unit now has a data base of 20,000 ambulatory records collected over the past decade together with cardiovascular indices and risk factor profiles. A student from the University of Maastricht spent six weeks in the Unit categorising the patients on the data base and this work will continue as a collaborative project between Dublin and Maastricht.

## 2. European multicentre OvA Study.

The Blood Pressure Unit continued to act as one of the co-ordinating centres for the Office versus Ambulatory Blood Pressure Study (OvA) (in collaboration with the University of Gent) the results of which are now undergoing preliminary analysis

## 3. The APTH and TOPH Studies

The APTH Study (in collaboration with the University of Louvain) has now been completed and the results, which show for the first time that ambulatory blood pressure measurement is superior to conventional measurement in the management of hypertension, have been submitted for publication.

The TOPH Study, which will follow the same design as the APTH Study, has just commenced and its aim is to show if home blood pressure measurement will be as beneficial as ambulatory blood pressure measurement.

## 4. European multicentre Syst-Eur Study.

The Unit continued to act as the co-ordinating centre for the ambulatory side-project of this study, which has now recruited over 6000 patients and recruitment of patients has been completed. Preliminary analyses of data has begun. (Publications 1, 5, 6)

## 5. Population studies

The Unit has just completed a population study to determine the reference values of 24-hour blood pressures in the elderly and these results are being analysed. The Unit is also assessing the reference values for very elderly subjects over the age of 80 years.

Analysis of previous population studies continues in collaboration with the University of Louvain. (Publications 2, 3 & 7).

The 800 employees of the Allied Irish Bank, who had volunteered for ambulatory blood pressure measurement 7 to 10 years ago (allowing the establishment of normal reference values for the first time) are now being recalled for repeat ambulatory measurement to determine for the first time the change in pressure with ageing and they are also undergoing a full cardiovascular assessment including echocardiography. The first 100 subjects have been recalled.

### ***Evaluation of 24-hour ambulatory blood pressures in pregnancy***

High blood pressure in pregnancy is one of the major causes of infant mortality and improved management of hypertension in pregnancy would result in a dramatic reduction in infant deaths. There is evidence that 24-h ambulatory blood

pressure predicts women at risk from eclampsia more effectively than conventional measurement. The Blood Pressure Unit, in collaboration with the Rotunda Hospital completed a study in 1000 pregnant women to evaluate the role for ambulatory measurement in differentiating women at risk from eclampsia. The results, which show that ambulatory measurement as conducted in this study does not help to identify women at risk from eclampsia, are now in press.

### ***Computerisation projects***

The Unit continued to utilise computer technology to improve patient management.

#### 1. Revision of DABLv Program and production of DABL 97 Windows Program

Mr. Neil Atkins devoted 1996 to a comprehensive revision of the DABLv Program, which has been used for some years by the Unit and other centres, including Louvain University, the Rotunda Hospital and Hoffman La Roche. The DABL 97 Windows version provides not only for extensive analysis of ambulatory measurement data but also provides a facility for computing risk according to the presence of risk factors, according to the blood pressure, according to target organ involvement and finally, a total cardiovascular risk score can be calculated enabling patients to be categorised as to high, medium or low risk. DABL 97 also permits printing of the 24-hour ambulatory plot in a standardised manner on plain paper with full graphic display.

#### 2. Establishment of a 'Computer Out-patients'

A 'Computer Out-patients' has been established and initiated enabling patients to be categorised according to risk using DABL 97 and those at high risk are presently being reviewed to determine if optimal management is being instituted. The Computer Out-patients should provide a model for the management of patients at risk from chronic diseases, such as diabetes.

#### 3. Computer applications in in-patient management

Dr. David Coyle working in collaboration with the Computer Department designed and instituted a computer discharge summary which is now being used in a pilot capacity by the Cardiac Department, permitting the production of a discharge summary at the time of the patient's discharge from hospital, thereby saving secretarial time and ensuring that information is transmitted to the general practitioner at the time of discharge.

#### 4. Computerisation of the Warfarin Clinic

The Unit has undertaken to use its Warfarin Sub-clinic as a model for the possible computerisation of the hospital Warfarin Clinic using the DABL 97 Program. This project has just commenced.



***Assessment of antihypertensive drugs***

1. Comparison of celiprolol and captopril

In this study, which has been completed and the results of which are presently being analysed, the effect of celiprolol versus captopril on 24-hour blood pressure control and on exercise has been assessed.

2. Efficacy of Losartan in blood pressure control

This study, which has just been completed, assesses the blood pressure lowering efficacy of the ACE receptor antagonist, Losartan in a multicentre trial but the Unit and the Department of Clinical Pharmacology at RCSI, performed a number of sub-studies, including one on ambulatory blood pressure measurement, the results of which will be analysed shortly.

***Day Case assessment of hypertensive patients to exclude secondary hypertension***

Over 80 patients have been investigated in the day-case facility in the Blood Pressure Unit. This facility is dependent on collaboration between the disciplines of Nephrology (Professor J. Walshe), Radiology (Dr. J. O'Callaghan and Professor Michael Lee) and the Blood Pressure Unit.. A research project to determine the comparability of non-invasive MRI scanning with invasive direct intra-arterial renal angiography in the diagnosis of renal artery stenosis is progressing with over 50 patients having been assessed blindly by both techniques. An audit of the first 100 patients has been commenced by Nurse Claire Dowdall.

***Assessment of feasibility of introducing ABPM into general practice***

1. Feasibility of introducing ABM into general practice in Ireland

In collaboration with the Eastern Health Board Unit of General Practice, the Blood Pressure Unit provided educational seminars, co-ordinated the computerisation, provided a help-line and reporting service and co-ordinated the introduction of ambulatory blood pressure measurement into 9 selected general practices in the Eastern health Board area. This study has just been completed and the results are being audited.

2. Educational program on ABPM for general practitioners in the UK

Professor O'Brien acted as chairman of a group of specialists, which include Professor A. Coats (Imperial College, London), Dr. P. Padfield (Edinburgh University) and Dr. D. Ebbs (Oxford), whose remit was to organise educational half-day workshops in the UK on ambulatory blood pressure measurement. These

workshops, which were sponsored by educational grants from Pfizer, were held in London, Doncaster and Birmingham and more are planned for 1997.

***Establishment of facility to assess patients with hypotension***

The Unit has always undertaken to assess patients referred with hypotension but this has not been performed with a view to audit or scientific study. Dr. P. Owens has drawn up a detailed protocol which will allow for the future audit and study of this all-too-common and much-ignored condition.

# **The Blood Pressure Unit**

## **Staff 1996**

### **Consultants**

Professor Eoin O'Brien

Dr. Joseph Duggan

Professor Desmond Fitzgerald

Professor Kevin O'Malley

### **Doctors in research**

David Coyle

Niall Power

Paddy Owens

Cianán O'Sullivan

Brian Lucey

### **Nurses in research**

Fáinsía Mee

Allison Sexton

Claire Dowdall

Ruth Nallon

Teresa Sexton

Dáire Ryan

Linda Kelly

Breige Mulholland-Doyle

### **Computer Analyst**

Mr. Neil Atkins

### **Dietician**

Ms Marie Gorman

### **Echocardiographer**

Simon Lyons

### **Secretarial staff**

Ms Giselle Estridge

Ms Valerie Hughes

## SCIENTIFIC PUBLICATIONS 1996

### *Scientific papers*

1. Staessen JA, Thijs L, Bieniaszewski L, O'Brien E, Palatini P, Davidson C, Dobovisek J, Jaaskvi M, Laks T, Lehtonen A, Vanhanen H, Webster J, Fagard R. Ambulatory Monitoring Uncorrected for Placebo Overestimates Long-term Antihypertensive Action. *Hypertension* 1996;**27**[Part 1] :414-420
2. Staessen J, Bieniaszewski L, O'Brien E, Fagard R. What is normal blood pressure on ambulatory monitoring. *J Nephrol Dial Transplant*. 1996;**11**;241-245.
3. Staessen JA, Bieniaszewski L, O'Brien ET, Fagard R. An epidemiological approach to ambulatory blood pressure monitoring: the Belgian Population study. *Blood Pressure Monitoring* 1996;**1**:13-26
4. O'Brien E, Mee F, Atkins N, Thomas M. Evaluation of three devices for self-measurement of blood pressure: according to the revised British Hypertension Society Protocol: the Omron HEM-705CP, Phillips HP5332, and Nissei DS-175. *Blood Pressure Monitoring* 1996;**1**:55-61
5. Thijs L, Celis H, Clement D, Sil-Extamara B, Kaiwecka-Jaszcz K, Mancina G, Parati GF, Salvetti A, Serti C, van den Meiracle A, O'Brien E, Staessen J, Fagard R. Conventional and ambulatory blood pressure measurement in older patients with isolated systolic hypertension: second progress report on the ABPM project in the Syst-Eur trial. *Blood Pressure Monitoring*. 1996;**1**:95-103
6. Vanhanen H, Thijs L, Birkenhager W, Tilvis R, Sarti C, Tuomilehto J, Bulpitt C, Fagard R, Staessen J on behalf of the Syst-Eur Investigators. Associations of orthostatic blood pressure fall in older patients with isolated systolic hypertension. *J Hypertens* 1996;**14**:943-949.
7. O'Brien E, Atkins N, Staessen J. Are overnight dip and target-organ damage related? A clinical perspective. *Blood Pressure Monitoring* 1996;**1**(Suppl 1);S42-S48
8. O'Brien E. The dilemma of choice: which bladder for accurate measurement? *Zeitschrift für Kardiologie*.1996;**85**(Suppl 3);26-31.
9. [O'Brien E]. European Standard EN 1060-1 (British Standard BSSEN 1060-1:1996). Specification for Non-invasive sphygmomanometers. Part I. General requirements. 1995. European Commission for Standardisation. Rue Stassart 36, B-1050 Brussels.
10. [O'Brien E]. European Standard EN 1060-2 (British Standard BSSEN 1060-2:1996). Specification for Non-invasive sphygmomanometers. Part 2. Supplementary requirements for mechanical sphygmomanometers. 1995. European Commission for Standardisation. Rue Stassart 36, B-1050 Brussels.
11. Conroy RM, Shelley E, Atkins N, O'Brien E. Ergonomic Problems with the Hawksley Random Zero Sphygmomanometer and their Effect on Recorded Pressures. *Blood Pressure* 1996;**5**:227-233
12. O'Brien E. Ave atque vale: the centenary of clinical sphygmomanometry. *Lancet* 1996;**348**:1569-1570

13. O'Brien E. Position paper: Devices for measuring 24-hour blood pressure. *Blood Pressure* 1996;**1**:177-180.
14. O'Brien E. A century of confusion: which bladder for accurate blood pressure measurement? *J Human Hypertension* 1996;**10**:565-572.
15. O'Brien E. How will we ensure accuracy in the future? *Blood Pressure Monitoring* 1996;**1** (suppl 1):S109-S112.
16. Atkins N, O'Brien E. Computer analysis of blood pressure indices. *Blood Pressure Monitoring* 1996;**1** (suppl 1):S69-S72.
17. Waeber B, O'Brien E, Brunner H. How to keep technology apace with science? *Blood Pressure Monitoring* 1996;**1** (suppl 1):S113-S115

### **Medical history**

18. O'Brien E. Where are we now? Sphygmomanometry in the 20th century. *Blood Pressure Monitoring* 1996;**1**(suppl 2):S9-S13.
19. O'Brien E. Theodore Caldwell Janeway (1872-1917): The quest for precision. *J Human Hypertension* 1996;**10**:501-504
20. O'Brien E, Semple P, Brown W. Riva-Rocci Centenary Exhibition. *J Human Hypertens* 1996;**10**:705-721.
21. Brown W, O'Brien E. The sphygmomanometer of Riva-Rocci. *J Human Hypertens.* 1996;**10**:723-724.
22. O'Brien E. Nicolai Sergeivich Korotkoff. In *A Century of arterial Hypertension 1896-1996*. Ed. N. Postel-Vinay. Wiley. West Sussex. 1996.p.200-201.
23. O'Brien E. Theodore Caldwell Janeway. In *A Century of arterial Hypertension 1896-1996*. Ed. N. Postel-Vinay. Wiley. West Sussex. 1996.p.202-203.

### **Book chapters**

1. O'Brien E. Chapter 1A. General principles of blood pressure measurement. In: **Practical management of hypertension**. Ed. W. Birkenhager. Kluwer Academic Publishers. Dordrecht, Boston, London. 1996.p.1-11
2. O'Brien E. Chapter 1B. Conventional blood pressure measurement. In: **Practical management of hypertension**. Ed. W. Birkenhager. Kluwer Academic Publishers. Dordrecht, Boston, London. 1996.p.13-22
3. O'Brien E. Chapter 1C. Automated blood pressure measurement. In: **Practical management of hypertension**. Ed. W. Birkenhager. Kluwer Academic Publishers. Dordrecht, Boston, London. 1996.p.23-34.
4. O'Brien E. The diplomatic implications of emerging diseases. In: "Preventive Diplomacy: Stopping Wars Before They Start. Ed: K.M. Cahill. BasicBooks. New York. 244-268.
5. O'Brien E. Ageing and blood pressure rhythm. In: "Time-Dependent Structure and Control of Arterial Blood Pressure. Eds. F. Portaluppi, M.H. Smolensky. *Annals New York Academy of Sciences* 1996;**783**:186-203

6. O'Brien E, Staessen J. Normotension and hypertension as defined by 24-hour ambulatory blood pressure monitoring. In: *Monitorizacion ambulatorie de la presion arterial*. Ed. J Ocon-Puyadas, J Mona Macia, JH Perez del Villar. Mosby. Madrid 1996. pp. 155-172.

#### **Letters**

1. Halligan A, Lambert P, O'Brien E, Shennan A,. Characteristics of a reversed circadian blood pressure rhythm in pregnant women with hypertension. *J Human Hypertension* 1996;**10**:135
2. O'Brien E. False claim for accuracy of the UA 751. *J Human Hypertens* 1996;**10**:335
3. O'Brien E. Evaluation of the Takeda TM-2420 in the elderly. *J Human Hypertens* 1996;**10**:61.
4. O'Brien E. SpaceLabs 90207 and Accutracker II ambulatory blood pressure monitors in pregnancy. *Am J Obs Gynec* 1996;**175**:751-752.

#### **Abstracts**

1. Staessen JA, Bieniaszewski L, O'Brien ET, Fagard R. An epidemiological approach to ambulatory blood pressure monitoring: the Belgian Population study. *J Hypertens* 1996;14(suppl 1):S250.
2. N. Atkins, Thijs L, O'Brien E, Staessen J on behalf of the Syst-Eur Investigators. Normal Nocturnal Pressure Rather Than Magnitude of Dip May Be Predictive. *J Hypertens* 1996;14(suppl 1):S253
3. O'Brien E, Atkins N, Molloy E. Patterns of 24-Hour Blood Pressure in Normotensive and Hypertensive Subjects and Pregnant Women. *J Hypertens* 1996;14(suppl 1):S253
4. Staessen J, Thijs L, Beniaszewski L, O'Brien ET, Palatini P, Fagard R for the Syst-Eur Investigators. Ambulatory Monitoring Uncorrected for Placebo Overestimates Long-term Antihypertensive Action. *J Hypertens* 1996;14(suppl 1):S251

#### **General and Educational**

1. O'Brien E. Diagnosing hypertension. *Ir Doctor* 1996;**8**:17-18
2. O'Brien E. The influence of advances in technology on the management of hypertension. *Modern Medicine* 1996;**26**:55-58
3. O'Brien E. How accurate are ambulatory blood pressure devices? *The European Cardiologist: Journal by Fax*. Jan 1996
4. O'Brien E. Will mercury manometers soon be obsolete? *The European Cardiologist: Journal by Fax*. Feb. 1996.
5. O'Brien E. What are the normal 24-hour blood pressures? *The European Cardiologist: Journal by Fax*. March 1996
6. O'Brien E. Ambulatory blood pressure as a guide for predicting the outcome of cardiovascular disease. *The European Cardiologist: Journal by Fax*. April 1996

7. O'Brien E. The clinical indications for 24-hour ambulatory blood pressure measurement. *The European Cardiologist: Journal by Fax*. June 1996
8. O'Brien E. Ambulatory blood pressure measurement is valuable in managing the elderly patient with hypertension.. *The European Cardiologist: Journal by Fax*. September 1996.
9. O'Brien E. Will the kilopascal soon replace the millimetre of mercury? *The European Cardiologist: Journal by Fax*. December 1996
10. O'Brien E. The patient with an exaggerated white coat effect. Clinician's Corner. *Blood Pressure Monitoring* 1996;**1**:78
11. O'Brien E. The land-mine disaster: an epidemic of mutilation. *J Ir Coll Phys & Surgeons* 1996;**25**:54-56
12. Owens P. Shedding new light on hypertension. *Ir Med News* 1996;**13**:24.
13. O'Brien E. Ambulante bloeddrukmeting: interpretatie van gegevens. *Tijdschrift voor Huisarts- Geneeskunde* 1966;444-448

### ***Exhibitions***

*Les Paysages de Beckett*. By Eoin O'Brien with photography by David Davison. For *L'imaginaire Irlandais*. Maison de la Poésie. Théâtre Molière. Paris. 16<sup>th</sup> January to 13<sup>th</sup> March 1996.

*Les Paysages de Beckett*. By Eoin O'Brien with photography by David Davison. For *L'imaginaire Irlandais*. Bibliothèque Municipale de Strasbourg. Strasbourg. 30<sup>th</sup> March to 30<sup>th</sup> April 1996.

*Les Paysages de Beckett*. By Eoin O'Brien with photography by David Davison. For *L'imaginaire Irlandais*. Maison de la Fontaine. Brest. 9<sup>th</sup> May to 1<sup>st</sup> June 1996.

*Les Paysages de Beckett*. By Eoin O'Brien with photography by David Davison. For *L'imaginaire Irlandais*. Université de Caen. Caen. 10<sup>th</sup> July to 24<sup>th</sup> June 1996.

SCIENTIFIC AND EDUCATIONAL COMMUNICATIONS 1996

**5th International Consensus Meeting on 24-h ABPM. Paris. 8th - 9th January 1996.**

O'Brien E. Position Paper. Methods of Measurement.

**Institute for Clinical Science and Research. Royal College of Surgeons. 19th January 1996.**

O'Brien E. When is high blood pressure hypertension?

**Pfizer Workshop on Ambulatory Measurement: Panel Meeting. London. 24th January 1996**

O'Brien E. Chairman.

**Workshop 'Frontiers in Blood Pressure Measurement'. Bad Oeynhausen, Germany. 26th January 1996.**

O'Brien E. Chairman. *Recent advances in automated blood pressure measurement.*

O'Brien E. Blood pressure cuffs.

**Syst-Eur Workshop. Leuven. Belgium. 27-28th January 1996.**

O'Brien E. Presentation on ABPM in Syst-Eur.

Atkins N. Nocturnal dip in Syst-Eur patients.

**Irish College of General Practitioners. Longford/Westmeath. 28th February 1996.**

O'Brien E. Ambulatory Blood Pressure Measurement.

**Annual RCSI Research Day. RCSI. 10th April 1996.**

N. Atkins, O'Brien E. Normal nocturnal pressure rather than magnitude of dip may be predictive.

**Merck International Satellite. French Society of Hypertension Scientific Meeting. *Clinical Perspectives of AII Receptor Antagonism Within the United Kingdom.* Paris. 19-20th April 1996.**

O'Brien E. Blood pressure variability and clinical experience in primary and secondary care.

O'Brien E. Chairman. Workshop on clinical perspectives of AII receptor antagonists.

**Symposium on Preventive Diplomacy. United Nations. New York, 23 - 25th April 1996.**

O'Brien E. The diplomatic implications of emerging diseases..

**Nurses Hypertension Association Update Meeting. St. George's Hospital, London. 24<sup>th</sup> April 1996.**

Mee F. Current trends in blood pressure Measurement.

**General Practice Symposium on 24-Hour Ambulatory Blood pressure Measurement. Oxford. 3rd May 1996.**

O'Brien E. Patterns of ABPM in general practice.

**SEUGI 96. Congress Centrum. Hamburg. 11-14th June 1996.**

Atkins N, O'Brien E. A method of identifying cut-off points in clinical investigation. (Oral presentation)

**16th Scientific Meeting of the International Society of Hypertension. Glasgow. 23rd-27th June 1996. Centenary tribute to Riva-Rocci: Historical exhibition on Blood Pressure Measurement. Glasgow. 23 -27th June 1996.**

O'Brien E, Semple P, Brown B.

**16th Scientific Meeting of the International Society of Hypertension. Satellite Meeting. A centenary tribute to conventional blood pressure measurement: whither blood pressure measurement in the next century? Dublin. 19-20th June 1996**

O'Brien E. Chairman of Scientific Committee.

O'Brien E. Historical perspective: 'Where are we now?'



Atkins N. Computer analysis of blood pressure indices.  
O'Brien E. How will we ensure accuracy in the future?

**16th Scientific Meeting of the International Society of Hypertension. Satellite Meeting. The multi-disciplinary care of clinical hypertension. Glasgow. 23rd June 1996**

O'Brien E. Are mercury sphygmomanometers obsolete?

**16th Scientific Meeting of the International Society of Hypertension. Glasgow. 23rd-27th June 1996.**

N. Atkins, Thijis L, O'Brien E, Staessen J on behalf of the Syst-Eur Investigators. Normal nocturnal pressure rather than magnitude of dip may be predictive. [Poster]

O'Brien E, Atkins N, Molloy E. Patterns of 24-hour blood pressure in normotensive and hypertensive subjects and pregnant women. [Poster]

**Swiss Hypertension League. Hypertension Symposium. Lugano. Switzerland. 12th September 1996.**

Teleconference with Blood Pressure Unit, Beaumont Hospital. Dublin.

O'Brien E, Bart T, Atkins N. Discussion of ABPM for General Practitioners.

**British Hypertension Society Scientific Meeting. St. John's College, Cambridge. 16-18th September 1996.**

O'Brien E, Semple P, Brown B. Centenary Exhibition to Riva-Rocci.

Lever A. et al. Hawksley Presentation.

Mee F. O'Brien E, Atkins N, Molloy E. Patterns of 24-Hour Blood Pressure in Normotensive and Hypertensive Subjects and Pregnant Women.

**Cardiology Forum '96. Heidelberg, Germany. 3-5th, October 1996.**

Debate: Is there a role for ambulatory blood pressure monitoring?

For: E. O'Brien Against: L. Ramsay

**Irish Gerontological Society. Killiney, Dublin. 4-5th October 1996.**

O'Sullivan C, Duggan J, Sexton A, Atkins N, O'Brien E. Ambulatory blood pressure monitoring in elderly subjects.

**Hypertension Update VII. Stratford-upon-Avon. 24-26th October 1996.**

O'Brien E. - the practical issues.

O'Brien E. Chairman: Which drugs for first line therapy? The case for and against.

**Workshop on ABPM for UK General Practitioners. London. 6th November 1996.**

O'Brien E. Patterns of ambulatory blood pressure in clinical practice.

**Workshop on ABPM for UK General Practitioners. Doncaster. 21st November 1996**

O'Brien E. Patterns of ambulatory blood pressure in clinical practice.

**Blood Pressure Symposium. University of Leuven. Belgium. 30th November 1996.**

O'Brien E. Clinical applications of ABPM.

**Workshop on ABPM for UK General Practitioners. Birmingham. 5th December 1996**

O'Brien E. Patterns of ambulatory blood pressure in clinical practice.

**Inaugural Meeting of the Australian Nurses Association. Melbourne. Australia. 4<sup>th</sup> December 1996.**

Mee F. Keynote address: A Paradigm for Progress: Nursing Research in Hypertension.

**Awards/Post-graduate degrees in 1996**

**Diploma in Management for Medical Doctors, RCSI. Dr. Paddy Owens.**

**Diploma in Management for Medical Doctors, RCSI. Dr. David Coyle.**

**Faculty of Nursing, RCSI. Research Methodology Diploma. Nurse Alison Sexton.**

**Faculty of Nursing, RCSI. Research Methodology Diploma. Nurse B. Mulholland-Doyle.**

**Faculty of Nursing, RCSI. Physics and Chemistry Diploma. Nurse Claire Dowdall.**

**Faculty of Nursing, RCSI. Diploma in Management. Sister F. Mee.**

**Television/radio**

**E. O'Brien. "White coat hypertension" World in Action. ITV. 8th July 1996**

## COLLABORATIVE PROJECTS

### UNITED KINGDOM

#### **Imperial College, St. Mary's Hospital, London**

*Blood Pressure Unit, Dublin. Co-ordinating Centre for Ambulatory Measurement Sub-Project.*  
Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT). Factorial Study of the Prevention of Coronary Heart Diseases and Vascular Events by Blood Pressure Lowering (comparing  $\beta$ -blocker based with amlodipine based therapy) and by Blood Cholesterol Lowering (comparing Atorvastatin with placebo) in 18,000 patients. Professor Peter Sever

#### **University of Aberdeen, Scotland**

1. *Shared Care Programme for out-patient management of hypertension.* Professor James Petrie
2. *Revision of BHS Booklet on Recommendations for Blood Pressure Measurement.* Professor James Petrie
3. *Revision of BHS video on Recommendations for Blood Pressure Measurement.* Professor James Petrie

#### **Hammersmith Hospital, London.**

The HYVET Study. *Hypertension in the Very Elderly.* Professor Christopher Bulpitt

#### **Medical Research Unit for Hypertension, Glasgow**

*Assessment of the mechanism of inaccuracy of the Hawksley random zero sphygmomanometer.*  
Professor Anthony Lever

#### **Gardiner Institute, Western Infirmary, University of Glasgow.**

The "Progress" Study into Prevention of Stroke. Professor John Reid.

#### **British Standards Institute, London**

*Revision of standards for sphygmomanometers.* Chairman: Professor E. O'Brien

### GERMANY

#### **PTB, Berlin**

*TC-10/WG 205 Committee for Directive for Blood pressure Measuring Devices.* Chairman. Dr. S. Mieke.

### ITALY

#### **University of Milan, Milan**

1. Concerted Action Programme: *Non-invasive quantification of long-term blood pressure and heart rate variability to evaluate 24-hour autonomic control of circulation in cardiovascular disease* - Professor Alberto Zanchetti
2. Concerted Action Programme. *New approach to neural alterations. The NEAR Study.* Dr. Gian Franco Parati
3. Organisation of 5th Consensus Meeting on 24-hour ambulatory measurement. Professor Giuseppe Mancia

#### **Ospedale Generale Regionale "R. Silvestrini". Perugia.**

3. PIUMA database analysis. Dr. Paulo Verdecchia

**BELGIUM**

**Catholic University of Leuven**

1. Concerted Action Programme: *A multidisciplinary population study on the health risks of environmental exposure to cadmium in Europe.* Dr. Jan Staessen and Professor Robert Fagard
2. Concerted Action Programme: *Isolated Systolic Hypertension in the Elderly. Blood Pressure Unit Co-ordinating Centre for Ambulatory Measurement Side-Project.* - Dr. Jan Staessen and Professor Robert Fagard.
3. APTH Study: *Ambulatory blood pressure in the treatment of hypertension.* Dr. Jan Staessen and Professor Robert Fagard
4. TOPH *Home Pressure and Treatment of Hypertension.* Dr. Jan Staessen and Professor Robert Fagard

**University of Gent**

*Office versus ambulatory blood pressure in the management of hypertension* - Professor Denis Clement

**U.S.A.**

**New York University and Cornell Hospital**

AIB Study, Phase II: *Ambulatory blood pressure and end-organ changes* - Professor Dick Devereux

**Food and Drug Administration. US.**

Peak-to-trough analysis in Syst-Eur Study. Dr. Raymons Lipicky, Professor Willem Birkenhager, Dr. Jan Stassen and E. O'Brien.

**HOLLAND**

**T.M.O Amsterdam**

*Validation of the Finapres.* Professor Gert Van Montfrans and Dr. Karel Wesseling

**University of Maastricht**

Analysis of BPU data base. Professor Peter De Leeuw, and Sergio Rodriguiz

**SWITZERLAND**

**University of Lausanne**

1. Profilomat development. Professor Hans Brunner and Dr. Bernard Waeber.
2. Development of data base for Inhibace Study. Dr. T. Bart

**FRANCE**

**University of Grenoble**

Organisation of 5th Consensus Meeting on 24-hour ambulatory measurement. Professor Jean-Michel Mallion

**IRELAND**

**Rotunda Hospital, Dublin**

*24-hour ABPM in predicting eclampsia in pregnancy.* Dr. Michael Darling and Dr. John Higgins.

**Eastern Health Board General Practitioner Unit. Dublin.**

*Introduction of 24-hour ambulatory measurement into general practice.* Dr. Catherine Hayes.

**SWEDEN**

**University of Gothenburg**

*Blood Pressure Unit, Dublin. Co-ordinating Centre for Ambulatory Measurement Sub-Project.*  
Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT). Factorial Study of the Prevention of Coronary Heart Diseases and Vascular Events by Blood Pressure Lowering (comparing  $\beta$ -blocker based with amlodipine based therapy) and by Blood Cholesterol Lowering (comparing Atorvastatin with placebo) in 18,000 patients. Professor Björn Dahlöf

**AUSTRALIA**

**St. Vincent's Hospital, Sydney**

*Pulse wave form as an end organ in hypertension.* Professor Michael O'Rourke

**NEW ZEALAND**

**University of Auckland, Auckland**

The "Progress" Study into Prevention of Stroke. Dr. Stephen MacMahon

**CANADA**

**Memorial Hospital of Newfoundland.**

Establishment of a data-base survey via Internet of home blood pressure measuring devices.  
Professor Donald McKay.

## 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:* K. O'Malley & E. O'Brien  
*Blood Pressure Monitoring:* E. O'Brien  
*The Recorder:* E. O'Brien

## COMMITTEE MEMBERSHIP

**Working Party on Blood Pressure Measurement.** *British hypertension Society.* E. O'Brien.  
Chairman. F. Mee

**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

**Executive Committee.** *British hypertension Society.* K. O'Malley

**Steering Committee.** *European Study of Systolic Hypertension in the Elderly (Syst-Eur).* K. O'Malley and 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, K. O'Malley.

**Steering Committee.** British Hypertension in the Very Elderly Trial (BHET). K. O'Malley

**Health Research Board.** Cardiovascular Disease Committee. E. O'Brien.

**Scientific Committee.** Irish Heart Foundation. K. O'Malley

**Council for High Blood Pressure.** E. O'Brien. Chairman. K. O'Malley, D. Fitzgerald. F. Mee.

**Nurses Hypertension Association.** F. Mee.. Chairman.

**Nurses Cardiovascular Association.** F. Mee. Chairman.

**New York Academy of Sciences.** E. O'Brien

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