

DR CLIFF BUCKNALL

Name: Clifford Adrian Bucknall

Date of Birth: 25.2.56

Nationality: British

Education:

Leamington College	1967-1974
King's College	
University of London	1974-1976
Westminster Medical School	
University of London	1976-1979

Qualifications:

LRCP MRCS	Royal College of Physicians and Royal College of Surgeons London	April 1979
MB BS	University of London	June 1979
MD	University of London	1987
MRCP (UK)	Royal College of Physicians	1982
FRCP	Royal College of Physicians	1994
FESC	European Society of Cardiology	1999

National Clinical Excellence Award: 2004

Registration GMC no: 2478317 - renewal date 8.8.05

Medical Defence MPS no: 123486 - renewal date 30.4.05

Societies:

- Fellow of the Royal Society of Medicine
- Member of the British Cardiac Society
- Member of the British Medical Association
- Member of the British Pacing & Electrophysiology Group
- Member of the Working Group on Coronary Circulation, European Society of Cardiology

Present Appointments:

November 1992 –
 Consultant Cardiologist
 Guy's & St Thomas' (NHS) Trust, London SE1

November 2002 –
 Clinical Director, Cardiac Services
 Guy's & St Thomas' (NHS) Trust, London SE1

Additional Appointments:

May 1993 -
 Royal College of Physicians Representative on BSI Standards Committee

Previous Appointments:

July 1989 - January 1980
 House Surgeon to Mr J D Marsh
 Warwick Hospital, Warwick.

February 1980 - July 1980
 House Physician to Sir Richard Bayliss, Professor M Milne and
 Dr K Newton
 Westminster Hospital, London SW1.

August 1980 - July 1981
 Senior House Officer to Professor J R A Mitchell, Professor J Hampton
 Nottingham University Hospital, Nottingham.

August 1981 - January 1982
 Senior House Officer to Dr R Godwin-Austen, Dr D Jefferson and
 Dr A Whiteley.
 Nottingham General Hospital, Nottingham.

February 1982 - July 1982
 Senior House Officer to Dr M Atkinson and Dr P Toghill
 Nottingham University Hospital, Nottingham

August 1982 - September 1982
 Senior House Officer to Dr R Tattersall and Dr S P Allison.
 Nottingham University Hospital, Nottingham.

October 1982 - September 1984
Research Registrar to Dr P V L Curry
Guy's Hospital, London SE1.

October 1982 - September 1984
Hon Registrar in General Medicine to Dr Gordon Jackson
Lewisham Hospital, London, SE13

October 1984 - September 1985
Registrar in Cardiology and General Medicine to Dr D A Chamberlain and
Dr R Vincent
Royal Sussex County Hospital, Brighton.

October 1985 - September 1986
Registrar in Cardiology and General Medicine to Dr D Jewitt,
Dr S Elkington, Dr G Jackson, Dr A McLeod and Dr P Richardson.
King's College Hospital, London SE5.

October 1986 - December 1986
Research Fellow in Cardiology to Dr D Jewitt.
King's College Hospital, London SE5.

January 1987 - September 1987
Locum Senior Registrar in Cardiology to Dr D Jewitt, Dr G Jackson, Dr A
McLeod and Dr P Richardson.
King's College Hospital, London SE5.

September 1987 - January 1989
Senior Registrar in Cardiology to Dr E Sowton and Dr P Curry.
Guy's Hospital, London SE1.

February 1989 - October 1992
Consultant Cardiologist
King's College Hospital, London SE5

November 1992 – 1997

Clinical Director of Cardiology

Guy's Hospital and subsequently of Cardiac Services

Guy's & St Thomas' Hospital, London SE1

June 1993 - 2000

Chief Medical Officer to Royal and SunAlliance Insurance

Experience in Cardiology

I gained my initial experience in clinical cardiology at Nottingham University Hospital. I managed patients with ischaemic and valvular heart disease, performed haemodynamic studies to guide optimum management of patients in the cardiac care unit, and became proficient at temporary transvenous pacing.

As a research fellow at Guy's Hospital I increased my experience in clinical cardiology. On call, I was responsible for the emergency assessment, investigation, and, management of cardiac patients. I was also on call continually for patients of all age groups presenting with arrhythmias. I assisted in the management of both adults and children following cardiac surgery, particularly in the treatment of arrhythmias.

I analysed and reported Holter monitoring and supervised all exercise tests performed on children. I set up the 'cardiomemo' service at Guy's Hospital; the information gained from this formed the basis of one of my many first author presentations at the British Cardiac Society.

I am proficient in electrophysiology; my particular interest has been the assessment of intravenous antiarrhythmic drugs and pacing as treatments for paroxysmal tachyarrhythmias. I performed many studies of rapid atrial pacing during exercise to assess risk and thereby prognosis for patients with rapidly conducting accessory pathways. I used the technique of intra-operative mapping to guide surgeons in the ablation of accessory pathways.

I have implanted over 1000 permanent pacemakers including both dual chamber systems and pacing systems in children. I managed patients with programmable and antitachycardia pacemakers and supervised the programmable pacemaker clinic.

At Guy's Hospital I learnt how to perform left heart catheters and coronary angiograms using the Sones technique. I also became proficient at right heart catheterization in the emergency treatment of patients with ischaemic and valvular heart disease.

During my post at Brighton I gained considerable experience in clinical cardiology and continued to increase my expertise in electrophysiology, right heart catheterization and the implantation of permanent pacemakers. I increased my proficiency in 2D and M-Mode echocardiography and Doppler.

I have been fully trained in cardiopulmonary resuscitation techniques culminating in the Brighton Certificate; I train and examine others and I have been a member of the Cardiac Arrest Working Groups at Guy's And King's College Hospitals.

Initially as a clinical registrar and subsequently as a locum senior registrar at King's College Hospital I was responsible for cardiac in and outpatients and supervised the care of patients on the cardiac care unit. I became experienced in the insertion and management of intra-aortic balloon pumps. I gained useful experience in the technique of colour doppler. I became proficient in the Judkins and Sones techniques for cardiac catheterization and personally performed coronary angioplasty and ventricular biopsy procedures. In addition, I performed many aortic valvuloplasty procedures. I further increased my experience of pacing and electrophysiology and initiated new research in this field.

As senior registrar at Guy's Hospital I was responsible for the admission and care of cardiology inpatients as well as the provision of outpatient investigations. I greatly increased my coronary angioplasty experience in patients with single and multivessel disease.

I widened my knowledge of pacing and electrophysiology, particularly in the use of antitachycardia pacing. Whilst at Guy's I regularly performed electrical His bundle ablation and mapping of accessory pathways.

During my appointment to King's College Hospital I provided a broad spectrum service. At King's College Dulwich I ran a non-invasive service and introduced a walk-in ECG service for general practitioner patients. General practitioners were also able to directly request exercise tests, 24 hour tapes and echocardiograms. At Denmark Hill I provided an arrhythmia and pacing service to the region as well as general invasive cardiology service. I initiated implantation of defibrillators both epicardial and endocardial. I performed electrophysiology studies and performed radiofrequency ablations where necessary. I performed a large volume of dual chamber pacemaker implantation procedures. I routinely performed multivessel and high risk angioplasty with stenting. I personally trained the senior registrar in these procedures.

Following my return to Guy's Hospital in addition to my work as Clinical Director of Cardiology I initiated and ran the radiofrequency ablation service. I continued to perform radiofrequency ablation until the appointment of clinicians specialising purely in this field.

At St Thomas' I continue to perform electrophysiology studies and implant pacemakers and defibrillators. Overall, I have performed over 500 electrophysiology studies, 300 ablations, 1000 pacemaker implantations and 500 defibrillator implantations. Indeed, the complexity of pacing and defibrillator implantations has grown dramatically with the advent of heart failure pacing. I have considerable experience in heart failure pacing and defibrillator implantation and lead research in this field. I am highly experienced in the technique of laser lead extraction.

I have continued to perform all levels of angioplasty with stenting and I am one of only three recognised trainers in the department. Here my speciality is complex coronary angioplasty with drug eluting stenting.

Experience in General Medicine

As House Physician to Sir Richard Bayliss and Professor Milne at Westminster Hospital I gained experience in the management of general medical patients as well as those with endocrinological and renal disorders. I was also attached to the oncology unit and looked after patients with a wide spectrum of malignant disease receiving both radio and chemotherapy.

At the Nottingham teaching hospitals I initially worked on the professorial medical units for one year and then rotated to the neurology firm where under the guidance of Dr Godwin-Austen I became competent in this field.

On the gastroenterology firm I was directly responsible for patients and gained experience in the management of haematemesis, inflammatory bowel disease and liver failure.

I also performed peritoneal dialysis on patients with renal failure. On the metabolic unit the main interests were diabetes mellitus, hypercalcaemia and the nutritional care of severely ill patients.

During my two years stay at Guy's Hospital I was seconded to Lewisham Hospital to continue my general medical experience. I was then appointed registrar to Drs Chamberlain and Vincent in cardiology and general medicine at the Royal Sussex County Hospital, Brighton. I increased my experience in the management of patients with general medical conditions and was particularly involved in the care of those in the intensive care and cardiac care units. I worked a busy 1 in 4 rota gaining considerable experience in the management of a wide spectrum of general medical emergencies.

In my position as clinical registrar at King's College Hospital I was responsible for the care of in and outpatients with general medical and gastrointestinal conditions. I worked a 1 in 8 rota as the resident medical officer. Dr Elkington's particular interest was the management of patients with peptic ulcer disease, inflammatory bowel disease and liver disease. I have performed many jejunal biopsies, liver biopsies, insertion of chest drains.

As senior registrar at Guy's Hospital I increased my experience in general medicine. I was responsible for the management of the cardiac inpatients including their general medical conditions.

During my appointment as Consultant Physician and Cardiologist at King's College Hospital I was on the general medical take rota and performed a general medical clinic twice weekly.

Since 1992 I have no longer taken part in the general medical on call but continue to be interested in general medicine as it relates to cardiac patients.

Experience in Research

MD Thesis "The Management of Cardiac Arrhythmias in Children"

University of London

Accepted 1987

Many methods of investigation and treatment of cardiac arrhythmias are available, yet clinical information about the use in children is scant. The thesis is divided into three sections dealing first with the investigation of cardiac arrhythmias in children, secondly with their treatment, and thirdly with special problems that arise in the documentation and management of arrhythmias in children.

The four non-invasive investigations used to document the electrocardiogram (ECG) during symptoms were discussed in the first section. These included resting ECG, 24-hour ECG monitoring, exercise ECG and transtelephonic ECG recording. Using a sequential protocol, ECG documentation was achieved in almost all children with non-transient symptoms occurring more frequently than once per year.

In the second section of the thesis, sequential treatment protocols for each arrhythmia were formulated and tested. These protocols included an assessment of the need for therapy as well as selection of any treatment. Electrophysiological studies were used to guide therapy only in children who could not tolerate medical treatment or who had refractory arrhythmias.

The third section comprised a detailed discussion of the special problems that may be encountered in the management of children with arrhythmias. These comprise the following: investigations that require patient participation, the treatment in refractory narrow complex tachycardia, the use of potentially toxic antiarrhythmic drugs in children, and the use of pulse generators and pacing leads in patients who are small and growing.

Advances in the investigation and treatment of cardiac arrhythmias in children are discussed and predictions are made relating to their management in the future.

Present Research Interests

The efficacy of multivessel coronary angioplasty.

The use of biventricular pacing for patients with heart failure.

The use of laser lead extraction for pacing patients.

The prevention of angioplasty restenosis.

Experience in Teaching

I have actively participated in the education of the undergraduate medical students and nurses at each stage of my career. This has taken the form of teaching ward rounds, and tutorials, as well as formal lectures. I have been a tutor on several general practitioner courses in cardiology and have taught many candidates in preparation for the Part II MRCP examination.

At Brighton I trained and examined colleagues in the techniques of advanced life support. I also trained senior house officers to perform temporary transvenous pacing, right heart catheter studies, peritoneal dialysis, liver biopsies, and chest drain insertion.

At King's College Hospital I taught the undergraduate students in general medicine, cardiology, and clinical communication skills. This teaching took the form of formal lectures as well as bedside teaching. I taught registrars how to implant permanent pacemakers and to perform and interpret haemodynamic and electrophysiology studies. I also taught others how to perform cardiac catheterization and coronary angiography using the Sones and Judkins techniques.

I was a lecturer on the Guy's Membership course. I set up and ran the King's College Membership course. I was on the postgraduate training committee and heavily involved in the development of the postgraduate medical centre.

Since my arrival at Guy's in 1992 I have taught registrars how to implant permanent pacemakers and to perform and interpret haemodynamic and electrophysiology studies. I have also taught others how to perform cardiac catheterization and coronary angiography using the Sones and Judkins techniques. In addition I teach the more experienced registrars to perform dual chamber and biventricular pacing, His bundle ablation, laser lead extraction and coronary angioplasty. I am one of only three clinicians in the cardiac department at St Thomas' with sufficient ongoing experience to teach coronary angioplasty. I am a recognised teacher in the University of London.

Internationally I am one of very few teachers in the techniques of biventricular pacemaker implantation and laser lead extraction. As such I am a regular member of faculties nationally and internationally at conferences and courses.

I have supervised my research fellows to MD and PhD with the latest fellow achieving research fellow of the year at the British Cardiac Society and a close second at the NASPE meeting in the USA. This was with differing projects both reaching fruition simultaneously.

Experience in Management

Throughout my appointment as Consultant at King's College Hospital I managed the Cardiology Department at King's College, Dulwich. This department increased in size physically and in patient numbers as well as in the range of services offered.

In February 1991 I became the Unit Clinical Representative for King's College, Dulwich and as such a Care Group Director. In this position I was heavily involved in the management of change at Dulwich and King's College Hospital. I participated in the Care Group Directors meetings and I was a member of the Medium Term Strategy Group. I was a member of the Steering Advisory Groups concerning junior doctors hours and the function of the outpatient department.

I attended the Top Management Development Programme held by South East Thames Region including the PENN State Course. As a follow on from the PENN State Course I became a member of the PENN State Strategy Group. This group advised the Chief Executive in relation to management change within the hospital and the impact of the NHS reforms.

I was the Secretary to the Regional Speciality Sub-Committee in Cardiology for over five years. I was also a member of the Advanced Cardiology Technology Group.

I joined Guy's Hospital in 1992 as the Clinical Director of Cardiology charged with reorganising the department both clinically and financially. This represented a significant challenge on both fronts but was successfully achieved. I managed the merger of Guy's and the Brook cardiology services and formed strong links to the community both at hospital and at GP level.

Following the merger of Guy's and St Thomas' I became the Clinical Director of Cardiology for both sites and subsequently the Clinical Director for Cardiac Services. I managed the difficult process of merger of these services to one site often needing to overcome considerable pressures from all levels of staff on both sites who were opposed to the merger and site choice. Throughout this period the services were maintained within the financial constraints of the National Health Service.

In October 2002 I was persuaded by the Chief Executive and my colleagues to accept the appointment of Clinical Director of Cardiac Services once more. The directorate was in financial disarray with a significant predicted end of year loss. In addition the future planning and strategy for cardiac services was a shambles. By the end of the financial year 2002/3 the directorate was solvent and I was heavily engaged in the negotiations to reorganise Kent cardiological provision. In 2003/4 the directorate was one of very few in the hospital with a declared surplus. My strategy for Kent and for south London cardiac services was accepted with minor modification by the Heart Team and Department of Health. This has led to the widespread

provision of cardiac catheter laboratories in Kent linked to the two teaching hospitals in south east London. All cardiac surgery will continue to be performed in these two centres, a feature that was under significant threat.

The Trust board chose to use cardiac services as the launch pad for the McKinsey investigation and rationalisation of services. I have been instrumental in ensuring that this project has been successful. This initiative has taken place at the same time as major reorganisation across the Trust in the wake of achieving Foundation status. The directorate continues to run with a financial surplus and with high patient satisfaction in the setting of increasing focus on training and research.

I currently have responsibility for the Cardiology and Cardiothoracic directorate with an annual income of £43.8 Million and employment of over 300 staff. The directorate provides outpatient services for over 20,000 patients undergoing 100,000 non-invasive procedures. There are over 7,500 cardiology invasive procedures, 1,400 cardiac operations, and 1,000 thoracic operations annually.

Peer Reviewed Publications

Dadzie O. Hujairi NM. **Bucknall C.** Redwood S. Rubens M. Goldsmith D.
Inflammation and coronary calcification in renal patients – factors that may explain increased cardiovascular risk, and poorer results of coronary interventions?
Journal of Nephrology. 17(1):118-24, 2004

Rinaldi CA. Simon RD. Baszko A. Bostock J. Elliot D. **Bucknall CA.** Gill JS.
A 17 year experience of inappropriate shock therapy in patients with implantable cardioverter-defibrillators: are we getting any better?
Heart (British Cardiac Society). 90(3):330-1, 2004

Lambiase PD. Rinaldi A. Hauck J. Mobb M. Elliott D. Mohammad S. Gill JS. **Bucknall CA.**
Non-contact left ventricular Endocardial mapping in cardiac resynchronisation therapy.
Heart (British Cardiac Society). 90(1):44-51, 2004

Lambiase PD. Edwards RJ. Cusack MR. **Bucknall CA.** Redwood SR. Marber MS.
Exercise-induced ischaemia initiates the second window of protection in humans independent of collateral recruitment.
Journal of the American College of Cardiology. 41(7):1174-82, 2003

Rinaldi CA. Simon RD. Baszko A. Bostock J. Elliot D. **Bucknall C.** Gill JS.
Can we predict which patients with implantable cardioverter defibrillators receive appropriate shock therapy? A study of 155 patients.
International Journal of Cardiology. 88(1):69-75, 2003

Yousef ZR. Redwood SR. **Bucknall CA.** Sulke AN. Marber MS.
Late intervention after anterior myocardial infarction: effects on left ventricular size, function, quality of life, and exercise tolerance: results of the Open Artery Trial (TOAT Study).
Journal of the American College of Cardiology. 40(5):869-76, 2002

Cusack MR. Marber MS. Lambiase PD. **Bucknall CA.** Redwood SR.
Systemic inflammation in unstable angina is the result of myocardial necrosis.
Journal of the American College of Cardiology. 39(12):1917-23, 2002

Gras D. Leclercq. Tang AS. **Bucknall C.** Luttikhuis HO. Kirstein-Pedersen A.
Cardiac resynchronization therapy in advanced heart failure the multicenter InSync clinical study.
European Journal of Heart Failure. 4(3):311-20

Rinaldi CA. **Bucknall CA.** Gill JS.
Beneficial effects of biventricular pacing in a patient with hypertrophic cardiomyopathy and intraventricular conduction delay.
Heart 87(6):e6, 2002

Chambers J. Blauth C. **Bucknall C.** Eykyn S.
Images in clinical medicine. Aspergilloma as a complication of pacemaker implantation.
New England Journal of Medicine. 346(6):428, 2002

Rinaldi CA. Bostock J. Patel N. **Bucknall CA.**
Determinants of procedural outcome of chronically implanted pacemaker and defibrillator leads using the Excimer laser sheath.
Heart 87(2):160-1, 2002

- Fragakis N. Kotsakis A. Patel N. Bostock J. Rosenthal E. Holt P. **Bucknall C.** Gill J.
Atrial flutter ablation: efficacy and cost-effectiveness of a single decapolar electrode to demonstrate bi-directional isthmus block.
Europace. 3(4):304-10, 2001
- Ward KJ. Willett JE. **Bucknall C.** Gill JS. Kamalvand K.
Atrial arrhythmia suppression by atrial overdrive pacing: pacemaker Holter assessment.
Europace. 3(2):108-14, 2001
- Lambiase P. Edwards R. **Bucknall CA.** Marber MS.
Physiologically assessed collateral flow and intracoronary growth factor concentrations in patients with 1- to 3-vessel coronary artery disease.
Circulation. 103(4):E22, 2001
- Kamalvand K. Tan K. Lloyd G. Gill J. **Bucknall C.** Sulke N.
Alterations in atrial electrophysiology associated with chronic atrial fibrillation in man.
European Heart Journal. 20(12):888-95, 1999
- Kamalvand K. Tan K. Kotsakis A. **Bucknall C.** Sulke N.
Is mode switching beneficial? A randomized study in patients with paroxysmal atrial tachyarrhythmias.
Journal of the American College of Cardiology. 30(2):496-504, 1997
- Kamalvand K. Tan K. Kotsakis A. **Bucknall C.** Sulke N.
Ambulatory patient-activated arrhythmia monitoring: comparison of a new wrist-applied monitor with a conventional precordial device.
Journal of Electrocardiology. 30(2):127-31, 1997
- Sulke N. Tan K. Kamalvand K. Bostock J. **Bucknall C.**
Dual sensor VVIR mode pacing: is it worth it?
Pacing & Clinical Electrophysiology. 19(11 Pt 1):1560-7, 1996
- Kamalvand K. Kotsakis A. Tan K. **Bucknall C.** Sulke N.
Evaluation of a new pacing algorithm to prevent rapid tracking of atrial tachyarrhythmias.
Pacing & Clinical Electrophysiology. 19(11 Pt 2):1714-8, 1996
- Rosenthal E. Qureshi SA. Tynan M. **Bucknall CA.**
Percutaneous pacemaker lead extraction and stent implantation for superior vena cava occlusion due to pacemaker leads.
American Journal of Cardiology. 77(8):670-2, 1996
- Sulke N. **Bucknall C.**
A major "minor coronary anomaly".
Resuscitation. 28(1):43-4, 1994
- Smyth DW. Thomas S. Thomas MR. **Bucknall CA.** Jewitt DE.
A randomised comparison of the Omniflex and Magnarail systems in recanalisation of coronary occlusions.
British Heart Journal. 71(4):378-81, 1994
- Smyth DW. Martin JF. Michalis L. **Bucknall CA.** Jewitt DE.
Influence of platelet size before coronary angioplasty on subsequent restenosis.
European Journal of Clinical Investigation. 23(6):361-7, 1993
- de Belder AJ. Radomski MW. Why HJ. Richardson PJ. **Bucknall CA.** Salas E. Martin JF. Moncada S.
Nitric oxide synthase activities in human myocardium.
Lancet. 341(8837):84-5, 1993

- Smith RE. Palmer RM. **Bucknall** CA. Moncada S.
Role of nitric oxide synthesis in the regulation of coronary vascular tone in the isolated perfused rabbit heart.
Cardiovascular Research. 26(5):508-12, 1992
- Sulke AN. **Bucknall** CA. Sowton E.
Supraventricular tachycardia control with Tachylog II: long-term follow-up.
Pacing & Clinical Electrophysiology. 13(12 Pt 2):1960-6, 1990
- Koster RW. van Stralen R. McNeill AJ. Adgey AA. Fox KA. Dymond D. Sponzilli C. Jewitt D. **Bucknall** C. Kluft C.
A randomized dose-ranging study of rt-PA in acute myocardial infarction. Effects on coronary patency and fibrinolytic parameters.
European Heart Journal. 11(8):730-9, 1990
- Sulke AN. Pipilis A. Henderson RA. **Bucknall** CA. Sowton E.
Comparison of the normal sinus node with seven types of rate responsive pacemaker during everyday activity.
British Heart Journal 64(1):25-31, 1990
- Sulke N. Pipilis A. **Bucknall** C. Sowton E.
Quantitative analysis of contribution of rate response in three different ventricular rate responsive pacemakers during out of hospital activity.
Pacing & Clinical Electrophysiology. 13(1):37-44, 1990
- Henderson RA. Karani S. **Bucknall** CA. Dritsas A. Timmis AD. Sowton E.
Clinical outcome of coronary angioplasty for single-vessel disease.
Lancet. 2(8662):546-50, 1989
- Rosenthal E. Montarello JK. **Bucknall** CA. Fagg N. Curry PV.
His bundle ablation with the laser thermal probe ("hot tip"): a feasibility study.
Pacing & Clinical Electrophysiology. 12(5):812-22, 1989
- Bucknall** C. Brooks D. Curry PV. Bridges PK. Bouras N. Anker SI.
Mianserin and trazodone for cardiac patients with depression.
European Journal of Clinical Pharmacology. 33(6):565-9, 1988.
- Bucknall** C. Darley C. Flax J. Vincent R. Chamberlain D.
Vasculitis complicating treatment with intravenous anisoylated plasminogen streptokinase activator complex in acute myocardial infarction.
British Heart Journal. 59(1):9-11, 1988
- Bucknall** CA. Lewis S. Vincent R. Jackson G. Jewitt DE. Chamberlain DA.
Transvenous cardioversion for the management of recurrent ventricular arrhythmias.
British Heart Journal. 58(3):245-50, 1987
- Ikram S. Lewis S. **Bucknall** C. Sram I. Thomas N. Vincent R. Chamberlain D.
Treatment of acute myocardial infarction with anisoylated plasminogen streptokinase activator complex.
British Medical Journal Clinical Research Ed.. 293(6550):786-9, 1986
- Bucknall** CA. Morris GK. Mitchell JR.
Physicians' attitudes to four common problems: hypertension, atrial fibrillation, transient ischaemic attacks, and angina pectoris.
British Medical Journal Clinical Research Ed.. 293(6549):739-42, 1986

Bucknall CA. Keeton BR. Curry PV. Tynan MJ. Sutherland GR. Holt DW.
Intravenous and oral amiodarone for arrhythmias in children.
British Heart Journal. 56(3):278-84, 1986

Keeton BR. **Bucknall CA.** Curry PV. Joseph MC. Sutherland GR. Holt DW.
Use of amiodarone in childhood.
British Journal of Clinical Practice. Supplement. 44:115-20, 1986

Hosking DJ. Cowley A. **Bucknall CA.**
Rehydration in the treatment of severe hypercalcaemia.
Quarterly Journal of Medicine. 50(200):473-81, 1981

Lectures and Presentations

I have been an invited lecturer and member of faculty at many national and international conferences and courses.

I have presented my original research work throughout the world as part of the peer review process.

Contributions to Books and Videos

Bucknall C A Henderson R A Sowton E
Coronary angioplasty - who needs it?
Horizons in Medicine Vol 1. Ed: Bunch C Balliere Tindall 1989; 21-28

Bucknall C
The management of arrhythmias in children
Difficult Cardiology. Ed: Jackson G Martin Dunitz 1990; 211-243

J E Lynas
The Heart of Delicious Cooking
Pulse Medical Publishing 1993

Exercise & Win Every Time (video)
Pulse Medical Publishing 1993

Love Your Heart (video)
Pulse Medical Publishing 1993