

British Renal Society Research Report 2011





Charlie Tomson
Research Chair 2001-2003



Ken Farrington
Research Chair 2004 - 2007



Simon Ball
Research Chair 2008-present



Richard Fluck
BRS President-elect



Jane Macdonald
BRS President

Table of Contents

| | | |
|---|--------------|---------|
| The British Renal Society | Introduction | 2 |
| BRS Achievements | | 3 |
| BRS Research Programme | | 4 |
| BRS Research Committee | | 5 |
| BRS-Kidney Research UK Joint Fellowship | | 6 |
| BRS Research Mission | | 7 |
| BRS Research Initiative | | 8 |
| BRS/Kidney Research UK Fellows | | 9 - 14 |
| Funding Rounds | | |
| 2010 Round 10 | | 15 - 16 |
| 2009 Round 9 | | 17 |
| 2008 Round 8 | | 18 |
| 2007 Round 7 | | 19 |
| 2006 Round 6 | | 20 |
| 2005 Round 5 | | 21 - 22 |
| 2004 Round 4 | | 23 |
| 2003 Round 3 | | 24 |
| 2002 Round 2 | | 25 |
| 2001 Round 1 | | 26 |
| Papers and Abstracts | | 27 - 29 |
| BRS & International Presentations | | 30 - 36 |
| Applying for Funding | | 37 |

www.britishrenal.org

The British Renal Society Strength from a broad base

A range of professional associations involved in every aspect of patient care (shown below) are affiliated to the BRS. Critically these also include the National Kidney Federation representing patients and carers and the Association of Renal Industries. Patients and carers are central to all BRS activities, and the multidisciplinary research funded by the BRS is by definition patient-centred research. The important role of industry in development and delivery of renal care in this country is also recognised by their representation on council through the Association of Renal Industries.

- Anaemia Nurse Specialist Association
- Association of Renal Industries
- Association of Renal Managers
- Association of Renal Technologists
- British Association of Social Workers, Renal Special Interest Group
- British Dietetic Association, Renal Nutrition Group
- British Association for Paediatric Nephrology
- British Transplant Society
- European Dialysis and Transplant Nurses Association / European Renal Care Association
- National Kidney Federation (Patients & carers)
- Royal College of Nurses Nephrology Nursing Forum
- Renal Pharmacy Group
- Society for District General Hospital Nephrologists
- The Renal Association (Physicians & Scientists)
- The Renal Psychological Services Group

Message from the BRS President

The BRS now works with the British Kidney Patients Association

The British Renal Society and British Kidney Patients Association are two organisations that put patients with kidney disease and their carers at the heart of everything they do. In 2010 the BRS and BKPA formed an exciting alliance, to enhance the delivery of research based firmly in the clinical arena. The BKPA's central aim is improving the lives of kidney patients. They recognised that research supported by the BRS could identify how best to achieve this aim.

Similarly, the two organisations appreciated the importance of developing individuals from all professions involved in the care of kidney patients, as leaders and advocates. Participation in patient-centred research plays a crucial role in this development: you can read about this within the pages of our report.

Both organisations are keen that the opportunity to be involved in research is open to as many groups, locations and professions as possible...and of course that ideas arising from every day contact with patients get a chance to be assessed. These principles form the basis of a strong collaboration, which will benefit kidney patients across the community. The BKPA and BRS will collaborate to develop new ways of achieving these various aims. A wealth of additional experience has also already been brought to; grants review process and a vital £100,000 of annual funding over the next three years. Come along and see what this can achieve at the BRS Research for Renal Symposium at the annual conference.

Jane Macdonald, Assistant Director Nursing
Salford Royal NHS Foundation Trust

The British Renal Society

The British Renal Symposium was inaugurated in 1989 to promote dialogue between the many groups supporting professionals involved in the care of patients with kidney disease. The central aim of the symposium was to facilitate professional development across these different groups through an annual meeting.

In 2001 the British Renal Symposium became the British Renal Society and the following year it registered as a charity. The role of the 'BRS' has since developed in areas where its strong multi-professional representation are valued, in particular informing and influencing national policies in kidney care.

From its inception the BRS recognised that there was a need to develop patient centred, multi-professional research to generate an evidence base for day to day clinical practice. Support for such research was perceived to be under-represented in conventional funding routes. A programme to support research that met these needs was therefore developed. It remains an important component of the BRS mission of enhancing the care of all those with kidney disease.

The annual meeting remains an important element of BRS activity. It now affords an opportunity to develop practice through sharing research, it remains a touchstone for continuous development across the multi-professional team.

In summary, the BRS aims to promote quality of care and improved quality of life for patients with kidney disease, their families and carers. It does so by informing national policy, educating professionals involved in the care of patients, encouraging interdisciplinary working and supporting patient centred clinical research.



British Renal Society

registered charity no. 1081024

The BRS Research Programme

The British Renal Society's research funding programme began in 2001. It has the specific aim to promote research directly relevant to the immediate needs of patients, in particular through projects in which there is multi-professional involvement.

This not only reflects the mission and diverse constitution of the BRS but these two aspects of our goal are in many ways complementary. Multiprofessional involvement usually focuses research questions on the immediate needs of patients.

Applications for funding are judged by an independent research committee on the basis of these criteria and on the strength of the case made. Projects undertaken by professions that often find funding difficult to secure is encouraged as part of the BRS mission to promote a culture of research across the whole renal community. An established 'track record' is therefore not necessary for funding by the BRS, just a good idea and a supportive clinical team.

As of 2010 around 50 project grants have been awarded with principal applicants including dieticians, nurses, psychologists, counsellors, social workers, clinical scientists and nephrologists. All of these projects reflect multiprofessional involvement in their application and execution.

The outcome from these projects can be assessed from the number of abstracts presented at national and international meetings shown on pages 30-36. In addition 26 articles have appeared in peer-reviewed journals by the time of publication of this report with many more in press.

These cannot be the only measure of success however. Research funded by the BRS meaningfully contributes to practice development, in areas such as the relationship between quality of life and treatment choice in established renal failure or in identifying the information needs of patients on dialysis by reports from principal investigators. Research funded by the BRS is exemplified on pages 9-26.

In addition to project grants the BRS has collaborated with Kidney Research UK to fund a joint fellowship targeted at allied health professionals to undertake a period of research, and this continues to go from strength to strength.

The British Renal Society is a recognised partner organisation of the National Institute for Health Research (NIHR).

BRS / BKPA Research Committee - 2011

| | | |
|---------------------|---------------------------------------|----------------------------------|
| Simon Ball | Nephrologist | Research Group Chair |
| Jane Macdonald | Assistant Director of Nursing | |
| Ken Farrington | Nephrologist | President BRS |
| Richard Fluck | Nephrologist | Treasurer BRS President-elect |
| Fergus Caskey | Nephrologist | UK Renal Registry |
| Robin Eady | Physician | BKPA |
| Barbara Engel | Dietitian | BDA |
| Maria da Silva Gane | Renal Counsellor | |
| Colin Geddes | Nephrologist | |
| Nicholas Hoenich | Clinical Scientist | ART |
| Chris Jones | Consultant Nephrology Nurse | |
| Donna Lamping | Research Psychologist | |
| Rosemary Macri | Chief Executive | BKPA |
| Richard McManus | GP | |
| Margaret Mitchell | Social Worker | BKPA |
| Paula Ormandy | Sr. Lecturer Research Nurse | |
| Veronica Swallow | Sr. Lecturer in Children's Nursing | |
| Angela Summers | Research Scientist | |
| Marc Vincent | Pharmacist | RPG |



The British Renal Society - Kidney Research UK joint fellowship



Mr Joseph Chilcott
Research psychologist
Lister Hospital Stevenage

Depression and perception of
illness among the dialysis
population:
a longitudinal investigation



Nicola Thomas
SW Thames Institute for
Renal Research
St. Helier Hospital

Can an innovative patient-
centred education programme
control the parameters that
delay the progression of
diabetic nephropathy?



Natasha McIntyre
Research Fellow
Derby Hospitals NHS
Foundation Trust

Defining the risk of renal
function decline and
cardiovascular disease among
patients with chronic kidney
disease stage 3 in primary
care: the Renal Risk in Derby
Study



Mhairi Sigrist
Renal Research Dietitian
Derby City General Hospital

Determinants & Cardiovascular
Consequences of Vascular
Calcification in CKD patients



Lesley Lappin
Clinical Nurse Specialist
Salford Royal NHS
Foundation Trust

Evaluation and Analysis of
factors affecting the
sustainability of quality
improvement effort

The BRS research mission

The Society

The British Renal Society (BRS) brings together health professionals from the full range of disciplines involved in the provision of care for people with kidney disease.

The overarching aim of the Society is to extend and enhance the lives of people with kidney disease and their carers, by improving patient-focussed care and multi-professional teamwork.

The major activities underpinning this are:

- **promotion and provision of education and training for health professionals**
- **support for people with kidney disease and their carers**
- **support of multi-professional clinical research**

The Research Mission

The BRS Research Initiative funds high-quality peer-reviewed clinical research focused on improving care for people with kidney disease. Over the last ten years it has supported over 50 projects at the cost of around £1.1 million. The Society occupies a unique position in funding kidney research, which is defined by its entirely clinical focus, with an accent on care, and its multi-professional ethos. This allows us to identify strongly with patient and carer experiences, foster creative innovation arising from the “shop floor”, and provide a measured and inclusive view of priorities and projects.

We seek to support research which:

- **is of direct relevance to the needs of people with kidney disease and their carers by improving care**
- **involves members of the multi-professional team in a manner which enhances teamwork**
- **facilitates the implementation of NHS priorities including the National Service Framework for Renal Disease and the End-of-Life Strategy.**
- **contributes to the training and career development of health professionals with a long-standing commitment to those with kidney disease**

The Funding streams available are:

- **Annual open call for applications for research grants, in conjunction with the BKPA**
- **Annual award of BRS/Kidney Research UK Fellowship to support non-medical researcher**

Funding the BRS research initiative

Over the past seven years, the Society has funded around £1.1 million of multiprofessional research into various aspects of kidney disease. The unique approach of the BRS, in funding research undertaken by the people treating patients, has proved a winning formula. This is shown by the high quality research undertaken since 2001 and an ever increasing number of grant applications. It is a success story, not only for the BRS but crucially for kidney patients whose quality of life and longevity are continuously addressed by the research supported by the Society. The approach taken is not unlike that of the successful GB cycling team, we are not looking for a 'magic ingredient or secret' but to 'aggregate marginal gains'... continuously. Three main sources of funding have allowed us to achieve the success measured in the 2008 'Research Report'.

Firstly we are indebted to the Amgen Foundation who provided considerable seed funding for the research initiative in an exclusive arrangement that ended in 2008.

Secondly our educational activities and entire administrative infrastructure are funded from the proceeds of our annual conference and the research initiative benefits from the excellent BRS secretariat. This means our research funding goes just where it is needed.

Finally we have benefited from charitable activities, most notably the sponsored 'Run for Renal' which has raised significant funds over recent years, with the kind help of Roche.

Finding the funds to enable the Society to continue supporting multidisciplinary research is however, an ongoing concern and at the forefront of the Society's future plans. The Society needs to secure a minimum of £250,000 each year. This will allow it to support between 10-15 research topics that fall within its identified priority areas. It has recognised that in order to attract funding from a variety of donors, it must be more visible, more easily accessible, its work more clearly defined for a broader audience, and long-term funding relationships enhanced and encouraged.

To focus attention on the urgent and continuing need for funding, the Society has launched "Research for Renal", the public face of the society's first fundraising strategy. Although part of the Society, Research for Renal will have its own identity and website, and will encourage and foster a two way relationship with donors through research e-updates and partnerships.

Debbie Sutton Dietician



I have worked as a Research Renal Dietitian for seven years. In that time I have designed and carried out to completion seven projects. All have been directly related to patient experience and based on my observations as a clinical dietitian or prompted by other colleagues. The funding for each project has come from a number of different sources, and more funding has been

applied for than has been received!

Working in a small and specialized field seems to make applications to large or generic bodies difficult. In competition with others working in areas such as diabetes and heart disease, the number of patients included in renal studies and the perceived impact that the work will have on the wider population is not seen to be sufficiently significant to attract funding support.

Over the last decade or so, there has been a move to improve the access to research for non medical and non laboratory based professionals in health care. This has perhaps made it a good time for an Allied Health Professional such as myself, to become involved, and to an extent it has. However, recent messages from central sources imply that this kind of support, offered to those new to research, carrying out comparatively simple projects and working in units which do not have an established research team or tradition is likely to be withdrawn.

The support of BRS in the form of Research Awards has been crucial to my ability to carry out my projects, particularly in the way it specifically supports renal work, and more importantly, wishes to encourage the kind of work I want to do and the people with whom I need to work. Renal patient care is essentially a multi-disciplinary effort and this is reflected in the design of all my studies.

In addition to the financial support I have received, recognition of my work has opened other opportunities to me such as guest speaking, participation in various national working groups associated with renal care, and editorial and peer review work for journals, all of which I have very much enjoyed contributing to.

Maria da Silva Gane
Counsellor



Research project: Prospective comparison of quality of life assessments in patients with end stage renal failure treated conservatively and those on renal replacement therapy.

Over the last decade or so there has been an increasing recognition, development and provision of conservative management as a viable treatment option for patients with chronic renal failure. Although the research and publications in this important area has also increased over the last decade there is still a need for further research in this important area. At the time of applying for and receiving the grant from BRS there was not any research that investigated whether patients receiving conservative management experience an impaired quality of life in comparison to those who receive dialysis.

We were fortunate to be awarded a BRS pro-active research grant in 2004/2005. This grant enabled the renal team at Lister Hospital, Stevenage to carry out a prospective research project looking into the quality of life of patients with end stage renal failure, both those who chose to have dialysis as well as those who decided upon a conservative management pathway. The study was multidisciplinary involving nephrologists, nursing staff, counsellor, and psychology research assistant and collaboration with the Centre for Lifespan and Chronic Illness Research (CLiCIR) at the University of Hertfordshire in Hatfield. The final analysis of the research has been presented at conference, and reports are being prepared for publication as well as shared with the participants of the study. Importantly it will also have direct implications for service delivery, by informing and enabling the team to improve the service offered to patients.

Support by BRS has allowed registration of the study onto the UKCRN portfolio. It has also led to the team to be invited to collaborate with other renal teams in the UK on various research projects concerned with conservative management. The Lister team has been encouraged by these developments to apply, and to be successful in securing a research grant from the National Institute of Health Research (NIHR) which will enable them to carry out a multidisciplinary research project into end of life care issues.

Nicola Thomas Nurse



Nicola Thomas was awarded the first joint British Renal Society/Kidney Research UK Fellowship in 2004, and received the award again in 2006. Nicola is a registered nurse, who started her career in renal nursing in 1982, and has worked in nephrology wards, haemodialysis and peritoneal dialysis units across London. She is currently a senior lecturer in the School of Community and Health Sciences, City University, London.

She is also the part-time project co-ordinator of the 'Quality Improvement in Chronic Kidney Disease' study – a national study exploring the best ways to manage early kidney disease in primary care.

The Fellowship has enabled Nicola to undertake a part-time Doctorate (PhD) at City University, by funding her salary one day per week for four years. The idea for her PhD thesis developed out of an interest in managing the care of people who have diabetes, and also out of a specific interest in patient education. After many years of working in dialysis, Nicola felt that the focus of care should move towards prevention, particularly as so much can be done to slow down the progression of kidney disease in primary care.

The Doctoral study has enabled a self-management package, for people with early kidney disease caused by diabetes, to be developed in collaboration with patients. The package is being tested in six GP surgeries in south-west London, to determine whether an increased awareness of self-management can control the progression of this condition. Results are being analysed in Autumn 2008 and the work will be completed at the end of the year.

This has been an exciting opportunity for Nicola, particularly as it is much more difficult for nurses to attract funding for research training Fellowships than it is for doctors or scientists. The setting-up of this Fellowship by the British Renal Society and Kidney Research UK has enabled a research study that has involved, and hopefully will make a real difference to people who have kidney disease.

In terms of career progression, Nicola is now looking to continue her work in preventing and managing early kidney disease, particularly in the community. She wishes to continue influencing clinical practice though teaching, but at the same time undertake clinical research. This could be within a clinical academic training pathway for nurses, an initiative to be launched in Autumn 2008 by the National Institute for Health Research.

Paula Ormandy Nurse



BRS Annual Report: Dr Paula Ormandy Research Grant Recipient (February 2006- March 2007)

I was fortunate to be awarded a BRS grant that commenced in 2006-2007 to develop a study to identify and measure the information needs of CKD patients. Responding to the Renal National Service Framework, the study aim was to generate an evidence base for information provision by exposing the information needs, and preferences of CKD patients through robust empirical research.

The premise of the research being that CKD patients had preferred key information topics that are of a priority to them at different times during the progression of their disease.

One of the key and crucial aspects of the study was the structure and participation of an expert group, made up of clinicians, researchers and a patient advocate who advised and guided the research. The research grant facilitated the meeting of this particular group, the dedicated time of an experienced researcher to perform data collection, alongside the secondment of a senior staff nurse to gain valuable research experience and training. The patient involved in the research team and the researcher collaboratively disseminated study findings at the BRS conference in 2007.

The study formed part of a wider PhD study (undertaken from 2005-2008) to not only measure and identify the information preferences and priorities of CKD patients but also to generate a deeper understanding of why information is needed, the purpose and use of information by patients. The initial research grant contributed to the successful completion of the doctoral study by facilitating the time to undertake a considerable part of the complex data collection.

The results have direct relevance to practice and patient care by increasing health professionals understanding of patient information need. The core information needs identified can be applied in clinical practice (as a topic guide) to initiate patient discussion and draw out specific individual information need. The evidence base developed from the in-depth study informs and supports the current and future content of patient education programmes ensuring they meet and address the needs of patients. A national guideline developed by NICE for the management of CKD patients has adopted the study findings to guide the focus of information provision. This study provides a clear example of how the BRS grant programme by providing research funding opportunities facilitates high quality research that impacts directly on patient care.

Ed Lamb
Clinical Scientist



In east Kent we have been the grateful recipient of three BRS grants relating to two research studies in the last few years. Both studies are multidisciplinary, engaging nephrologists, NHS clinical scientists, nursing staff and geriatricians and both studies have a strong clinical, as opposed to laboratory, emphasis. One of these studies addressed the interaction between chronic kidney disease and risk of bone disease in a residential care home setting whilst the other is assessing the usefulness of cystatin C as a marker of peritoneal dialysis adequacy and outcome. Further, we are conducting our research in a district general hospital environment outside of a traditional teaching hospital research centre: it is possible that other funding bodies might not have looked so favourably on these grant applications. Funding for these studies from the BRS has enabled us to achieve publications in well-respected peer-reviewed nephrology journals, which has been of great value when applying for more extensive funding from other sources. With the recent recognition of the BRS as a suitable sponsor for registration of studies on to the UK CRN portfolio, successful BRS grant recipients will be able to access further support through their Comprehensive Local Research Networks.

Chris McIntyre Nephrologist



Initial and continued funding from the BRS has been crucial in the setting up and execution of an integrated research program specifically directed at the physiologically frail chronic kidney disease (CKD) patient. These studies include basic science, clinical science and direct translation through to developing novel therapies to reduce the enormously elevated rate of morbidity and mortality in this patient group.

These studies have increasingly focussed on the adverse consequences resulting from dialysis therapy itself, and are now leading to a widespread national and international collaborative study. This work has developed unique novel insights into the pathophysiology of the most common causes of death in patients with CKD, and has generated important changes in clinical practise.

Of particular importance is the fact that initial support from the BRS has been a vital enabler of continued research activity, within a field (dialysis and clinical nephrology) which has historically attracted very little dedicated funding in the UK (despite renal replacement therapy due to consume 5% of the entire NHS budget within the next 5 years). Support by the BRS has allowed registration of these studies onto the UKCRN portfolio and provides access to NHS R&D support funding, as well as crucial pump priming to allow additional successful applications to other funding bodies, with robust initial data to strengthen these applications. I would estimate that each £1 of funding from the BRS has ultimately roughly enabled me to raise around four times that amount for subsequent work in the initially supported area.

Summary of 10th Round BRS Grant Awards (2010)

These grants have been awarded by the BRS working in collaboration with the British Kidney Patient Association

| Recipient | Institution | Title of Project | Brief Description of the Project | Amount |
|------------------------|------------------------------------|--|--|-------------|
| Miss Helen MacLaughlin | Kings College Hospital, London | A prospective cohort study of laproscopic sleeve gastrectomy for obese patients on haemodialysis - pilot study | Obesity is an independent risk factor for the development of chronic kidney disease (CKD) and end stage renal failure. The emerging relationship between CKD and obesity is complex, as obesity contributes to CKD progression, yet may be protective in haemodialysis patients. This presents a clinical dilemma when managing obesity in CKD patients, as lifestyle based obesity treatment has limited effectiveness. Weight loss surgery has been shown to result in sustained weight loss, and reduce diabetes and cardiovascular risk factors, yet has been poorly studied, to date, in obese haemodialysis patients. This is a prospective cohort pilot study to explore the efficacy of laparoscopic sleeve gastrectomy in enabling obese patients undergoing haemodialysis to reach a body mass index (BMI) of < 35 kg/m ² and to monitor safety of the procedure in this patient group. This is phase two of our obesity in CKD research programme and will preface a planned multi-centre randomised controlled trial on the effectiveness of weight loss surgery in reducing mortality and cardiovascular morbidity in obese patients on haemodialysis. | £19,710.00 |
| Dr Alice Smith | University of Leicester | Barriers and Motivators to Implementation of an Intradialytic Exercise Programme | Much evidence suggests that despite the benefits of intradialytic exercise, many patients are reluctant to engage in it, and that dialysis unit staff can also be resistant. We plan to develop and implement a motivational/educational programme specifically for dialysis patients and staff, which will encourage and facilitate sustained patient behaviour change to incorporate exercise into their routine dialysis sessions. It is important to evaluate and incorporate the perspectives and needs of the patients themselves at an early stage in the development of such an educational tool. This project is designed as a first step in the development of the tool. We will use qualitative research techniques to explore the attitudes and perceptions of kidney patients and dialysis unit staff around exercise, to identify factors which act as barriers (to be addressed) and motivators (to be utilised) in the education programme. | £18,775.00 |
| Dr Colin Jones | York Hospital NHS Foundation Trust | The Feasibility of using the Dietary Approaches to Stop Hypertension diet in people with Chronic Kidney Disease and hypertension | In the general population the Dietary Approaches to Stop Hypertension (DASH) diet is supported by robust evidence. This diet advocates an increase in fruits, vegetables, and low fat dairy food intake. These dietary changes are a concern in the CKD population, where impaired kidney function may increase the risk of hyperkalaemia and hyperphosphataemia, which are serious complications of all CKD. While the current Scottish Intercollegiate Guidelines Network (SIGN) cite the DASH diet as being of potential benefit in the CKD population its use is not promoted because of these concerns. We are not aware of any research that has investigated the safety, efficacy or use of the DASH diet in people with CKD. We plan to undertake a feasibility study to investigate the safety and acceptability of using the DASH diet in hypertensive patients with stage 3 CKD. | £49,6661.50 |

Summary of 10th Round BRS Grant Awards (2010) continued

| Recipient | Institution | Title of Project | Brief Description of the Project | Amount |
|-----------------------------|---|--|---|--------------------|
| Professor Ken Farrington | Lister Hospital Stevenage | Plotting a novel intervention for improving phosphate control in non-adherent haemodialysis patients | <p>The treatment regimen for End Stage Renal Disease (ESRD) places significant demands on patients, spanning dialysis, dietary and fluid restriction, and numerous medications, which consequently impacts on the patients' quality of life (QoL). A consequence of the treatment demand is that some elements of the treatment such as phosphate control (medication and diet) are poor. Estimates of phosphate binder medication non-adherence range between 22-74% [1]. As it is known that serum phosphate is directly implicated in cardiovascular events, and death, this is obviously an important treatment issue.</p> <p>While clinical efforts have focused on promoting patient self-management, with some success, work in Psychology on behaviour change has had little influence on clinical practice.</p> <p>In this project, the team wish to evaluate the potential for a novel intervention from the behaviour change literature, self-affirmation, to promote phosphate control among non-adherent patients. The intervention works by promoting a patient's sense-of-self (self-affirmation), which has been shown to modify the patient's acceptance of health-risk information, their self-efficacy, their intention to change, and subsequently their behaviour. This method has been shown to be effective in Public Health, but not applied in ESRD.</p> | £28,565.00 |
| Dr Paul Cockwell | Queen Elizabeth Hospital, Birmingham | Periodontal health in people with progressive chronic kidney disease: a bioclinical study | <p>Chronic kidney disease (CKD) affects more than 10% of adults and is associated with a major increased risk of morbidity and mortality. Those at highest risk from CKD can be recognised by an accelerated decline in kidney function and/or the presence of proteinuria. Conventional risk scores, such as Framingham, are of low utility in patients with CKD, as around 50% of the risk factors associated with CKD are non-traditional and have not been systematically investigated to date.</p> <p>Therefore, to identify and stratify these non-traditional risk factors, we have obtained funding for a major prospective cohort study of people with high risk CKD. This study is named Renal Insufficiency In Secondary Care (RIISC) and has recently commenced recruitment. RIISC provides a framework for this application, which requests funding to perform an expert assessment of the periodontal health of people who are recruited into the cohort.</p> | £29,826.00 |
| Total Amount Awarded | | | | £146,537.50 |

Summary of 9th Round BRS Grant Awards (2009)

| Recipient | Institution | Title of Project | Brief Description of the Project | Amount |
|---------------------|----------------------------|---|---|-------------------|
| Dr Gavin Dreyer | Royal London Hospital | The effect of vitamin D on the microcirculation of patients with chronic kidney disease and vitamin D insufficiency | <ul style="list-style-type: none"> Cardiovascular (CVS) diseases are the major cause of death in patients with renal failure, accounting for approximately half of all deaths. Recently vitamin D deficiency has been identified as a non-traditional CVS risk factor. Vitamin D has been shown to improve microcirculatory function in diabetic patients with vitamin D deficiency. This project aims to establish both the therapeutic benefit of early treatment with vitamin D therapy in the early stages of CKD and to determine how the microcirculation responds to vitamin D therapy. | £17,682.00 |
| Dr Michael Kingsley | Swansea University | Effects of supervised exercise training on metabolic syndrome and quality of life in renal transplant recipients | <p>The aims of the project are:</p> <ul style="list-style-type: none"> To determine the influence of a structured exercise training programme on conditions associated with metabolic syndrome in a group of renal transplant recipients To assess health-related quality-of-life in renal transplant recipients and determine the impact of an exercise-based lifestyle intervention on this & psychological well-being in comparison with standard care. | £33,924.00 |
| Dr Enric Vilar | Lister Hospital, Stevenage | Cystatin C estimation of residual renal function in haemodialysis – relation to inter-dialytic urine collection | <p>The aims of the project are:</p> <ul style="list-style-type: none"> To establish the removal kinetics of cystatin C by high-flux haemodialysis and haemodiafiltration To establish the magnitude of the post-dialysis rebound in cystatin C and therefore to establish a method for calculating the inter-dialytic rise in cystatin C To develop a method of predicting residual renal function from post- and pre-dialysis cystatin C levels To relate the intra-dialytic fall in cystatin C and β_2-microglobulin levels to Kt/V urea To study the relationship between changes in cystatin C and β_2-microglobulin levels throughout the dialysis cycle. | £10,335.00 |
| | | | Total Amount Awarded | £61,941.00 |

8th Round (2008)

| Recipient | Institution | Title of Project | Brief Description of the Project | Amount |
|--|--|---|--|-------------------|
| Mr Tom Crocker MSc Health Informatics | University of Leeds | Examining variety and good practice in renal anaemia management. | <p>The purpose of this study is to generate a greater understanding of the organisation of renal anaemia management and provide evidence and analysis which may enable improvements to its delivery. The current evidence base for renal anaemia management examines the methods for treating individuals. This study will provide a descriptive analysis of existing service delivery methods and then compare and contrast these with UK Renal Registry performance data.</p> <p>The study is designed to answer the questions: What differences exist in renal anaemia management processes in the participating centres and how do they relate to performance? Based on this evidence, what recommendations can be made for process improvement?</p> | £6,800.00 |
| Ms Winnie Chan Renal Dietitian | Queen Elizabeth Hospital, Birmingham | Assessing nutritional status in kidney transplant recipients | <p>The aims of the project are:</p> <ul style="list-style-type: none"> To describe the evolution of nutritional markers (physical and biochemical) following kidney transplantation To evaluate the risk factors for persistence/development of nutritional abnormalities To assess the association between nutrition and inflammation and body composition To investigate the relationship between nutrition/inflammation and i) fluid balance, ii) glucose homeostasis, iii) fatigue To provide a basis for future interventional studies aiming to improve patient outcome by improving nutrition | £31,608.00 |
| Dr Joseph Low Senior Research Fellow | University College London Medical School | A narrative study looking at the experiences of relatives and friends of Maximum Conservative Management (MCM) patients with End Stage Kidney Disease (ESKD), with the specific aim of identifying unmet support needs. | <p>The purpose of this study is to address an important gap in knowledge about the impact of ESRF on the main carers (close persons) of patients with CKD stage 5 (eGFR <15) who elect not to undergo dialysis but opt for MCM. This study is part of a phased approach to developing an intervention to meet the broader palliative needs of patients on MCM or equivalent programs.</p> | £41,757.00 |
| Total Amount Awarded | | | | £80,165.00 |

7th Round (2007)

| Recipient | Institution | Title of Project | Brief Description of the Project | Amount |
|---|---|---|---|------------|
| Dr Chris Jones Nurse Consultant | King's College Hospital, London | What is the scale of non-adherence to blood pressure medication to chronic kidney disease: its predictors and opportunities for intervention. | This pilot study aims to: <ul style="list-style-type: none"> • Measure the scale of non-adherence to RAS Inhibitors in a prevalent group of patients with CKD. • Determine the accuracy of self-reported measures of adherence that could be used in routine clinical practice compared to electronic monitoring, the current gold standard measure of adherence. • Identify the attitudes, beliefs, socio-demographic and clinical factors associated with adherence. | £7,500.00 |
| Dr Elizabeth Lindley Clinical Scientist in Renal Medicine | St James's University Hospital, Leeds | Scientific and clinical evaluation of the use of bioimpedance spectroscopy and a 3-compartment model to monitor body composition in paediatric dialysis patients. | This project proposes to determine if the Body Composition Monitor can provide body composition measurements, particularly excess fluid, that are acceptable for clinical decision support in the management of children on dialysis and to assess the benefits of using this more sophisticated system over bioimpedance vector analysis (BIVA). | £23,040.00 |
| Dr Chris McIntyre Reader in Vascular Medicine & Honorary Consultant Nephrologist | Derby Hospitals NHS Foundation Trust | Cardiovascular and Functional Consequences of Chronic Kidney Disease in Older People. | The aim of this study is to discover if the pursuit of an optimal antihypertensive strategy in the older patient with CKD may result in an exacerbation of blood pressure dysregulation and increase the propensity to fall. Furthermore to determine if such strategies may also be associated with clinically important changes in body composition, cardiovascular structure and function and overall functional status. | £55,400.00 |
| Mrs Debbie Sutton Renal Research Dietitian | Queen Alexandra Hospital, Portsmouth | A multi-centre trial to assess whether increased dietary fibre intake reduces laxative requirement in PD patients. | The aims of this study are: <ul style="list-style-type: none"> • To establish current bowel habits, laxative use and costs, among all PD patients. • To increase dietary fibre intake (using a fibre supplement or high fibre food) and assess the impact on bowel habits and laxative use. | £22,446.00 |
| Prof James Mason Professor of Health Services Research & Health Economics | Wolfson Research Institute, School for Health, Durham University | Lithium Use and Risk of Renal Failure | The study will adopt a retrospective cohort design: <ul style="list-style-type: none"> • To estimate the incidence of renal failure in the General Practice Research Database (GPRD) cohort during a ten year time period (1997-2006), in patients with bipolar disorder according to age, gender, and use of lithium (longterm/short-term/never). • To estimate relative hazard of renal failure, in patients with bipolar disorder according to use of lithium (longterm/short-term/never). A Cox multivariate regression model will permit adjustment for age, gender, known risk factors for renal disease and changes over time in patient management. <ul style="list-style-type: none"> • The dataset will provide a rich description of the pharmacological management of patients with bipolar disorder and subsequent renal failure. | £14,302.43 |

6th Round (2006)

| Recipient | Institution | Title of Project | Brief Description of the Project | Amount |
|---|---|---|--|------------|
| Dr Edmund Lamb Consultant Clinical Scientist | East Kent Hospitals NHS Trust | Prognostic significance of serum cystatin C: a novel marker of adequacy in patients with end- stage renal failure treated by peritoneal dialysis. | <ul style="list-style-type: none"> The study will assess the usefulness of a novel marker of kidney function, cystatin C, as a predictor of outcome (morbidity, mortality and technique survival) & as a surrogate measure of dialysis adequacy in PD patients. The aim is to assess whether this simple test, which can be performed using a single blood sample, could substitute for the current cumbersome, inaccurate & time-consuming methods employed to assess adequacy of dialysis in PD. | £16,615.00 |
| Dr Chris McIntyre Consultant Nephrologist | Derby Hospitals NHS Foundation Trust | Investigation of optimal reduction in dialysate temperature on systemic haemodynamics & myocardial stunning. | <p>A stepwise approach to dialysate temperature reduction will be employed to:</p> <ul style="list-style-type: none"> Determine whether there is an optimum temperature below which further reduction has no benefit on myocardial function. Help develop a widely applicable and cost effective intervention aimed at the reduction of dialysis associated cardiovascular morbidity and mortality. | £30,537.00 |
| Dr Magi Sque Senior Lecturer in Nursing | University of Southampton School of Nursing & Midwifery | Life on the list: an exploratory study of the life world of individuals waiting for a kidney transplant. | <p>The aim of this study is to:</p> <ul style="list-style-type: none"> Provide a theoretical explanation of what it means for individuals to live on a waiting list for a kidney transplant. Provide a body of knowledge to raise awareness of the effects of end stage renal disease on the lives of individuals | £44,784.00 |
| Dr Veronica Swallow Senior Lecturer, Nursing Research | Northumbria University | Fathers & mothers of children with chronic renal disease: parental roles in self-managing the condition. | <p>The aim of this study is to</p> <ul style="list-style-type: none"> Determine the separate and conjoint views of mothers and fathers on their own and their partners' roles in self-managing their child's chronic condition following referral to a paediatric nephrology unit Compare mothers' and fathers' individual and conjoint reported views Contribute to the emerging practice-based and academic knowledge bases about family self-management in chronic childhood renal disease. | £29,739.00 |

5th Round (2005)

| Recipient | Institution | Title of Project | Brief Description of the Project | Amount |
|---|---|---|---|------------|
| Dr Colin Jones Consultant Renal Physician | York Hospital Leeds General Infirmary | The effects of oral sodium bicarbonate on extracellular water in patients with Chronic Renal Failure. | <p>Purpose of proposed investigation:</p> <ul style="list-style-type: none"> To determine the effects of oral sodium bicarbonate on extracellular fluid volume and blood pressure in patients with renal failure. To determine whether or not bioelectric impedance monitoring will detect changes demonstrated by gold standard techniques of body water measurement | £36,104.00 |
| Ms Paula Ormandy Research Fellow | University of Salford, Manchester Salford Royal Hospital Trust | Identifying chronic kidney disease patients' priorities and preferences for information topics. | <p>The aim of this study is to achieve the following:</p> <ul style="list-style-type: none"> To gain insight into patients' perspectives on key informational topic areas by exploring the information needs of a group of CKD/ESRF patients To investigate whether the type of and need for information changes over time, or as a result of gender, age or minority ethnic group. To develop a measuring scale which profiles and prioritises the information needs of CKD patients and test the validity and reliability of the renal-specific Information Needs Questionnaire (INQ) To add to the theory of knowledge on gathering and measuring CKD patient information needs to inform practice and service development based on the user perspective. | £26,986.00 |
| Dr Colin Hutchison Research Fellow | Queen Elizabeth Hospital, Birmingham | A multi-centre trial to assess whether increased dietary fibre intake reduces laxative requirement in PD patients. | <p>In myeloma, renal failure is a major determinant of worse outcome.⁴ It is associated with cast formation due to intratubular precipitation of free light chains (FLC) secondary to high serum levels associated with the disease. We have performed detailed preliminary analyses that indicate that extended haemodialysis may rapidly lower serum FLC (sFLC) below the threshold for cast formation. Mathematical modeling shows that the efficacy of this treatment is up to 10 fold greater than plasma exchange. The purpose of this investigation is to assess if these findings are applicable to clinical practice. To address this we are requesting support for staffing and consumables for a pilot study of the efficacy of sFLC removal in myeloma and acute renal failure. We will use continuous haemodiafiltration for five patients to analyze in detail the kinetics of removal of sFLC in patients with levels above that associated with the development of cast nephropathy.</p> | £11,650.00 |

5th Round (2005) continued

| Recipient | Institution | Title of Project | Brief Description of the Project | Amount |
|--|---|--|--|------------|
| Ms Debbie Sutton Renal Research Dietitian | Queen Alexandra Hospital, Portsmouth | Facilitating dietary change in renal disease; investigating patient's perspectives. | The aim of this study is to explore the knowledge and beliefs CKD patients have about the role of diet in their disease presentation and management. With more patients reaching CKD via the heart disease and diabetes route, it is likely that they will have been exposed to nutrition and health information from a variety of sources, including other dietitians. This may have both positive and negative consequences and health professionals need to understand the way in which past and future dietary advice is processed within a framework of chronic disease. Patient's willingness to accept advice, particularly where it may contradict that previously provided, and their perception of the relative risks of poor diet versus say, the risks of not taking drugs, must be elucidated in order to inform effective and appropriate future interventions in this population. | £15,185.00 |
| Dr Chris McInyre Consultant Nephrologist | Derby City Hospital | Study to investigate the effects of cool dialysate on systemic haemodynamics and myocardial stunning | We propose to conduct a prospective randomised crossover study to test the hypothesis that haemodialysis induced myocardial stunning (as measured by LV regional wall motion abnormalities) can be ameliorated by reducing the dialysate temperature. We also plan to assess the affect of cool dialysis on biomarkers of myocardial damage (troponin T, NT-proBNP, IL-6). This work may potentially reveal a simple, easily applied intervention to help combat the huge excess of cardiovascular disease in dialysis patients as well as acting as pilot work for larger multi-centre trials. | £29,672.00 |

4th Round (2004)

| Recipient | Institution | Title of Project | Brief Description of the Project | Amount |
|--|---------------------------------|--|--|------------|
| Dr Edmund Lamb Consultant Clinical Scientist | Kent and Canterbury Hospital | Silent chronic kidney disease contributes to sub-optimal management of osteoporosis: a descriptive study in a care home setting. | Specifically, the study will address the following aims: <ul style="list-style-type: none"> • Is the blanket recommendation of a single standard dose of vitamin D/calcium appropriate for elderly care home residents with CKD? • To provide an indication of the prevalence of CKD and its complications (e.g. acidosis, anaemia, phosphate retention) in a UK residential home population. | £27,103.00 |
| Mrs Rebecca Walker Senior Renal Dietitian | Royal Free Hospital, London | More time, better outcome - a randomised trial investigating the effect of more dietic time on phosphate levels in end-stage renal failure patients. | This proposed study aims to examine the effect of increasing dietic time on phosphate control in maintenance haemodialysis patients. | £21,082.00 |
| Dr M Suresh Research fellow in Dialysis | Lister Hospital, Stevenage | Evaluation of ANP and BNP kinetics during high flux dialysis. | The aim of this study is to: <ol style="list-style-type: none"> 1. Define ANP and BNP kinetics during dialysis 2. Identify an ideal sampling time post-dialysis when vascular refill has completed and a steady intravascular volume is achieved 3. Attempt to identify volume state at the end of dialysis using the pre-determined sampling time in (2) 4. Define reproducibility of results in the same patient and in-between patients. | £15,566.00 |
| Miss Antimette Jordaen Renal Dietitian | Manchester Royal Infirmary | An exploratory study to review the nutritional status of patients with encapsulating peritoneal sclerosis (EPS) prior to and following diagnosis. | This study will determine if patients who develop EPS have a greater incidence of malnutrition than their counterparts on PD. The exploration of nutritional markers will help form a greater understanding of their nutritional status prior to diagnosis compared to their counterparts. The second part of the study will help identify the importance of nutritional intervention by looking at nutritional support compared to their nutritional status. This will help with the development of nutritional guidelines for EPS patients with the aim to optimise nutritional status. | £9,732.00 |
| PRO-ACTIVE GRANT | | | | |
| Mrs Maria da Silva Gane Renal Counsellor | Lister Hospital, Stevenage | Prospective comparison of quality of life assessments in patients with endstage renal failure treated conservatively and those on renal replacement therapy. | This study will investigate whether patients receiving conservative management experience an impaired quality of life in comparison to those who receive dialysis treatment. It will explore the impact of physiological, psychological, social and spiritual factors on the quality of life assessment measures. | £44,812.00 |

3rd Round (2003)

| Recipient | Institution | Title of Project | Brief Description of the Project | Amount |
|--|--|--|---|------------|
| Dr Edmund Lamb, Consultant Clinical Scientist | Kent and Canterbury Hospital | Prognostic significance of serum cystatin C: a novel marker of adequacy in patients with endstage renal failure treated by peritoneal dialysis. | This pilot study will assess the usefulness of a novel marker of kidney function, cystatin C, both as a predictor of outcome (morbidity and mortality) and as a surrogate measure of dialysis adequacy in peritoneal dialysis (PD) patients. | £5,000.00 |
| Dr Donna Lamping, Reader in Psychology and Director of Research Degrees Programme | London School of Hygiene and Tropical Medicine | Quality of life in Elderly People on Dialysis. | The aim of this study is to evaluate quality of life (QOL) in elderly people on dialysis. Specific objectives are to: <ul style="list-style-type: none"> • assess changes in QOL over time; • identify the sociodemographic, clinical and dialysis related predictors of QOL; • determine the predictors of poor outcome; • compare QOL in subgroups of elderly people | £20,000.00 |
| Mr Carl Richardson, Renal Access Nurse Specialist | Birmingham Heartlands Hospital | A prospective randomised study to evaluate the use of pre- and post-operative ultrasound in terms of predicting the maturation and patency of arteriovenous fistulae for haemodialysis. | The objective of this research is to determine whether the use of pre- and post-operative duplex ultrasound is associated with better outcomes for arteriovenous fistulae when compared to usual use. | £38,000.00 |
| Ms Heather Sadler, Senior Renal Dietitian | Derford Hospital, Plymouth | Identifying barriers to nutritional care of patients on an acute renal ward: a qualitative study. | This study will expose the day-to-day issues encountered by staff involved in the delivery of nutrition to patients on an acute renal ward, from housekeepers to nurses, dietitians and doctors. | £9,000.00 |
| Dr Charles Tomson, Consultant Nephrologist | Southmead Hospital, Bristol | A prospective study to investigate the evolution of vascular calcification, arterial stiffness and endothelial dysfunction in a cohort of patients with mild chronic renal failure. | The purpose of this study is to assess the evolution of vascular calcification, arterial stiffness and endothelial function in a cohort of at least 150 patients with mild-to-moderate CRF. The study will involve collecting prospective data at baseline with a follow-up period of 2 years to allow accurate assessment of vascular changes in relation to declining renal function and to known CV risk factors. | £25,000.00 |
| Dr M Suresh, Research Fellow | Lister Hospital, Stevenage | Effect of dialysate temperature on vascular refill during dialysis. | The aim of this study is to ascertain whether a difference exists in the nature of refill during isothermic and constant dialysate temperature dialysis. | £9,000.00 |

2nd Round (2002)

| Recipient | Institution | Title of Project | Brief Description of the Project | Amount |
|---|--------------------------------------|---|--|------------|
| Dr Patrick Naish, Consultant Nephrologist | North Staffs Hospital | Physical capacity and community support needs of haemodialysis patients. | This research aims to answer the questions <ul style="list-style-type: none"> To what extent do the measured and self-reported functional capacity of the current haemodialysis population reflect needs for community support and transport to dialysis? How do they relate to nutritional status and co morbidity? | £16,617.00 |
| Dr Paul Roderick, Sr. Lecturer in Public Health Medicine | Southampton General Hospital | The clinical epidemiology of chronic renal impairment and the effectiveness and costs of an innovative shared care scheme for patient management. | The aims of this study are twofold: <ul style="list-style-type: none"> To evaluate the effectiveness and costs of the Southampton monitoring of nephrology service (SIMON), an innovative model of CRI care. The rationale underlying the scheme is that there is a group of patients with initially mild, non-progressive CRI who can be successfully followed by shared care with general practice, with minimum deteriorations of their CRI; or prompt transfer to the more intensive hospital clinic based nephrology followup. To investigate the reasons why patients with detected CRI are not referred to nephrologists in order to target interventions to ensure more appropriate referrals. | £26,555.00 |
| Ms Debbie Sulton, Renal Research Dietitian | Queen Alexandra Hospital, Portsmouth | Can a functional food exert a cholesterol lowering effect on renal transplant patients? | The aims of the research are to: <ul style="list-style-type: none"> Study the cholesterol lowering effect of plant sterols and stanols on kidney transplant patients, To compare its efficacy with current treatment that is based on the use of statins. | £18,849.00 |
| Ms Tessa Savage, Research Associate | Southmead Hospital, Bristol | A prospective study to investigate the evolution of vascular calcification, arterial stiffness and endothelial dysfunction in a cohort of patients with mild chronic renal failure. | This study will provide knowledge on <ul style="list-style-type: none"> The evolution of structural and functional vascular abnormalities in relation to declining renal function Novel data on longitudinal endothelial function in CRF The CV risk factors associated with vascular changes Whether PWA is a suitable tool for identifying patients at increased vascular risk in mild CRF as it is in dialysis patients. | £23,550.00 |
| Ms Barbara Williams, Renal Social Worker | Royal Free Hospital | Psycho-social implication of liver-related or cadaveric pre-emptive kidney transplantation carried out during adolescence | This work will investigate: <ul style="list-style-type: none"> How a transplant affects the individual's emotional development, and his/her ability to come to terms with a chronic illness The effect such a transplant can have on family dynamics and in particular the relationship between donor and recipient. | £10,000.00 |

1st Round (2001)

| Recipient | Institution | Title of Project | Brief Description of the Project | Amount |
|---|--|---|--|------------|
| Dr Colin Jones Consultant Renal Physician | York District Hospital | Is serial bioelectric impedance monitoring of extracellular fluid volume of clinical value in patients with hypertension and renal failure? | <p>Objectives:</p> <ul style="list-style-type: none"> To assess if bioimpedance can detect differences in extracellular fluid volume between normal individuals, subjects with hypertension & normal renal function and subjects with hypertension and CRF. To determine if there are detectable differences in extracellular fluid volume between patients on vasodilating and non-vasodilating antihypertensive medication To determine if bioimpedance measurements of extracellular water increase as renal function deteriorates | £30,000.00 |
| Sara Martin, Lecturer & Research Dietitian | Queen Margaret University College, Edinburgh | Exercise training in haemodialysis patients. | <p>The aim of the study is to evaluate the efficacy of a physical training programme to improve body composition, functional status, appetite and quality of life. Specifically the following questions will be addressed:</p> <ul style="list-style-type: none"> Does the introduction of physical training improve functional ability in haemodialysis patients? Does physical training improve well-being per se? It is possible that an improvement in well-being could be seen without improvement in objective measures of functional status. If objective functional improvement is seen, does this result in improved well-being? Does a physical training programme in this population improve nutritional intake? If nutritional intake is improved is it reflected in changes of body cell mass (BCM)? | £30,000.00 |
| Paula McLaren, Senior Staff Nurse | The Lister Hospital, Stevenage | Effect of sodium profiling during haemodiafiltration | <p>Although the benefit of sodium profiling in haemodialysis patients is well documented, there is little data on sodium profiling in haemodiafiltration.</p> <p>Studies indicate that haemodiafiltration increased cardiovascular stability and that sodium mass removal in haemodiafiltration may be underestimated.</p> <p>There is a need for further research into the clinical and quality of life effects of such sodium profiling in haemodiafiltration.</p> | £15,000.00 |
| J N Townsend, Senior Lecturer in Cardiology | Queen Elizabeth Hospital, Birmingham | Prospective Study of cardiovascular risk factors in CRF | <p>This study will help to identify the principal cardiovascular risk factors in renal failure and aid the design of preventive strategies. The study seeks to determine in detail</p> <ul style="list-style-type: none"> Whether baseline risk factors predict future cardiovascular events How progression of renal failure influences the levels of cardiovascular risk factors The relationship between renal impairment, chronic inflammation and cardiovascular disease | £25,000.00 |

Publications arising from BRS funded research

Publications in Pubmed cited journals

Ferro CJ, Savage T, Pinder SJ, Tomson CR. Central aortic pressure augmentation in stable renal transplant recipients. *Kidney Int* 2002;62(1):166-71.

Savage MT, Ferro CJ, Sassano A, Tomson CR. The impact of arteriovenous fistula formation on central hemodynamic pressures in chronic renal failure patients: a prospective study. *Am J Kidney Dis* 2002;40(4):753-9.

Savage MT, Ferro CJ, Pinder SJ, Tomson CR. Reproducibility of derived central arterial waveforms in patients with chronic renal failure. *Clin Sci (Lond)* 2002;103(1):59-65.

Landray MJ, Wheeler DC, Lip GY, Newman DJ, Blann AD, McGlynn FJ, et al. Inflammation, endothelial dysfunction, and platelet activation in patients with chronic kidney disease: the chronic renal impairment in Birmingham (CRIB) study. *Am J Kidney Dis* 2004;43(2):244-53.

Chesterton LJ, Sigrist MK, Bennett T, Taal MW, McIntyre CW. Reduced baroreflex sensitivity is associated with increased vascular calcification and arterial stiffness. *Nephrol Dial Transplant* 2005;20(6):1140-7.

Sigrist MK, Devlin L, Taal MW, Fluck RJ, McIntyre CW. Length of interdialytic interval influences serum calcium and phosphorus concentrations. *Nephrol Dial Transplant* 2005;20(8):1643-6.

Suresh M, Farrington K. Natriuretic peptides and the dialysis patient. *Semin Dial* 2005;18(5):409-19.

Jones C, Roderick P, Harris S, Rogerson M. Decline in kidney function before and after nephrology referral and the effect on survival in moderate to advanced chronic kidney disease. *Nephrol Dial Transplant* 2006;21(8):2133-43.

Jones C, Roderick P, Harris S, Rogerson M. An evaluation of a shared primary and secondary care nephrology service for managing patients with moderate to advanced CKD. *Am J Kidney Dis* 2006;47(1):103-14.

McIntyre CW, Selby NM, Sigrist M, Pearce LE, Mercer TH, Naish PF. Patients receiving maintenance dialysis have more severe functionally significant skeletal muscle wasting than patients with dialysis-independent chronic kidney disease. *Nephrol Dial Transplant* 2006;21(8):2210-6.

Selby NM, Burton JO, Chesterton LJ, McIntyre CW. Dialysis-induced regional left ventricular dysfunction is ameliorated by cooling the dialysate. *Clin J Am Soc Nephrol* 2006;1(6):1216-25.

Publications arising from BRS funded research

Publications in Pubmed cited journals

Sigrist M, McIntyre CW. Calcium exposure and removal in chronic hemodialysis patients. *J Ren Nutr* 2006;16(1):41-6.

Sigrist M, Bungay P, Taal MW, McIntyre CW. Vascular calcification and cardiovascular function in chronic kidney disease. *Nephrol Dial Transplant* 2006;21 (3):707-14.

Hutchison CA, Cockwell P, Reid S, Chandler K, Mead GP, Harrison J, et al. Efficient removal of immunoglobulin free light chains by hemodialysis for multiple myeloma: in vitro and in vivo studies. *J Am Soc Nephrol* 2007;18(3):886-95.

McLaren P, Hunter C. Sodium profiling: the key to reducing symptoms of dialysis? *Nephrol Nurs J* 2007;34(4):403-14; quiz 415.

Sigrist MK, Taal MW, Bungay P, McIntyre CW. Progressive vascular calcification over 2 years is associated with arterial stiffening and increased mortality in patients with stages 4 and 5 chronic kidney disease. *Clin J Am Soc Nephrol* 2007;2(6):1241-8.

Sutton D, Dumbleton S, Allaway C. Can increased dietary fibre reduce laxative requirement in peritoneal dialysis patients? *J Ren Care* 2007;33(4):174-8.

Taal MW, Sigrist MK, Fakis A, Fluck RJ, McIntyre CW. Markers of arterial stiffness are risk factors for progression to end-stage renal disease among patients with chronic kidney disease stages 4 and 5. *Nephron Clin Pract* 2007;107 (4):c177-81.

Carter JL, O'Riordan SE, Eaglestone GL, Delaney MP, Lamb EJ. Bone mineral metabolism and its relationship to kidney disease in a residential care home population: a cross-sectional study. *Nephrol Dial Transplant* 2008.

Carter JL, O'Riordan SE, Eaglestone GL, Delaney MP, Lamb EJ. Chronic kidney disease prevalence in a UK residential care home population. *Nephrol Dial Transplant* 2008;23(4):1257-64.

Chilcot J, Wellsted D, Da Silva-Gane M, Farrington K. Depression on dialysis. *Nephron Clin Pract* 2008;108(4):c256-64.

Chilcot J, Wellsted D, Farrington K. Screening for depression while patients dialyse: an evaluation. *Nephrol Dial Transplant* 2008;23(8):2653-9.

Delaney MP, Stevens PE, Al Hasani M, Stowe HJ, Judge C, Lamb EJ. Relationship of serum cystatin C to peritoneal and renal clearance measures in peritoneal dialysis: a cross-sectional study. *Am J Kidney Dis* 2008;51(2):278-84.

Publications arising from BRS funded research

Publications in Pubmed cited journals

Hutchison CA, Harding S, Mead G, Goehl H, Storr M, Bradwell A, et al. Serum Free Light Chain Removal by High Cut-Off Hemodialysis: Optimising Removal and Supportive Care. *Artificial Organs* 2008;In press.

Sigrist MK, McIntyre CW. Vascular calcification is associated with impaired microcirculatory function in chronic haemodialysis patients. *Nephron Clin Pract* 2008;108(2):c121-6.

Sutton D. Facilitating Dietary Change in Renal Disease; Investigating Patients' Perspectives. *Journal Renal Care* 2008;in press.

Sutton D. A questionnaire to evaluate and elucidate patient's perceptions of renal dietary advice. *Journal Renal Care* 2008;in press.

Thomas, N, Bryar, R and Makanjuola, D (2008) Development of a self-management package for people with diabetes at risk of chronic kidney disease. *Journal of Renal Care*, 34, 3, 151-157.

Publications arising from BRS funded research

Books & Book Chapters

Ormandy P, Hulme C, Caress A, Macdonald J, O'Donoghue D, Crane D. Identifying chronic kidney disease patients' priorities and preferences for information topics. Salford: University of Salford; 2007.

Presentations at BRS meeting research seminars

At the BRS annual conference researchers funded by the BRS are invited to present their findings at a seminar. Those presentations are shown below:

2004 Harrogate

Is serial bioelectric impedance monitoring of extracellular fluid volume of clinical value in patients with hyper-tension and renal failure?

Colin Jones, York

Exercise training in haemodialysis patients

Sara Martin, Edinburgh

Effect of sodium profiling during haemodiafiltration

Paula McLaren, Stevenage

Prospective Study of cardiovascular risk factors in CRF

J N Townend, Birmingham

2005 Manchester

Effect of dialysate temperature on vascular refill during dialysis

M Suresh, Stevenage

Can a functional food exert a cholesterol lowering effect on renal transplant patients?

Debbie Sutton, Portsmouth

The clinical epidemiology of chronic renal impairment and the effectiveness and costs of an innovative, shared care scheme for patient management"

Chris Jones, London

A prospective study to investigate the evolution of vascular calcification, arterial stiffness and endothelial dysfunction in a cohort of predialysis patients

Tessa Savage, Bristol

2006 Harrogate

Prognostic significance of serum cystatin C: a novel marker of adequacy in patients with end-stage renal failure treated by peritoneal dialysis – A pilot study

E Lamb, Kent & Canterbury

Evaluation of ANP and BNP kinetics during high flux dialysis

M Suresh, Stevenage

Physical capacity and community support needs of haemodialysis patients

P Naish, North Staffs

Effect of sodium profiling during haemodiafiltration

P McLaren, Stevenage

Quality of life in Elderly People on Dialysis

D Lamping, London

Presentations at BRS meeting research seminars

2007 Birmingham

Can an innovative patient-centred education programme control the parameters that delay the progression of diabetic nephropathy?

N Thomas, London

Prospective comparison of quality of life assessments in patients with end-stage renal failure treated conservatively and those on renal replacement therapy

M Da Silva Gane, Stevenage

An exploratory study to review the nutritional status of patients with encapsulating peritoneal sclerosis (EPS) prior to and following diagnosis

A Summers, Manchester

Efficacy of light chain removal in myeloma and acute renal failure by continuous haemodiafiltration: a pilot study

C Hutchison, Birmingham

Study to investigate the effects of cool dialysate on systemic haemodynamics and myocardial stunning

C McIntyre, Derby

2008 Glasgow

Facilitating dietary change in renal disease; investigating patient's perspectives

Debbie Sutton, Portsmouth

A prospective randomized study to evaluate the use of pre and postoperative ultrasound in terms of predicting the maturation and patency of arteriovenous fistulae for haemodialysis

Martin Ferring, Birmingham

The effects of oral sodium bicarbonate on extracellular water in patients with Chronic Renal Failure

Colin Jones, York

More time, better outcome – a randomized trial investigating the effect of more dietetic time on phosphate levels in end-stage renal failure patients

Rebecca Walker, London

2009

Depression & perception of illness among the Dialysis Population : a longitudinal investigation

Joseph Chilcot, Research Fellow, Lister Hospital, Stevenage

Life on the list : an exploratory study of the life world of individuals waiting for a kidney transplant

Jane Frankland, Research Fellow, University of Southampton School of Health Sciences

Presentations at BRS meeting research seminars

2009 (continued)

Fathers and mothers of children with chronic renal disease ; parental roles in self managing the condition

Veronica Swallow, Senior Lecturer in Children's Nursing, University of Manchester

Renal outcomes in people with Bi-Polar Disorder treated with Lithium. A British Retrospective Cohort Study

Helen Close, Research Associate, Wolfson Research Institute, Durham University

Cardiovascular & Functional Consequences of CKD in Older People

Chris McIntyre, Associate Professor and Honorary Consultant Nephrologist, Derby Hospitals NHS Foundation Trust

2010

Scientific and clinical evaluation of the use of bioimpedance spectroscopy and a 3-compartment model to monitor body composition in paediatric dialysis patients

Elizabeth Lindley, Clinical Scientist in Renal Medicine, St. James's University Hospital

What is the scale of non-adherence to blood pressure medication to CKD; its predictors and opportunities for intervention

Chris Jones, Nurse Consultant, Kings College Hospital, London

Free light removal by high cut-off haemodialysis a novel management strategy for myeloma kidney

Colin Hutchinson, Clinical Lecturer, University Hospital Birmingham

How to improve your grant applications

Donna Lamping, Professor of Psychology, London School of Hygiene & Tropical Medicine

2011

Organisation and performance in renal anaemia management

Tom Crocker, PhD Student, University of Leeds

Dietary fibre, laxatives, PD patients – a multi-centre trial

Debbie Sutton, Project Dietician, Queen Alexandra Hospital, Portsmouth

The experiences of relatives and friends caring for patients with Chronic Kidney Disease Stage 5 (CKD5) on Conservative Kidney Management (CKM)

Joe Low, Senior Research Fellow, Marie Curie Palliative Care Research Unit, University College London

The effect of Vitamin D on the microcirculation of patients with chronic kidney disease and Vitamin D insufficiency

Gavin Dreyer, Junior Doctor, Royal London Hospital

Presentations arising from BRS funded research

2004

ASN

Jones C, Roderick P, Rogerson M Outcomes in Stage 3-5 CKD patients followed-up in primary care without direct nephrologist contact

BRS

Jones C, Roderick P, Rogerson M A national survey of shared care schemes for managing chronic kidney disease

Int. Congress of Nutrition & Metabolism in Renal Disease

Sutton, D Can a functional food exert a cholesterol lowering effect in renal transplant patients?

Renal Association

Delaney MP, Stevens PE, Stowe HJ, Judge C, Lamb EJ Relationship between serum cystatin C and markers of treatment adequacy in patients treated by peritoneal dialysis

Jones C, Roderick P, Rogerson M Rates of progression in Stage 3-5 CKD managed in primary care without direct nephrologist contact

Jones CH, Wells LM, Lindley EJ Bioimpedance derived hydration scores in chronic kidney disease

Suresh M, Farrington K Effect of isovolemic high-flux hemodialysis and isolated ultrafiltration on plasma ANP levels

2005

ASN

Chris Jones, Paul Roderick, Scott Harris, Mary Rogerson Change in decline in renal function before and after nephrology referral in a thousand patients with Stage 3-5 CKD

Edwina A Brown, Carl Gibbons, Barney Reeves, Paul J Roderick, Donna L Lamping Quality of Life Predicts Poor Clinical Outcome in Elderly People on Dialysis

Chris Jones, Paul Roderick, Scott Harris, Mary Rogerson Survival Following Nephrology Referral in a Thousand patients with Stage 3-5 CKD

EDTA

Suresh M, Kong C, Farrington K Effect of temperature control on vascular refill during high-flux haemodialysis

Euromedlab

Lamb EJ, Stevens PE, Stowe HJ, Judge C, Delaney MP Relationship between serum cystatin C and markers of treatment adequacy in patients treated by peritoneal dialysis

Proceedings of the Nutrition Society

Smith S, Davidson HIM, Jenkins DAS Validity of nutritional assessment methods in long term haemodialysis patients: Proceedings of the Nutrition Society: 64: 100A

Smith S, Davidson HIM, Jenkins DAS Prediction of Fat-free mass in long term haemodialysis patients using dual x-ray absorptiometry (DXA) as a reference method: 64:2A

Renal Association

Jones C, Roderick P, Rogerson M Change in decline in renal function before and after nephrology referral in a thousand patients with stage 3-5 CKD

Jones C, Roderick P, Rogerson M Survival following nephrology referral in a thousand patients with stage 3-5 CKD

Jones CH, Wells LM, Harris L, Lindley EJ Effects of blood pressure medication on extracellular fluid volume in patients with chronic kidney disease

Landray MJ, Blackwell L, Morgan M, Nuttall S, Baigent C, Townend J, Wheeler DC Serum lipids do not predict cardiovascular outcomes in chronic kidney disease patients

Landray MJ, Dalton N, Turner C, Blackwell L, Morgan M, Nuttall S, Baigent C, Townend J, Wheeler DC Elevated levels of asymmetric dimethylarginine (ADMA) and symmetric dimethylarginine (SDMA) correlate with kidney function and predict outcomes in chronic kidney disease patients

Savage MT, Ferro CJ, Tomson CRV Is pulse wave analysis using the SphygmoCor a useful clinical tool in chronic kidney disease?

Savage MT, Sassano A, Tomson CRV Arterial stiffness, endothelial dysfunction and atherosclerosis in stages 2–4 chronic kidney disease patients; baseline data of a large prospective study

Sutton D, Watkins L, Venkat Raman G Can a Functional Food Exert a Cholesterol Lowering Effect On Renal Transplant Patients?

WCN

Landray MJ, Blackwell L, Morgan M, Nuttall S, Baigent C, Townend J, Wheeler DC Serum lipids do not predict cardiovascular outcomes in chronic kidney disease patients

Landray MJ, Dalton N, Turner C, Blackwell L, Morgan M, Nuttall S, Baigent C, Townend J, Wheeler DC Elevated levels of asymmetric dimethylarginine (ADMA) and symmetric dimethylarginine (SDMA) correlate with kidney function and predict outcomes in chronic kidney disease patients

2006

ASN

Colin A Hutchison, Mark Cook, Arthur R Bradwell, Paul Cockwell Renal Recovery following Light Chain Removal by Extended Haemodialysis in a Patient with Cast Nephropathy from Multiple Myeloma

Harper, Mark Cook, Markus Storr, Hermann Goehl, Paul Cockwell Free Light Chain Removal by Extended Hemodialysis in Patients with Cast Nephropathy from Multiple Myeloma

Landray MJ, Blackwell L, Emberson JR, Morgan M, Townend JN, Wheeler DC, Baigent CN Prediction of cardiovascular and all-cause mortality among patients with pre-dialysis chronic kidney disease: 6-year follow-up of the Chronic Renal Impairment in Birmingham (CRIB) cohort

BSH

Colin A Hutchison, Paul Cockwell, Steven Reid, Katie Chandler, Jane Millard, Graham P Mead, Neil Evans, Mike Chappel, Arthur R Bradwell Removal of Serum Free Light Chains by Haemodialysis in patients with Multiple Myeloma

EDTA

Colin A Hutchison, Paul Cockwell, Steven Reid, Katie Chandler, Jane Millard, Graham P Mead, Neil Evans, Mike Chappel, Arthur R Bradwell Removal of Serum Free Light Chains by Haemodialysis in patients with Multiple Myeloma

SD Reid, KL Chandler, JL Millard, C Hutchison, J Harrison, P Cockwell, GP Mead, AR Bradwell Free light chain removal from serum by haemofiltration and haemodialysis: A comparison of dialysis membranes in vitro

Hutchison CA, Basnayake K, Cook M, Bradwell AR, Cockwell P. Free Light Chain Hemodialysis Increases Renal Recovery Rate and Improves Patient Survival in Patients with Cast Nephropathy

European Society of Artificial Organs

Colin Hutchison, Paul Cockwell, Steven Reid, Katie Chandler, Graham Mead and Arthur Bradwell Free Light Chain Removal by Haemodialysis in Patients with Acute Renal Failure and Multiple Myeloma

ISBP

Markus Storr, Hermann Goehl, Bernd Krause, Stanislaw Morgera, Colin Hutchison, Arthur R. Bradwell Use of a high cut-off membrane for the dialytic removal of middle molecular weight substances from blood

Renal Association

SD Reid, KL Chandler, JL Millard, C Hutchison, J Harrison, P Cockwell, GP Mead, AR Bradwell Free light chain removal from serum by haemofiltration: A comparison of dialysis membranes in vitro

2007 Annual Conference on Dialysis

Sutton, D

Can increased dietary fibre intake reduce laxative requirement in PD patients?

ASN

Delaney MP, Stevens PE, Stowe HJ,
Judge C, Lamb EJ

Use of serum cystatin C as a marker of treatment adequacy in patients with end-stage renal disease treated by peritoneal dialysis

Colin Hutchison, Stephen Harding,
Arthur Bradwell, Paul Cockwell

Serum free light chain removal by high cut-off haemodialysis: Optimising removal and supportive care

Colin A Hutchison, Mark Cook,
Koli Basnayake, Stephen Harding,
Arthur Bradwell, Paul Cockwell

Free light chain removal haemodialysis increases rates of renal recovery from myeloma kidney

British Geriatrics Society

O'Riordan SE, Carter JL,
Eaglestone GL, Delaney MP,
Lamb EJ

Bone metabolism and kidney disease in a UK residential home population

O'Riordan SE, Carter JL,
Eaglestone GL, Delaney MP,
Lamb EJ

Chronic kidney disease prevalence in a residential home population

BRS

Eaglestone GL, Carter JL,
O'Riordan SE, Delaney MP,
Lamb EJ

Prevalence of chronic kidney disease in a UK residential home population

Ormandy P, Macdonald J,
Caress AL, O'Donoghue D,
Crane D.

Identifying chronic kidney disease patients' priorities and preferences for information topics (Won best poster award)

BSH

Colin A. Hutchison, Mark Cook,
Supratik Basu, Stephen Harding,
Graham Mead, Paul Cockwell,
Arthur Bradwell

High rate of renal recovery in patients with cast nephropathy treated by removal of free light chains using extended haemodialysis: A phase 1/2 clinical trial

EDTA

Colin A. Hutchison, Paul Cockwell,
Koli Basnayake, Mark Cook,
Stephen Harding, Supratik Basu,
Graham Mead, Arthur Bradwell

Removal of free light chains by extended haemodialysis in patients with cast nephropathy: A phase 1/2 clinical trial

EDTNA/ERCA

Ormandy P, Macdonald J,
Caress AL, O'Donoghue D,
Crane D.

Identifying chronic kidney disease patients' priorities and preferences for information topics (Won Best UK Abstract Award 2007)

Thomas, Nicola, Guest Speaker,
Prague September 2008

Development of a self-management package for people with diabetes at risk of chronic kidney disease

National Meeting of the Association for Clinical Biochemistry

Carter JL, Eaglestone GL,
O'Riordan SE, Delaney MP,
Lamb EJ

Prevalence of chronic kidney disease in a UK residential home population

National Osteoporosis Society

O'Riordan SE, Carter JL,
Eaglestone GL, Delaney MP,
Lamb EJ

Silent chronic kidney disease and bone metabolism in a UK residential home population

NKF

Colin A. Hutchison, Mark Cook, Stephen Harding, Graham Mead, John Hattersley, Neil Evans, Mike Chapel, Paul Cockwell, Arthur Bradwell

Mathematical modelling of free light chain removal by plasma exchange and extended haemodialysis in patients with cast nephropathy

Colin A. Hutchison, Mark Cook, Stephen Harding, Graham Mead, Paul Cockwell, Arthur Bradwell

Removal of free light chains by extended haemodialysis in patients with cast nephropathy:
A phase 1/2 clinical trial

Colin A. Hutchison, Mark Cook, Stephen Harding, Graham Mead, Paul Cockwell, Arthur Bradwell

Renal function recovery following velcade and extended haemodialysis in patients with refractory multiple myeloma and cast nephropathy

Renal Association

Colin A. Hutchison, Mark Cook, Stephen Harding, Graham Mead, Arthur Bradwell, Paul Cockwell

Removal of free light chains by extended haemodialysis in patients with cast nephropathy:
A phase 1/2 clinical trial

Colin A. Hutchison, Mark Cook, Stephen Harding, Graham Mead, John Hattersley, Neil Evans, Mike Chapel, Arthur Bradwell, Paul Cockwell

Mathematical modelling of free light chain removal by plasma exchange and extended haemodialysis in patients with cast nephropathy

Lamb EJ, Carter JL, Eaglestone GL, O'Riordan SE, Delaney MP

Prevalence of chronic kidney disease in a UK residential home population

Vascular Access Society

Ferring MM, Grannell M, Tan Y, Claridge M, Smith SA, Wilmsink A

Does pre-operative assessment predict the outcome of surgery for arteriovenous fistulae: a comparison of clinical and ultrasound assessments

World Congress for Nephrology Nursing

Thomas, Nicola, Guest Speaker, Rio de Janeiro, April 2007

Evidence-based practice in nephrology nursing

2008

BRS/Renal Association

Basnayake K, Hutchison C, Kamel D, Sheaff M, Fuggle W, Cook M, Ashman N, Rylance P, Bradwell A, Cockwell P

Rapid reductions of serum free light chains by high cut-off hemodialysis in cast nephropathy: Supporting histological evidence from two cases

Carter JL, Eaglestone GL, O'Riordan SE, Delaney MP, Lamb EJ

Fracture prevention in institutionalised populations - kidney function should be taken into consideration

Hutchison CA, Basnayake K, Bradwell AR, Cockwell P

Serum free light chain removal by high cut-off haemodialysis: optimising removal and supportive care.

Hutchison CA, Basnayake K, Cook M, Bradwell AR, Cockwell P

High rates of renal recovery and patient survival in myeloma kidney using free light chain removal haemodialysis.

Emberson J, Dasgupta T, Zakeri R, Morgan MD, Ferro C, Baigent C, Townend JN, Wheeler DC, Landray MJ

Prediction of end-stage renal disease and mortality among patients with pre-dialysis chronic kidney disease:
The Chronic Renal Impairment in Birmingham (CRIB) cohort

National Meeting of the Association for Clinical Biochemistry

Carter JL, Eaglestone GL, O'Riordan SE, Delaney MP, Lamb EJ

Bone metabolism and its relationship to kidney disease in a UK residential care home population

Applying for research funding

Project Grants

Project grants are considered once a year at a meeting of the Research Committee in December. The funding round is advertised through the BRS website from May and through the BMJ and Journal of the RCN in August. The application form, guidelines for applicants and terms of reference for the research committee can be downloaded from the BRS website. The closing date is the third Monday in October of the year that the application is to be considered.

The usual value of grants awarded is £5,000 to £50,000.

BRS website

<http://www.britishrenal.org/research.shtml>



BRS-Kidney Research UK joint fellowship

A single joint fellowship is awarded annually to support a non medical professional to undertake research into kidney disease and its management. The value of the award is up to £75,000 for a period of up to two years. The closing date is the third Friday in September for the year that the application is to be considered.

The application process involves filling in an application form for fellowships that is available from the Kidney Research UK website:

Kidney Research UK website

<http://www.kidneyresearchuk.org>



British Kidney Patient Association (BKPA)

The BKPA and BRS will collaborate to develop new ways of achieving their shared aim of improving the lives of kidney patients through patient-centred research.

BKPA has already brought a wealth of additional experience to the grants review process as well as providing vital funding of up to £100,000 annually over the next three years.

BKPA website:

<http://www.britishkidney-pa.co.uk>

