Medical Care Research Unit.

Report 2008
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Introduction

The Medical Care Research Unit is a Department of Health (DH) funded health services research group. We work within the School of Health and Related Research (ScHARR) at the University of Sheffield.

The Past - 1966 and all that

The Unit was founded in 1966 more than 40 years ago and over this long span of time we have focused most of our research efforts on the evaluation of new policies in the care of patients and the organisation of services. Indeed, the very first paper written under the banner of the Medical Care Research Unit was a randomised trial of a policy of early hospital discharge published in the Lancet in 1968. We have studied innovations in care, for example in the treatment of gallstones, in services as varied as complementary medicine and trauma centres, and in the training and roles of health care workers. We are glad to see the current emphasis on innovation in healthcare, though our experience is that not all innovations have the expected effects, and therefore we must ensure that there is ‘no innovation without evaluation’.

Trials, non-randomised experiments, and observational studies evaluating innovations have predominated in our portfolio but we have also carried out many descriptive studies, examining the use of services and the roles of doctors, nurses, and other healthcare professionals. These descriptive studies which can identify variations in policy and practice, inequalities in access and care, and anomalies in resources and services are an essential component of a health services research programme and are often the precursor to evidence based innovation and evaluation.

The quality of our health services research has been recognised in the recent Research Assessment Exercise. In RAE2008 members of MCRU were returned with our colleagues in ScHARR to the Health Services Research Unit of Assessment. The large volume of work coupled with the quality of our research and our environment, led to ScHARR being ranked first in the RAE ‘power’ tables.

Current focus on emergency and urgent services

The key focus of our current research is on emergency and urgent care services. It is an important research area because of the need to understand how best to save lives in emergencies and offer speedy, effective care to millions of people each year in need of urgent care. However, relatively little resource is put into this research area and the evidence base for policy and practice is weak.

Five key functions

Within our Unit we provide five key functions:

Undertake policy-related research

Our Policy Research Programme is shaped by the policy needs of the DH. During 2008 our main focus has been on the system of emergency and urgent care, rather than the individual services. We have met regularly with policy makers at the DH to ensure this work shapes developing policy.

Act as an ‘expert resource’

We have research expertise in emergency and urgent care spanning over 20 years and we can act as a source of expert advice and be responsive to the developing research needs of the DH and other agencies in this field. During 2008 we have responded to DH needs by developing a new programme of research focused on innovations and improvements in the provision of Ambulance services.

Act as a platform for further development

The fact that the MCRU has been established for 40 years, and has benefited from stability of funding for much of this time, has enabled us to attract and work with outstanding clinical researchers, and apply for further funding from other research sources to develop a substantial portfolio of research in emergency and urgent care. Typically over the years this ‘gearing’ has been of the order of 5 to 1, so that with the £400k of DH core funding we have received each year we have been able to attract about £2m from other funding sources into the field of emergency and urgent care research. During 2008 we have won £0.5m to carry out a study of PCT commissioning and a further £2.0m in collaboration with other groups to carry out studies of patients with minor head injury, elderly fallers, and the impact of booster interventions to increase physical activity.
Contribute to the wider health services research endeavour

Health services research is important to the development of the NHS and international health services. We have made a considerable contribution to the structures and processes of commissioning and reviewing research projects, reviewing articles for peer-reviewed journals, and training the next generation through teaching and supervision of masters and PhD students. We have always been keen to develop research methods, as well as apply them, and in 2008 we have contributed to the development of mixed methods research and case mix adjustment.

Capacity building

We developed and taught an MSc course for over ten years which trained numerous NHS managers and clinicians in health services research. In 2008 we have embedded this course as a pathway within the wider Masters in Public Health course offered by ScHARR. This has enabled our students to mix with nearly 100 other Masters students from around the world.

Looking forward

We are part way through our current programme and will continue to study the emergency and urgent care system and work closely with the DH to evaluate and influence policy. However, the current Unit programme finishes in December 2010 and since DH has decided not to renew its current policy programmes, the Unit in its current form is coming to an end. DH will, though, be tendering for new Policy Research Units with new programmes focused on areas of current importance. We plan to tender for one of these programmes, but we will do this with a wider group of our colleagues in ScHARR with skills in health economics, modelling, public health and social care, and we are looking forward to a new era if we are successful.

Another change on the way is that the old RAE will be replaced by a new Research Excellence Framework. Although it looks as if much of the research assessment process will be unchanged it is clear that there will be a new emphasis on assessing and valuing the impact of research. We are delighted that HEFCE will finally have caught up with the strategy MCRU outlined more than ten years ago:

“Outcomes for HSR are traditionally and currently still conceived in terms of publications, albeit with some ‘impact factor’ attached. The future, however, will be different. We believe that …outcomes will increasingly be measured in terms of impact on clinical practice, health service organisation and policy, and public health.

The processes by which these outcomes are achieved will, of course, continue to include publication in high impact factor journals, but increasingly the Unit must pay attention to effective dissemination and support for implementation...”

MCRU strategy 1996

Professor Jon Nicholl
Director
Policy Research Programme

Core programme

The emergency and urgent care system is the focus of our five year research programme. Most health services research focuses on a service, but patients experiencing an episode of ill-health may not attend or consult a single provider. Instead they may make several contacts often with different services, interacting with different clinicians and support staff. This is particularly true of patients contacting emergency and urgent care services, and therefore we have added a system perspective to our previous research profile on individual emergency and urgent care services. Our programme consists of exploring the use of networks to manage the system, developing population indicators for measuring the performance of the system, and developing survey methodology for measuring the patient perspective of the system.

During 2008 we:

1. **Identified 16 performance indicators for the system.** Given the range of services and pathways in emergency and urgent care, there is a need to develop a generic set of ‘system-wide’ performance indicators. We used a Delphi-style study of stakeholders in the emergency and urgent care system to identify a set of 16 key indicators based on outcomes and processes of care. An example of a process based indicator in our set of indicators is ‘Hospital emergency admission rates for acute exacerbations of urgent conditions that could be managed out of hospital or in other settings without admission to an inpatient bed’.

   All 16 indicators are summarised on our website: http://www.shef.ac.uk/content/1/c6/05/91/14/Performance%20Indicators.pdf

2. **Developed methods for the evaluation of the system from the patient perspective.** We developed and tested a questionnaire and survey methodology for routine measurement of the system performance from the patient perspective. Our telephone population survey can identify system users in the previous three months. For users we can identify the length of their pathway, reasons for moving along a pathway, and user views of access, movement through the system and patient convenience of the system. We also developed a Toolkit to enable PCTs to undertake their own surveys: http://www.shef.ac.uk/content/1/c6/05/91/14/Toolkit.pdf

3. **Initiated a study of the system performance in 4 PCTs.** We are working closely with four PCTs which are making large changes to their emergency and urgent care systems in early 2009. We are testing the feasibility of calculating the performance indicators using national routine datasets and PCT data, and the responsiveness of the indicators to monitor change over time. We are undertaking telephone surveys of system users before and after changes to each system, and in early 2010 will conduct stakeholder interviews within each PCT to identify perceptions of changes to the systems. Each PCT will be viewed as a case study of different models of change.

4. **Disseminated our work through the Healthcare Commission.** In October and November 2008 we attended three conferences held jointly by the Department of Health and the Healthcare Commission to disseminate our indicators and Toolkit to PCTs in England.

Responsive programme

Finally, in addition to the five year programme, we respond to the Department of Health’s requests for research into different aspects of emergency and urgent care.
During 2008 we:

1. Completed an evaluation of commuter walk-in centres. We submitted a report to the DH in April 2008.

2. Completed a preliminary evaluation of ‘NHS Pathways’. This new triage software will be used in pilot sites testing the new three digit number for access to urgent care.

3. Commenced a programme of ambulance research. Three projects were commissioned to support the implementation of ambulance service policy recommendations in “Taking Healthcare to the Patient”:
   - Development of clinical performance indicators for Category B calls – We are developing new ways to measure ambulance service performance other than response time performance by identifying key processes which better reflect the actual care delivered to patients in the pre-hospital phase of care and constructing related performance measures. We are also exploring the use of patient reported outcome measures (PROMS) as part of this process.
   - Identification of pre-hospital care research priorities – We are taking forward a Delphi study which had identified a broad range of research priorities and conducted a number of rapid scoping reviews to assess the current evidence base for policy related topic areas. These will then be used to prioritise the ambulance service policy research areas for future research.
   - Payment by results – A number of ambulance services have been conducting pilot studies to develop currencies and tariffs for payment by results and are implementing the process in shadow form with their local commissioners. We are conducting a study to describe the different models developed and to assess the impact of moving towards a payment by results reimbursement system for ambulance services and commissioners.

Projects


We have undertaken a number of multi-centre studies of emergency department organisation and care, including clinical trials, cluster trials and observational studies. We have also collaborated with the Institute of Work Psychology at the University of Sheffield to undertake organisational research in emergency care.

In 2008 we reported findings from the Randomised Controlled Trial of Continuous Positive Airway Pressure (CPAP) versus Non-Invasive Ventilation (NIV) versus standard therapy for acute cardiogenic pulmonary oedema (3CPO), the Randomised Controlled Trial of paramedic practitioners (PPOPS) and the Evaluation of the National Infarct Angioplasty Project Pilots (NIAPP).

The findings of the 3CPO Trial were published in the New England Journal of Medicine in 2008. In collaboration with Edinburgh Royal Infirmary, the 3CPO Trial evaluated continuous positive airway pressure (CPAP) or non-invasive positive pressure ventilation (NIPPV) as alternatives to standard oxygen therapy for patients with acute heart failure. Although CPAP and NIPPV produced a more rapid improvement in breathlessness and metabolic disturbance, this did not lead to any change in patient survival.

The PPOPS trial evaluated the impact of an extended skill paramedic managing elderly fallers as an alternative to standard ambulance transport to the emergency department. The trial, published in the British Medical Journal, found that emergency department attendances were significantly reduced as were hospital admissions. Analyses of service safety and cost effectiveness have also been published.

The NIAPP Study showed that emergency treatment of a heart attack with angioplasty (a catheter passed into the blood vessels supplying the heart) was feasible, acceptable to patients and, although more expensive than clot-busting drugs, likely to be considered a cost-effective use of NHS resources.

In 2008 we also recruited patients to the Randomised Trial of Intravenous or Nebulised Magnesium Sulphate versus Placebo for Acute Severe Asthma (3Mg) and Randomised Assessment of Treatment using Panel Assay of Cardiac Markers (RATPAC) trials, and collected data for the Development and Validation of Risk-adjusted Outcomes for Systems of emergency medical care (DAVROS), Evaluation of Doctors in Training: Impact on workforce well-being and patient care (EDiT) and Impact on quality, safety and training of the four-hour target in the ED (SAFETIME) studies.

3Mg is a multi-centre trial to determine the effect of using magnesium sulphate to treat patients with acute asthma. RATPAC is a trial of using a bedside blood test to diagnose heart attack in patients with acute chest pain. DAVROS aims to develop a method for assessing the performance of emergency care systems using mortality statistics that are adjusted to take illness severity into account. EDiT is a national evaluation of the impact of junior doctors in emergency departments. It is focussing on their motivation, confidence and competence in undertaking this role and examining how this related to clinical care provided. The SAFETIME study is another multi-centre study that aims to determine the impact that the introduction of the four-hour target in emergency medicine has had on the delivery of patient care in English emergency departments.

The 3Mg Trial of nebulised or IV magnesium sulphate in acute severe asthma. NIHR HTA R&D Programme, £1,059,647, commenced September 2007, S Goodacre, J Nicholl, J Ratcliffe, M Campbell, P Jackson (STH), S Holgate (Southampton), A Gray (Edinburgh), T Coats (Leicester), J Benger (Bristol).


The 3CPO Study of CPAP and NIPPV in cardiogenic pulmonary oedema. NIHR HTA R&D Programme, £1,100,952, June 2003 to April 2008, A Gray (Edinburgh Royal Infirmary), S Goodacre, F Sampson, J Nicholl.

Evaluation of an intervention to improve patients understanding of acute chest pain. The Health Foundation, £59,182, November 2005 to November 2007, S Goodacre, J Arnold, P Bath, S Read (School of Nursing, Sheffield), J Price (Oxford University).


Evaluation of community veterans mental health pilots, 2008-2010, Ministry of Defence Research Programme, £120,000. M Barkham, G Parry, S Mason

b) Ambulance and Pre-hospital Care Research

In 2008 two projects neared completion. Data analysis is complete for the NEECaP trial, a community intervention trial to evaluate the clinical and cost effectiveness of Emergency Care Practitioners (ECPs). These are paramedics and nurses with additional skills to assess and treat patients with emergency minor illness and injury. The study was undertaken in 12 settings across the UK, 6 with ECPs and 6 without allowing comparisons to be made to assess the impact of this developing role in emergency care. The final report will be published by the NIHR Service Delivery and Organisation R&D programme early in 2009.

Mean SF-36 scores at follow-up and population norms

The Medical Care Research Unit has conducted a number of studies on trauma services over many years. The HALO project has measured the long term effects of serious injury on patients who have previously taken part in our studies and has allowed us to assess what happens to patients up to 15 years after their original injury. The data shows that even after many years, seriously injured patients still have worse health than the general population. Data analysis is complete and a report will be available in 2009.
Two new projects have also commenced. The Safer1 and Safer2 trials are being conducted in collaboration with colleagues at Swansea University. The focus of both studies is the management of older people who fall by ambulance services. The Safer1 trial will evaluate if the use of computerised decision support can help paramedics make better decisions about transport and referral to other services for elderly fallers. The Safer2 trial will assess whether new patient management protocols for paramedics can help them to safely refer patients who have fallen to community based services rather than taking them to hospital. Both studies are currently at the set up stage.

**Safer1**: Evaluation of the costs and benefits of computerised on-scene decision support for paramedics to triage older people who have fallen to appropriate care. Department of Health Policy Research Programme - £371,500, H Snooks, S Mason, R Lyons, B Wells, J Dale.

**Safer2**: Care of older people who fall: evaluation of the clinical and cost effectiveness of new protocols for emergency ambulance paramedics to assess and refer to appropriate community based care. NIHR HTA - £1.15m, H Snooks, S Mason, J Nicholl, J Dale, M Halter, J Phillips, C Phillips, R Lyons, J Russell, W Cheung, N Siriwardena.

**A Community Intervention Trial to Evaluate the Clinical and Cost Effectiveness of Emergency Care Practitioners.** NIHR Service Delivery and Organisation R&D Programme - £348,000, S Mason E Knowles, J Nicholl, A Hutchinson, M Patterson, J Rick, T Wall, J Ratcliffe.


c) Urgent Care Services

We are often approached to collaborate with researchers from around the country who are interested in urgent care. In 2008 we were part of two successful bids for NIHR Applied Research Programmes, both focusing on urgent care and long term conditions. Professor Guthrie asked us to join her programme to offer advice on the social and organisational issues affecting use of urgent care. Professor Chris Salisbury asked us to participate in writing a bid because of our previous research on NHS Direct. This latter bid was submitted in 2008 and funded to begin in 2009.

**Projects**

Developing effective strategies to reduce unscheduled care in chronic disease. NIHR Applied Research Programme Grant, E Guthrie (Manchester Mental Health Trust), A O'Cathain, J Nicholl and others. September 2008 – August 2013. £2,000,000.

Although our focus is on emergency and urgent care, our methodological skills and cross-cutting topic expertise - such as workforce – means that we lead or collaborate on projects outside this focus. The evaluation of PCT Commissioning draws on our expertise in real world evaluation; the impact of foundation doctor training draws on our mixed methods expertise to address the complex nature of real world initiatives; our ReBIP programme draws on ScHARR’s expertise in evidence review and synthesis; the exploratory trial of computerised cognitive behaviour therapy draws on our expertise in using qualitative methods to shape the further development of an intervention and methodology prior to summative evaluation; and the Booster Activity Trial draws on our methodological expertise in trials and topic expertise in exercise.


The impact of foundation doctor training: impact on workforce wellbeing and patient care, NIHR R&D programme, £415,244, S Mason, R O’Hara, C O’Keeffe, J Grant, G Needham, A Fletcher, A Carter.

Review Body for Interventional Procedures ReBIP, NICE - £0.75m, 2006-2009, J Nicholl, A Grant, J Burr et al.


Sheffield “Booster Activity Trial” (BAT) Project - a randomised controlled trial and cost-effectiveness evaluation of “booster” interventions to sustain increases in physical activity in middle-aged adults in deprived urban neighbourhoods, £700,000, HTA, 2008-2012, E Goyder, J Nicholl, C Cooper et al.
Publications 2008

Academic journal papers


Official reports


Book chapters


Refereed conference contributions


Mason S. NEECap Trial: Community Intervention trial to evaluate the role of Emergency Care Practitioners in the emergency care system. College of Emergency Medicine, Autumn Conference, Dublin, Republic of Ireland, 2008.


Other conference contributions


Invited conference presentations, seminars, lectures


Medical Care Research Unit Staff 2008

Unit Director and Professor of Health Services Research
Jon Nicholl

Professor of Accident and Emergency Medicine
Steve Goodacre

Reader in Accident and Emergency Medicine
Suzanne Mason

Senior Research Fellow
Alicia O’Cathain

Academic Clinical Lecturers
Sarah Midgeley
Alastair Pickering

Research Fellows
Judith Cohen
Patricia Coleman
Emma Knowles
Clare Relton
Fiona Sampson
Janette Turner
Richard Wilson

Research Associates
Mike Bjarkoy
Elizabeth Cross
Joanne Coster
Yvonne Meades
Colin O’Keeffe
Martina Santarelli

Section Administrator
Michelle Hassall

Personal Assistant to the Director
Jill Willoughby

Unit Secretary
Joanne Turner

Support Officers
Joanne Casson
Marc Chattle
Margaret Jane
Kathryn Paulucy
Susan Proctor
Biographical Information

Mike Bjarkoy

Mike Bjarkoy joined the MCRU in 2008 on secondment from South West Ambulance Service NHS Trust where he works as a paramedic and Emergency Care Practitioner. Mike has an MSc in Cardiology and is involved in developing the role of critical care paramedics. He is working with Janette Turner on the DH ambulance research programme.

Joanne Casson

Joanne joined the MCRU in 2003 to work on both the Waiting times in A&E and the costs and benefits of managing low priority 999 ambulance calls by NHS Direct projects along with working as project officer on the emergency care practitioners study. She is now the project officer on the EDiT study looking at Junior Doctors training. Before joining the MCRU, Joanne worked in the University’s Magnetic Resonance Imaging Department based at the Northern General Hospital, prior to which she gained secretarial experience as a PA for two Consultant Vascular Radiologists.

Marc Chattle

BA (English with Linguistics), MA (Translation Studies)

Marc joined the MCRU in November 2003 to work on the Review Body for Interventional Procedures (ReBIP). He also supports the ScHARR Research Committee, the PCT Evaluation Project, and a range of other activities within the School. He has also supported the RAE, and the Long Term Healthcare Outcomes project.

Pat Coleman

BA Hons (Political Theory and Institutions), Postgraduate Diploma in Law

Since joining the MCRU in 1987, Pat has worked in various research teams mostly investigating issues relating to health policy for the Department of Health. Experienced in both quantitative and qualitative methods of enquiry, Pat also contributes to the undergraduate and postgraduate teaching in ScHARR, and is a longstanding member of the ScHARR Ethics Committee. Currently Pat is working on the Department of Health programme of research into emergency and urgent care systems.

Joanne Coster (nee Dean)

BA (Social Science), MSc (Health Services Research and Technology Assessment)

Joanne joined ScHARR in 2003, having previously worked as a Research Associate and Project Manager for an NHS led research unit. Whilst at ScHARR she worked in the Section of Public Health on projects related to patient safety and quality of care, before joining the MCRU in 2007. Joanne is currently working on an evaluation of commuter walk-in centres.

Judith Cohen

BSc (Medical Biochemistry), PhD (Wound Healing and Microcirculation)

Judith joined the Emergency Medicine group in ScHARR in 2007, having previously completed her PhD at the University of Sheffield in the Department of Surgical Oncology. She worked at the University of Manchester for 4 years following her PhD, first continuing laboratory-based research as a post-doctoral research associate in vascular tissue engineering. She then developed an interest in clinical trials and worked as a Research Project Manager for the Wolfson Molecular Imaging Centre, where she managed a portfolio of clinical trials involving Positron Emission Tomography (PET) scanning. She is currently the Trial Manager on the 3Mg Study - a HTA-funded evaluation of Magnesium Sulphate as a first line treatment for acute severe asthma in Emergency Departments across the UK.

Elizabeth Cross (nee Webber)

BA (Public Administration), MA (Applied Research and Quality Evaluation)

First employed at MCRU in 1995, Liz has worked mainly on emergency services research. She is currently working on a randomised controlled trial of rapid blood testing for acute chest pain in the NHS. Research interests include socio-economic variations in health.

Steve Goodacre

MB ChB, MRCP, DipIMC, FFAEM, MSc (Health Services Research and Technology Assessment), PhD

Steve trained as an emergency physician in Leicester and Leeds, completing his specialist medical training in 1998. He then moved to Sheffield to train in Health Services Research, completing a Masters degree in 2000 and his PhD in 2003. He was appointed as a Clinical Senior Lecturer in Emergency Medicine and Honorary Consultant at the Northern General Hospital in 2003, and was promoted to a Personal Chair in 2007. His current research includes evaluating the implementation of chest pain units and primary angioplasty in the UK, multicentre trials of point of care cardiac tests, non invasive ventilation for heart failure and magnesium sulphate for asthma, and development of risk-adjusted outcome measures for systems of emergency care.

Michelle Hassall

BEd (Fine Art)

Michelle Hassall worked as a primary school teacher before joining the Medical Care Research Unit. Michelle has responsibility for the day-to-day management and development of all aspects of the Unit’s administrative procedures together with responsibility for event management, publicity and marketing.
Margaret Jane
RSAll
Margaret joined the MCRU in August 2005 to work as a part-time clerical officer on the ESCAPE Project. She now works full-time on the RATPAC Study. She had previously worked as a senior secretary in the University’s Academic Palliative Medicine Unit.

Emma Knowles
BSc (Sociology), MA (Applied Research and Quality Evaluation)
Emma Knowles joined the Medical Care Research Unit in 1996 as a research associate to work on the evaluation of business process re-engineering at Leicester Royal Infirmary. She was part of the research team undertaking the national evaluation of NHS direct. Emma project managed a RCT evaluating community paramedic practitioners before working on an evaluation of Emergency Care Practitioners. Having recently returned from maternity leave Emma is now working on the DH programme whilst pursuing a research interest in violence directed towards Emergency Department workforce.

Suzanne Mason
MBBS, FRCS, FFAEM, MD.
Suzanne has trained in Emergency Medicine and spent a year as a Royal College of Surgeons of England Research Fellow. She was awarded an MD whilst undertaking higher training in Emergency Medicine. She joined Sheffield University as a Senior Clinical lecturer in 2001 and was promoted to Reader in 2007. She divides her time between the University and the Sheffield Teaching Hospitals Trust emergency department.

Her main research interests include evaluating complex interventions in emergency and urgent care. She is particularly interested in the evaluation of new roles and alternative pathways of care. She has recently completed community intervention trial to evaluate the effectiveness of Emergency Care Practitioners. Current work includes evaluating the role of junior doctors in emergency departments and the impact of the four-hour A and E target on patient care.

Yvonne Meades
RGN
Yvonne qualified as an RGN in 1994. She joined the MCRU in January 2008 as a Research Nurse with an interest in Emergency Medicine Research. Currently she is working on the 3Mg Study (Asthma). She has also worked on the 3CPO (CPAP/BiPAP) study and briefly worked on the RATPAC study.

Sarah Midgeley
BSc (Hons), MB BS, MRCPCH
Sarah joined the MCRU in August 2008 and is currently completing an MD in structural and functional neuroimaging in mild traumatic brain injury. This combines functional MRI, magnetoencephalography with follow up to determine if there are any differences in the performances of head injured patients and control patients.

Jon Nicholl
BA (Philosophy), MSc (Statistics), DSc, CStat, FFPH
Jon Nicholl spent five years in London as a research associate at University College London working on road traffic accident prevention before coming to the MCRU as a statistician. He was appointed senior statistician in 1986 and deputy director in 1993. He became director of the Unit in 1995. His main research interests are in urgent and emergency care.

Outside the Unit he is currently Deputy Dean of SchHARR and chair of the HTA Programme Commissioning Boards and Deputy Programme Director.

Alicia O’Cathain
BSc (Mathematics), MSc, (Social statistics), MA (Research methods in Sociology), Phd
Alicia is interested in the evaluation of complex interventions, mixed methods, and measuring patients’ views of services. Currently she is testing an instrument to measure routinely users’ experiences and views of the emergency and urgent care system, and evaluating Primary Care Trusts’ approaches to commissioning. She is Associate Editor of the Journal of Mixed Methods Research.

Colin O’Keeffe
BA (History), MA (Applied social research)
Colin has been working as a researcher in the MCRU/Health Services Research since 1999. He has mainly worked in pre-hospital research, evaluating the national ambulance response time standards as well as Emergency Care Practitioners (ECPs). He is currently working on a national evaluation of junior doctor training in the Emergency Department.

Kathryn Paulucy
Kathryn joined the MCRU in November 2003 as clerical officer for two studies, the CPAP and NIPPV study, and the HTA DVT study. After the conclusion of the HTA DVT Study mid 2005 Kathryn provided clerical support to various studies within the Unit as well as the ongoing CPAP Study. In April 2007 she commenced work on the 3Mg Study: A randomised trial of intravenous or nebulised magnesium sulphate versus placebo for acute severe asthma.

Alastair Pickering
MBChB, MRCS (Glasgow), MD
Alastair joined the MCRU as a clinical lecturer in 2008, following the completion of his MD whilst continuing his training as a specialist registrar in Emergency Medicine. His previous work has focused on outcomes following head injury with some work into the biochemical marker protein S100B. His current interests include further work on head injury management from the emergency department as well as pre-hospital research at a strategic and clinical level.
Susan Proctor
Susan Proctor joined the Medical Care Research Unit in October 2007 to work as a part-time clerical officer on the DAVROS Project, and subsequently 1 day per week on the PCT study. Previously she worked for 7½ years as a PA in Mental Health Unit in ScHARR.

Clare Relton
BA Hons, RSHom, MSc
Clare has a DH pre-doctoral training fellowship in Complementary and Alternative Medicine (CAM). She completed her MSc in Health Services Research in 2005 and is currently working towards her PhD. Her research is primarily focused on the methodological issues faced in pragmatic RCT design.

Fiona Sampson
BA (Pure Maths and French), MSc (Operational Research for Healthcare Management)
Fiona joined the MCRU in 2000 after working in the Operational Research unit of ScHARR for 4 years. Since joining the unit she has worked on DH commissioned work such as the evaluation of NHS Direct, the evaluation of Advanced Access in primary care and research examining the scale of, and reasons for, removal of patients from GP’s lists.

She is currently working as project manager for the evaluation of the National Infarct Angioplasty Project Pilots (NIAPP) and on a trial for interventions for acute cardiogenic pulmonary oedema (3CPO study).

Martina Santarelli
BSc (Health Care Sciences), RGN, Diploma (Practice Research), ENB 870,998,N10
Martina joined the MCRU in December 2002 as a Research Nurse on the Multiple Sclerosis Monitoring Study. Since then she has also worked on the Long term health and healthcare outcomes after accidental injury project, and is currently working on the Development and Validation of Risk-adjusted Outcomes for Systems of Emergency Care. She was previously employed in the NHS at a Clinical Research Facility supported by the Wellcome Trust, and has also specialised in caring for patients within the field of Nuclear Medicine.

Janette Turner
BSc (Biology), MSc (Health Economics and Management), RN
Janette Turner spent several years nursing mainly in emergency surgery, coronary care and accident and emergency, before joining the Nursing Practice Research Unit at the University of Surrey in 1986. She joined the trauma research programme at the MCRU in 1991.

Her completed projects include evaluations of a regional trauma system, priority dispatch systems, the use of pre-hospital IV fluids by paramedics, response time standards for ambulance services, and the management of low priority 999 ambulance calls by NHS Direct. She is currently working on studies looking at long term outcomes following major injury and the development of emergency care networks. She also leads a programme of ambulance service policy related research which includes the development of new clinically based performance indicators.

Joanne Turner
RSA III, Diploma (AMSPAR)
Joanne Turner gained secretarial experience in a variety of University departments before taking up a post with the MCRU in early 1996. She is currently secretary to the MCRU part-time, and also provides administrative support to the ScHARR seminar programme.

Gillian Willoughby
RSA III
Gillian joined the MCRU in 1989 to work as a project clerical officer on the epidemiology of sports injuries. In 1990 she moved across to become the Unit secretary. Since 1994 she has acted as PA to the Unit’s Director. She supports him in his many roles not only for the MCRU but within the School and the University, and also in his role with the HTA. She also has responsibility for the section’s finance. Over the years she has given support to many of the Unit projects.

Richard Wilson
BA (Sociology), MA (Applied Social Research), MSc (Medical Sociology).
Richard started working in ScHARR in 2001. Since January 2007 he has been managing a project examining the development of a risk adjustment tool for use by hospital emergency departments. His interests include medicalisation and research philosophy.
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<td>The costs and benefits of managing low priority 999 ambulance calls by NHS Direct nurse advisors (Research Summary). 2007</td>
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<td>Patient views of the emergency and urgent care system. A preliminary report to the Department of Health. 2007</td>
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<td>The costs and benefits of changing ambulance service response time performance standards. 2006</td>
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Alternatively to receive a paper copy please contact:
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Regent Court
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Sheffield, S1 4DA
How to find the Medical Care Research Unit

The MCRU is based in the School of Health and Related Research (ScHARR) and is on the third floor of Regent Court, a new brick building on Regent Street, which is just off West Street and very close to the centre of Sheffield. Other ScHARR sections are located on the first and second floors of the same building.

Travelling by car
If you are driving to Sheffield from elsewhere, take the inner ring road (Upper Hanover Street on the map above), following signs for the University. Limited pay and display and on-street car parking in nearby streets is available as shown.

Travelling by train
The MCRU is about 5-10 minutes from Sheffield’s main railway station by taxi (about £6), or about 25 minutes by foot. There are also supertram stops close to Regent Court. To take the supertram, turn right out of the station and walk towards the bridge over the roundabout which is directly ahead of you. Just before the bridge, turn left up the hill to find the supertram stop. Take a tram from platform 6б heading for Shalesmoor or Middlewood, and get off at the West Street or University stops.

Travelling by air
Sheffield’s nearest international airports are Robin Hood airport Doncaster, Manchester airport and East Midlands airport.
For further information on the work of the Unit, please write to:

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