Annual Report 2010
The Medical Statistics Group
Health Services Research Section
School of Health and Related Research (ScHARR)
University of Sheffield

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Preface

The Medical Statistics Group (MSG) is located within the Health Services Research (HSR) Section of the School of Health and Related Research (ScHARR) at the University of Sheffield and works closely with the Medical School, the National Institute for Health Research (NIHR) Research Design Service for Yorkshire and Humber (previously the Trent Research Development and Support Unit (RDSU) and the Clinical Trials Research Unit (CTRU)).

The MSG aims to:

1. Develop new statistical methodology relevant to medical and health services research;

2. Help ScHARR achieve a high rating at the Research Excellence Framework (REF) (the successor to the Research Assessment Exercise) by providing high quality advice on research proposals and using modern statistical methods in the analysis and display of data;

3. Provide direct input to medical and health services research projects through collaborative research and consulting;

4. Develop and deliver statistics modules for undergraduate and postgraduate degree schemes within ScHARR; the Faculty of Medicine, Dentistry and Health and the University of Sheffield;

5. Train medical and health services professionals in the theory and application of appropriate statistical methods in their own research;

6. Train the next generation of medical statisticians (through the newly introduced MSc in Statistics with Medical Applications).

The Group operates in three main areas of research, teaching and consultancy.
**Highlights of 2010**

We have a strong list of peer reviewed publications with 31 joint-authored papers in 2010 (21 in 2009) and a further 8 non-refereed papers, letters or reviews and 3 books. We also have a strong list of successful grant collaborations worth approximately £16.5M, spread over a number of years.

In 2010 the Medical Statistics Group worked on over 16 new grant applications, to various funders, from outline stage to full application. This resulted in 7 new research grants with a value of approximately £4.2M (£4.9M in 2009).

We saw the first students graduate from our MSc in Statistics with Medical Applications and have a large contingent this year. Members of the MSG are heavily involved with the teaching activities of ScHARR and the wider Faculty of Medicine.

Jenny Freeman has been appointed as deputy director of teaching in ScHARR. As a member of Council to the Royal Statistical Society she has been appointed to the Professional Affairs Committee as a non-voting member.

Mike Campbell continues on the NIHR Health Services Research Board. He became an international advisor to the Centre for Support and Training in Analysis and Research (CSTAR) in the Republic of Ireland and attended meetings in Dublin and Limerick. He finished as a member of an Appraisal Committee for NICE after 10 years. He joined the Royal Statistical Society Medical Section Committee.

Stephen Walters was invited to join the NIHR HTA Clinical Evaluation and Trials Board and nominated and appointed as chair of the Data Monitoring and ethics committee (DMEC) for the HTA-funded Prevention of fall related injuries (Pre-FIT) trial.

Steven Julious continues to serve on Appraisal Committee D for NICE and is Chair of the Data Monitoring and ethics committee (DMEC) for the NPRI Healthy Eating and Lifestyle in Pregnancy (HELP) trial. His book “An introduction to statistics in early phase trials” was published.

Mike Campbell and Stephen Walters have a contract with Wiley to write a book on "A practical guide to the design and analysis of clustered randomised trials for healthcare evaluation". Steven Julious and Stephen Walters have been asked to write a book “A medical statistics pocket handbook”

Dawn Teare was invited to join the RfPB-NIHR Yorkshire and Humberside Committee and the RSS Medical Statistics Section committee. Her co-edited book “Genetic Epidemiology” was published.

MJC January 2011
The Medical Statistics Group

Mike Bradburn (MB) Statistician (CTRU)¹
Mike Campbell (MJC) Professor of Medical Statistics
Munyaradzi Dimairo (MD) Research Associate (CTRU)
Jenny Freeman (JF) Senior Lecturer in Medical Statistics
Richard Jacques (RJ) Research Associate
Georgina Jones (GL) Senior Lecturer in Social Sciences
Steven Julious (SAJ) Reader in Medical Statistics
David Machin (DM) Emeritus Professor
Neil Shephard (NS) Research Associate (CTRU)
M. Dawn Teare (MDT) Lecturer in Genetic Epidemiology
Stephen Walters (SJW) Professor of Medical Statistics and Clinical Trials

¹ Clinical Trials Research Unit

Members of ScHARR with an Interest in Statistics

Jon Nichol (JPN) Dean of ScHARR
Alicia O’Cathain (AOC) Professor of HSR HSR
John Stevens Director, CHEBS HEDS
Tracey Young (TY) Senior Lecturer HEDS
Mark Strong (MS) Clinical Lecturer Public Health
Patrick Fitzgerald (PF) Research Fellow HEDS
Dave Saxon (DS) Research Associate Mental Health

MSG Annual Report 2010
Teaching 2010 by the Medical Statistics Group

Undergraduate

Statistics to MBChB (JF, Mark Strong)

Undergraduate/Postgraduate

Statistics for the Medical and Health Sciences (HAR6036) (SAJ with SJW, JF, MB, MD, MJC, RJ)

Postgraduate

Stephen Walters is Director of MSc in Health Services Research

An Introduction to Statistics and Critical Appraisal (HAR6035) (SJW with MJC, JF, SAJ, TY, RJ, MDT, MD, NS, MB)

MSc Clinical Research: Introduction to statistics for clinical research (MDT, SJW, JVF, SAJ)

MSc Medical Statistics: Statistical Methods in Epidemiology (MJC, JVF, MDT)

MSc Medical Statistics: Further Clinical Trials (SAJ with MJC, JS, MB)

MSc Health and Social Care (distance learning) (including RTP and MSc in Psychological Research Students (GLJ, MB))

Other Teaching

Specialist Registrars short course (MJC, JF, SAJ, MDT, MB)

MSc Renal Medicine (JF)

MPH (HSR) Promoting evidence based health care (MJC)

HAR674 Randomised Controlled Trials (SJW)

PhD graduates

Adriana Ismail ‘Quality of Life in children with thalassaemia in Malaysia.’ graduated July 2010 MJC, GLJ

Nicola Clibbens ‘An augmented Delphi survey of nurses’ and service users’ views about therapeutic care on acute mental health wards. awarded December 2010. (SJW)

Ongoing PhD Students

Joseph Akanuwe: supervised by Liddy Goyder & SAJ

Mamdooh Alonazi (full-time): supervised by Allan Hutchinson JVF & Rachel O’Hara

Mubashir Arain (full time): supervised by Jon Nicholl & MJC

Kay Bowen (part-time): supervised by GLJ, DOC Anumba

Victoria Brennan (full time): supervised by GLJ, SC Radley, S Dixon

Elton Chanakira (full-time): supervised by Liddy Goyder (Public Health), JVF & Alicia O’Cathain

Aliresa Dastgheib (joint location, full-time) supervised by MDT and Alison Gartland

James Fotheringham(full time) supervised by MJC and Meguid el-Nahas (Kidney Unit)

Ibrahim Gosadi (full time) supervised by MDT and Liddy Goyder.

Sally Hartnell: supervised by Liddy Goyder & SAJ
Rosalind Haddrill (part-time): supervised by Jones GL, Anumba DOC Mitchell C
Sarah Hargreaves (full time): supervised by Mark Hawley and MJC
Nick Latimer (full time): supervised by Ron Akehurst, MJC, MB & TY (on maternity leave)
Feng Lui (part-time): supervised by SAJ & SJW
Jennifer Lai (full time): supervised by SAJ, JVF & Suzanne Mason
Sajid Mahmood (full time): supervised by JVF & SAJ
Paul Mahoney (part-time) supervised by SAJ and MJC
Khadija Rerhou (part-time university staff candidate): supervised by MJC and SJW
Lyn Taylor (full time) supervised by MDT, Gerry Wilson and JVF.
Ibrahim Zurmi (full time) supervised by MJC and Rob Coombs (Child Health)
Tracy Elliott (part time): supervised by SJW and Wendy Baird
Brian Reddy (full-time): supervised by SJW and Praveen Thokala
Claire Hill (part-time) supervised by Wendy Baird and SJW.

MSc Medical Statistics Dissertations Completed
Phil Watson (full-time): Binary outcomes in cluster trials: analysis of DESMOND data Supervised by MJC
Suteera Pinyakorn (full-time): A Comparison of methods for the analysis of allelic expression imbalance. Supervised by MDT.
Bev Shields (full-time): A clinical prediction model for the identification of Maturity Onset Diabetes of the Young. Supervised by MJC

Ongoing
Sharon Harnden (part-time): Ovarian cancer risk in BRCA1 and BRCA2 mutation carriers. Supervised by MDT.
Jonathan Wright (part time): Investigating heterogeneity in multicentre clinical trials. Supervised by SAJ
Cliona McDowell (part time): Meta analyses of trials with rare events. Supervised by SAJ
Azita Rajai (part time): Predicting future trials. Supervised by SAJ
Will Quick (part time): Alternative endpoints in Oncology Clinical Trials. Supervised by MB

MPH (completed)
Simon Edeghere. Investigating heterogeneity in lifestyle interventions designed to prevent progression of impaired glucose tolerance to Type 2 Diabetes Mellitus: a systematic review (distinction) Supervised by MJC
Sheila Ohiorobo. A Systematic Review on the effectiveness of Antioxidant Vitamins and Minerals Supplement in Preventing Age-related Cataract Development and Progression Supervised by MJC.


Sani Dambam. A systematic review of asthma treatment. Supervised by SAJ
Ibrahim Gosadi A systematic review of the heritability of bodyweight. Supervised by MDT.

**PhD Internal Examining**
Yaling Yang (SJW)

**External examining**
MJC
PhD St George’s, University of London (resit),

MDT
PhD Paula Smith, University of Cambridge.

SJW
PhD Fiona Warren, University of Leicester

JF
MSc Statistical Epidemiology University of Leeds, Postgraduate Medical Statistics (various courses) University of Central Lancashire

SJW
MSc Public Health & Health Services Research. University of Newcastle

GLJ

Invited to be an opponent for PhD student, Elizabeth Jedel, at Karolinska Insitute in Stockholm (Dec 2010).

**External Courses**
Cluster Randomised Trials. One day Erasmus Winter Course, Rotterdam (MJC)

How many subjects do I need for my study? Sample size determination for studies with QoL outcomes. Workshop presentation at International Society of Quality of Life Research (ISoQoL) 2010 Annual Conference. (SJW).

Statistical component for module ‘Design and analysis in experimental research’ lectures and tutorials (15 contact hours) for MSc in Molecular Medicine, School of Medicine (MDT)
Medical Statistics Group peer-reviewed publications 2010


Julious SA and Owen R. Sample size calculations for non-inferiority studies with binary outcomes. Statistical Methods in Medical Research (DOI: 10.1177/0962280210378945


Books


**Book Chapters**


**GL Jones** (2010). Quality of Life in Women with PCOS. RCOG Press.

**Non-refereed Journal Articles & Reports**


**Campbell MJ** (2010) A statistician on a NICE committee. *Significance* 7, 81-84


**Non-refereed Reports**

J Siddall, C Warnock, D Greenfield, **J Freeman**, T Urquhart, A Jenkins, A Pass, D Friend, G Peacock, J Tapp, M Astley-Pepper, S Debbage The clinical skills and training needs required by nurses to meet the needs of patients living with and beyond cancer, for patients diagnosed under the age of 25: a 3 phase exercise. The perspectives of managers, doctors and nurses working in late effects care.. Report for Sheffield Children and Young People Cancer Survivorship Test Community North Trent Cancer Network
Invited Conference Talks and Seminars

MJC

Statisticians in the Pharmaceutical Industry. (PSI) Manchester May
Plenary Talk ‘A statistician on a NICE Appraisal Committee’

Italian Statistical Society (SIS) 45th Annual Conference, Padua, Italy, June
Invited talk : ‘Odds ratios, relative risks and cluster randomised trials’.

American Statistical Association Joint Statistical Meeting Vancouver, August
Talk: A statistician on a NICE Appraisal Committee:

UCL London, Statistics Dept, Seminar A statistician on a NICE Appraisal Committee: a
personal view. Nov

Statistics Dept. Limerick Why should I see a statistician about a research project and
how can s/he help me? Sept

JVF

The Association of Statistics Lecturers in Universities (ASLU) 2010 Conference. The
application of problem-based learning to statistics education: a case study

International Conference on Teaching Statistics, Llubliana July 2010. Issues in
Training Physicians in the Uses of Statistics: what do they think they need to know?

Royal Statistical Society Event. How (not) to Display Dataor 10 rules for obscuring
your message.

RSS Primary Care Study Group. July 2010 Lancaster. What do Drs (think they) need
to know.

SAJ

Meta analysis overview. BIAS, Rome, 2010

Investigating Heterogeneity in Meta Analyses of Clinical Trials. BIAS, Rome, 2010

Interpreting treatment effects from a number of trials with application to designing
future trials. BIAS, Rome 2010

Proposed best practice for statisticians in the reporting and publication of
pharmaceutical industry sponsored clinical trials. European Statistics Forum, Verona,
2010

Interpreting treatment effects from a number of trials with application to designing
Adapt to succeed: an optimal route to market. ACDM Conference, Northampton, 2010

GLJ

Nordic Federation of Obstetricians and Gynecologist (NFOG) (Copenhagen, 2010).


**Contributed talks and posters**

**Talks**


**Posters**

D Sell, A Harding-Bell, T Sweeney, A John, **J Freeman**. The UK experience of striving for listener reliability on a cleft speech outcome tool. International Clinical Phonetics and Linguistics Association in Oslo, Norway, June 23–26, 2010


Mason S, Coster J, Weber E, **Freeman J**. Rushing, Cheating or Better Flow: Is The Ability to Meet the Four-Hour Target Associated With Increased Disposal Activity Just Before the Deadline? UK College of emergency medicine, annual conference, Birmingham. September 2010

Mason S, Coster J, Weber E, **Freeman J**. Digit preference bias in Emergency Department departure times is alive and well. UK College of emergency medicine, annual conference, Birmingham. September 2010

**Julious SA** and Whitehead PA. Investigating heterogeneity in meta analyses of clinical trials. ISCB, Montpellier, 2010
Julious, SA, Martindale, J and Meades, Y. Are case record forms for licensed treatments in the pharmaceutical industry too long? PSI, Manchester, 2010


Internal Positions

Mike Campbell. University Court, Course Director MSc Statistics with Medical Applications

Steven Julious Chair of the CTRU, University Senate

Stephen Walters Course Director MPH (Health Services Research); University Senate; University of Sheffield’s Staff Promotion Panels (for Grades 1 to 6); University of Sheffield’s Appeals Committee of Senate and Discipline Committee; Senate representative on the University of Sheffield Faculty Promotion Panels, for Grades 8&9.

Jenny Freeman. Deputy Director of Teaching for ScHARR. University Court, Faculty Student Review committee, Maths and Statistics Help centre (MASH) steering committee & Management group, Examinations officer for ScHARR. Course director for MSc in Medical and Health Sciences.

M. Dawn Teare. Quality and Progression Officer, ScHARR PGR Committee. HSR representative ScHARR REF Task Group.

Jones GL. Director of the Short Course Unit
**External Positions**

**Funding Boards**

NIHR Health Services Research Commissioning Board (MJC)

Research for Patient Benefit Committee East Midland (SJW)

Research for Patient Benefit Committee York and Humberside (MDT)

Cancer Research UK Clinical Programme awards (MDT)

Executive Board for the national charity PCOS UK (GLJ)

Scientific Review Panel for the Sheffield Health and Social Care Consortium (JVF)

**Data Monitoring and Ethics Committees**

SHIFT trial (University of Leeds) MJC, 

ZiPP trial (University of Edinburgh) MJC 

Osteoporosis in men trial (Novartis) MJC

MUSTARDD trial (Newcastle) SAJ 

Help Trial (chair of the DMC) Cardiff SAJ

SABRE trial Southampton SAJ

Body psychotherapy and Schizophrenia Trial (Queen Mary London) JVF

**Other**

Mike Campbell continues on the Education Committee of the International Society for Clinical Biostatistics (ISCB). He is an member of the international Board for CSTAR(Centre for Support and Training in Analysis and Research) for the Republic of Ireland. In 2010 he was editor for the proceedings for the French Statistical Society Conference ‘Biopharmacy’ to appear in *Statistics in Medicine* in 2011. He was also editor of ‘Statistics in Primary Care’ which appeared as an issue of *Statistical Methods in Medical Research*. He is on the Royal Statistical Society working group in Primary Care and the Medical section committee.

Georgina Jones continues to be on Associate Editor Board for the journal of Health and Quality of Life Outcomes.
Stephen Walters is a member of and Secretary to Royal Statistical Society Medical Section Committee. Stephen is a member of the Public Health Interventions Advisory Committee (PHIAC) of the National Institute for Health and Clinical Excellence. He is also a member of the Editorial Board for the journal of Health and Quality of Life Outcomes and a member of the International Advisory Board for the journal of Quality of Life Research.

Steven Julious is a member of the Editorial Advisory Board for the journals Pharmaceutical Statistics and Statistical Methods in Medical Research. Steven is guest editor for a special issue of Statistics Methods in Medical Research on meta analysis and for a special issue of Pharmaceutical Statistics on Non-inferiority. Steven is a member of Appraisal Committee C for the National Institute for Health and Clinical Excellence.

Jenny Freeman is a member of the Royal Statistical Society Council, the Medical Statistics committee and is chair of the Royal Statistical Society local group. She is a member of the Trial Steering Committee for the VENUS IV trial for the treatment of leg ulcers (University of York). She is on the editorial board for Nephron: Clinical Practice.

**Refereeing**

Both Mike Campbell and Stephen Walters are reviewers for the BMJ, whilst Jenny Freeman is a statistical referee for the BJGP, the Journal of Health and Social Care and the Statistics Education Research Journal. Stephen has acted as a referee for the following: Quality of Life Research; Statistics in Medicine; Pharmaceutical Statistics; Health and Quality of Life Outcomes; International Journal of Surgery; Medical Research Council (MRC) Clinician Scientist Fellowship Scheme and the NHS R & D Health Technology Assessment (HTA) Programme; NIHR Programme Grants Scheme. GLJ is a reviewer for the academic journals, Human Reproduction, Human Reproduction Update, Fertility & Sterility, Family Practice, British Journal of Obstetrics & Gynaecology, European Journal of Obstetrics & Gynaecology, Journal of Clinical Epidemiology & Public Health, Health & Quality of Life Outcomes, Quality of Life Research, International Journal of Clinical Practice and Social Science & Medicine. Steven Julious is a reviewer for many journals including Pharmaceutical Statistics, Statistics in Medicine and Statistical Methods in Medical Research and is a reviewer for the HTA, MRC and the RfPB programs. Mike Bradburn has reviewed for journals (Statistics in Medicine, BMC methodology) and various grant bodies (the NIHR HTA, EME and programme grant funding streams; and also MRC)

**Clinical Trials Research Unit and the Yorkshire & Humber Research Design Service**

The Medical Statistic Group plays a key role in the success of the CTRU. Mike Bradburn is the senior statistician within the CTRU and Steven Julious is the chair (30%). Both Munyaradzi Dimairo and Neil Shephard are employed jointly between
the CTRU and RDS. However the whole group contributes to the CTRU through input to grant applications and in an advisory capacity.

**Research Awards and Grants (new and ongoing)**

**New**

**NIHR HTA** SABRE (Hypertonic Saline in Acute Bronchiolitis RCT and Economic evaluation) £672,014, co-applicant. PI Dr Mark Everard, Sheffield Children’s hospital 2010-2012 J Freeman co-applicant

**Macmillan Cancer Care.** Acknowledging the importance of economic well-being and returning to work after cancer treatment: the role of an OT. £80,000. PI Diana Greenfield. J Freeman co-applicant

**HTA** In utero magnetic resonance imaging of fetal brain abnormalities (MERIDIAN) Griffiths C, Robson S, **Campbell MJ**, Cooper C Reeves M and Graham M (1.9M)

**NIHR HTA** RATPAC CBE Randomised Assessment of Treatment using Panel Assay of Cardiac Markers - Contemporary Biomarker Evaluation. Collinson P, Goodacre S, **Bradburn M**, Fitzgerald P. (£243k)


**Sheffield Teaching Hospitals Charitable Trust** Preserving fertility in women with cancer: quality of life and decision making in women offered egg and embryo banking prior to cancer treatment. **G Jones (PI)**, A Pacey, D Greenfield, R Coleman, J Wright, J Tidy, P Slade, **MJ Campbell**. £70, 000

**Swiss Precision Diagnostics** The Assessment of Levels of Stress in Patients Using Ovulation Prediction in Order to Try and Conceive. W Ledger(PI) ) **GJ Jones, MJ Campbell.** £55, 069

**Ongoing**


NIHR HTA Head Injury Transportation Straight to Neurosurgery (HITS-NS): feasibility study. Fiona Lecky, University of Manchester (PI) J Freeman co-applicant. £748,889

SHIRE Pharmaceutical collaboration Assessing the impact of a child with ADHD on the health and well-being of their families. S Walters, J Brazier, S Dixon, C Cooper. Approx £400K

NIHR - Bone Metabolism Unit Trials. Eastell R(PI) , Cooper C, M Bradburn, Chater T. Approx £140K

NIHR Research for Patient Benefit (RfPB) - Pilot work for a RCT of a brief psychological intervention for non-epileptic seizures (NEST). M Reuber (PI), S Howlett, G Lawton, A House, S Kemp, RJ Brown, M Bradburn £200K

NIHR Research for Patient Benefit (RfPB) PB-PG-0808-17148 The AHEAD Study: Managing anticoagulated patients who suffer head injury. S Mason PI Co-apps_D Teare, Goodacre, Holmes, Stevenson, Ramlakhan. £230K over 2 years


UniPath M Campbell (PI), R Eastell. Unipath. Statistician to analyse data on osteoporosis. £153,361 over 2 years


NHS Health Technology Assessment Programme. Infrastructure support for Clinical Trials Research Unit. Cooper C (PI) and Julious S. £600,000 (for 3 years to be reviewed and annually re-awarded depending on performance targets for the Clinical Trials Research Unit), 2008

Yorkshire and Humber Research Design Services (YHRDS) £5,000,000 Stephen Walters, Co-applicant, 60 Months 2008-2013, Funding body: NHS National Institute for Health Research PI R. Akehurst
NHS NIHR Research for Patient Benefit (RfPB) programme  Stephen Walters  
Extension of mammographic breast screening to the over 70s: Assessment of efficacy, practicality and patient preferences £228,299 2007-2010 PI: Lynda Wyld

NHS NIHR HTA Clinical Trials  Stephen Walters co-applicant. 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 £1,200,000 Co-applicant 48 Months 2008-2012 PI: Elizabeth Goyder

NHS NIHR Research for Patient Benefit (RfPB) programme  Stephen Walters Co-applicant, The long term effectiveness of 40% salicylic acid plasters on corns an RCT £250,000  2008-2011 PI: Wesley Vernon

NHS NIHR Research for Patient Benefit  Mike Bradburn Co-applicant Randomised controlled trial of a brief psychological intervention for non-epileptic seizures (NEST2) £185,814 26 Months 2009-2011 P I: Marcus Reuber

MS Society  JV Freeman.co-applicant  Computerised cognitive behavioural therapy for treatment of depression in people with MS: pre-clinical trial exploratory study PI Cindy Cooper. Total £213k.

NHS HTA  SA Julious.co-applicant  Randomised Assessment of Treatment using Panel Assay of Cardiac markers (RATPAC) (PI S Goodacre). £716,500

Diabetes UK  JV Freeman. Kids In Control OF Food: A multi-centre, cluster randomised controlled trial comparing structured education (the KICk-OFF course) with standard care in 11-16 year olds with Type 1 Diabetes (T1DM) on intensive insulin therapy. (PI: K Price) £1,427,000.


NHS HTA  3Mg  MJ Campbell Co-applicant A trial of nebulised versus injected magnesium for acute asthma attacks (3Mg) (PI SGoodacre) Total £1,110,333  3 yrs

NIHR Programme Grant  MJ Campbell co-applicant. Improving management of Type 1 diabetes in the UK: the DAFNE programme as a research test-bed (PI S Heller ) Total £1,983,000 over 3 years

HTA Research for Patient Benefit  MJ Campbell co-applicant .The development and evaluation of the effectiveness of a patient decision aid (PtDA) to improve decision quality and health outcome in type 2 diabetic patients making treatment choices (PI N Mathers).  Total £250,000 over 2 years

IPSEN  A Prospective Study on the Long Term Use of Decapeptyl and Livial in Women with CPP..PI (Professor W Ledger) GJ . £212, 000
Sheffield Teaching Hospitals Charitable Trust Assessing the Impact of Using e-PAQ-PO on Quality and Cost of Patient Care in Anaesthesia: an RCT. PI (Dr John Androfsky), GJ, Mr S Radley, Dr M Berthoud, Dr I Goodhart, Dr D Turnbull, Dr I Wrench £46,748

Weston Park Cancer Hospital Treatment for gynaecological cancer: Measuring outcome from the patients perspective. PI (GJ) J Tidy, W Ledger, S Radley, S Pledge, S Keogh. £81,299.

Sheffield Teaching Hospitals Charitable Trust Assessing the Impact of Using e-PAQ-PF on Quality and Cost of Patient Care in Urogynaecology: an RCT. PI (Stephen Radley), GLJ, SDixon, S Walters. £50,000

Sheffield Health and Social Care Research Consortium Understanding why women present late for antenatal booking: a qualitative analysis. PI (GLJ), D Anumba, C Mitchell. £36,484