

Welcome to the Integrated Research Application System

IRAS Project Filter

The integrated dataset required for your project will be created from the answers you give to the following questions. The system will generate only those questions and sections which (a) apply to your study type and (b) are required by the bodies reviewing your study. Please ensure you answer all the questions before proceeding with your applications.

Please enter a short title for this project (maximum 70 characters)

The UK Calciphylaxis Study

1. Is your project research?

Yes No

2. Select one category from the list below:

- Clinical trial of an investigational medicinal product
- Clinical investigation or other study of a medical device
- Combined trial of an investigational medicinal product and an investigational medical device
- Other clinical trial to study a novel intervention or randomised clinical trial to compare interventions in clinical practice
- Basic science study involving procedures with human participants
- Study administering questionnaires/interviews for quantitative analysis, or using mixed quantitative/qualitative methodology
- Study involving qualitative methods only
- Study limited to working with human tissue samples (or other human biological samples) and data (specific project only)
- Study limited to working with data (specific project only)
- Research tissue bank
- Research database

If your work does not fit any of these categories, select the option below:

Other study

2a. Please answer the following question(s):

- a) Will you be taking new samples primarily for research purposes (i.e. not surplus or existing stored samples), including any removal of organs or tissue from the deceased? Yes No
- b) Will you be using surplus tissue or existing stored samples identifiable to the researcher? Yes No
- c) Will you be using only surplus tissue or existing stored samples not identifiable to the researcher? Yes No
- d) Will you be processing identifiable data at any stage of the research (including in the identification of participants)? Yes No
- e) Please confirm that you will be processing only anonymised or effectively pseudonymised data:
 Yes, only anonymised or pseudonymised data No

3. In which countries of the UK will the research sites be located? (Tick all that apply)

- England
- Scotland
- Wales
- Northern Ireland

3a. In which country of the UK will the lead NHS R&D office be located:

- England
- Scotland
- Wales
- Northern Ireland
- This study does not involve the NHS

4. Which review bodies are you applying to?

- NHS/HSC Research and Development offices
- Social Care Research Ethics Committee
- Research Ethics Committee
- National Information Governance Board for Health and Social Care (NIGB)
- National Offender Management Service (NOMS) (Prisons & Probation)

For NHS/HSC R&D offices, the CI must create Site-Specific Information Forms for each site, in addition to the study-wide forms, and transfer them to the PIs or local collaborators.

5. Will any research sites in this study be NHS organisations?

- Yes
- No

5a. Do you want your NHS R&D application(s) to be processed through the NIHR Coordinated System for gaining NHS Permission?

- Yes
- No

If yes, you must complete and submit the NIHR CSP Application Form immediately after completing this project filter, before proceeding with completing and submitting other applications.

6. Do you plan to include any participants who are children?

- Yes
- No

7. Do you plan at any stage of the project to undertake intrusive research involving adults lacking capacity to consent for themselves?

- Yes
- No

Answer Yes if you plan to recruit living participants aged 16 or over who lack capacity, or to retain them in the study following loss of capacity. Intrusive research means any research with the living requiring consent in law. This includes use of identifiable tissue samples or personal information, except where application is being made to the NIGB Ethics and Confidentiality Committee to set aside the common law duty of confidentiality in England and Wales. Please consult the guidance notes for further information on the legal frameworks for research involving adults lacking capacity in the UK.

8. Do you plan to include any participants who are prisoners or young offenders in the custody of HM Prison Service or who are offenders supervised by the probation service in England or Wales?

- Yes
- No

9. Is the study or any part of it being undertaken as an educational project?

Yes No

10. Will this research be financially supported by the United States Department of Health and Human Services or any of its divisions, agencies or programs?

Yes No

11. Will identifiable patient data be accessed outside the care team without prior consent at any stage of the project (including identification of potential participants)?

Yes No

Integrated Research Application System
Application Form for Research limited to working with human tissue samples and/or data

NHS/HSC R&D Form (project information)

Please refer to the *Submission and Checklist* tabs for instructions on submitting R&D applications.

The Chief Investigator should complete this form. Guidance on the questions is available wherever you see this symbol displayed. We recommend reading the guidance first. The complete guidance and a glossary are available by selecting [Help](#).

Please define any terms or acronyms that might not be familiar to lay reviewers of the application.

Short title and version number: (maximum 70 characters - this will be inserted as header on all forms)
 The UK Calciphylaxis Study

PART A: Core study information

1. ADMINISTRATIVE DETAILS

A1. Full title of the research:

The UK Calciphylaxis Study

A3-1. Chief Investigator:

	Title Forename/Initials Surname
	Dr Smeeta Sinha
Post	Consultant and Honorary Senior Lecturer in Nephrology
Qualifications	MBChB MRCP PhD
Employer	Salford Royal NHS Foundation Trust
Work Address	Department of Renal Medicine Level 2 Hope Building Stott Lane, Salford
Post Code	M6 8HD
Work E-mail	smeeta.sinha@srft.nhs.uk
* Personal E-mail	smeetasinha@doctors.org.uk
Work Telephone	01612064155
* Personal Telephone/Mobile	07872417512
Fax	

** This information is optional. It will not be placed in the public domain or disclosed to any other third party without prior consent.*

A copy of a current CV (maximum 2 pages of A4) for the Chief Investigator must be submitted with the application.

A4. Who is the contact on behalf of the sponsor for all correspondence relating to applications for this project?

This contact will receive copies of all correspondence from REC and R&D reviewers that is sent to the CI.

	Title Forename/Initials Surname Rachel Georgiou
Address	Salford Research & Development Summerfield House Eccles New Road
Post Code	M5 5FP
E-mail	rachel.georgiou@manchester.ac.uk
Telephone	01612067032
Fax	

A5-1. Research reference numbers. *Please give any relevant references for your study:*

Applicant's/organisation's own reference number, e.g. R & D (if available): 2012/030vas

Sponsor's/protocol number:

Protocol Version: 1

Protocol Date: 19/07/2011

Funder's reference number:

Project website: www.calciphylaxis.org.uk

Additional reference number(s):

Ref.Number	Description	Reference Number
REC	Reference number	11/NW/0528

Registration of research studies is encouraged wherever possible. You may be able to register your study through your NHS organisation or a register run by a medical research charity, or publish your protocol through an open access publisher. If you have registered your study please give details in the "Additional reference number(s)" section.

A5-2. Is this application linked to a previous study or another current application?

Yes No

Please give brief details and reference numbers.

2. OVERVIEW OF THE RESEARCH

To provide all the information required by review bodies and research information systems, we ask a number of specific questions. This section invites you to give an overview using language comprehensible to lay reviewers and members of the public. Please read the guidance notes for advice on this section.

A6-1. Summary of the study. *Please provide a brief summary of the research (maximum 300 words) using language easily understood by lay reviewers and members of the public. Where the research is reviewed by a REC within the UK Health Departments Research Ethics Service, this summary will be published on the website of the National Research Ethics Service following the ethical review.*

Calciphylaxis is a rare condition which results in small arteries becoming calcified. This results in painful ulceration of the skin which in turn can result in infection and further damage to tissue. It is associated with a high mortality rate (60-80%). Consequently research into this area is important. The aims of this study are to determine the following:

- 1) What is the natural history of the disease?
- 2) What risk factors are associated with development and progression of calciphylaxis?
- 3) Which treatments currently in clinical practice confer a favourable outcome?
- 4) What are the underlying disease processes?

These aims will be achieved by collecting information on medications, clinical parameters, local laboratory tests, measuring specific proteins and molecules in blood and tissue as well as studying patient's DNA profiles.

A6-2. Summary of main issues. *Please summarise the main ethical, legal, or management issues arising from your study and say how you have addressed them.*

Not all studies raise significant issues. Some studies may have straightforward ethical or other issues that can be identified and managed routinely. Others may present significant issues requiring further consideration by a REC, R&D office or other review body (as appropriate to the issue). Studies that present a minimal risk to participants may raise complex organisational or legal issues. You should try to consider all the types of issues that the different reviewers may need to consider.

The UK Calciphylaxis study will be a non-intervention observational study. The study will aim to recruit any patient with chronic kidney disease who has a diagnosis of calciphylaxis from any UK renal department over a 10 year period. Patients will be given information sheets and at least 24 hours to consider involvement. Informed consent will then be obtained from patients willing to participate by a doctor specialising in renal medicine who will be fully informed and able to discuss the nature of the study, and any risks and benefits involved in participation.

The main ethical and design issues are outlined below:

1) Calciphylaxis is a rare and poorly understood condition. Due to the rarity of the condition we will seek approval for all NHS organisations with a hub renal department.

2) Taking consent within the patient group. Patients with calciphylaxis are unwell but usually capable of providing consent. Although we accept this is a difficult time for patients there is no alternative to studying this condition. The study has been discussed with the vice chair of the Hope Kidney Patient Association who agrees that such a study is appropriate for patients with calciphylaxis. Patients may withdraw from the study at anytime. If patients lose capacity to consent they will be withdrawn from the study.

3) The following data will be collected:

a) Demographics, medications and standard laboratory variables including 12 months retrospective values will be collected at baseline.

b) Clinical information on skin lesions, symptoms, and initial treatments/interventions will be collected at baseline.

c) Monthly follow-up clinical and laboratory data will be requested until full recovery or death.

d) Blood samples will be taken at baseline, week 1 & 2, 1 month and after full healing should this occur. Samples will be frozen for testing of serum levels of promoters and inhibitors of calcification, and clotting factor deficiencies.

e) A DNA sample will be taken at baseline. Patients will be able to refuse consent for collection of DNA. DNA samples will be anonymised and transported directly to the Centre for Integrated Genomic Medical Research (CIGMR), University of Manchester.

f) Any tissue that is taken for diagnostic or therapeutic purposes (i.e. skin biopsy, amputation, mastectomy etc) will be requested and collected for storage at the University of Manchester. Diagnostic blocks/slides will be anonymised at reception at the Laboratory of Regenerative Medicine in the University of Manchester and stored for future research subject to appropriate ethical approval for specific projects. Patients will be able to refuse consent for collection of tissue.

4) Data protection. Patient information will be anonymised outside the direct care centre using a unique patient code which will be generated at registration. Anonymised data and samples may be transported outside the EU for future studies.

The design of the study has been undertaken in collaboration with the International Calciphylaxis Collaborative Network involving the UK, Germany and USA. Each country is responsible for setting up its own study utilising an agreed protocol for data and biological sample collection.

3. PURPOSE AND DESIGN OF THE RESEARCH

A7. Select the appropriate methodology description for this research. Please tick all that apply:

- Case series/ case note review
- Case control
- Cohort observation
- Controlled trial without randomisation
- Cross-sectional study
- Database analysis
- Epidemiology
- Feasibility/ pilot study
- Laboratory study
- Metanalysis
- Qualitative research
- Questionnaire, interview or observation study
- Randomised controlled trial
- Other (please specify)

A10. What is the principal research question/objective? Please put this in language comprehensible to a lay person.

The study will aim to improve our understanding of calciphylaxis by examining:

- a) What is the natural history of the disease?
- b) What risk factors are associated with development and progression of calciphylaxis?
- c) Which current standard treatments confer a favourable outcome?
- d) What are the underlying disease processes?

A11. What are the secondary research questions/objectives if applicable? Please put this in language comprehensible to a lay person.

A12. What is the scientific justification for the research? Please put this in language comprehensible to a lay person.

Calciphylaxis is a rare syndrome during which small arteries become calcified. This results in skin breakdown (necrosis) and is associated with a high morbidity and mortality. It is usually associated with chronic kidney disease, particularly in patients on dialysis. Small cohort studies have suggested a reported prevalence of 1-4% in dialysis populations. Reports have suggested calciphylaxis carries a mortality of 60-80% in patients on dialysis. This is usually due to superseding infection in necrotic lesions.

The cause and processes that underpin the development of calciphylaxis remain poorly understood. However, it is known that calciphylaxis results from a build up of calcium and bone like tissue (calcification) in small arteries. There has been a significant increase in our understanding of harmful vascular calcification in larger blood vessels over the last 20 years. Vascular calcification is an active cell-mediated process during which cells within the vessel wall become more like bone cells and can deposit calcium within the vessel wall. Researchers have discovered that there are several proteins and molecules circulating within the blood which can promote or prevent calcification of blood vessels. An imbalance in these proteins can affect the degree of vascular calcification. Some of these proteins and molecules are also found in calcified wounds. Whether these processes occur in calciphylaxis is not clear. Recently, a group of researchers in Germany have found that levels of one such protein are significantly reduced in patients with calciphylaxis. However, this was only a small pilot study.

There is currently little published about calciphylaxis and the published literature consists largely of case reports and

small case series. The largest published studies include retrospective studies or single centre studies across prolonged periods of times during which clinical practice has changed significantly. Data from these studies has indicated several factors may contribute to the progression of calciphylaxis and that certain patients have benefited from certain treatments. However, due to the nature of these studies it is not surprising that the published reports have conflicting information on risk factors and benefits of treatments. The UK Calciphylaxis study will therefore also aim to collect data on clinical parameters and medication prior to and during the course of the disease to assess the benefits of interventions. Before we can develop better treatments for patients it is essential that we have a better understanding of the disorder. In the proposed study we will build on what is already known but in a larger population.

A13. Please summarise your design and methodology. *It should be clear exactly what will happen to the research participant, how many times and in what order. Please complete this section in language comprehensible to the lay person. Do not simply reproduce or refer to the protocol. Further guidance is available in the guidance notes.*

The UK Calciphylaxis study will be a non-intervention cohort observational study. The study will recruit any patient with chronic kidney disease who has a diagnosis of calciphylaxis from any UK renal department (subject to R & D approval) over a 10 year period. Prospective patients will be identified, approached and recruited by their usual health care provider. Patients will be registered into the study via the study website www.calciphylaxis.org.uk. Patients will be given information sheets and at least 24 hours to consider involvement. Informed consent will then be obtained from patients willing to participate by a doctor specialising in renal medicine who will be fully informed and able to discuss the nature of the study, and any risks and benefits involved in participation. Due to the rarity of the disorder all NHS organisations will be invited to recruit patients into the study. The following data and samples will be collected:

- 1) Demographics, concomitant medications and standard laboratory variables including 12 months retrospective values will be collected at baseline.
- 2) Clinical information on skin lesions, symptoms, and initial therapeutic interventions will be collected at baseline.
- 3) A blood sample for DNA analysis will be taken at baseline and posted immediately at room temperature to the Centre for Integrated Genomic Medical Research (CIGMR) for extraction and storage.
- 4) Plasma/Serum and clotting samples will be taken at baseline, week 1 & 2, 1 month and after full healing should this occur. Samples will be frozen at -20°C or below and stored locally for 1 month. Samples will be sent to the core laboratory after 1 month and thereafter. Samples will be frozen at -80°C at the core laboratory for testing of serum levels of promoters and inhibitors of calcification, and clotting factor deficiencies.
- 5) 4 monthly follow-up clinical and laboratory data will be requested until full recovery or death.
- 6) Any tissue that is taken for diagnostic or therapeutic purposes (i.e. skin biopsy, amputation, mastectomy etc) will be requested and collected for tissue banking at the University of Manchester. Diagnostic blocks/slides will be anonymised at reception at the Laboratory of Regenerative Medicine in the University of Manchester and banked for future research subject to appropriate ethical approval for specific projects.

The design of the study has been undertaken in collaboration with the International Calciphylaxis Collaborative Network involving the UK, Germany and USA. Each country is responsible for setting up its own study utilising an agreed protocol for data and biological sample collection.

A14-1. In which aspects of the research process have you actively involved, or will you involve, patients, service users, and/or their carers, or members of the public?

- Design of the research
- Management of the research
- Undertaking the research
- Analysis of results

- Dissemination of findings
 None of the above

Give details of involvement, or if none please justify the absence of involvement.

Patient information sheets were reviewed and approved by Keith Pennington. Mr Pennington is the vice chair of the Hope Kidney Patient Association as well as being a kidney transplant patient who has experienced haemodialysis.

4. RISKS AND ETHICAL ISSUES

RESEARCH PARTICIPANTS

A15. What is the sample group or cohort to be studied in this research?

Select all that apply:

- Blood
 Cancer
 Cardiovascular
 Congenital Disorders
 Dementias and Neurodegenerative Diseases
 Diabetes
 Ear
 Eye
 Generic Health Relevance
 Infection
 Inflammatory and Immune System
 Injuries and Accidents
 Mental Health
 Metabolic and Endocrine
 Musculoskeletal
 Neurological
 Oral and Gastrointestinal
 Paediatrics
 Renal and Urogenital
 Reproductive Health and Childbirth
 Respiratory
 Skin
 Stroke

Gender: Male and female participants

Lower age limit: 18 Years

Upper age limit: Years

A17-1. Please list the principal inclusion criteria (list the most important, max 5000 characters).

Any patient with chronic kidney disease and a clinical diagnosis of calciphylaxis, subject to informed consent.

A17-2. Please list the principal exclusion criteria (list the most important, max 5000 characters).

Patients who cannot give informed consent

RESEARCH PROCEDURES, RISKS AND BENEFITS

A18. Give details of all non-clinical intervention(s) or procedure(s) that will be received by participants as part of the research protocol. These include seeking consent, interviews, non-clinical observations and use of questionnaires.

Please complete the columns for each intervention/procedure as follows:

1. Total number of interventions/procedures to be received by each participant as part of the research protocol.
2. If this intervention/procedure would be routinely given to participants as part of their care outside the research, how many of the total would be routine?
3. Average time taken per intervention/procedure (minutes, hours or days)
4. Details of who will conduct the intervention/procedure, and where it will take place.

Intervention or procedure	1	2	3	4
Seeking consent	1	0	30	local nephrologist

A19. Give details of any clinical intervention(s) or procedure(s) to be received by participants as part of the research protocol. These include uses of medicinal products or devices, other medical treatments or assessments, mental health interventions, imaging investigations and taking samples of human biological material. Include procedures which might be received as routine clinical care outside of the research.

Please complete the columns for each intervention/procedure as follows:

1. Total number of interventions/procedures to be received by each participant as part of the research protocol.
2. If this intervention/procedure would be routinely given to participants as part of their care outside the research, how many of the total would be routine?
3. Average time taken per intervention/procedure (minutes, hours or days).
4. Details of who will conduct the intervention/procedure, and where it will take place.

Intervention or procedure	1	2	3	4
Venepuncture	8	0	5	normal local venepuncturist

A21. How long do you expect each participant to be in the study in total?
 Patients will remain in the study until complete resolution of calciphylaxis, withdrawal or death.

A22. What are the potential risks and burdens for research participants and how will you minimise them?
For all studies, describe any potential adverse effects, pain, discomfort, distress, intrusion, inconvenience or changes to lifestyle. Only describe risks or burdens that could occur as a result of participation in the research. Say what steps would be taken to minimise risks and burdens as far as possible.
 As this is an observational non-intervention study, there are no expected clinical risks aside from minor discomfort associated with additional venepuncture.

A24. What is the potential for benefit to research participants?
 There will be no direct benefit to patients.
 Knowing that they are contributing towards research in improving the understanding of calciphylaxis.

RECRUITMENT AND INFORMED CONSENT

In this section we ask you to describe the recruitment procedures for the study. Please give separate details for different study groups where appropriate.

A27-1. How will potential participants, records or samples be identified? Who will carry this out and what resources will be used? *For example, identification may involve a disease register, computerised search of GP records, or review of medical records. Indicate whether this will be done by the direct healthcare team or by researchers acting under arrangements with the responsible care organisation(s).*

- a) Patients will be identified by their local nephrologist at the time of presentation of calciphylaxis lesions.
- b) Patients will be approached by the local research team and provided with patient information leaflets.
- c) Patients will be recruited by their local research team.

A27-2. Will the identification of potential participants involve reviewing or screening the identifiable personal information of patients, service users or any other person?

Yes No

Please give details below:

A28. Will any participants be recruited by publicity through posters, leaflets, adverts or websites?

Yes No

A29. How and by whom will potential participants first be approached?

Patients will initially be approached by their normal health-care provider.

A30-1. Will you obtain informed consent from or on behalf of research participants?

Yes No

If you will be obtaining consent from adult participants, please give details of who will take consent and how it will be done, with details of any steps to provide information (a written information sheet, videos, or interactive material). Arrangements for adults unable to consent for themselves should be described separately in Part B Section 6, and for children in Part B Section 7.

If you plan to seek informed consent from vulnerable groups, say how you will ensure that consent is voluntary and fully informed.

Patients will be given information sheets and at least 24 hours to consider involvement. Informed consent will then be obtained from patients willing to participate by a doctor specialising in renal medicine who will be fully informed and able to discuss the nature of the study, and any risks and benefits involved in participation. The doctor will be used to taking consent and will be appropriately trained.

If you are not obtaining consent, please explain why not.

Please enclose a copy of the information sheet(s) and consent form(s).

A30-2. Will you record informed consent (or advice from consultees) in writing?

Yes No

A31. How long will you allow potential participants to decide whether or not to take part?

Minimum of 24 hours

A33-1. What arrangements have been made for persons who might not adequately understand verbal explanations or

written information given in English, or who have special communication needs?(e.g. translation, use of interpreters)

Use of local interpreter services or other support services as available.

A33-2. What arrangements will you make to comply with the principles of the Welsh Language Act in the provision of information to participants in Wales?

None

A35. What steps would you take if a participant, who has given informed consent, loses capacity to consent during the study? Tick one option only.

- The participant and all identifiable data or tissue collected would be withdrawn from the study. Data or tissue which is not identifiable to the research team may be retained.
- The participant would be withdrawn from the study. Identifiable data or tissue already collected with consent would be retained and used in the study. No further data or tissue would be collected or any other research procedures carried out on or in relation to the participant.
- The participant would continue to be included in the study.
- Not applicable – informed consent will not be sought from any participants in this research.
- Not applicable – it is not practicable for the research team to monitor capacity and continued capacity will be assumed.

Further details:

Details pertaining to consent are provided in the patient information leaflet.

If you plan to retain and make further use of identifiable data/tissue following loss of capacity, you should inform participants about this when seeking their consent initially.

CONFIDENTIALITY

In this section, personal data means any data relating to a participant who could potentially be identified. It includes pseudonymised data capable of being linked to a participant through a unique code number.

Storage and use of personal data during the study

A36. Will you be undertaking any of the following activities at any stage (including in the identification of potential participants)?(Tick as appropriate)

- Access to medical records by those outside the direct healthcare team
- Electronic transfer by magnetic or optical media, email or computer networks
- Sharing of personal data with other organisations
- Export of personal data outside the EEA
- Use of personal addresses, postcodes, faxes, emails or telephone numbers
- Publication of direct quotations from respondents
- Publication of data that might allow identification of individuals
- Use of audio/visual recording devices
- Storage of personal data on any of the following:
- Manual files including X-rays
 - NHS computers
 - Home or other personal computers
 - University computers
 - Private company computers

Laptop computers

Further details:

Patients will be identified by a unique number which will be generated at registration. This number will be used from the time of data entry/download outside the patients' electronic or paper records.

Personal details will be used as part of routine clinical care at the direct care centre. These details will not be transferred outside the local centre.

A37. Please describe the physical security arrangements for storage of personal data during the study?

The research database will be stored within the research department on NHS trust encrypted and password protected computers. This will be in accordance with the Data Protection Act and NHS Code of Confidentiality.

A38. How will you ensure the confidentiality of personal data? Please provide a general statement of the policy and procedures for ensuring confidentiality, e.g. anonymisation or pseudonymisation of data.

Patient data will be anonymised outside the direct care centre. Patients will be given a unique number at the time of registration. This will ensure anonymity outside the direct care team and local study site.

The NHS Code of Confidentiality will apply.

A40. Who will have access to participants' personal data during the study? Where access is by individuals outside the direct care team, please justify and say whether consent will be sought.

There will be no access to the participants' personal data outside the direct care team with exception of that required for audit and monitoring.

Storage and use of data after the end of the study

A41. Where will the data generated by the study be analysed and by whom?

Analysis will take place by data handling experts (statisticians or doctors) affiliated to the hospital, University of Manchester or to the study itself.

A42. Who will have control of and act as the custodian for the data generated by the study?

	Title Forename/Initials Surname
	Dr Smeeta Sinha
Post	Consultant & Honorary Senior Lecturer in Nephrology
Qualifications	MBChB MRCP(UK) PhD
Work Address	Department of Renal Medicine Level 2 Hope Building Hope Hospital, Stott Lane, Salford
Post Code	M6 8HD
Work Email	smeeta.sinha@srft.nhs.uk
Work Telephone	01612064155
Fax	

A43. How long will personal data be stored or accessed after the study has ended?

Less than 3 months

- 3 – 6 months
 6 – 12 months
 12 months – 3 years
 Over 3 years

If longer than 12 months, please justify:

Personal data will be stored as part of routine clinical care by the direct care team.

A44. For how long will you store research data generated by the study?

Years: 15

Months:

A45. Please give details of the long term arrangements for storage of research data after the study has ended. Say where data will be stored, who will have access and the arrangements to ensure security.

Data will be held on trust and university computers backed up to organisational servers in accordance with local policy. Dr Smeeta Sinha will remain custodian of the data at all times.

INCENTIVES AND PAYMENTS

A46. Will research participants receive any payments, reimbursement of expenses or any other benefits or incentives for taking part in this research?

- Yes No

A47. Will individual researchers receive any personal payment over and above normal salary, or any other benefits or incentives, for taking part in this research?

- Yes No

A48. Does the Chief Investigator or any other investigator/collaborator have any direct personal involvement (e.g. financial, share holding, personal relationship etc.) in the organisations sponsoring or funding the research that may give rise to a possible conflict of interest?

- Yes No

NOTIFICATION OF OTHER PROFESSIONALS

A49-1. Will you inform the participants' General Practitioners (and/or any other health or care professional responsible for their care) that they are taking part in the study?

- Yes No

If Yes, please enclose a copy of the information sheet/letter for the GP/health professional with a version number and date.

A49-2. Will you seek permission from the research participants to inform their GP or other health/ care professional?

- Yes No

It should be made clear in the participant's information sheet if the GP/health professional will be informed.

PUBLICATION AND DISSEMINATION

A50. Will the research be registered on a public database?

Yes No

Please give details, or justify if not registering the research.

NIHR Database

Registration of research studies is encouraged wherever possible.

You may be able to register your study through your NHS organisation or a register run by a medical research charity, or publish your protocol through an open access publisher. If you are aware of a suitable register or other method of publication, please give details. If not, you may indicate that no suitable register exists. Please ensure that you have entered registry reference number(s) in question A5-1.

A51. How do you intend to report and disseminate the results of the study? Tick as appropriate:

- Peer reviewed scientific journals
- Internal report
- Conference presentation
- Publication on website
- Other publication
- Submission to regulatory authorities
- Access to raw data and right to publish freely by all investigators in study or by Independent Steering Committee on behalf of all investigators
- No plans to report or disseminate the results
- Other (please specify)

Kidney Patient Association Leaflets

A52. If you will be using identifiable personal data, how will you ensure that anonymity will be maintained when publishing the results?

The study will not publish patient identifiable data

A53. Will you inform participants of the results?

Yes No

Please give details of how you will inform participants or justify if not doing so.

Results will be published in patient association leaflets and to renal departments. Due to the nature of the disease and high mortality rate it will not be feasible to provide a results summary to all participating patients.

5. Scientific and Statistical Review

A54. How has the scientific quality of the research been assessed? Tick as appropriate:

- Independent external review
- Review within a company
- Review within a multi-centre research group
- Review within the Chief Investigator's institution or host organisation
- Review within the research team
- Review by educational supervisor

Other

Justify and describe the review process and outcome. If the review has been undertaken but not seen by the researcher, give details of the body which has undertaken the review:

The study has been sent for external review to Dr David Wheeler, Consultant Renal Physician

For all studies except non-doctoral student research, please enclose a copy of any available scientific critique reports, together with any related correspondence.

For non-doctoral student research, please enclose a copy of the assessment from your educational supervisor/ institution.

A56. How have the statistical aspects of the research been reviewed? Tick as appropriate:

- Review by independent statistician commissioned by funder or sponsor
- Other review by independent statistician
- Review by company statistician
- Review by a statistician within the Chief Investigator's institution
- Review by a statistician within the research team or multi-centre group
- Review by educational supervisor
- Other review by individual with relevant statistical expertise
- No review necessary as only frequencies and associations will be assessed – details of statistical input not required

In all cases please give details below of the individual responsible for reviewing the statistical aspects. If advice has been provided in confidence, give details of the department and institution concerned.

Title Forename/Initials Surname

Department

Institution

Work Address

Post Code

Telephone

Fax

Mobile

E-mail

Please enclose a copy of any available comments or reports from a statistician.

A57. What is the primary outcome measure for the study?

This is an observational study.

A58. What are the secondary outcome measures? (if any)

A59. What is the sample size for the research? How many participants/samples/data records do you plan to study in total? If there is more than one group, please give further details below.

Total UK sample size: 200

Total international sample size (including UK):

Total in European Economic Area:

Further details:

A60. How was the sample size decided upon? *If a formal sample size calculation was used, indicate how this was done, giving sufficient information to justify and reproduce the calculation.*

The sample size was based on incidence reports and acceptability.

A61. Will participants be allocated to groups at random?

Yes No

A62. Please describe the methods of analysis (statistical or other appropriate methods, e.g. for qualitative research) by which the data will be evaluated to meet the study objectives.

Data will be analysed by descriptive analysis and logistic regression.

6. MANAGEMENT OF THE RESEARCH

A63. Other key investigators/collaborators. *Please include all grant co-applicants, protocol co-authors and other key members of the Chief Investigator's team, including non-doctoral student researchers.*

	Title Forename/Initials Surname
	Dr Maria Jeziorska
Post	Senior Lecturer in Pathology
Qualifications	PhD
Employer	University of Manchester
Work Address	Tissue Injury and Repair Group RM1.534, Stopford Building Oxford Rd, Manchester
Post Code	M13 9PT
Telephone	0161 275 5296
Fax	0161 275 5289
Mobile	
Work Email	maria.jeziorska@manchester.ac.uk

	Title Forename/Initials Surname
	Prof Philip A. Kalra
Post	Consultant and Honorary Professor in Nephrology
Qualifications	MD FRCP
Employer	Salford Royal Hospitals NHS Foundation Trust
Work Address	Department of Renal Medicine Level 2 Hope Bulding Stott Lane, Salford
Post Code	M6 8HD
Telephone	01612050509
Fax	
Mobile	

Work Email	philip.kalra@srft.nhs.uk
	Title Forename/Initials Surname Dr Robert Oliver
Post	Salford Royal Biorepository Facility Manager
Qualifications	PhD
Employer	Salford Royal NHS Foundation Trust
Work Address	Clinical Sciences Building Salford Royal NHS Foundation Trust Stott Lane
Post Code	M6 8HD
Telephone	01612064446
Fax	
Mobile	
Work Email	robert.oliver@manchester.ac.uk
	Title Forename/Initials Surname Sr Lesley Haydock
Post	Specialist Nurse, Vascular Research
Qualifications	RCN
Employer	Salford Royal NHS Foundation Trust
Work Address	Clinical Sciences Building Salford Royal NHS Foundation Trust Stott Lane
Post Code	M6 8HD
Telephone	01612061309
Fax	
Mobile	
Work Email	lesley.haydock@srft.nhs.uk

A64. Details of research sponsor(s)

A64-1. Sponsor

Lead Sponsor

Status: NHS or HSC care organisation Commercial status:
 Academic
 Pharmaceutical industry
 Medical device industry
 Local Authority
 Other social care provider (including voluntary sector or private organisation)
 Other

If Other, please specify:

Contact person

Name of organisation Salford Royal NHS Foundation Trust
 Given name Rachel

Family name Georgiou
 Address Summerfield House
 Town/city Eccles New Road
 Post code M5 5FP
 Country UNITED KINGDOM
 Telephone 01612067032
 Fax
 E-mail rachel.georgiou@manchester.ac.uk

Is the sponsor based outside the UK?

Yes No

Under the Research Governance Framework for Health and Social Care, a sponsor outside the UK must appoint a legal representative established in the UK. Please consult the guidance notes.

A65. Has external funding for the research been secured?

- Funding secured from one or more funders
 External funding application to one or more funders in progress
 No application for external funding will be made

What type of research project is this?

- Standalone project
 Project that is part of a programme grant
 Project that is part of a Centre grant
 Project that is part of a fellowship/ personal award/ research training award
 Other

Other – please state:

Please give details of funding applications.

Organisation Amgen (Europe) GmBH
 Address Dammstrasse 23
 CH-6300 Zug
 Switzerland
 Post Code
 Telephone 00413690300
 Fax 0041413690400
 Mobile
 Email bdehmel@amgen.com

Funding Application Status: Secured In progress

Amount: US \$112500.00

Duration

Years: 10

Months:

If applicable, please specify the programme/ funding stream:

What is the funding stream/ programme for this research project?

A66. Has responsibility for any specific research activities or procedures been delegated to a subcontractor (other than a co-sponsor listed in A64-1) ? Please give details of subcontractors if applicable.

Yes No

A67. Has this or a similar application been previously rejected by a Research Ethics Committee in the UK or another country?

Yes No

Please provide a copy of the unfavourable opinion letter(s). You should explain in your answer to question A6-2 how the reasons for the unfavourable opinion have been addressed in this application.

A68-1. Give details of the lead NHS R&D contact for this research:

	Title Forename/Initials Surname
	Rachel Georgiou
Organisation	Salford Royal NHS Foundation Trust
Address	Summerfield House Eccles New Road Salford
Post Code	M5 5FP
Work Email	rachel.georgiou@manchester.ac.uk
Telephone	01612067032
Fax	
Mobile	

Details can be obtained from the NHS R&D Forum website: <http://www.rdforum.nhs.uk>

A68-2. Select Comprehensive Local Research Network for this NHS organisation:

To support communication between the REC and R&D contacts for this study, please select the Comprehensive Local Research Network (CLRN) for this NHS organisation. This CLRN will be the Lead CLRN for your study.

-- Not Selected --

For information about support and advice available through the Lead CLRN and the CLRNs for participating sites see http://www.crncc.nihr.ac.uk/about_us/processes/csp. A map showing the CLRNs is available at http://www.crncc.nihr.ac.uk/about_us/ccrn.

A69-1. How long do you expect the study to last in the UK?

Planned start date: 01/09/2011

Planned end date: 01/09/2021

Total duration:

Years: 10 Months: 0 Days: 0

A70. Definition of the end of trial, and justification in the case where it is not the last visit of the last subject undergoing the trial ⁽¹⁾

The trial will terminate at the end of the 10 year observational period

A71-1. Is this study?

- Single centre
 Multicentre

A71-2. Where will the research take place? (Tick as appropriate)

- England
 Scotland
 Wales
 Northern Ireland
 Other countries in European Economic Area

Total UK sites in study 73

Does this trial involve countries outside the EU?

- Yes No

A72. What host organisations (NHS or other) in the UK will be responsible for the research sites? Please indicate the type of organisation by ticking the box and give approximate numbers of planned research sites:

- | | |
|---|----|
| <input checked="" type="checkbox"/> NHS organisations in England | 53 |
| <input checked="" type="checkbox"/> NHS organisations in Wales | 6 |
| <input checked="" type="checkbox"/> NHS organisations in Scotland | 8 |
| <input checked="" type="checkbox"/> HSC organisations in Northern Ireland | 6 |
| <input type="checkbox"/> GP practices in England | |
| <input type="checkbox"/> GP practices in Wales | |
| <input type="checkbox"/> GP practices in Scotland | |
| <input type="checkbox"/> GP practices in Northern Ireland | |
| <input type="checkbox"/> Social care organisations | |
| <input type="checkbox"/> Phase 1 trial units | |
| <input type="checkbox"/> Prison establishments | |
| <input type="checkbox"/> Probation areas | |
| <input type="checkbox"/> Independent hospitals | |
| <input checked="" type="checkbox"/> Educational establishments | 1 |
| <input type="checkbox"/> Independent research units | |
| <input type="checkbox"/> Other (give details) | |

Total UK sites in study: 74

A73-1. Will potential participants be identified through any organisations other than the research sites listed above?

- Yes No

A74. What arrangements are in place for monitoring and auditing the conduct of the research?

The study will be monitored and audited in accordance with Salford Royal NHS Foundation Trust Research & Development monitoring systems.

A76. Insurance/ indemnity to meet potential legal liabilities

Note: in this question to NHS indemnity schemes include equivalent schemes provided by Health and Social Care (HSC) in Northern Ireland

A76-1. What arrangements will be made for insurance and/or indemnity to meet the potential legal liability of the sponsor(s) for harm to participants arising from the management of the research? Please tick box(es) as applicable.

Note: Where a NHS organisation has agreed to act as sponsor or co-sponsor, indemnity is provided through NHS schemes. Indicate if this applies (there is no need to provide documentary evidence). For all other sponsors, please describe the arrangements and provide evidence.

- NHS indemnity scheme will apply (NHS sponsors only)
 Other insurance or indemnity arrangements will apply (give details below)

Please enclose a copy of relevant documents.

A76-2. What arrangements will be made for insurance and/ or indemnity to meet the potential legal liability of the sponsor(s) or employer(s) for harm to participants arising from the design of the research? Please tick box(es) as applicable.

Note: Where researchers with substantive NHS employment contracts have designed the research, indemnity is provided through NHS schemes. Indicate if this applies (there is no need to provide documentary evidence). For other protocol authors (e.g. company employees, university members), please describe the arrangements and provide evidence.

- NHS indemnity scheme will apply (protocol authors with NHS contracts only)
 Other insurance or indemnity arrangements will apply (give details below)

Please enclose a copy of relevant documents.

A76-3. What arrangements will be made for insurance and/ or indemnity to meet the potential legal liability of investigators/collaborators arising from harm to participants in the conduct of the research?

Note: Where the participants are NHS patients, indemnity is provided through the NHS schemes or through professional indemnity. Indicate if this applies to the whole study (there is no need to provide documentary evidence). Where non-NHS sites are to be included in the research, including private practices, please describe the arrangements which will be made at these sites and provide evidence.

- NHS indemnity scheme or professional indemnity will apply (participants recruited at NHS sites only)
 Research includes non-NHS sites (give details of insurance/ indemnity arrangements for these sites below)

Please enclose a copy of relevant documents.

A76-1. What arrangements will be made for insurance and/or indemnity to meet the potential legal liability of the sponsor(s) for harm to participants arising from the management of the research? Please tick box(es) as applicable.

Note: Where a NHS organisation has agreed to act as sponsor or co-sponsor, indemnity is provided through NHS schemes. Indicate if this applies (there is no need to provide documentary evidence). For all other sponsors, please describe the arrangements and provide evidence.

- NHS indemnity scheme will apply (NHS sponsors only)
 Other insurance or indemnity arrangements will apply (give details below)

Please enclose a copy of relevant documents.

A76-2. What arrangements will be made for insurance and/ or indemnity to meet the potential legal liability of the sponsor(s) or employer(s) for harm to participants arising from the design of the research? Please tick box(es) as applicable.

Note: Where researchers with substantive NHS employment contracts have designed the research, indemnity is provided through NHS schemes. Indicate if this applies (there is no need to provide documentary evidence). For other protocol authors (e.g. company employees, university members), please describe the arrangements and provide evidence.

- NHS indemnity scheme will apply (protocol authors with NHS contracts only)
 Other insurance or indemnity arrangements will apply (give details below)

Please enclose a copy of relevant documents.

A76-3. What arrangements will be made for insurance and/ or indemnity to meet the potential legal liability of investigators/collaborators arising from harm to participants in the conduct of the research?

Note: Where the participants are NHS patients, indemnity is provided through the NHS schemes or through professional indemnity. Indicate if this applies to the whole study (there is no need to provide documentary evidence). Where non-NHS sites are to be included in the research, including private practices, please describe the arrangements which will be made at these sites and provide evidence.

- NHS indemnity scheme or professional indemnity will apply (participants recruited at NHS sites only)
 Research includes non-NHS sites (give details of insurance/ indemnity arrangements for these sites below)

Please enclose a copy of relevant documents.

A78. Could the research lead to the development of a new product/process or the generation of intellectual property?

- Yes No Not sure

Part B: Section 5 – Use of newly obtained human tissue(or other human biological materials) for research purposes

1. What types of human tissue or other biological material will be included in the study?

Plasma/ serum, clotting samples, DNA and tissue will be collected by local health care providers. They will be analysed by the Vascular Research Group at Hope Hospital and researchers at the University of Manchester.

2. Who will collect the samples?

Plasma, serum, clotting samples and DNA will be taken for research purposes. Tissue will be obtained as a by

product of a clinical intervention eg amputation, diagnostic skin biopsy.

3. Who will the samples be removed from?

- Living donors
 The deceased

4. Will informed consent be obtained from living donors for use of the samples? *Please tick as appropriate*

In this research?

- Yes No

In future research?

- Yes No Not applicable

6. Will any tissues or cells be used for human application or to carry out testing for human application in this research?

- Yes No

8. Will the samples be stored: *[Tick as appropriate]*

In fully anonymised form? *(link to donor broken)*

- Yes No

In linked anonymised form? *(linked to stored tissue but donor not identifiable to researchers)*

- Yes No

If Yes, say who will have access to the code and personal information about the donor.

Plasma, serum, clotting and DNA samples will be sent to the Vascular Research Group laboratories in the Clinical Sciences building at Hope Hospital. Samples will be labelled with a unique identification barcode and archived in the Salford

Biological Repository (SaBRe) – a purpose built facility that only deals with biological samples and with no direct links to personal data. Dedicated freezer facilities and split site storage are used.

Pathology samples will be identified by their unique patient study number and coded with a chronological code at the receiving immunocytochemistry laboratory at the University of Manchester

In a form in which the donor could be identifiable to researchers?

- Yes No

9. What types of test or analysis will be carried out on the samples?

Consent from the time of study entry will be utilised. Samples will be tested for proteins and molecules associated with vascular calcification. DNA samples will be used to assess genetic associations with calciphylaxis

10. Will the research involve the analysis or use of human DNA in the samples?

- Yes No

11. Is it possible that the research could produce findings of clinical significance for donors or their relatives?

- Yes No

12. If so, will arrangements be made to notify the individuals concerned?

Yes No Not applicable

13. Give details of where the samples will be stored, who will have access and the custodial arrangements.

Plasma, serum and clotting will be stored at Vascular Research Group laboratories in the Clinical Sciences building at Hope Hospital for 20 years. Access will be available to researchers involved in The UK calciphylaxis Study and members of the Vascular Research Group, Salford Royal NHS Foundation Trust. Custody will remain with Dr Smeeta Sinha.

DNA will be stored at the Centre for Integrated Genomic Medical Research (CIGMR) Imaging, Genomics and Proteomics Research Group, Faculty of Medical and Human Sciences, University of Manchester.

Tissue samples will be stored in the immunocytochemistry laboratory, Division of Laboratory & Regenerative Medicine, University of Manchester. Custody will be with Dr Maria Jeziorska, University of Manchester

14. What will happen to the samples at the end of the research? Please tick all that apply and give further details.

Transfer to research tissue bank

(If the bank is in England, Wales or Northern Ireland the institution will require a licence from the Human Tissue Authority to store relevant material for possible further research.)

Storage by research team pending ethical approval for use in another project

(Unless the researcher's institution holds a storage licence from the Human Tissue Authority, or the tissue is stored in Scotland, or it is not relevant material, a further application for ethical review should be submitted before the end of this project.)

Storage by research team as part of a new research tissue bank

(The institution will require a licence from the Human Tissue Authority if the bank will be storing relevant material in England, Wales or Northern Ireland. A separate application for ethical review of the tissue bank may also be submitted.)

Storage by research team of biological material which is not "relevant material" for the purposes of the Human Tissue Act

Disposal in accordance with the Human Tissue Authority's Code of Practice

Other

Not yet known

Please give further details of the proposed arrangements:

PART C: Overview of research sites

Please enter details of the host organisations (Local Authority, NHS or other) in the UK that will be responsible for the research sites. For NHS sites, the host organisation is the Trust or Health Board. Where the research site is a primary care site, e.g. GP practice, please insert the host organisation (PCT or Health Board) in the Institution row and insert the research site (e.g. GP practice) in the Department row.

Investigator identifier	Research site	Investigator Name	
IN1 <input checked="" type="checkbox"/>		Forename	Suren
		Middle name	
	Institution name Newcastle - The Newcastle upon Tyne Hospitals NHS	Family name	Kanagasundaram
	Department name Renal Medicine	Email	
	Street address	Qualification (MD...)	
	Town/city Newcastle	Country	
	Post Code		
	Country		
IN2 <input checked="" type="checkbox"/>		Forename	Alastair
		Middle name	
	Institution name Belfast - Ulster Hospital	Family name	Woodman
	Department name Renal Medicine	Email	
	Street address Upper Newtownards Road	Qualification (MD...)	
	Town/city	Country	
	Post Code BT16 1RH		
	Country		
IN3 <input checked="" type="checkbox"/>		Forename	Anindya
		Middle name	
	Institution name Wirral University Teaching Hospital NHS Foundation	Family name	Banerjee
	Department name Renal Medicine	Email	
	Street address Arrowe Park Road, Upton	Qualification (MD...)	
	Town/city Wirral, Mersey	Country	
	Post Code CH49 5PE		
	Country		
IN4 <input checked="" type="checkbox"/>		Forename	Jyoti
		Middle name	
	Institution name Birmingham Heartlands Hospital	Family name	Baharani
	Department name Renal Medicine	Email	
	Street address Bordesley Green East	Qualification (MD...)	
	Town/city Birmingham	Country	
	Post Code B9 5ST		
	Country		

IN5

Institution name	St Lukes Hospital	Forename	John
Department name	Renal Medicine	Middle name	
Street address	Littel Horton Lane	Family name	Stoves
Town/city	Bradford	Email	
Post Code	BD5 0NA	Qualification (MD...)	
Country		Country	

IN6

Institution name	Dumfries & Galloway Royal Infirmary	Forename	Sue
Department name	Renal Medicine	Middle name	
Street address	Bankend Road	Family name	Robertson
Town/city	Dumfries	Email	
Post Code	DG1 4AP	Qualification (MD...)	
Country		Country	

IN7

Institution name	Edinburgh Royal Infirmary	Forename	Barbara
Department name	Renal Medicine	Middle name	
Street address	51 Little France Crescent	Family name	Robson
Town/city	Edinburgh	Email	
Post Code	EH16 4SA	Qualification (MD...)	
Country		Country	

IN8

Institution name	Leeds - St James's University Hospital	Forename	Mark
Department name	Renal Medicine	Middle name	
Street address	Beckett Street	Family name	Wright
Town/city	Leeds	Email	
Post Code	LS9 7TF	Qualification (MD...)	
Country		Country	

IN9

Institution name	Leicester General Hospital	Forename	Jonathon
Department name	Renal Medicine	Middle name	
Street address	Gwendolen Road	Family name	Barratt
Town/city		Email	
Post Code	LE5 4PW	Qualification (MD...)	
Country		Country	

IN10

Forename	Pearl
----------	-------

Institution name	Liverpool - Royal Liverpool University Hospital	Middle name	
Department name	Nephrology Department	Family name	Pai
Street address	6C Link Prescott Street	Email	
Town/city		Qualification (MD...)	
Post Code	L7 8XP	Country	
Country			

IN11

		Forename	David
		Middle name	
Institution name	Middlesbrough - The James Cook University Hospital	Family name	Reaich
Department name	Renal Medicine	Email	
Street address	Marton Road	Qualification (MD...)	
Town/city	Middlesborough	Country	
Post Code	TS4 3BW		
Country			

IN12

		Forename	Robert
		Middle name	
Institution name	Northampton General Hospital	Family name	Preston
Department name	Renal Medicine	Email	
Street address	Cliftonville	Qualification (MD...)	
Town/city	Northampton	Country	
Post Code	NN1 5BD		
Country			

IN13

		Forename	Victoria
		Middle name	
Institution name	Oxford Radcliffe Hospitals NHS Trust	Family name	Rush
Department name	Oxford Kidney Unit and Oxford Transplant Centre	Email	
Street address	The Churchill Hospital, Old Road, Headington	Qualification (MD...)	
Town/city	Oxford	Country	
Post Code	OX3 7LE		
Country			

IN14

		Forename	Ajay
		Middle name	
Institution name	Lancashire Teaching Hospitals NHS Foundation Trust	Family name	Dhaygude
Department name	Renal Medicine	Email	
Street address	Sharoe Green Lane	Qualification (MD...)	
Town/city	Preston	Country	
Post Code	PR2 9HT		
Country			

IN15

		Forename	Nicholas
		Middle name	
Institution name	Northern General Hospital NHS Trust	Family name	Fardon
Department name	Sheffield Kidney Institute	Email	
Street address	Herries Road	Qualification (MD...)	
Town/city	Sheffield	Country	
Post Code	S5 7AU		
Country			

IN16

		Forename	Lisa
		Middle name	
Institution name	Royal Cornwall Hospitals NHS Trust	Family name	Attrill
Department name	Renal Unit	Email	
Street address		Qualification (MD...)	
Town/city	Truro	Country	
Post Code	TR1 3LJ		
Country			

IN17

		Forename	Sanjay
		Middle name	
Institution name	Cambridge Universities NHS Foundation Trust	Family name	Ohja
Department name	Addenbrooke's Dialysis Centre	Email	
Street address		Qualification (MD...)	
Town/city	Cambridge	Country	
Post Code	CB2 0QQ		
Country			

IN18

		Forename	Julie
		Middle name	
Institution name	University Hospital of North Staffordshire NHS	Family name	Wessels
Department name	Renal Medicine Department	Email	
Street address	Royal Infirmary, Princes Road	Qualification (MD...)	
Town/city	Stoke-on-Trent	Country	
Post Code	St4 7LN		
Country			

IN19

		Forename	Anindya
		Middle name	
Institution name	Countess of Chester Hospital NHS Foundation Trust	Family name	Banerjee
		Email	

Department name Renal Unit
 Street address Countess of Chester Health Park, Liverpool Road
 Town/city Chester
 Post Code CH2 1UL
 Country

Qualification (MD...)
 Country

IN20

Institution name Southern Health & Social Care Trust
 Department name Renal Unit, Daisy Hill Hospital
 Street address 5 Hospital Road
 Town/city Newry, County Down
 Post Code BT35 8DR
 Country

Forename John
 Middle name
 Family name Harty
 Email
 Qualification (MD...)
 Country

IN21

Institution name Victoria Hospital NHS Fife
 Department name Renal Unit
 Street address Hayfield Road,
 Town/city Kircaldy
 Post Code KY2 5AH
 Country

Forename Arthur
 Middle name
 Family name Doyle
 Email
 Qualification (MD...)
 Country

IN22

Institution name Barts Health NHS Trust
 Department name Barts & The London Renal Centre
 Street address The Royal London Hospital, Whitechapel
 Town/city London
 Post Code E1 1BB
 Country

Forename Stanley
 Middle name
 Family name Fan
 Email
 Qualification (MD...)
 Country

IN23

Institution name York Teaching Hospitals NHS Foundation Trust
 Department name Renal Medicine
 Street address The York Hospital, Wigginton Road
 Town/city York
 Post Code YO31 8HE
 Country

Forename Colin
 Middle name
 Family name Jones
 Email
 Qualification (MD...)
 Country

IN24

Institution name	Hull and East Yorkshire NHS Hospitals	Forename	Sunil
Department name	Renal Services	Middle name	
Street address	Anlaby Road	Family name	Bhandari
Town/city	Hull	Email	
Post Code	HU3 2JZ	Qualification (MD...)	
Country		Country	

IN25

Institution name	Peterborough & Stamford Hospitals NHS Foundation	Forename	Frieder
Department name	Renal Medicine	Middle name	
Street address	Peterborough City Hospital, Edith Cavell Campus, Bretton Gate	Family name	Kleemann
Town/city	Peterborough	Email	
Post Code	PE3 9GZ	Qualification (MD...)	
Country		Country	

IN26

Institution name	Aberdeen Royal Infirmary, NHS Grampian	Forename	
Department name	Renal Medicine	Middle name	
Street address	Foresterhill	Family name	
Town/city	Aberdeen	Email	
Post Code	AB25 2ZN	Qualification (MD...)	
Country		Country	

IN27

Institution name	Monklands Hospital, NHS Lanarkshire	Forename	
Department name	Renal Medicine	Middle name	
Street address	Monkscourt Avenue	Family name	
Town/city	Airdrie	Email	
Post Code	ML6 0JS	Qualification (MD...)	
Country		Country	

IN28

Institution name	Northern Health & Social Care Trust	Forename	
Department name	Renal Service, Antrim Area Hospital	Middle name	
Street address	Bush Road	Family name	
Town/city	Antrim	Email	
Post Code	BT41 2RL	Qualification (MD...)	
		Country	

Country

IN29

Institution name Gwynedd Hosp, Betsi
Cadwaladr University
Hospital
Department name Renal Services
Street address Penrhosgarnedd
Town/city Bangor, Gwynedd
Post Code LL57 2PW
Country

Forename
Middle name
Family name
Email
Qualification
(MD...)
Country

IN30

Institution name Glan Clywd Hospital, Betsi
Cadwaladr University Ho
Department name Renal Services
Street address
Town/city Rhyl, Denbighshire
Post Code LL18 5UJ
Country

Forename
Middle name
Family name
Email
Qualification
(MD...)
Country

IN31

Institution name Wrexham Maelor Hospital
Department name Renal Services
Street address Croesnewydd Road
Town/city Wrexham
Post Code LL13 7TD
Country

Forename
Middle name
Family name
Email
Qualification
(MD...)
Country

IN32

Institution name Basildon & Thurrock
University Hospitals
Department name Renal Services
Street address Basildon Hospital,
Nethermayne
Town/city Basildon, Essex
Post Code SS16 5NL
Country

Forename
Middle name
Family name
Email
Qualification
(MD...)
Country

IN33

Institution name Belfast Health & Social Care
Trust
Department name Renal Medicine
Street address Belfast City Hospital, 51
Lisburn Road

Forename
Middle name
Family name
Email
Qualification
(MD...)

Town/city Belfast Country
 Post Code BT9 7AB
 Country

IN34

Institution name University Hospitals
 Birmingham NHS
 Foundation Tru
 Department name Renal Medicine
 Street address Queen Elizabeth Hospital,
 Queen Elizabeth Medical
 Centre,
 Town/city Birmingham
 Post Code B15 2TH
 Country

Forename Clara
 Middle name
 Family name Day
 Email
 Qualification
 (MD...)
 Country

IN35

Institution name Brighton and Sussex
 University Hospitals
 Department name Sussex Kidney Unit
 Street address Royal Sussex County
 Hospital, Eastern Road
 Town/city Brighton
 Post Code BN2 5BE
 Country

Forename
 Middle name
 Family name
 Email
 Qualification
 (MD...)
 Country

IN36

Institution name North Bristol NHS Trust
 Department name The Richard Bright Renal
 Unit, Southmead Hospital
 Street address Southmead Road,
 Westbury-on-Trym
 Town/city Bristol
 Post Code BS10 5NB
 Country

Forename
 Middle name
 Family name
 Email
 Qualification
 (MD...)
 Country

IN37

Institution name East Kent Hosp University
 NHS Foundation Trust
 Department name Renal Medicine
 Street address Kent & Canterbury Hospital,
 Ethelbert Road
 Town/city Canterbury
 Post Code CT1 3NG
 Country

Forename
 Middle name
 Family name
 Email
 Qualification
 (MD...)
 Country

IN38

Institution name	Cardiff and Vale University Health Board	Forename
Department name	Nephrology and Transplant, University Hospital of Wales	Middle name
Street address	Heath Park	Family name
Town/city	Cardiff	Email
Post Code	CF14 4XW	Qualification (MD...)
Country		Country

IN39

Institution name	North Cumbria University Hospitals NHS Trust	Forename
Department name	Renal, Cumberland Infirmary	Middle name
Street address	Newtown Road,	Family name
Town/city	Carlisle	Email
Post Code	CA2 7HY	Qualification (MD...)
Country		Country

IN40

Institution name	Mid Essex Hospital Services NHS Trust	Forename
Department name	Renal Department	Middle name
Street address	Zone A, Hospital Wing, Court Road, Broomfield	Family name
Town/city	Chelmsford	Email
Post Code	CM1 7ET	Qualification (MD...)
Country		Country

IN41

Institution name	Colchester Hospital University NHS Foundation Trust	Forename
Department name	Nephrology, Colchester General Hospital	Middle name
Street address	Turner Road	Family name
Town/city	Colchester, Essex	Email
Post Code	CO4 5JL	Qualification (MD...)
Country		Country

IN42

Institution name	University Hospitals Coventry and Warwickshire NHS	Forename
Department name	Renal and Transplantation	Middle name
Street address	Clifford Bridge Road	Family name
		Email
		Qualification (MD...)

Town/city Coventry Country
 Post Code CV2 2DX
 Country

IN43

Institution name NHS Ayrshire and Arran
 Department name John Stevenson Lynch Renal Unit
 Street address University Hospital Crosshouse
 Town/city Kilmarnock
 Post Code KA2 0BE
 Country

Forename
 Middle name
 Family name
 Email
 Qualification (MD...)
 Country

IN44

Institution name Derby Hospitals NHS Foundation Trust
 Department name Renal Services
 Street address Royal Derby Hospital, Uttoxeter Road
 Town/city Derby
 Post Code DE22 3NE
 Country

Forename
 Middle name
 Family name
 Email
 Qualification (MD...)
 Country

IN45

Institution name Western Health and Social Care Trust
 Department name Renal Unit, Altnagelvin Area Hospital
 Street address Glenshane Road
 Town/city Londonderry
 Post Code BT47 6SB
 Country

Forename
 Middle name
 Family name
 Email
 Qualification (MD...)
 Country

IN46

Institution name Doncaster and Bassetlaw Hospitals NHS Foundation
 Department name Renal Medicine, Doncaster Royal Hospital
 Street address Armthorpe Road
 Town/city Doncaster
 Post Code DN2 5LT
 Country

Forename
 Middle name
 Family name
 Email
 Qualification (MD...)
 Country

IN47

Forename

Institution name	Dorset County Hospital NHS Foundation Trust	Middle name
		Family name
Department name	Renal Unit, Dorset County Hospital	Email
Street address	Williams Avenue,	Qualification (MD...)
Town/city	Dorchester	Country
Post Code	DT1 2JY	
Country		

IN48

		Forename
		Middle name
Institution name	The Dudley Group NHS Foundation Trust	Family name
Department name	Renal	Email
Street address	Russells Hall Hospital	Qualification (MD...)
Town/city	Dudley	Country
Post Code	DY1 2HQ	
Country		

IN49

		Forename
		Middle name
Institution name	NHS Tayside - Ninewells Hospital	Family name
Department name	Renal Medicine	Email
Street address	Ninewells Hospital	Qualification (MD...)
Town/city	Dundee	Country
Post Code	DY1 2HQ	
Country		

IN50

		Forename
		Middle name
Institution name	NHS Fife - Dunfermline	Family name
Department name	Renal, Queen Margaret Hospital	Email
Street address	Whitefield Road	Qualification (MD...)
Town/city	Dunfermline	Country
Post Code	KY12 0SU	
Country		

IN51

		Forename
		Middle name
Institution name	Royal Devon and Exeter NHS Foundation Trust	Family name
Department name	Exeter Kidney Unit	Email
Street address	Barrack Road	Qualification (MD...)
Town/city	Exeter	Country
Post Code	EX2 5DW	
Country		

IN52

	Institution name	NHS Greater Glasgow and Clyde - Western Infirmary	Forename
	Department name	Glasgow Renal and Transplant Unit	Middle name
	Street address	Dumbarton Road	Family name
	Town/city	Glasgow	Email
	Post Code	G11 6NT	Qualification (MD...)
	Country		Country

IN53

	Institution name	Gloucestershire Hospitals NHS Foundation Trust	Forename
	Department name	Nephrology - Gloucestershire Royal Hospital	Middle name
	Street address	Great Western Road	Family name
	Town/city	Gloucester	Email
	Post Code	GL1 3NN	Qualification (MD...)
	Country		Country

IN54

	Institution name	NHS Highland - Raigmore Hospital	Forename
	Department name	Renal Unit	Middle name
	Street address	Old Perth Road	Family name
	Town/city	Inverness	Email
	Post Code	IV2 3UJ	Qualification (MD...)
	Country		Country

IN55

	Institution name	The Ipswich Hospital NHS Trust	Forename
	Department name	Renal Medicine	Middle name
	Street address	Heath Road	Family name
	Town/city	Ipswich	Email
	Post Code	IP4 5PD	Qualification (MD...)
	Country		Country

IN56

	Institution name	Royal Free London NHS Foundation Trust	Forename
	Department name	Renal Services, Royal Free Hospital	Middle name
	Street address	Pond Street	Family name
	Town/city	London	Email
			Qualification (MD...)
			Country

Post Code NW3 2QG

Country

IN57

Institution name King's College Hospital
NHS Foundation Trust

Department name King's Renal Unit

Street address Denmark Hill

Town/city London

Post Code SE5 9RS

Country

Forename
Middle name
Family name
Email
Qualification
(MD...)
Country

IN58

Institution name Aintree University Hospitals
NHS Foundation Trust

Department name Aintree Renal Unit

Street address Longmoor Lane

Town/city Liverpool

Post Code L9 7AL

Country

Forename
Middle name
Family name
Email
Qualification
(MD...)
Country

IN59

Institution name Guy's and St Thomas' NHS
Foundation Trust

Department name Kidney Services

Street address Guy's Hospital, Gret Maze
Pond

Town/city London

Post Code SE1 9RT

Country

Forename
Middle name
Family name
Email
Qualification
(MD...)
Country

IN60

Institution name St George's Healthcare NHS
Trust

Department name Renal Medicine

Street address Blackshaw Road, Tooting

Town/city London

Post Code SW17 0QT

Country

Forename
Middle name
Family name
Email
Qualification
(MD...)
Country

IN61

Forename

Institution name	Imperial College Healthcare NHS Trust	Middle name	
		Family name	
Department name	Imperial Renal and Transplant Centre, Hammersmith Hospital	Email	
		Qualification (MD...)	
Street address	Du Cane Road	Country	
Town/city	London		
Post Code	W12 0HS		
Country			

IN62

		Forename	
		Middle name	
Institution name	Central Manchester NHS Foundation Trust	Family name	
Department name	Renal Medicine	Email	
Street address	Oxford Road	Qualification (MD...)	
Town/city	Manchester	Country	
Post Code	M13 9WL		
Country			

IN63

		Forename	
		Middle name	
Institution name	Norfolk and Norwich University Hospitals NHS FT	Family name	
Department name	Renal Medicine	Email	
Street address	Colney Lane	Qualification (MD...)	
Town/city	Norwich	Country	
Post Code	NR4 7UY		
Country			

IN64

		Forename	Matthew
		Middle name	
Institution name	Nottingham University Hospitals NHS Trust	Family name	Hall
Department name	Renal and Transplant Unit, City Hospital	Email	
Street address	Hucknall Road	Qualification (MD...)	
Town/city	Nottingham	Country	
Post Code	NG5 1PB		
Country			

IN65

		Forename	
		Middle name	
Institution name	Plymouth Hospitals NHS Trust	Family name	
Department name	Renal Medicine	Email	
Street address	Derriford Road, Crownhill	Qualification (MD...)	
Town/city	Plymouth, Devon	Country	
Post Code	PL6 8DH		
Country			

IN66

Institution name	Portsmouth Hospitals NHS Trust	Forename
Department name	Wessex Renal and Transplant Service	Middle name
Street address	Queen Alexandra Hospital, Cosham	Family name
Town/city	Portsmouth	Email
Post Code	PO6 3LY	Qualification (MD...)
Country		Country

IN68

Institution name	Southend University Hospital NHS Foundation Trust	Forename
Department name	Nephrology	Middle name
Street address	Prittlewell Chase	Family name
Town/city	Westcliff-on-sea, Essex	Email
Post Code	SS0 ORY	Qualification (MD...)
Country		Country

IN69

Institution name	Epsom & St Helier University Hospitals NHS Trust	Forename
Department name	South West Thames Renal & Transplantation Unit	Middle name
Street address	St Helier Hospital, Wrythe Lane	Family name
Town/city	Carshalton, Surrey	Email
Post Code	SM5 1AA	Qualification (MD...)
Country		Country

IN70

Institution name	East and North Hertfordshire NHS Trust	Forename
Department name	Renal Medicine	Middle name
Street address	Coreys Mill Lane	Family name
Town/city	Stevenage, Hertfordshire	Email
Post Code	SG1 4AB	Qualification (MD...)
Country		Country

IN71

Forename

Institution name City Hospitals Sunderland
NHS Foundation Trust

Department name Department of Renal
Medicine

Street address Kayll Road

Town/city Sunderland

Post Code SR4 7TP

Country

Middle name

Family name

Email

Qualification
(MD...)

Country

IN72

Institution name Abertawe Bro Morgannwg
University Health Board

Department name Renal Services, Morriston
Hospital

Street address Heol Maes Eglwys,
Morriston

Town/city Swansea, Wales

Post Code SA6 6NL

Country

Forename

Middle name

Family name

Email

Qualification
(MD...)

Country

IN73

Institution name The Shrewsbury and Telford
Hospital NHS Trust

Department name Renal Department

Street address Mytton Oak Road

Town/city Shrewsbury

Post Code SY3 8XQ

Country

Forename

Middle name

Family name

Email

Qualification
(MD...)

Country

IN74

Institution name The Royal Wolverhampton
NHS Trust

Department name Renal Department, New
Cross Hospital

Street address Wednesfield Road

Town/city Wolverhampton

Post Code WV10 0QP

Country

Forename

Middle name

Family name

Email

Qualification
(MD...)

Country

IN77

NHS site

Non-NHS site

Country: England

Organisation name MID ESSEX HOSPITAL
SERVICES NHS TRUST

Forename Sumith

Middle name

Family name Abeygunasekara

Email Sumith.Abeygunasekara@meht.nhs.uk

Qualification
(MD...)

Country UNITED KINGDOM

Address BROOMFIELD HOSPITAL
COURT ROAD
CHELMSFORD ESSEX
Post Code CM1 7ET

IN78

NHS site
 Non-NHS site

Country: England

Organisation name ROYAL BERKSHIRE NHS
FOUNDATION TRUST
Address ROYAL BERKSHIRE
HOSPITAL
LONDON ROAD
READING BERKSHIRE
Post Code RG1 5AN

Forename Oliver
Middle name
Family name Flossmann
Email Oliver.flossman@royalberkshire.nhs.uk
Qualification (MD...)
Country UNITED KINGDOM

IN79

NHS site
 Non-NHS site

Country: England

Organisation name HARROGATE AND
DISTRICT NHS
FOUNDATION TRUST
Address STRAYSIDE WING
HARROGATE DISTRICT
HOSPITAL
LANCASTER PARK ROAD
HARROGATE NORTH
YORKSHIRE
Post Code HG2 7SX

Forename Benjamin
Middle name
Family name Walker
Email BENJAMIN.WALKER@hdfn.nhs.uk
Qualification (MD...)
Country UNITED KINGDOM

PART D: Declarations

D1. Declaration by Chief Investigator

1. The information in this form is accurate to the best of my knowledge and belief and I take full responsibility for it.
2. I undertake to abide by the ethical principles underlying the Declaration of Helsinki and good practice guidelines on the proper conduct of research.
3. If the research is approved I undertake to adhere to the study protocol, the terms of the full application as approved and any conditions set out by review bodies in giving approval.
4. I undertake to notify review bodies of substantial amendments to the protocol or the terms of the approved application, and to seek a favourable opinion from the main REC before implementing the amendment.
5. I undertake to submit annual progress reports setting out the progress of the research, as required by review bodies.
6. I am aware of my responsibility to be up to date and comply with the requirements of the law and relevant guidelines relating to security and confidentiality of patient or other personal data, including the need to register when necessary with the appropriate Data Protection Officer. I understand that I am not permitted to disclose identifiable data to third parties unless the disclosure has the consent of the data subject or, in the case of patient data in England and Wales, the disclosure is covered by the terms of an approval under Section 251 of the NHS Act 2006.
7. I understand that research records/data may be subject to inspection by review bodies for audit purposes if required.
8. I understand that any personal data in this application will be held by review bodies and their operational managers and that this will be managed according to the principles established in the Data Protection Act 1998.
9. I understand that the information contained in this application, any supporting documentation and all correspondence with review bodies or their operational managers relating to the application:
 - Will be held by the REC (where applicable) until at least 3 years after the end of the study; and by NHS R&D offices (where the research requires NHS management permission) in accordance with the NHS Code of Practice on Records Management.
 - May be disclosed to the operational managers of review bodies, or the appointing authority for the REC (where applicable), in order to check that the application has been processed correctly or to investigate any complaint.
 - May be seen by auditors appointed to undertake accreditation of RECs (where applicable).
 - Will be subject to the provisions of the Freedom of Information Acts and may be disclosed in response to requests made under the Acts except where statutory exemptions apply.
 - May be sent by email to REC members.
10. I understand that information relating to this research, including the contact details on this application, may be held on national research information systems, and that this will be managed according to the principles established in the Data Protection Act 1998.
11. Where the research is reviewed by a REC within the UK Health Departments Research Ethics Service, I understand that the summary of this study will be published on the website of the National Research Ethics Service (NRES), together with the contact point for enquiries named below. Publication will take place no earlier than 3 months after issue of the ethics committee's final opinion or the withdrawal of the application.

Contact point for publication *(Not applicable for R&D Forms)*

NRES would like to include a contact point with the published summary of the study for those wishing to seek further information. We would be grateful if you would indicate one of the contact points below.

- Chief Investigator
 Sponsor

- Study co-ordinator
- Student
- Other – please give details
- None

Access to application for training purposes *(Not applicable for R&D Forms)*

Optional – please tick as appropriate:

I would be content for members of other RECs to have access to the information in the application in confidence for training purposes. All personal identifiers and references to sponsors, funders and research units would be removed.

Signature:

Print Name: Smeeta Sinha

Date: 19/07/2011 (dd/mm/yyyy)

D2. Declaration by the sponsor's representative

If there is more than one sponsor, this declaration should be signed on behalf of the co-sponsors by a representative of the lead sponsor named at A64-1.

I confirm that:

1. This research proposal has been discussed with the Chief Investigator and agreement in principle to sponsor the research is in place.
2. An appropriate process of scientific critique has demonstrated that this research proposal is worthwhile and of high scientific quality.
3. Any necessary indemnity or insurance arrangements, as described in question A76, will be in place before this research starts. Insurance or indemnity policies will be renewed for the duration of the study where necessary.
4. Arrangements will be in place before the study starts for the research team to access resources and support to deliver the research as proposed.
5. Arrangements to allocate responsibilities for the management, monitoring and reporting of the research will be in place before the research starts.
6. The duties of sponsors set out in the Research Governance Framework for Health and Social Care will be undertaken in relation to this research.
7. Where the research is reviewed by a REC within the UK Health Departments Research Ethics Service, I understand that the summary of this study will be published on the website of the National Research Ethics Service (NRES), together with the contact point for enquiries named in this application. Publication will take place no earlier than 3 months after issue of the ethics committee's final opinion or the withdrawal of the application.

Signature:

Print Name: Rachel Georgiou

Post: Research Governance Manager

Organisation: Salford Royal NHS Foundation Trust

Date: 19/07/2011 (dd/mm/yyyy)