



**ARMED**  
**SERVICES**  
**TRAUMA**  
**REHABILITATION**  
**OUTCOME**  
**STUDY**

**The ADVANCE Study**

Defence Medical Rehabilitation Centre  
Stanford Hall, Stanford on Soar  
nr Loughborough, Nottinghamshire LE12 5QW

Tel: 01509 251 500 ext 3408

E-mail: [dmrc-advancestudyteam@mod.gov.uk](mailto:dmrc-advancestudyteam@mod.gov.uk)

E-mail: [study.team@advancestudydmrc.org.uk](mailto:study.team@advancestudydmrc.org.uk)

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nr Loughborough, Nottinghamshire LE12 5QW



## **PARTICIPANT INFORMATION SHEET**

### **The ADVANCE Study**

### **Armed Services Trauma Rehabilitation Outcome Study**

MoDREC Reference No: 357/PPE/12

We would like to invite you to participate in this research project being undertaken by a collaboration of the Defence Medical Rehabilitation Centre at Stanford Hall, King's College London and Imperial College London. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information.

#### **Commonly Asked Questions:**

##### **What is the purpose of the study?**

The purpose of the study is to investigate the long term outcomes of battlefield physical trauma casualties and to compare these outcomes to those of a similar group of individuals who were not physically injured.

The outcomes we are investigating include medical (in particular cardiovascular disease and osteoarthritis) and psychosocial outcomes. There is some evidence to suggest that battlefield trauma casualties may have some unfavourable outcomes but this evidence is limited and often only covers shorter periods of time. Also the types of injuries sustained in previous conflicts are different from those sustained in recent conflicts and therefore it is still unclear whether or how the type of injuries we are seeing from Afghanistan and Iraq will affect the long term outcome of injured servicemen.

We think it is important to investigate these different medical and psychosocial outcomes so we can, where possible, support the injured individuals but also to learn from these outcomes and try and prevent any adverse outcomes in future injured serving personnel.

##### **Why have I been chosen?**

You have been chosen to participate as you have either sustained significant physical battlefield trauma while on deployment with the British Armed Forces or you have been deployed but not physically injured and would therefore be suitable for the comparison group.

##### **Do I have to take part?**

You do not have to take part. If you do decide to take part, you can keep this sheet and you will be asked to sign a consent form. You are still free to withdraw at any time without giving a reason. Your participation will not interfere with the standard of care you receive nor will it impact on your career.

## **What will happen to me if I take part?**

Your participation will involve the following:

1. A baseline visit to DMRC Stanford Hall. A research nurse will explain all the tests we plan to do during this visit and explain what happens to your data. They will ask you to review and sign a consent form and we will provide you with a copy of this form. They will also ask you to provide your contact details.
2. Subsequent follow up visits to DMRC Stanford Hall will occur at approximately 3yrs, 6yrs, 10yrs, 15yrs and 20yrs after the baseline visit.
3. Each visit will include the assessments below: Each visit will be approximately 4-5 hours.

### **a) History**

Basic details of:

- Age
- Regiment/unit/work
- Current social circumstances
- Details of traumatic physical injuries
- Past medical history
- Medication/drug history
- Smoking history
- Method of discharge from the armed services (if appropriate)

### **b) Physical Examination:**

- Blood pressure
- Resting heart rate
- Body Mass Index
- Abdominal and hip circumference

### **c) Participant filled questionnaires covering outcomes such as:**

- Mobility
- Pain
- Prosthetic use/satisfaction/comfort (if applicable)
- Knee, hip and shoulder pain and function
- Quality of life
- Symptoms of post traumatic stress
- Alcohol intake
- Sexual function
- Mood

d) **Blood tests (which will be after a 8 hour fast):**

- Cholesterol
- Kidney and liver function
- Blood count measuring for anaemia
- Blood sugar measuring for diabetes
- Markers of inflammation
- Male sex hormones (some visits only)
- Genetic test for predisposition to inflammatory back pain (which characteristically occurs in young men)
- Long term storage of serum and blood to test for new markers of disease that may be developed in the future

e) **Urine test:**

- Storage of urine to test for new markers of disease that may be developed in the future

f) **Imaging:**

- X-rays of hips and knees assessing for evidence of osteoarthritis
- DEXA scan (non-invasive painless scan) assessing for total body fat and bone mineral density (bone strength)

g) **Ultrasound:**

- Ultrasound assessment of pulse wave velocity. This is a non invasive, pain free assessment of the stiffness of your arteries and is used to establish cardiovascular risk.

h) **Other assessments:**

- Distance you are able to walk in 6 minutes
- Basic lung function test (a short maximum blowing test as would be used to assess for asthma)
- Audiometry – discharged personnel only
- Physiotherapy assessment – amputees only

**What do I have to do if I am interested in participating?**

If you wish to participate in this study you can contact the research team on the numbers/email address provided at the bottom of this booklet. A member of the research team will contact you and explain the study and offer you the opportunity to ask any questions you may have. They will find a date to suit you to come in for your first visit (baseline) or follow-up visit to Stanford Hall.

**How do I get to DMRC Stanford Hall, is accommodation provided if necessary and is there any payment for taking part?**

If you are still in the military then military transport will be provided to get you to and from your research appointments. If you have left the military reasonable travel expenses will be covered if receipts are provided. If you are driving we provide a 'per mile' reimbursement. We have a travel

agent who helps us with train/flight bookings and with your permission we will forward them your contact details so they can contact you directly to make arrangements to suit you.

If accommodation is required then this will be provided by the DMRC free of charge. Accommodation will either be provided on site within DMRC Stanford Hall or at Norton House which is a short journey away from Stanford Hall. Occasionally we will be required to book a hotel in nearby Loughborough. Again, with your permission we can organise this and will need to provide them with your personal contact details to secure the booking. When your visit is arranged we will send you detailed joining instructions.

As an appreciation for your significant time and effort in participating in the study you will be given £100 for the first (baseline) visit and £200 for each follow-up visit as a 'thank you'. There is also a cash prize draw for each follow up point, which with your consent you will be entered into, to encourage participants to return for follow up appointments. The total cash prize available is £25,000 and this will be divided up at each of the 5 follow up points with cash prizes ranging from £100 to £3000. We expect up to 1150 participants to be included in each draw.

### **What are the possible benefits of taking part?**

The results of the study are primarily designed for benefitting battlefield trauma casualties of the future. However the extra medical assessments that you would receive during the study are in some cases above and beyond what you would receive as standard clinical care in the military or NHS, whether you be a battlefield physical trauma casualty or the comparison group. Any clinically significant medical issues/abnormalities detected will be reported back to your regular doctors whether they be GPs or hospital specialists.

The study may hopefully also give you an opportunity to catch up with old friends and colleagues and we would do our best to co-ordinate visits if requested.

### **Will my taking part in the study be kept confidential?**

All information which is collected about you during the course of the research will be treated with the utmost care and attention to confidentiality. We will ask your permission to tell your GP or MO that you are taking part in the study and we will send any incidental findings to your GP if you give us permission.

### **Will the research influence the treatment I receive?**

The study is not designed to provide you with specific treatments, however, as mentioned above if any medical issues are uncovered the study team will be able to advise you and, with your permission, pass on the information to your treating doctors.

### **What happens to the data/samples you collect from me, how is it stored and who can see it?**

Your data is stored in one of 3 ways:

#### **1. Identifiable data**

We need to store your identifiable data such as your name, address and post code, email address, telephone number, date of birth, NHS number and alternative contact details. We use these details so we can contact you to invite you to your follow-up visits or other ADVANCE related sub-studies, and to contact you and your GP/MO regarding any medical issues identified during your visits. We also use this information to trace any changes of address. We would also like to send you updates on the progress of the study including when we have significant news and this will be through

newsletters and emails. This data is stored securely in a password protected database within the MoD IT systems and the MoD act as the 'Data Controllers' meaning that they have the responsibility and control as to what happens with your data and ensures it is protected. These data will also be stored within our other organisations such as Imperial College London and King's College London secure IT systems who act as 'Data Processors' meaning they will store and review the data in line with our study objectives. Only the research team have access to these databases. Your identifiable data is also used when booking in your tests such as xrays and blood sampling. Paper copies are stored within locked cupboards, within securely locked rooms at Stanford Hall. Only the research team have access to these physical areas.

With your consent we will use your identifiable data to request information from an organisation known as NHS Digital (and/or its equivalent in Scotland, Wales and NI) at intervals during and beyond the study duration so we can keep informed of your health. The information we will obtain relates to hospital attendances/episodes for any reason and includes the number of visits or admissions, reason for visits/admissions, length of stays and treatments received. NHS Digital (and its equivalent organisations in Scotland, Wales and NI), will also provide us with information about study participants who develop cancer or who may have passed away since the start of our study – such information includes dates, types of cancer or cause of death. The data we obtain will be stored securely within our IT systems. By participating in this study you will be consenting to the research team requesting this data from NHS Digital and equivalent organisations. We provide updates on our study website regarding obtaining information from organisations such as NHS Digital and their equivalent organisations: [www.advancestudymrc.org.uk](http://www.advancestudymrc.org.uk)

## **2. Pseudonymised data**

The term 'pseudonymised data' means that we strip away any identifiers, such as name, date of birth, and replace it with a unique study code. For example, we ask you to complete questionnaires and we complete forms with the data obtained from the tests we perform on you such as x-rays. These data are then added to a database and only the unique study code is attached to that data, not your name or date of birth. It means you cannot be identified by anyone looking at it.

These data are stored on electronic databases and/or in paper form. Paper copies are stored within locked cupboards, within securely locked rooms at Stanford Hall. Only the research team have access to these areas. Electronic records are stored on secure IT systems between MoD, Imperial College London and King's College London. Only members of the research team have access to these IT systems.

## **3. Storage of samples**

Blood samples obtained from you in clinic are sent to a local laboratory for routine tests (as described above) with full identifiers attached. We receive the results and these are then transferred into our databases using only your unique study code. 20mls of the blood collected is stored within secure freezers within Stanford Hall for batch testing for levels of inflammation and for testing any future markers of disease that are not currently available but may be discovered during the course of the study. 10mls of whole blood/plasma will be stored for genetic analysis at a later date. 50mls of urine will also be stored for testing of future markers of disease. All stored samples have only your unique study code attached, no personal identifiers.

For regulatory reasons we are required to hold all data collected in the study until 15 years after the study has finished. If any participants pass away during study period their previously collected data will still be used in the study.

### **Who is organising and co-ordinating the study?**

The study is being co-ordinated by Gp Capt Alex Bennett, DMRC Stanford Hall. He is the Principal Investigator and has overall responsibility for the conduct of this study. We have co-investigators within Imperial College London and King's College London and these co-investigators along with Gp Capt Alex Bennett form the ADVANCE Steering Committee. The wider ADVANCE research team is made up of project managers, research nurses, research assistants, PhD students and other support staff. Collectively they share the organising and coordination of the study.

### **What will happen if I don't want to carry on with the study?**

You are free to withdraw from the study at any time without having to give a specific reason, and this will not affect your future treatment or career in any way. We would just ask that if you do decide to withdraw from the study that you inform the research team on the contact numbers provided below. If you withdraw from the study your data which has already been processed and used in our analyses will be retained in the study unless you specifically ask for it to be erased.

### **Will I be exposed to large amounts of radiation from the x-rays or DEXA scans?**

No you will not. The total doses of radiation that you will receive over the period of the study is very small (2.5mSv) and is equivalent to a maximum of 13 months background radiation based on the UK average.

The lifetime risk of fatal cancer for an effective dose of 2.5mSv is approximately 1 in 8000 based upon the nominal risk coefficient for an adult published in the 2007 recommendations of the International Commission on Radiological Protection. This can be compared against the natural lifetime risk of fatal cancer of 1 in 3 to 1 in 4.

### **What will happen to the results of the research study?**

At the end of your visit you will receive feedback on some of the tests performed during your visit. Results of the whole study will be published at various stages in scientific journals and presented at national and international medical meetings in an aim to improve international medical understanding and knowledge of the outcomes and potential treatment of battlefield trauma casualties. These will also be posted on our study website as they become available ([www.advancestudydmrc.org.uk](http://www.advancestudydmrc.org.uk)). You may also ask the Principal Investigator for copies of all papers, reports, transcripts, summaries and other published or presented material. All information will be subject to the current conditions of the Data Protection Act 2018. In no circumstances will any identifiable data be published.

### **What if I am unhappy with the conduct of the study or study staff?**

If you have any concerns or complaints you are encouraged to contact the Principal Investigator or the research team on the contact numbers provided so we can try and address any issues as soon as possible. Alternatively, you can contact the Independent Medical Officer (contact details available below) who will be available throughout the study. Their sole function is to act independently of the study team to ensure your safety and well-being. They may terminate your participation in the trial on medical grounds at any time, and you may consult with them at any time.

### **What happens if I suffer any side effects as a result of the study?**

Given the type and design of this study, this is extremely unlikely, however, in the event of you suffering any adverse effects as a consequence of your participation in this study, you will be eligible to apply for compensation under the MoD's 'No-Fault Compensation Scheme'. A copy of this scheme is available on the study website ([www.advancestudydmrc.org.uk](http://www.advancestudydmrc.org.uk)).

### **What's new for the 3 year follow up?**

Additional questionnaires have been added to the 3 year follow up (and future follow up visits) including questionnaires about foot and ankle injuries, generalised pain and specific types of pain and educational and social outcomes. In addition to the blood tests that were taken and stored at baseline, male hormones levels will also be measured at the 3 year follow up and at future follow up visits.

### **Does this study have full ethical approval?**

A full scientific protocol for this research has been approved by the Ministry of Defence Research Ethics Committee (Ref: 357/PPE/12). This study complies and at all times will comply with the Declaration of Helsinki<sup>1</sup> as adopted at the 52nd WMA General Assembly, Edinburgh, October 2000 and with the Additional Protocol to the Convention on Human Rights and Biomedicine, concerning Biomedical Research, (Strasbourg 25.1.2005). Please ask the Principal Investigator if you would like further details of the approval or to see a copy of the full protocol.

### **Name and contact details of Independent Medical Officer:**

Dr Henrietta Ellis  
DMRC Stanford Hall  
Nottinghamshire LE12 5BL  
Email: henrietta.ellis101@mod.gov.uk  
Tel:01509 856277

### **Name and contact details of Principal Investigator:**

Gp Capt Alex Bennett  
DMRC Stanford Hall  
Nottinghamshire LE12 5BL  
Email: alexander.bennett485@mod.gov.uk  
Tel:01509 251500

### **For more information please call the study team on:**

Tel: 01509 251 500 ext 3408  
Email: dmrc-advancestudyteam@mod.gov.uk

***Thank you for taking the time to read the information sheet,  
which you should keep for future reference.***

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<sup>1</sup> World Medical Association (2000) Declaration of Helsinki. Ethical principles for medical research involving human subjects. 52nd World Medical Association General Assembly, Edinburgh, Scotland October 2000.



## **ARRANGEMENTS FOR THE PAYMENT OF NO-FAULT COMPENSATION TO HUMAN VOLUNTEERS**

1. This section sets out the arrangements for the payment of no-fault compensation to volunteers who suffer illness and/or personal injury as a direct result of participating as a non-patient (healthy) human volunteer in research conducted on behalf of the Ministry of Defence. The no-fault compensation arrangements only apply to volunteers (Military, Civilian, or non-Ministry of Defence) who participate in a Trial that has been approved by the MoD Research Ethics Committee.
2. A volunteer wishing to seek no-fault compensation under these arrangements should contact the Directorate of Safety & Claims (DS&C) St. George's Court, 2-12 Bloomsbury Way, London, WC1A 2SH who may need to ask the Claimant to be seen by a MoD medical adviser.
3. DS&C will consider reasonable requests for reimbursement of legal or other expenses incurred by volunteers in relation to pursuing their claim (e.g. private medical advice, clinical tests, legal advice on the level of compensation offered) provided that they have been notified of the Claimant's intention to make such a Claim.
4. If an injury is sufficiently serious to warrant an internal MoD inquiry, any settlement may be delayed at the request of the volunteer until the outcome is known and made available to the volunteer in order to inform his or her decision about whether to accept no-fault compensation or proceed with a common law claim. An interim payment pending any inquiry outcome may be made in cases of special need. It is the Claimant's responsibility to do all that he or she can to mitigate his or her loss.
5. In order to claim compensation under these no-fault arrangements, a volunteer must have sustained an illness and/or personal injury as a direct result of participation in a Trial. A claim must be submitted within three years of when the incident giving rise to the claim occurred, or, if symptoms develop at a later stage, within three years of such symptoms being medically documented.
6. The fact that a volunteer has been formally warned of possible injurious effects of the trial upon which a claim is subsequently based does not remove MoD's responsibility for payment of no-fault compensation. The level of compensation offered shall be determined by taking account of the level of compensation that a court would have awarded for the same injury, illness or death had it resulted from the Department's negligence.
7. In assessing the level of compensation, DS&C, in line with common law principles, will take into account the degree to which the Claimant may have been responsible for his or her injury or illness and a deduction may be made for contributory negligence accordingly.
8. In the event of DS&C and the injured party being unable to reach a mutually acceptable decision about compensation, the claim will be presented for arbitration to a nominated Queen's Counsel. DS&C will undertake to accept the outcome of any such arbitration. This does not affect in any way the rights of the injured party to withdraw from the negotiation and pursue his or her case as a common law claim through the Courts.

## The ADVANCE Study



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