



Hello and Happy Easter from the ADVANCE Team!

Spring is in the air, and with it comes another edition of the ADVANCE Study newsletter—packed with exciting updates, inspiring stories, and the latest from our research team.

In this issue, we're celebrating the incredible achievements of one of our study participants, who was named in the 2025 New Year's Honours list, and sharing highlights from a very special royal visit to our researchers. You'll also find a recap of the ADVANCE Seminar 2025, an update on our latest research publications, and a look at where our team has been spreading the word about ADVANCE.

We're delighted to feature an interview with study participant Tom Wilde, who shares his journey from infantry soldier to army chaplain, as well as an in-depth look at the Amputee Mobility Predictor (AMP) test—the latest in our series on assessments undertaken during participant appointments. This edition our research highlight focuses on life after limb loss, offering insights into long-term outcomes and experiences.

There are also some team updates to share, including a fond farewell to our retiring research radiographer, Bharti, and an interview with team member Nicola Edmonds. Plus, don't miss the key dates and information for the upcoming Easter holiday.

As always, thank you for being a valued part of the ADVANCE Study. Your participation makes this vital research possible. From all of us here, we wish you a joyful Easter filled with good company, relaxation, and plenty of chocolate!

The ADVANCE Team

INSIDE THIS ISSUE:

FEATURED ARTICLES

New Years Honours 2025	6
The King & ADVANCE Research	7
ADVANCE Seminar 2025	8
The Amputee Mobility Predictor	12

RESEARCH

Latest Publications	9
ADVANCE Out & About	10
Life After Limb Loss	13

SPOTLIGHT

Tom Wilde	11
Nicola Edmonds	14
Farewell to Bharti	15

KEY DATES & INFO

Festive closure dates	16
NEW! Appointments now open	16

New Year's Honours 2025: ADVANCE Participant & Board Member Named



Jaco Van Gass OBE
British Cyclist
ADVANCE Participant

Congratulations to ADVANCE participant Jaco Van Gass who has been awarded an OBE for his services to cycling. This is such an incredible achievement and we're looking forward to seeing what he accomplishes next in his cycling career.

Jaco is a four-time Paralympic gold medalist and a member of the GB Para-Cycling team.



Nicola Fear CBE
Military Research
ADVANCE Project Board

Congratulations to ADVANCE Project Board member, Professor Nicola Fear, on being awarded a CBE in the 2025 New Year's Honours for her outstanding services to Veteran and Military Mental Health.

As a leading expert in military health research, Nicola's work has been instrumental in shaping UK policies and services for veterans and their families.

News & Events **LATEST NEWS**

His Majesty King Charles III Witnesses Cutting-Edge Military Trauma Research

In February, His Majesty King Charles III stepped into the future of battlefield medicine during a visit to Imperial College London's Centre for Injury Studies, where world-leading experts are revolutionising trauma care for injured service personnel.

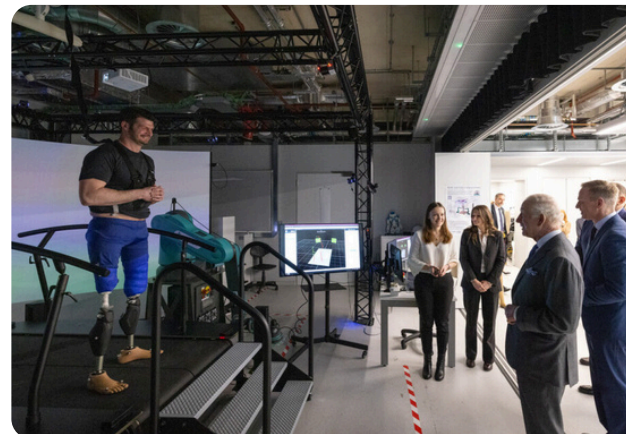
His Majesty spoke with Professor Anthony Bull, Centre Director and valued member of the ADVANCE study project board. The King saw first-hand how Imperial's pioneering research is shaping military medicine. His Majesty observed a combat injury simulation machine in action—an advanced system that replicates battlefield trauma to test how protective gear can minimise life-threatening injuries.

The King also explored the latest breakthroughs in prosthetic durability testing, ensuring that artificial limbs can withstand the physical demands of everyday life. One of the most striking demonstrations involved virtual reality biofeedback technology, which is helping amputees retrain their bodies and minds for enhanced rehabilitation.

"We were delighted to welcome His Majesty King Charles to Imperial College to showcase our work that is benefiting UK service personnel. The King was keen to see how the UK was supporting translational research efforts in Ukraine and, vice versa, how this will benefit the UK in the future. ADVANCE is obviously the jewel in the crown of our long-term work for those injured in conflict and was highlighted at the visit. Notably, our ADVANCE Study Charity Trustee, David Henson, was at the event and had a long conversation with The King before His Majesty went on an impromptu walkabout meeting with many Imperial College staff and students."



Professor Anthony Bull
ADVANCE Project Board
Imperial College London



(Pictures: Thomas Angus/Imperial College London)

Seminar **2025**

**THURSDAY
27TH
MARCH
2025**

 **Imperial College
Business School**



ADVANCE Seminar 2025: Bringing Research to Life

We were thrilled to host the 2nd annual ADVANCE face-to-face seminar on Thursday, 27th March at the Imperial College Business School! This event is a highlight of our year and a rare opportunity for everyone who works on ADVANCE to get together to present and discuss our ongoing and upcoming work, sharing new ideas and a few glasses of wine at the end of the day.

The day kicked off with an overview of outcomes and insights from ADVANCE by Gp Capt Professor Alexander Bennett (Chief Investigator at ADVANCE). Once Alex had the crowd warmed up, Professor Anthony Bull (Director of the Imperial Centre for Blast Injury Studies) chaired an in-depth session covering the many factors affecting knee osteoarthritis. First to present was Rheumatology & Rehabilitation specialist Maj (Dr) Oliver O'Sullivan, who provided insights on the influence of major trauma and lower limb loss on radiographic progression. ADVANCE PhD student Clara Molano Gómez then presented her work on knee osteoarthritis following foot and ankle trauma - a common combat wound with poor clinical outcomes. ADVANCE research associates Drs Diana Toderita & Fraje Watson closed the session by sharing research outcomes on osteoarthritis of the knee in ADVANCE participants with a one-sided below-the-knee amputation, helping us understand why people with lower limb loss have increased knee osteoarthritis and informing rehabilitation strategies. Diana also shared insights into how 'direct skeletal fixation' (a novel prosthesis fixation method) can improve short- and medium-term physical and mental health for UK military veterans with above-knee amputations.

After a much-deserved tea and biscuit break we headed straight into a fun and informative session with consultant cardiologist Lt Col (rtd) Professor Christopher Boos who shared valuable insights into cardiovascular risks and disease in the ADVANCE cohort. His talk was followed by a fascinating presentation by ADVANCE research associate Sarah Dixon-Smith and her work on the effects of acute management of trauma on long-term outcomes.



After lunch, ADVANCE board member Professor Nicola Fear chaired a compelling session presenting work on mental health, social support and sleep within the ADVANCE cohort. ADVANCE research associate, Dr Dan Dyball began by presenting his work on the mental health outcomes of UK Armed Forces personnel with serious physical combat injuries followed by PhD student Laura Grover whose work focuses on social support (the availability and adequacy of support received from social relationships) and the vital role it could play in reducing the adverse effects of trauma for military personnel and the general population. Also within this session were researchers Dr Howard Burdett and Anna Verey who discussed medical discharge in the ADVANCE cohort and how they identified recommendations related to four key areas - administration of medical discharge itself, resettlement support, compensation, and the transfer of medical records. To round off the session, we listened to our newest ADVANCE PhD student Grace Williamson as she walked us through her PhD project on sleep health following serious physical combat injuries which aims to help improve rehabilitation strategies and recovery outcomes.



Our last session covered ADVANCE secondary outcomes, intervention studies and collaborations. ADVANCE PhD student Angelos Manolias began the session by delivering insights into his work on signatures of severe combat injury in the human proteome before handing over to National Heart and Lung statistician Susie Schofield. Susie discussed the pitfalls and difficulties of analysing two-wave data and our approach to the analysis of data with our researchers.

Our final speakers of the day were Lydia Orton & Grace Blissett - research assistants from the Department of Brain Sciences at Imperial College working on the ADVANCE-TBI study, Dr Harriet Kemp - Senior Clinical Lecturer within the Division of Anaesthetics Pain Medicine & Intensive Care at Imperial College, Dr Fearghal Behan - a visiting research fellow from Trinity College Dublin and Dr Kieran Lunt - Doctor of Philosophy and Postgraduate Research Student at the University of Bath's Department for Health.

Lydia & Grace outlined findings from the ADVANCE-TBI team, sharing early results that demonstrate moderate-severe brain injuries are associated with poorer memory and cognitive function, and reduced brain volumes. Finally, Fearghal and Kieran discussed their work on exercise interventions aimed at improving BMD (bone mineral density) in amputees. Fearghal is embarking on a new study focused on utilising exercise as an intervention to improve BMD. He hopes to improve BMD in individuals who have experienced lower limb loss, in our study and beyond.

As if that wasn't enough incredible research, Dr Harriet Kemp also presented plans for our new collaborative study 'ADVANCE Pain' aimed at understanding associations between types of pain medication, surgery or rehabilitation and the likelihood of developing pain that persists for many years. We hope that this will enable us to identify which interventions and types of management might be useful to prevent the transition to chronic pain after injury.



Why It Matters

The research presented at the seminar is directly relevant to our ADVANCE study participants—that's you! Whether it's improving rehabilitation techniques, understanding long-term health risks, or finding better ways to support those transitioning out of service, our work is driven by real experiences and real needs.

A huge thank you to everyone who attended, presented and contributed to the discussions. Your participation is what makes ADVANCE such a ground-breaking and meaningful study.

As always, thank you for being part of ADVANCE!

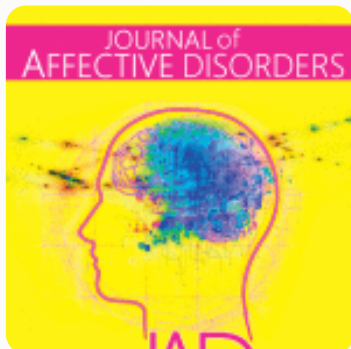
Below you can explore the latest ADVANCE research publications and summaries:



Service, Injury, and Illegal Drug Use: What's Driving the Trend?

26 February 2025

READ MORE →



PTSD symptom clusters associated with an indicator of heart rate variability

15 April 2025

READ MORE →

Want to keep up to date
with our latest news,
outcomes and
publications?

Click to Follow Us



Research **OUT & ABOUT**

Below you can find out more about where our team have been talking about ADVANCE:



Warrior Care 2025

February 2025

Dr Alex Kumar presented key
ADVANCE data and findings at the
annual UK Defence Medical
Services Warrior Care Conference.

READ MORE →



RCI Conference

February 2025

The ADVANCE-TBI team delivered a
'flash talk' on how we classify head
injuries within the ADVANCE cohort
at the annual UK Defence Medical
Services RCI (Research and Clinical
Innovation) Conference.

READ MORE →



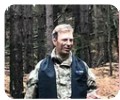
FiMT: Meet the Expert

January 2025

Dr Howard Burdett discusses his
work, aspirations for progress and
his perspectives on key issues
impacting ex-service personnel and
their families.

READ MORE →

Tom Wilde: Frontline to Military Chaplain



“I will sit in the ditch with someone however long it takes and help them out of it.”

For many, military service is a calling—but for Padre (a colloquial term for an Army chaplain) Tom Wilde, that calling didn’t end when his time as an infantry soldier came to a close. Now serving as an Army Padre, he continues to stand alongside soldiers, offering support, guidance, and a listening ear wherever they may be. We sat down with him to hear his story.

Finding Purpose in Service

“I grew up in a Christian family, and Jesus was always present in my life. But my first ambition was to join the police,” he recalls. “I went to college, but it wasn’t for me—I always thought I was bright but not necessarily academic. So, the Army came first.”

He joined 1WFR in 2002, which then became 2 Mercian and quickly found his place in military life. Over eight and a half years, he completed four operational tours—one in Northern Ireland and three in Afghanistan. Thomas was injured during Herrick 6 in 2007. “I drove over an IED. A friend of mine was killed, and four of us were injured. I was one of the fortunate ones—fractured knee, foot and ankle damage, burns on my back, but thankfully no scars.”

Recovery was long and difficult, but eighteen months later, despite his family’s concerns, he deployed again. “By 24, I was on my fourth tour. I felt called to go and wanted to go, but looking back, I understand my family’s worries.”

A Change of Direction

By this time, his injuries were taking their toll. “I knew my knee wasn’t great, and I couldn’t carry on as an infantry soldier. But it was during Herrick 10, in Bastion, that I had a conversation with Padre John Duncan. We had a conversation about the possibility of me becoming a Padre.”

The thought had crossed his mind, but it seemed out of reach. “I’d thought about it but didn’t know how to get there. I’d left school at 16 with minimal qualifications. I knew I’d have to go to university to study a Theology degree, so the dream seemed unlikely.” Then, fate intervened. “I found a Durham University prospectus in camp offering a degree with a foundation course. I applied, got in, and it all went from there.”

This change in direction took him through, marriage (meeting his wife whilst at university), starting a family, working in the church, becoming a Prison Chaplain, and eventually ordination as an Army Padre in 2020. He now serves with 29 Commando in Plymouth and is preparing for his next posting in Cyprus.

The Role of an Army Padre

Padres provide moral, pastoral, and spiritual support to soldiers and their families—regardless of faith. “We’re there for all faiths and none. Our job is to support service personnel and their families in both good times and bad.”

Unlike many other military roles, Padres are embedded within their units. “We go on exercises and operations—we are where the soldiers are. That means they always have someone outside the Chain of Command to support them. And it’s not just for the troops—even the CO needs someone they can talk to.”

Why did you choose to take part in ADVANCE?

The ADVANCE study caught his attention for its mission, “A colleague mentioned it to me, and it sounded very interesting. For me, it wasn’t just about my health—it was about helping others. Knowing what it’s like to recover from an injury, I felt a duty to take part. I was also curious about the academic side of things—there’s so much we can learn.”

When asked about his experience with the study, he doesn’t hesitate: “Top draw! From the people behind the scenes to the nurses on the ward, everyone is fantastic. Special mention to Anna, who I’ve spoken to many times—she is brilliant!”

As for improvements? “Honestly, the study covers so much already. The questionnaires gather insights you wouldn’t get anywhere else—it’s amazing how much information the study can collate.”

A Message to Fellow Participants

His message to others in the study is clear: “Don’t suffer in silence. The study might bring things to the surface that you’ve buried, but that’s not necessarily a bad thing. Enjoy the day, know that you’re well looked after, and remember—you’re making a big difference to others just by taking part.”

The Amputee Mobility Predictor (AMP): What Is It and Why Is It Important?

In each newsletter we explore one of the assessments you may have performed at your ADVANCE visit. In this edition we're taking a closer look at the Amputee Mobility Predictor (AMP-Q) assessment.

The Amputee Mobility Predictor (AMP) is a performance-based outcome measure designed to assess mobility and functional capabilities in an individual with a lower limb amputation. As you may have guessed from the name, you only have this assessment if you have a lower limb amputation. ADVANCE participants visit the prosthetics department here at DMRC Stanford Hall and are met with one of the complex trauma physiotherapists. They normally spend 10-15 minutes getting you to do a range of functional tests assessing your ability to stand, walk, transfer from chair to chair, and go up and down stairs. We can't forget the gentle shove they give you to test your balance too!

You may find some familiar faces in the prosthesis team, some of who were based in Headley Court when you attended for rehabilitation after your injuries- they're always keen to say hi.

How Is This Test Used in the ADVANCE Study?

So, what's the purpose of putting you through the AMP-Q? As with the majority of the assessments done at your ADVANCE visit, the data we collect is used in a range of research. Below, Dr Fraje Watson outlines how she uses the AMP-Q data in her research.

"I am currently using the AMP-Q in my research looking at knee osteoarthritis in ADVANCE participants with one-sided below the knee limb loss. I am comparing severity of osteoarthritis between the amputated and intact side knees. Based on research that's already been carried out, we believe knee osteoarthritis in people with lower limb loss is influenced by how much force and the direction of the force that is put through the knees. The AMP-Q is one of the questionnaires used to try and explain our results or provide richer detail or context to the results. For example, someone with a higher AMP-Q score is probably more mobile in their day to day as consistently using a prosthetic limb throughout the day, so is probably putting more force through their limbs than someone with a much lower AMP-Q score."



Fraje Watson
Research Associate
Imperial College London

Community **KEY DATES & INFO**

EASTER CLOSURE

Closed: 17th April
Reopening: 24th April

NEW!

*Get booked in!
Appointments available*

New Research Sheds Light on Life After Limb Loss

On 22nd January 2025, Anna Verey from the ADVANCE-INVEST study team shared key insights with Professor Bull's Musculoskeletal Mechanics group at Imperial College London. Her talk, 'Symbols of Death and Architectures of Life: Reinvention of Self, Post-Injury', explored the experiences of ADVANCE participants who sustained limb loss.

Key Takeaways:

Prosthetics Services Matter

Participants stressed the need for efficient prosthetics services to help them fulfil the demands of work, family, and recovery. When participants experienced ingrown hairs or ill-fitting prosthetics this could compromise their daily lives, further reflecting the need for efficient prosthetics services.

Family Impact

Spouses of participants had to navigate their own feelings about limb loss, with some struggling to adjust after having already taken on caregiving and solo-parenting roles during previous deployments.

Mobility devices: tool or burden?

Some participants avoided using mobility devices which reminded them of low points in their recovery, such as wheelchairs, while others viewed them pragmatically as useful tools.

Fatherhood as Motivation

Many participants were motivated in their rehabilitation by their desire to be active parents.

Anna's findings sparked interesting discussions and ideas with the Bioengineering team and an appreciation of how these qualitative findings offer a different perspective on their work. The exchange of ideas reinforced the importance of combining cutting-edge technology with personal experiences to improve support for injured personnel.

This research represents another step towards better rehabilitation and an understanding of what truly makes a difference in the lives of injured personnel who sustain limb loss.



Anna Verey
Research Associate
King's College London

What is ADVANCE-INVEST?

The ADVANCE-INVEST study explores how battlefield casualties transition from military to civilian life, comparing their experiences to other service leavers. Led by Professor Nicola Fear, the study aims to identify factors that affect health, well-being, and economic stability during this transition. By looking at individual situations and the support services available, the study will recommend improvements to policies, healthcare, and resettlement services, especially for those with service-related injuries. Funded by the Forces in Mind Trust (FiMT), it aims to make a lasting difference for those who have served.

50%

of follow-up 2
participants seen!

Meet the Team: Nicola Edmonds



Nicola Edmonds
Study Administrator
Imperial College London

What is your role within ADVANCE?

I help to recruit participants, so calling and emailing to book them in for their appointments and then the admin related to this.

What jobs did you have before joining ADVANCE?

For many years I was a librarian working in school, public and academic libraries. More recently, I have worked at the University of Nottingham as an Executive Assistant within the School of Health Sciences and as a Senior Administrator within Disability Support Services.

What do you enjoy most about your job?

I thoroughly enjoy talking to our participants and hearing about how the research is progressing.

You are stuck on a desert island - who are you taking with you?

I'd leave my husband and four kids to work out a way of rescuing me and take my best friend instead!

If you could see all our participants together, what would you say to them?

I'd say a big thank you for being so accommodating and giving up their time to be involved in the project. I'd also apologise for asking them to fast the night before their appointment and having to miss out on a B&B breakfast!

What is your favourite meal?

I love curry, so matar paneer and a peshwari naan, please! I have a sweet tooth, so this is my perfect combination.

What is your favourite drink?

A latte or limoncello spritz (preferably in Italy!).

What is the last book you read?

Fleishman is in Trouble by Taffy Brodesser-Akner.

What was no. 1 in the UK charts on the day you were born?

Eye Level – Simon Parkes Orchestra? (no clue!) and No.'s 2 and 3 were Slade and The Sweet, so full-on 1970s glam rock!

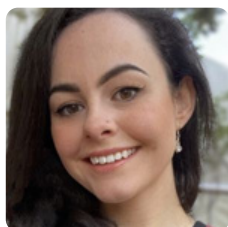
Community **TEAM UPDATES**



Lauren Bond

Research Radiographer

Lauren joined the ADVANCE Study in March 2025 as a Research Radiographer. Lauren has a postgraduate degree in Diagnostic Radiography from University of Derby. She has previously worked at Nottingham as a research radiographer and also has broad experience in multiple clinical settings including major trauma.



Grace Williamson

Doctoral Researcher

Grace joined the ADVANCE team in 2025. She is completing a mixed-methods PhD exploring sleep health after sustaining serious physical combat injuries and the impact on mental and physical health in the ADVANCE cohort. Grace completed her bachelor's degree in psychology and master's in clinical forensic psychology at King's College London.

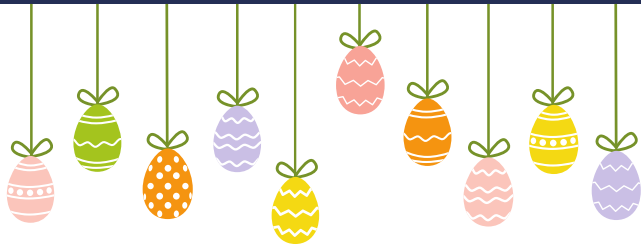


Bharti Patel

Research Radiographer

We bid a fond farewell to Bharti, who is retiring after a distinguished career in radiography. Bharti joined the ADVANCE Study in March 2023 as a Research Radiographer, bringing with her decades of invaluable experience. After obtaining her Diploma from the College of Radiographers in 1981, she dedicated 20 years as a senior radiographer at Loughborough Hospital, among other roles. Her expertise and commitment have greatly enriched our team, and she will be deeply missed. We extend our heartfelt gratitude and best wishes to Bharti for a fulfilling and joyful retirement.

farewell



Happy Easter!
From all of us at

