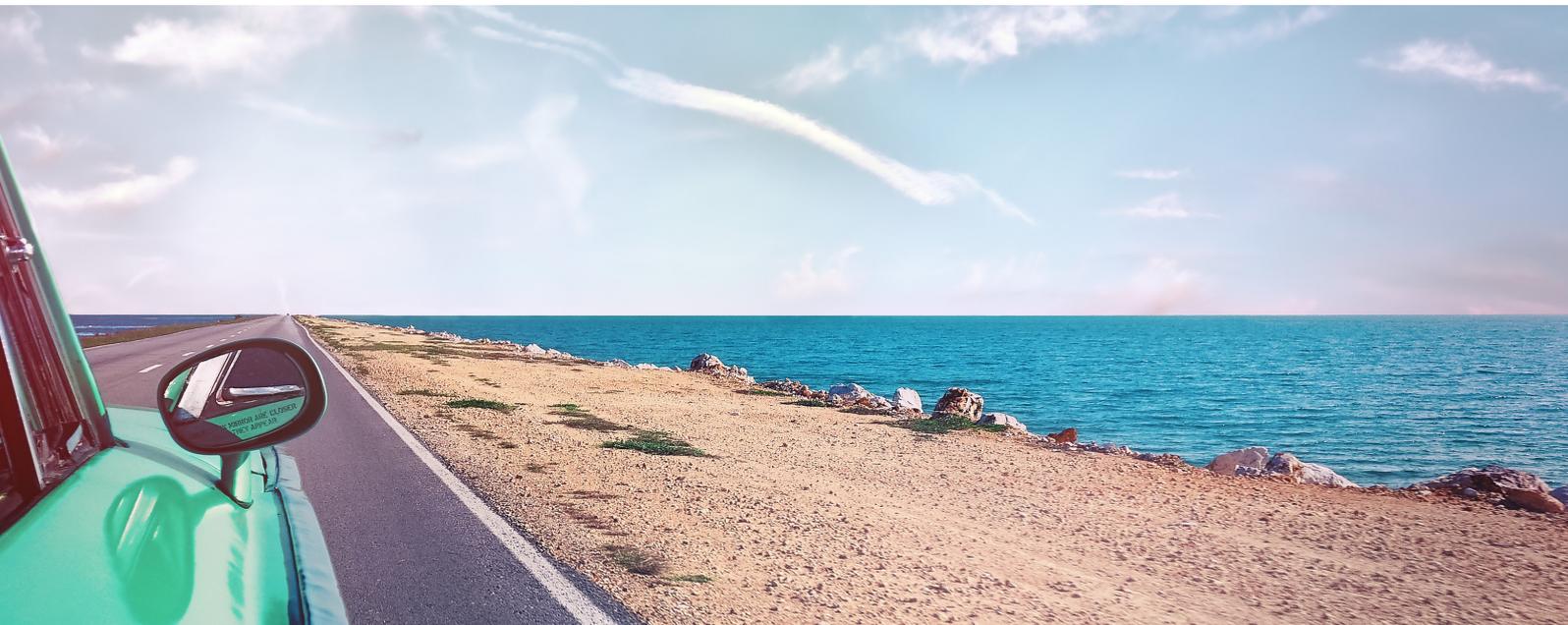


IT'S BEEN A BUSY YEAR SO FAR



FOCUS ON THE POSITIVES

It would have been a very different newsletter, if it wasn't for the Italian football team! But despite football not coming home this time, we have a lot to celebrate this summer (and the World Cup to look forward to!).

It's been an exciting year for ADVANCE so far. We have finished analysing some of the data from the ADVANCE baseline visits and are in the process of getting the first academic papers published. When the results are out later this year, we will - of course - be sharing them with you, including doing a webinar where the findings will be shared and explained. Watch this space!

The first follow-up visits are now well underway, with more than a third of all participants having had their follow-up. Thank you to all of you for persevering with us through the lockdowns and restrictions!

NEW THINGS ON THE HORIZON

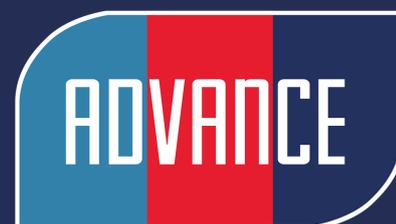
We have recently received additional funding from the Headley Court Charity to look at traumatic brain injury (TBI) in ADVANCE participants. You can read more about it on the next page.

The ADVANCE Participant Panel was formed in early 2021 and has now met twice. The feedback from the panel has been invaluable, and in this newsletter we share with you some of the outcomes from these meetings.

SAFETY FIRST!

As always, keeping our participants and staff safe is a main priority. We have all the necessary health and safety measures in place to ensure we follow government guidelines and that visits to ADVANCE are safe. As a new safety measure, we now require anyone who comes to Stanford Hall to show a negative COVID-19 lateral flow test. For further details please check the [COVID-19 page](#) on our website.

Find us on
social media!



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ADVANCE TO LOOK AT TRAUMATIC BRAIN INJURY (TBI)

We are excited to announce that a new grant has been awarded by the Headley Court Charity to look at the effects of traumatic brain injury (TBI) in ADVANCE participants. With this study, we aim to develop a better understanding of:

- How common traumatic brain damage is within the ADVANCE cohort, and how it relates to the number and type of head injuries.
- Whether participants with TBI develop neurological or psychological problems over time.
- Whether early changes of dementia are detectable in the participants with evidence of previous TBI (using advanced brain scanning and blood test analysis).



**HEADLEY COURT
CHARITY**

The 'ADVANCE TBI' study is led by Professor David Sharp from Imperial College London. He commented: 'We are excited to be leading the ADVANCE TBI work, and we hope that the results will inform disease prevention in the future, in both military and civilian settings, as well as assist in the early diagnosis of neurodegenerative disease.'

By the end of 2021 we aim to offer eligible ADVANCE participants the chance to take part in the TBI study as part of their usual follow-up visits. The assessments will include MRI scans of the brain as well as computerised cognitive assessments, and all tests will be done at Stanford Hall.

PARTICIPANT VIEW: Matt Kingston

Age: 36

When and where were you last deployed? Afghanistan, 2007.

Why did you choose to take part in ADVANCE? I felt that I'd been given so much support following my injury, I just wanted to give something back as a thankyou. Also, I'm contributing towards a study that will mould the best care for current/future servicemen and women and our veterans. And I get a health check too!

How did you find your ADVANCE visit? It felt very nostalgic going back to a military environment. The team in clinic were very helpful, and I had an enjoyable day.

Is there anything more you would like to see from the Study? I would like to have all my test results. I was informed that this is something the team are currently working on. They will soon be providing participants with a more in-depth information booklet that will include test results and explain what data ADVANCE are collecting.



“

I would like to have my all my test results. I was informed that this is something the team are currently working on.

”

You also took part in the ADVANCE bolt-on study that investigates the relationship between muscle function and performance in those with lower limb amputations. How was it? Yes. I went for it all, strength testing, gait analysis, body measurements and the MRI scan. It was a long full-on day, but it was enjoyable. The day was well planned by a great team of researchers. Every assessment was well managed, and it all seemed to flow.

What are your interests/hobbies? I'm a keen fisherman and I'm often cycling around the Leicestershire countryside.

What have you been up to since leaving service? I initially set up a security company with a former veteran - we had 6 good years at it. As much as I enjoyed it, I knew office work wasn't for me or the extra weight that I'd gained. ☺ I sold my share of the business. Now I'm a self-employed construction worker. I'm loving the outdoor working, and I work alongside a good bunch of lads.

MEET THE TEAM - EMMA COADY

What is your role within ADVANCE? I'm the Senior Project Manager, so 'should' have strategic oversight of all aspects of the study and ensure the study is going in the right direction.

What jobs have you had before joining ADVANCE? All sorts, but all healthcare and research related. I qualified as a nurse in 1990 and worked in intensive care and coronary care. I then moved to London and worked in cardiothoracics and cardiac rehab, before moving into research in 1999. After a while, I moved to the 'dark side' of the commercial world. But the money making environment didn't suit me and I wanted to work on something more worthwhile – then I found ADVANCE!

What do you enjoy most about your job? The variety. One day I can be writing reports, another day I can have back-to-back meetings. And the next day I can be doing really important things like organising the Euro 2020 footie sweepstake – all just as important.

What are the biggest challenges of your job? Not a day goes by without challenges but that is what makes work fun. Along with the rest of the world, COVID-19 has been our biggest challenge but we can see light at the end of this long tunnel.

If you could see all our participants together, what would you say to them? Don't underestimate how important your individual contribution is to the success of this important study. We need you.

What was no. 1 in the UK charts on the day you were born? *What a wonderful world* by Louis Armstrong. (That shows my age.)

What's the last book you read? *Toast* by Nigel Slater - loved it.



Emma with Megs who is clearly too big for a lap dog.

What do you enjoy doing in your spare time?

Running, walking, desperately trying to tire out my sprocker spaniel Megs – never managed it. I also belong to my local amateur dramatics group in Pewsey. I've played the wicked queen/witch in numerous pantos – typecast!

What's your favourite meal? Anything that I haven't cooked myself.

What's your favourite drink? That's easy, wine. Having said that, I'm on a 100-day alcohol-free challenge. I'm writing this on the 14th July and at day 48. Only 52 to go – eek! Not sure why I chose to do this over the summer months.

What three words would your friends or partner use to describe you? Mad dog woman.

The ADVANCE team is growing!

Since the last newsletter, the ADVANCE team has grown by four members. Our new radiographer Jasmin Hussain replaced Travis Francis who sadly left ADVANCE to pursue new challenges. Jasmin will be taking your x-rays from now on! We have also welcomed a new administrator Jodie Stevenson who is working in finance and participant admin. In the coming weeks we are welcoming Eleanor Miller and Stefan Sprinckmüller. Eleanor is our new senior data manager and Stefan database manager. Welcome to our newbies!



Peter Homa briefed about ADVANCE

Peter Homa, Director General, Defence Medical Services, visited the Centre of Blast Injury Studies (CBIS) at Imperial College London earlier this year. As well as the work of CBIS, he was also briefed about ADVANCE.

ADVANCE

YOUR ADVANCE DAY EXPLAINED: X-ray

What are x-rays?

An x-ray is a form of high-energy electromagnetic radiation that can pass through your body. An x-ray image is a black and white image created on a computerised monitor. A special machine in the x-ray room transmits a small amount of radiation which then passes through the body. The image is captured on a special image capturing device (often referred to as a digital cassette) to produce the final diagnostic image.

What are x-rays used for?

X-rays are mainly used to look at the bones, joints and surrounding soft tissue areas. X-ray examination helps diagnose and monitor conditions and injuries. In your ADVANCE visit you'll remember we take x-rays of the knee and hip at various angles to look at osteoarthritis (OA).



Why do we take x-rays of the knees and hips?

Investigating osteoarthritis (OA) of the hip and knee in ADVANCE participants is one of the main aims of the study. We are really interested in whether our injured group have differences in how healthy their joints are compared to the uninjured group. Using a variety of measures we quantify the extent of wear and tear, such as how narrow the space between bones is, if there are any excessive bony overgrowths (osteophytes) within the joint space, or signs of excessive bone hardening (sclerosis). We also assess signs of wear and tear in different parts of the joint, for example, the inside and the outside of the knee joint. These factors are ranked from 0 to 4; a score of 0 is an absence of any OA changes, and a score of 4 demonstrates large osteophytes, marked joint space narrowing, severe sclerosis and abnormality of bone ends.

OA has not been looked at in a cohort of this size before, making ADVANCE very novel and teaching us a lot about the effects of trauma on joint health. We know from previous research that people who have had limb amputations have a higher rate of OA on their unamputated side compared to non-amputee controls, but we are unsure if other injuries sustained in our group may also increase the risk of OA. We also know sporting injuries like anterior cruciate knee ligament injuries increase OA risk in athletes, so it will be important for us to see if blast injuries, gunshot injuries etc. will have a similar effect on joint health.

Joint health and function

The analysis of the x-ray images will be used alongside many of the functional tests completed during ADVANCE testing and questionnaires that specifically ask about knee and hip health, pain and function. We can then see how well the x-ray images predict function in our cohort. Ultimately, this new information should improve our knowledge of the consequences of battlefield injuries on joint health and hopefully help us improve prevention and rehabilitation of joint problems following similar trauma.

Have your contact details changed?

Let us know by contacting us directly or by completing our online Contact Form via this QR code:



Presenting ADVANCE results

We were honoured to be invited to the Blast Injury Conference 2021 to talk about ADVANCE. Gp Capt Alex Bennett, the ADVANCE Chief Investigator, and Dr Christopher Boos, Consultant Cardiologist and ADVANCE Project Board member, gave presentations.

We can't wait to share more details of the ADVANCE baseline results with you as soon as the first results have been published. A webinar for participants is planned for later this year.



ADVANCE Participant Panel

The ADVANCE Study Participant Panel was formed to promote partnership with our participants and to learn from their perspectives and experiences. We hope that this will enhance engagement and keep you coming back to ADVANCE as the study progresses.



You suggested...

- 1)** A letter for participants to give to your employers to assist in attending ADVANCE clinics without having to use annual leave.
- 2)** The results from all the ADVANCE tests to be communicated to participants in a meaningful and accessible way.
- 3)** Increased flexibility for attending ADVANCE clinics, to accommodate participants' preferences around appointments.
- 4)** Informative videos to be sent to participants to help explain medical jargon, tests and results in a clear and accessible way.

We did!

- 1)** A letter to employers now offered to participants as part of the booking-in process.
- 2)** We have designed a results letter to be shared with you after your visit. It's currently undergoing the final approvals before roll-out.
- 3)** We have made our booking-in process and appointments more flexible. The appointment start times are between 7:45 and 11:00, giving you the choice of either visiting for the day or staying on-site overnight.
- 4)** Unfortunately, we have not been able to do this yet because of COVID-19 restrictions, but it is on our agenda!

About 20 ADVANCE participants – serving and not serving, injured and uninjured – have kindly volunteered to be on the panel. The first online meeting was held in January 2021 and the second one in June. We are hoping to have these meetings every six months to discuss key ADVANCE updates, bolt-on studies, and anything else of relevance. Fingers crossed the next meeting will be in person rather than on a computer screen!

On the left you can read about some of the changes we have made or are working on following feedback from the participant panel. In addition to these, we are also working on sending the ADVANCE questionnaires to you 1-2 days before your ADVANCE visit to be completed at home.

Huge thanks to all the panel members - your input is very much appreciated!



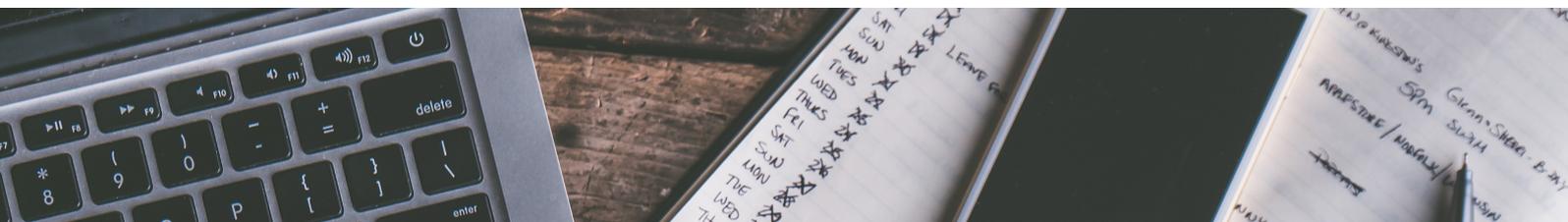
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